

Archaeology Baseline

Tydd Solar Farm - Land East of Guanockgate Rd, Gorefield:
Fenland District Council, Cambridgeshire and South Holland
District Council, Lincolnshire

For:	PACE Titan Energy Ltd
On Behalf of:	-
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2 EXECUTIVE SUMMARY

The proposal is for ground mounted solar farm, ancillary infrastructure and security fencing on Land East of Guanockgate Road, Gorefield (Figure 1). This land lies partly within the Fenland District Council part of Cambridgeshire and partly within the South Holland District Council part of Lincolnshire. The land is hereafter referred to as the Proposed Development Area (PDA) and/or the site.

The Solar Farm would occupy an area of c. 141ha and the solar farm is centred at NGR TF 38302 1275482ha. The proposals include arrays of solar panels held on piles, inverter cabins (which house transformers) and a compound containing a Battery Energy Storage System (BESS). The compound will contain a 30MW battery energy storage system (BESS) comprising 30 no. containers measuring approximately 14.2m by 2.8m by 3m each. Each container will house battery strings, battery management system, power distribution system and auxiliary systems such as fire suppression and alarm system, power distribution, ventilation, cooling, lighting and thermal control system. The BESS will be located centrally within the site to the south east of the existing spinney.

By way of introduction, the land is formed mainly of arable at the time of writing. There is a small area of woodland in the centre of the PDA. The watercourse named Lady Nunn's Old Eau splits the PDA broadly into two halves and this is also the county boundary. The western boundary of the land is c. 900m from the village of Sutton St Edmund, located to the west. The southeastern part of the PDA lies c. 2km west of Gorefield.

In terms of archaeology, this assessment has had several stages, and in accordance with relevant government planning policy and guidance, this began with assembling baseline information. Research was led by a review of the Historic Environment Record (HER) Data and analysis of other published and readily available material. This was in order to clarify the archaeological potential of the land. A Site visit was then undertaken in order to augment that process. Production of a baseline (this document) followed. At this stage, we have assessed the potential, by period to be as follows:

Period/Topic	Likelihood of remains being present based on baseline (desk based research) Low, Medium, High	Likelihood of remains being present based on the addition of evaluative fieldwork for this development Low, Medium, High	Value (sensitivity) of receptor - See Table 2)
Early Prehistoric Palaeolithic-Mesolithic	Low	TBC	Low
Early Prehistoric Neolithic	Low	TBC	Low
Later Prehistoric Bronze Age	Low	TBC	Low
Later Prehistoric Iron Age	Low	TBC	Low
Roman	Medium	TBC	Medium
Early Medieval	Low	TBC	Low

Medieval	Low	TBC	Low
Post-Medieval	High	TBC	Low
Modern	High	TBC	Low
Geoarchaeological	High	TBC	Medium

The following data-gathering measures are needed in order to comply with the brief (Appendix 5) agreed by the archaeological advisors to Fenland District Council and the South Holland District Council.

Stage 1 - Research using existing Data/models (this has been completed in the form of this document)

Stage 2 - Geophysical Survey

Stage 3 - Geoarchaeological Borehole Survey

Stage 4 - Trial Trenching

Once these investigations are completed, an impact assessment will be completed and the above table will be updated accordingly.

3 INTRODUCTION

3.1 BACKGROUND

- 3.1.1 This Baseline has been prepared by Joe Abrams of Abrams Archaeology. It was produced for PACE Titan Energy Ltd. Documentary Research has been carried out by Joe Abrams. Graphics were produced by Izabela Jurkiewicz of Arte-Facts.
- 3.1.2 The proposal is for ground mounted solar farm, ancillary infrastructure and security fencing on Land East of Guanockgate Rd, Gorefield (Figure 1). This land lies partly within the Fenland District Council part of Cambridgeshire and partly within the South Holland District Council part of Lincolnshire. The land is hereafter referred to as the Proposed Development Area (PDA) and/or the site.
- 3.1.3 The Solar Farm would occupy an area of c. 141ha and the solar farm is centred at NGR TF 38302 1275482ha. The proposals include arrays of solar panels held on piles, inverter cabins (which house transformers) and a compound containing a Battery Energy Storage System (BESS). The compound will contain a 30MW battery energy storage system (BESS) comprising 30 no. containers measuring approximately 14.2m by 2.8m by 3m each. Each container will house battery strings, battery management system, power distribution system and auxiliary systems such as fire suppression and alarm system, power distribution, ventilation, cooling, lighting and thermal control system. The BESS will be located centrally within the site to the south east of the existing spinney.
- 3.1.4 By way of introduction, the land is formed mainly of arable at the time of writing. There is a small area of woodland in the centre of the PDA. The watercourse named Lady Nunn's Old Eau splits the PDA broadly into two halves and this is also the county boundary. The western boundary of the land is c. 900m from the village of Sutton St Edmund, located to the west. The southeastern part of the PDA lies c. 2km west of Gorefield.
- 3.1.5 In summary, the development will provide a solar farm and ancillary structures, grid connection/s and associated access routes. Details of this will be presented in detail separately by the development team as part of the application documentation. The layout of the solar farm is shown in this document within Appendix 5.

3.2 GEOLOGY

- 3.2.1 The British Geological Survey (BGS)¹ identifies the underlying solid geology as West Walton Formation and Ampthill Clay Formation - Mudstone. Sedimentary bedrock formed between 163.5 and 157.3 million years ago during the Jurassic period.

¹ <https://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html> - accessed 14/10/2022

- 3.2.2 Superficial deposits are described as Tidal Flat Deposits, 1 - Clay and silt. Sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.
- 3.2.3 There are various boreholes nearby, only one is within the PDA and this is located on its southeastern end, along the Treading Bank. The borehole record (Treading Bank Borehole B - BGS ID: 504004 : BGS Reference: TF31SE6 British National Grid (27700) : 539330,312620) was created by the *Institute of Geological Science* and was done in order to carry out an Investigation of Recent/Pleistocene Sediments. This is very relevant for our purposes then and the *Description of Strata tabulation* from the record is given below. The reader can see it in full on the British Geological Survey website². The borehole reached a depth of over 8m.

3.3 TABLE 1: DETAILS TREADING BANK BOREHOLE (B)

Treading Bank Borehole B - BGS ID: 504004			
Geological Classification	Description of Strata	Thickness in metres	Depth in metres
Barroway Drove Beds	Clay, grey compacted soil horizon	0.15	0.15
	Peat	0.15	0.30
	Clay, grey with rusty mottling	1.35	1.65
	Clay, grey-brown humic	0.01	1.66
	Clay, grey brown very silty	0.18	1.84
	Silt, yellow brown	0.02	1.86
	Clay, grey-grey, streaky with occasional rootlets	1.69	3.55
	Core Loss – probably sticky clay	0.30	3.85
	Silt, grey very clayey	1.15	5.00
	Silt, fine sandy clayey	2.75	7.70
	Clay, grey, silty	0.09	7.79
Lower Peat	Clay, peaty, dark brown, wood fragments	0.01	7.80
	Peat, dark brown	0.05	7.85
Crowland Bed	Clay, grey, silty with a few rounded small flints	0.35	8.20

- 3.3.1 There was trial trenching carried out on this land in advance of a previous planning application for the Treading Wind Farm. The scheme did not progress. However, the records of topsoil depth and other underlying deposits are of direct relevance to this assessment. Six trial trenches were opened and the topsoil layer within each varied between 380mm and 480mm. We would expect there to be topsoil of 400-500mm depth overlying geological deposits.
- 3.3.2 This being the Fens it is not a simple matter of predicting the depth of archaeological sensitivity as lying immediately below topsoil (as is the case with much of rural England). In this case, we need to consider the potential for archaeological and geoarchaeological information to be held at different depths, hence the inclusion of the information at Table 1.

² http://scans.bgs.ac.uk/sobi_scans/boreholes/504004/images/12086734.html - accessed 1-10-2022

3.4 TOPOGRAPHY AND HYDROLOGY

- 3.4.1 The PDA lies at 0m OD and this reflects its Fenland location. It lies within land which was, prior to drainage in the Post-Medieval and modern periods, land within the Silt Fens which covered most of the land in this area. The PDA lay mainly within Tydd St Giles Fen. The PDA is within a square area of low-lying land bounded by the settlements of Sutton St Edmund (2m OD) to the west, Gorefield (3m OD) to the south, Newton (3m OD) to the east and Tydd St Giles (2-3m OD) to the north east. Clearly, the difference between the PDA at 0m OD and the nearby, historical settlements, at 2-3m OD made all the differences in terms of where local people were able to live and between which they were able to maintain communication links.
- 3.4.2 This low lying position, even in an area famed for its low-lying character, is notable. The sinuous route of the watercourse known as Lady Nunn's Old Eau is notable as being so different from the many artificial drains which were cut since the 17th C. This older watercourse is also the political boundary between South Holland (Lincolnshire) and Fenland (Cambridgeshire). The Victoria County History refers to the watercourse as follows *"The Shire Drain divides it on the north and west from the sister parish of Tydd St. Mary in Lincolnshire. This stream has shrunk to a shadow of its former self but is an important boundary, separating, as it has done, two counties, two dioceses, and in all probability two Anglo Saxon kingdoms. The upper part of the Shire Drain, forming the western boundary of Tydd, has been known since the 17th century as Lady Nunn's Old Eau, from the wife of a 14th-century Tydd landowner"*³.
- 3.4.3 The North Level Main Drain cuts northeast to southwest through the area and is the most conspicuous example of an artificial drain cut to drain this area and create the arable landscape which now dominates it. There are many others and these drain into the North Level Main Drain just 450m southeast of the PDA. The western boundary of the PDA is the Straight Reach Drain while the Treading Drain forms its southern boundary.
- 3.4.4 The Treading Bank also runs along the southern boundary of the PDA and this adjoins the Elloe Bank, which runs south of the PDA. Both were defensive features designed to protect farmland (north and west of them) from periodic inundation.

3.5 APPROACH TO ARCHAEOLOGY

- 3.5.1 This report considers heritage assets of archaeological interest, including finds/findspots of artefactual (e.g. flint tools and pottery) and ecofactual material (e.g. plant remains and bone), and locations, features or objects referenced from historic documents. Where appropriate, it refers to archaeological and palaeoenvironmental deposits, including sub-surface

³ T D Atkinson, Ethel M Hampson, E T Long, C A F Meekings, Edward Miller, H B Wells and G M G Woodgate, 'Wisbech Hundred: Tydd St. Giles', in *A History of the County of Cambridge and the Isle of Ely: Volume 4, City of Ely; Ely, N. and S. Witchford and Wisbech Hundreds*, ed. R B Pugh (London, 2002), pp. 224-232. British History Online <http://www.british-history.ac.uk/vch/cambs/vol4/pp224-232> [accessed 18 October 2022].

archaeological remains of features, buildings and structures.

- 3.5.2 Data has been collected for an area comprising a 1km radius of the boundaries of the proposed solar farm (PDA). This is referred to as the 'middle study area'. This radius has been selected following consultation of the Historic Environment Record. It was also selected on the basis of professional judgment as being sufficient to determine the archaeological potential of the PDA, taking into account its location, topography, and character.

3.6 APPROACH TO HERITAGE

- 3.6.1 Heritage (Setting) is covered in a separate report⁴. In summary, that report contains text, tabulations and Graphics which show the location of all designated heritage assets within 1km (middle study area) and 5km (outer study area) of the PDA/inner study area. The choice of 5km reflects the practice on other, similar schemes in the vicinity. We have an inner study area (the PDA), a middle study area of land within 1km of the PDA and an outer study area of land within 3km of the edges of, PDA.
- 3.6.2 The designated heritage assets within the middle study area were all considered using Step 1 of GPA3. Those which are selected for setting assessment were then considered using Steps 2 and 3 of GPA3.
- 3.6.3 Designated heritage assets located within the outer study area were considered using a ZTV and via site visit/s. Distance, topography, built form and bands of woodland can all, in effect, separate a heritage asset from a PDA, such that there is no potential for a direct or indirect impact. In such cases those groups of heritage assets will not be considered further and we have explained why.
- 3.6.4 We also understand that setting of heritage assets is not confined to visual matters or views. Abstract and historical considerations are part of setting, and while it is reasonable to consider the extent of setting there is usually no fixed boundary to it. Therefore, should consultees feel that specific (additional) heritage assets need a particular approach we will be pleased to discuss and find a suitable solution. On occasion, use of photomontage, joint site visits and/or sharing of our photos can resolve outstanding issues.
- 3.6.5 Where a setting assessment was considered to be warranted, we have completed it and presented it as part of that separate impact assessment. This has considered Impacts and how they differ between the *construction* period, *use* period and *decommissioning* period.
- 3.6.6 We will not cover Heritage (Setting) within this document and the above is only included so as to reassure reader/s that the topic is dealt with thoroughly in a separate report.

⁴ Abrams Archaeology 2022. Heritage Baseline and Impact Assessment. Tydd Solar Farm, Land East of Guanockgate Rd, Gorefield: Fenland District Council, Cambridgeshire and South Holland District Council, Lincolnshire. 00221.

3.7 WALKOVER

- 3.7.1 A site visit and targeted visit to surrounding heritage assets in the surrounding landscape was undertaken on 27 September 2022. Selected photographs taken on the site visit are provided below.
- 3.7.2 The walkover was used to check for earthworks and traces of archaeological remains within the PDA. Also to examine and consider those above ground elements of the historic landscape, such as ponds and hedgerows, which can indicate past land use and archaeological potential.
- 3.7.3 The key landscape features we had wanted to check in advance of arriving were the drains and banks which were so visible on mapping. We also wanted to check the location of two roddons. These were visible on data supplied by the Cambridgeshire County Council HER team. This is shown on Figure 16 and is referred to as a surface model.
- 3.7.4 The consultation process was useful in flagging the location of these roddon/s. In the event, the author called Kasia Gdaniec (Senior Archaeologist, Cambridgeshire County Council) from the Site during the walkover. This was useful in making certain that the location of the roddons was fully checked. Plates 5 and 6 show the location of the larger of the two roddons on site. These peculiar landforms are the location of former rivers which, due to their high silt content have become raised when compared to the surrounding peat deposits. The latter have dropped in height as the Fens were drained and the peat deposits shrank in response.
- 3.7.5 The reader may find it useful to refer to Figure 3 which shows LIDAR data for the PDA. This shows the location of the two roddons which are partly within the land. The larger curves through the eastern part of the land and the smaller is located in the southwest corner of it. We note that local contours, recorded on the Ordnance Survey map also record the larger roddon. This can be seen on Figure 2 (Geology) which shows the very slightly higher ground associated with the roddon.
- 3.7.6 The walkover confirmed that the larger of the roddons can be picked out on site by the rise in the land surface along its course and by a lighter colour (orangish-brown) also along its course.
- 3.7.7 The walkover also allowed an opportunity to walk the line of the Treading Bank (southern edge of PDA) and the Elloe Bank (central part of PDA). These are labelled on Figure 2 (Geology).
- 3.7.8 No other earthworks of an archaeological nature were identified. However, we noted that the location of the 19th C farm by the name of Scrimshaws Farm was located on the western edge of the PDA (Figure 7). The sub-surface remains of this demolished farm are visible on LIDAR imagery (Figure 3). We can also pick it up by paying attention to the sharp turn in the modern day bridleway as it leaves the western edge of the PDA. This is best viewed by comparing Figure 15 (2022) with Figure 7 (1886-87). We can see how the bridleway still avoids the

memory of the building which stood at that location. The sub-surface remains of this building are archaeological remains, of modern date. In a flat landscape with relatively few obstructions, sudden curves in a road can be an indicator of below ground remains and this is one such case.

- 3.7.9 There may be other, similar remains (farm buildings) on the PDA. Their locations are shown on Figures 7 and 8. One is named Frasers Cottage and others are un-named. These do not show up on LIDAR (Figure 3) and were not picked up in the walkover either.
- 3.7.10 We also used the site walkover as a way of checking intervisibility with surrounding settlements. In which directions was the landscape open and why. In which directions were built form, hedgerows and plantations of trees visible. We used it as a way of getting to know the landscape.
- 3.7.11 Local footpaths were walked to get a feel for the way the landscaped is linked by them and local road networks were driven in order to do the same. We also visited the nearby settlements of Sutton St Edmund, Holbeach Drove, Throckenholt and the key bridge crossing at Cloughs Cross where the New Level Drain and the New South Eau meet. We visited Parson Drove, Church End, Leverington, Wisbech, Gorefield, Newton, Tydd St Giles, Tydd St Mary, Sutton St James and then drove the various minor lanes and roads which cross the landscape.
- 3.7.12 In so doing, it was possible to pick up the differences in road networks and fields which are apparent by parish. Sutton St Edmund (within South Holland) is made up of largely north-south, long roads, between which run large, rectangular fields. It seems that when we cross the Lady Nunn's Old Eau (which splits this site, Figure 1). We enter the less regular landscape of the parish of Tydd St Giles (Fenland). The distance between roads is much larger and their orientation is much less regular. This likely reflects the different tenorial arrangements and likely the ways in which this land was drained.
- 3.7.13 Understanding the history of the draining of this land is paramount to understanding the landscape and its heritage value at this time. The drains which made it possible to farm here, and the farms which then filled that drained landscape, still dominate this area. This is an important consideration when doing a heritage assessment like this.
- 3.7.14 In many parts of England, including Eastern England the archaeologist is looking for traces of Medieval, and sometimes earlier landscapes. Also for examples of Post-Medieval and modern land use. In the case of this PDA, the landscape is, in some ways, a relatively recent one. It would not have looked this way 200 years ago. Therefore, when we consider the heritage assets in the area, and their setting/s, it is important to have in mind when they were built and how the landscape around them has changed. What specifically is their setting and when was it created? In the case of this area, we cannot overstate the changes brought by Fenland drainage. The images below show the PDA from various points. Deliberately looking across it and/or towards local settlements to give the reader a feel for the landscape and the place of the PDA within it.



Plate 1: Facing northwest (towards Tydd St Giles) while stood on the southern edge of the PDA. The line of pylons is within the PDA



Plate 2: Facing north towards the plantation which lies in the centre of the PDA. This taken from the southern boundary of the PDA with the line of pylons overhead.



Plate 3: Facing southwest across the southern part of the PDA. This taken from within the central part PDA, on its southern edge



Plate 4: Facing southwest from the eastern edge of the PDA. The pylons run within the PDA.



Plate 5: Facing northeast across the eastern part of the PDA. The Treading Bank lies to the south of this image. The Treading bank forms part of the southern boundary to the PDA. The larger of two roddons on this land crosses the ploughed field shown in this image.



Plate 6: Facing southwest, back across the ploughed field containing one of two roddons which cross the PDA. The photo also shows land in the eastern part of the PDA more generally.



Plate 7: Facing southwest along the Treading Drain, which forms the northern boundary to the PDA in this eastern section.



Plate 8: A footbridge across the Treading Drain.



Plate 9: Facing west towards the plantation in the central part of the PDA



Plate 10: Facing west towards Sutton St Edmund. This photo was taken from the centre of the PDA and we noted that the village is more easily recognised by the trees which shelter it than from the buildings within it.



Plate 11: Facing south across part of the western side of the PDA. The trees in the left hand side of the image belong to the plantation located in the centre of the PDA.



Plate 12: Facing southeast from the edge of the plantation located in the centre of the PDA. The photo shows land in the eastern part of the PDA.



Plate 13: Farm track and bridleway leading towards Sutton St Edmund. Land in the left hand part of this photo lies within the southwestern part of the PDA.

Plate 14: Farm track and bridleway leading towards Sutton St Edmund. Land in the left hand part of this photo lies within the northwestern part of the PDA.



Plate 15: This winding section of the farm track turns west sharply after the tree shown in this image. Scrimshaw's Farm would have stood in the right hand part of this photo (Figure 7, Ordnance Survey Map 1886-87)

Plate 16: Guanock House (1204812) is located here. The trees which surround it are more easily detected than the building itself. Glimpses of the roof and chimneys of the house are visible when at the northern end of the PDA or when walking on Elloe Bank to the north of the PDA towards Grangehill Corner.

4 METHODOLOGY

4.1 BASELINE

- 4.1.1 In preparing the baseline we compiled readily available archaeological and historical information from documentary and cartographic sources. We have visited the site to conduct a walkover and we have also visited selected surrounding heritage assets.
- 4.1.2 This allows us to provide a professional opinion upon:
- *Archaeology* - The potential of the land to contain sub-surface archaeological remains
 - *Heritage* - Which is covered in a separate document⁵
- 4.1.3 An Impact Assessment on Archaeology will follow. This will utilise data gathered via geophysical survey and geoarchaeological boreholes. It may also contain information drawn from trial trenching. At this time we are not certain that trial trenching is required. Each of the above techniques builds upon the other in a sequential way and, until the geophysical survey and geoarchaeological boreholes are done, we cannot state whether trial trenching would be needed. This is all in line with the requirements of the archaeological brief (Appendix 6).
- 4.1.4 We have used the following study area in relation to the prediction of archaeological remains within the PDA. Data on heritage assets within 1km of the edges of the PDA have been mapped (Figures 4a/b, 5 and 6) and tabulated in Appendix 1. They are then discussed within Section 6 (below).
- 4.1.5 The baseline concludes with an assessment of the potential for archaeological remains to have been present, and for them to have been preserved to the present day. These are distinct factors, which both contribute to the site's archaeological potential.
- (1) an assessment on the relative importance of archaeological remains that may lie in the PDA. This considers them in regional, period or topic specific terms. Our ability to comment is based upon what is known at this stage measured against the research priorities we are aware of. The PDA is considered to have the potential to have remains important in these ways.
 - (2) we consider those activities and conditions (we know of) on the PDA which have either truncated, compacted or removed remains and those which may have sealed and/or otherwise preserved remains and

⁵ Abrams Archaeology 2022. Heritage Baseline and Impact Assessment. Tydd Solar Farm, Land East of Guanockgate Rd, Gorefield: Fenland District Council, Cambridgeshire and South Holland District Council, Lincolnshire. 00221.

4.2 SOURCES

4.2.1 In preparing this assessment we have compiled readily available archaeological and historical information from documentary and cartographic sources, primarily:

- The Lincolnshire and the Cambridgeshire Historic Environment Record (HER) for known archaeological sites, monuments and findspots within 1km of the PDA.
- The National Heritage List for England (NHLE) for designated heritage assets within 5km of the edge of the PDA.
<https://historicengland.org.uk/listing/the-list/>
- Conservation Area plans for South Holland District Council and Fenland District Council within 5km of the edge of the PDA.
- Locally Listed Buildings within 1km of the PDA
Research done via the HER Search, the South Holland District Council website and the Fenland Borough Council website and through relevant Conservation Area Appraisals (Appendix 1)
- Historic Maps dating between the 18th century and the present day.
- Victoria County History (<https://www.history.ac.uk/research/victoria-county-history>)
- Our observations having visited the PDA and its environs

4.2.2 The information gathered from the above sources has been verified and augmented as far as possible by site inspection, in order to arrive at conclusions on the significance of the various heritage assets that have been identified.

4.3 IMPACT ASSESSMENT (ARCHAEOLOGY)

4.3.1 The impact assessment will follow and will be informed by the baseline and by additional data-gathering (geophysical survey, geoarchaeological boreholes and potentially by trial trenching). It will seek to understand and define the significance of (archaeological) heritage assets identified from these data sources. It will take into account the categories of special interest defined in the National Planning Policy Framework (NPPF), primarily archaeological interest, historic interest, architectural interest and artistic interest (as appropriate).

4.3.2 The importance of a heritage asset is the overall value assigned to it is based upon its heritage significance, reflecting its statutory designation or, in the case of undesignated assets, the professional judgement of the assessor (Table 2).

4.3.3 The assessment also considers change to the setting and significance of heritage assets, where appropriate. It is our approach that an assessment of

the likely effects of the proposed development on heritage assets considers those effects both in terms of physical impact and (where relevant) change to setting.

- 4.3.4 The impact assessment follows the methodology laid out in LA104 (The revised Design Manual for Roads and Bridges (DMRB, revised 2020⁶). This provides a framework for assessments of the historic environment, whether these are for environmental statements or for smaller developments that do not require environmental impact assessments (EIA). The approach to the historic environment which it promotes, though designed primarily for road developments, is more generally relevant as a methodology for other types of development and has been adopted in this application (further details in Appendix 2).
- 4.3.5 Table 2 lists the options we have for Value (sensitivity) to be placed on heritage assets. This is also derived from the DMRB.

Table 2: Criteria for Assessing the Importance of Heritage Assets

Value (sensitivity) of receptor / resource	Typical description
Very High	Very high importance and rarity, international scale and very limited potential for substitution.
High	High importance and rarity, national scale, and limited potential for substitution.
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution.
Low	Low or medium importance and rarity, local scale.
Negligible	Very low importance and rarity, local scale.
Unknown	The importance of the resource has not been ascertained.

4.4 TERMINOLOGY

4.4.1 In summary, the key terms are:

- *Value* – describes the relative value/sensitivity of a heritage asset. This varies from not known too Very High. This is also referred to as *Sensitivity* in some instances.
- *Impact* – Describes the potential impact upon a heritage asset. This varies from no change to Major and each of these can be Adverse or Beneficial impacts. This is also referred to as *Change* in some instances.
- *Effect* – A significance matrix combines Value and Impact in order to describe the

⁶ Design Manual for Roads and Bridges. LA 104 Environmental assessment and monitoring (formerly HA 205/08, HD 48/08, IAN 125/15, and IAN 133/10). Revised August 2020.

potential *effect* of the proposals upon a heritage asset.

- *Harm* - Proposed development affecting a heritage asset may have no impact on its significance or may enhance its significance and therefore cause no harm to the heritage asset. Where potential harm to designated heritage assets is identified, it needs to be categorised as either total loss, substantial harm, less than substantial harm (within which there is a range) or no harm. This is in order to identify which policies in the National Planning Policy Framework (paragraphs 194-196) apply.

4.4.2 Appendix 2 describes the Impact Assessment process in detail. It also sets out the way in which we approach harm and how we equate change and impact with harm in order to meet the requirements of the NPPF.

5 CONSULTATION

5.1 BENEFITS OF CONSULTATION

- 5.1.1 The NPPF encourages early engagement between development teams and the local planning authority within which an application will fall. In Section 39 of the NPPF states:

39. Early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties. Good quality preapplication discussion enables better coordination between public and private resources and improved outcomes for the community.

5.2 CONSULTATION (ARCHAEOLOGY)

- 5.2.1 Where non-designated (archaeological) heritage assets have the potential to be affected, we consult the local authority archaeological officers. We progressed this early, and had a useful exchange via email, telephone and online meeting. The officers involved are as follows (Table 3).

Table 3: Archaeological Officers (Consultees)

Local Planning Authority	County	Officer/s
Fenland District Council	Cambridgeshire	Lewis Busby, Archaeological Officer, Cambridgeshire County Council Kasia Gdaniec, Senior Archaeologist, Cambridgeshire County Council
South Holland District Council	Lincolnshire	Ian Marshman, Historic Environment Officer, Lincolnshire County Council

- 5.2.2 Efforts were made to ensure that a joined up approach, acceptable to the officers advising both Fenland District Council and South Holland District Council was agreed.
- 5.2.3 The brief which forms Appendix 5 of this document is, in effect, the outcome of this negotiation process. Issued by Cambridgeshire County Council, it has been accepted by the Officer at Lincolnshire County Council as a suitable way to evaluate the land.
- 5.2.4 The data-gathering needed in order to supply the officers comprises the

following:

Table 4: Evaluation Data-Gathering Stages

Evaluation Stage	Technique	Comment
1	Research using existing Data/models	Surface Models, LIDAR Data, historic mapping, HER Data and walkover survey have all been referred to within this assessment. In effect, this Stage of the data-gathering process has been completed within this document.
2	Geophysical Survey	This will be conducted along the course of the two roddons, where they occur within the PDA. This comprises the area within the PDA covered by 2 roddons. This consists of 3 distinct, irregularly shaped parcels of land measuring approximately 37.2ha in area. These works have been agreed in a Written Scheme of Investigation⁷ and following discussions with the Consultees, the specialist geophysical survey contractor (Headland Archaeology) and Abrams Archaeology.
3	Geoarchaeological Borehole Survey	Discussions on this specialist topic were held between the consultees, the specialist geoarchaeological contractor (Quest) and Abrams Archaeology.
4	Trial Trenching	This may or may not be needed. The reasoning for doing trial trenching will be dependant upon the results of Stages 1-3 which will provide data on the spatial distribution of potential archaeology and will provide data on the depth of deposits on the land. By using Stages 1-3 it will be possible to understand if, where and why trial trenching would be needed.

5.3 OUTCOMES OF CONSULTATION

5.3.1 Following consultation, and with reference to guidance and policy on Heritage and Archaeology, we formulated an approach to the appropriate levels of data-

⁷ Headland Archaeology 2022. Tydd Solar Farm, Land East of Guanockgate Rd, Gorefield: Fenland District Council, Cambridgeshire and South Holland District Council, Lincolnshire. Written Scheme of Investigation for Geophysical Survey. Cambridgeshire Event Code: ECB7006.

gathering needed. This combines:

- the baseline (drawing upon HER data and other readily available sources). Table 4, Stage 1.
- new data gathered via archaeological investigation on site. Table 4, Stages 2-4

5.3.2 This will, in due course, provide the planning application with a detailed Impact Assessment useful to decision makers.

6 BASELINE - ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

6.1 WHAT IS KNOWN?

- 6.1.1 This chapter reviews the available archaeological evidence for the PDA and the archaeological/historical background of the general area, and, in accordance with NPPF, considers the potential for any as yet to be discovered archaeological evidence on the PDA.
- 6.1.2 What follows comprises a review of known archaeological finds (assets) both on the PDA (inner study area) and within a 1km radius of that (within the middle study area, Figures 4a, 4b, 5 and 6). These records are held on either the Heritage List or the Lincolnshire and Cambridgeshire Historic Environment Record (HER), and we have used these together with a consideration of Geological Data (Figure 2), Surface Models (Figure 16) and LIDAR Data (Figure 3) in order to ascertain whether there is likely to be potential for sub-surface remains on the PDA. A historic map regression exercise (Figures 7- 15) charts the development of the inner and middle study area/s from the 19th century onwards until the present day.
- 6.1.3 The Archaeological Brief (Appendix 5) usefully explains the relevant background of the land as follows:

“The superficial deposits consist of blue-grey clays and silty clays, often interspersed with layers of coarse silty sands below c. 3.5m aOD (Waller 1994). Borehole surveys have been undertaken along Treading Drain, which lies to the north-east of the development area, as part of the Fenland Project (Waller 1994). The boreholes, drilled to a maximum depth of -5.24m aOD, did not reach bedrock. To the east of the proposed development area the boreholes found layers of sand, indicative of a major roddon. This ancient tidal river infilled with marine deposits shows on LiDAR images as being roughly 600m wide and lies just outside the proposed development area. A narrower roddon to the west is roughly 300m wide and is within the study area. Both cross a deep part of the fen basin on a broadly N-S orientation. Boreholes to the west predominantly contained clay deposits, however thin humic horizons were noted between -2.48m and 1.71m aOD.

Further borehole surveys have been undertaken by Oxford Archaeology, three boreholes and two trenches were investigated within the development area (Cambridgeshire Historic Environment Record reference ECB6664). Two boreholes contained layers of sand, indicative of a roddon running through the south-western area of the proposed development. A trench was excavated over the potential roddon, where a sole undated ditch was identified.

There is little known archaeology known within the vicinity of the proposed development area. However roddon crests in the wider vicinity are known to contain areas of archaeological remains, due to these hard, sand and clay

*filled channels representing areas of 'high' or more solid ground within the wider fen landscape. An example of this can be seen from the major roddon to the east of the proposed development area, which contains evidence for medieval salterns scattered along its northern reaches (CHER ref. MCB24468, 03826 and MCB4671)."*⁸

6.1.4 The Fenland Project, Report Number 9⁹ is relevant to our understanding of this locality. While it dealt with a large area, of which the PDA is a very small part. This report has a section in it which describes the Tydd St Giles Fen¹⁰ and the salient points from this section of text are quoted above, from the Cambridgeshire County Council Brief. The key point being that the PDA is close to a major roddon, referred to in the Fenland Survey and the area was subject to several boreholes designed to gather more data on the character of the underlying deposits. As previously described, the PDA has two roddons within it, one is narrow and just a short length is contained within the PDA. The other curves around its western edges and there is a larger section of this one within the PDA. Both sections of roddon are shown on Figure 2.

6.1.5 The following timescales are used to structure our text in a chronological order.

Table 5: Timescales

<i>Period (Prehistoric)</i>	<i>From</i>	<i>To</i>
Palaeolithic	900,000BC	12,000BC
Mesolithic	12,000BC	4000BC
Neolithic	4000BC	2500BC
Bronze Age	2500BC	800BC
Iron Age	800BC	AD43
<i>Period (Historic)</i>	<i>From</i>	<i>To</i>
Roman	AD43	AD410
Early Medieval	AD410	AD1066
Medieval	AD1066	AD1485
Post-Medieval	AD1486	AD1799
Modern	AD1800	Present

6.2 PREVIOUS ARCHAEOLOGICAL WORK

6.2.1 The PDA has been subject to one archaeological investigation prior to this proposal coming forward. This is extremely useful as it led to the sampling by

⁸ Cambridgeshire County Council. 2022. Brief For Archaeological Evaluation: Cambridgeshire Historic Environment Team. Land At Treading Field, Treading Drain, Tydd St Giles, Cambridgeshire. 18 Oct 2022.

⁹ Waller, M., 1994. The Fenland Project Number 9: Flandrian Environmental Change in Fenland. East Anglian Archaeology Report No. 70.

¹⁰ Page 22. In: Waller, M., 1994. The Fenland Project Number 9: Flandrian Environmental Change in Fenland. East Anglian Archaeology Report No. 70.

trial trench and by auger of land within the PDA. These investigations were both on/off the possible course of the roddons discussed above. Therefore, this investigation provides us with very useful data.

- 6.2.2 An investigation at the proposed Treading Wind Farm (ECB6664)¹¹ took in the land within the PDA and some to its East. The investigation involved the opening of six trial trenches (ELI10939) and ten auger holes (ELI10940).
- 6.2.3 Trenches 1, 2, 3 and 4 were within the PDA for the proposed Tydd Solar Farm and Trenches 5 and 6 were to its East. Auger Holes (AH) 1, 2, 3, 4, 9 and 10 were within the PDA and AH 5, 6, 7 and 8 were to its East. In summary, the report for this work explains that:

Between 21st and 23rd September 2010, Oxford Archaeology East were commissioned to carry out an archaeological evaluation and palaeoenvironmental survey across a 2km site east of the village of Sutton St Edmund, on the Cambridgeshire/Lincolnshire border. The investigation consisted of six trenches and hand augered boreholes within the footprint of proposed wind turbines and additional augerholes across the site to map the sediment deposits.

Two undated ditches were recorded, one located within the topsoil, high up in the stratigraphic sequence within Trench 4 and the other at over -2.93m OD at the very base of Trench 3.

The hand-auger cross section revealed a relatively continuous macro-stratigraphy to the deposits in this locality, with a change from a silt dominated horizon to a clay dominated horizon. This change potentially represents a marine regression from outer to inner/peri-estuarine conditions and would have increased the amount of available land for human settlement/utilisation, such as the recorded marine retreat in the Romano-British period, before a further period of marine transgression.¹²

- 6.2.4 Trial trenching for the Treading Wind Farm revealed very few archaeological features of the type often encountered on development sites in the region. Those it did reveal were undated (two undated ditches). The area was marshland, drained in the Post-Medieval to modern periods. However, the Fenland region has a varied past with periods of dry and wet land. Understanding that past is done via boreholes, or auger holes in this case, as the deposits which explain the previous landscapes are often deeply sealed. Reaching such deposits is not safe within conventional trial trenches, hence the use of such narrow/targeted methods.
- 6.2.5 The report concluded that the “*results of the trenching did not reveal any*

¹¹ F/YR11/O113/F | Erection of 4no wind turbines (maximum height to tip 126.0 metres, hub height 80.0 metres), a 80.0 metre high permanent meteorological mast, substation, external transformers, temporary construction compound and formation of access tracks, hardstanding areas and associated infrastructure | Land At Treading Field Treading Drain Tydd St Giles Cambridgeshire

¹² Cotswold Archaeology. 2010. Archaeological Evaluation and Palaeoenvironmental Assessment: Treading Wind farm site Sutton St Edmund, Lincolnshire. Archaeological Evaluation Report. OA East Report No 1210.

substantial archaeological remains, although two distinct linear features were investigated, they, however, remain undated. The level at which the features were encountered is significant. Ditch 409 was located very high in the stratigraphic sequence of trench 4 and is likely to be post-medieval in date. In order to date ditch 308, either further investigation is required or further analysis to include dating of the peat layer encountered across the site which would at least provide an “earlier than” date.”¹³

- 6.2.6 This scientific dating did not take place as far as we can ascertain and the windfarm project did not progress, therefore, the feature remains undated. The investigation for Treading Wind Farm also revealed deep deposits of potential geoarchaeological interest, while less familiar to some, these deposits are of importance given the Fenland context in which the land is located. Of particular interest to this project is Trench 2/AH4 and Trench 4/AH4 opened for that scheme. This because both were placed above the probable course of roddons which appear to cross through the PDA (Figure 3).
- 6.2.7 Trench 2/AH2 had deposits of sand within it, the upper surface of which was c. 1m below the existing ground level. While no cut archaeological features were recorded in this trench, it is the level of the sand which is of potential interest as such roddons have been the target of human activity at various times in this area. This because they were slightly drier/higher than surrounding ground.
- 6.2.8 Layers within Trench 4/AH4 also recorded the presence of sand and, with this being on the line of the larger roddon within the PDA, this may again be physical evidence of the roddon which the reader can see on Figure 3. This was also one of the trenches to contain a cut archaeological feature (undated ditch).
- 6.2.9 In summary, the investigation for the Treading Wind Farm recorded a small amount of evidence suggesting the roddons may be present and that the site has potential to preserve archaeological remains. These remains are undated and we anticipate that, should this project progress, it would be important to date some of the peat deposits encountered in the site and then to understand the depth at which archaeological remains are preserved and to what period they date. That being done, it would be possible to compare that depth of archaeological sensitivity to the proposed depth of piles and other intrusive works. At which point the archaeological impact assessment would be possible.
- 6.2.10 An excavation took place c. 500m northwest of the PDA, in the mid 20th C. This recorded a Roman settlement site located at Guanockgate Cottage (EL1107). The results were written up in an article covering several different sites¹⁴. We understand, from the HER, that *“Roman hut sites and quantity of sherds, in two fields west of Willow Bank and NE of Guanockgate Cottages, Sutton St Edmund, discovered Sept 1947, and excavated by W Featherby. Traces of surface variation visible on APs, and apparently form part of extensive area of roddons,*

¹³ Section 4.1.1. In: Cotswold Archaeology. 2010. Archaeological Evaluation and Palaeoenvironmental Assessment: Treading Wind farm site Sutton St Edmund, Lincolnshire. Archaeological Evaluation Report. OA East Report No 1210.

¹⁴ HALLAM, S.J.. 1970. 'Settlement around the Wash' in The Fenland in Roman Times. GAZ 3713; p.304

ditches”.

- 6.2.11 Apart from the specifics of the findings, which confirm Roman settlement activity locally, we also notice that the remains are on the line which we would expect one of the roddons on the PDA to take as it stretches to the northwest of it. The reader may find it easiest to refer to Figure 16, which shows the location of EL1107 and also shows the location of the roddons on/off the PDA. Then to refer to Figure 3 which shows the roddons (more clearly) on the PDA. The key point is that the Roman remains recorded at EL1107 occur on land, which is part of a roddon, and that roddon also runs through the PDA. This raising the potential of similar remains occurring within the PDA.
- 6.2.12 Figure 16 also shows the location of a cropmark site (ML122330). These are located on the line of a second roddon, which also crosses the PDA. They are thought to relate to a separate Roman settlement site. Again, we see the potential for similar remains within the PDA and, again, we see them associated with the line of a roddon.
- 6.2.13 Other events recorded on the HER tend to cluster within the settlement of Sutton St Edmunds on the western edge of the 1km study area. They comprise EL19034 which recorded some relatively modern remains. EL110361, a visit made to the Baptist Church in order to make a brief record. EL12757 and EL1418 were both negative investigations revealing no archaeological remains. Approximately 1km to the southwest of the PDA, a relatively large area was subject to a watching brief (EL17869) and this recorded no archaeological remains.
- 6.2.14 In predicting archaeological potential, we utilise the above events/investigations. We also use historic maps, aerial photographs and our own observations made when visiting the area.

6.3 EARLY PREHISTORIC — PALAEOLITHIC AND MESOLITHIC

- 6.3.1 The HER records have no records of activity during these periods for either the PDA or the middle study area. The archaeological potential of the PDA for the Palaeolithic and Mesolithic periods is considered to be low.

6.4 LATER PREHISTORIC — NEOLITHIC, BRONZE AGE AND IRON AGE

- 6.4.1 The HER records have no records of activity during these periods for either the PDA or the middle study area. The archaeological potential of the PDA for the Neolithic, Bronze Age and Iron Age periods is considered to be low.

6.5 ROMAN

- 6.5.1 The HER records five locations with possible, or definite, Roman remains located on them. Importantly, there are specific reasons why the remains may be located where there have been recorded. They appear to be closely

associated with local roddons, relict river channels with specific soil qualities and which are very slightly higher and drier than surrounding land.

- 6.5.2 There is a cluster of records to the south of the PDA (Figure 5). These comprise MLI22330, MLI22331 and MLI22307 and are likely to link to the same Roman settlement site given their proximity to each other. These are all cropmark sites and parts can now also be viewed on LIDAR data of this location. They are attributed to the Roman period based upon their morphology. That's to say, they are a series of enclosures showing a planned/linear pattern which is frequently datable to the Roman period.
- 6.5.3 MLI22309 records the location, immediately west of the PDA in which Roman pottery sherds were recorded. This is classed as a findspot and the sherds are not necessarily from a 'feature' as such. MLI1107 records the location of a Roman settlement which was subject to excavation in the mid 20th C and which we have briefly described in Section 6.2.10 (above).
- 6.5.4 It bears repeating that, apart from the specifics of the findings, which confirm Roman settlement activity locally; we also notice that the remains are on the line which we would expect one of the roddons on the PDA to take as it stretches to the northwest of it. The reader may find it easiest to refer to Figure 16, which shows the location of EL1107 and also shows the location of the roddons on/off the PDA. Then to refer to Figure 3 which shows the roddons (more clearly) on the PDA. The key point being that the Roman remains recorded at EL1107 occur on land, which is part of a roddon, and that roddon also runs through the PDA. This raising the potential of similar remains occurring within the PDA.
- 6.5.5 Figure 16 also shows the location of a cropmark site (ML122330). These are located on the line of a second roddon, which also crosses the PDA. They are thought to relate to a separate Roman settlement site. Again, we see the potential for similar remains within the PDA and, again, we see them associated with the line of a roddon.
- 6.5.6 The archaeological potential of the PDA for the Roman period is considered to be medium on those parts of it which are associated with roddons (Figure 3) and low/none on those parts of it which are not associated with roddon/s.

6.6 EARLY MEDIEVAL, MEDIEVAL, POST-MEDIEVAL AND MODERN

- 6.6.1 The County of Lincolnshire has been the subject of Historic Landscape Character analysis and the results are published. This study picked up that part of South Holland within which part of the PDA lies. The area is described as *Character Zone FEN2: The Eastern Fens within The Fens Character Area*. The Historic Landscape is described as follows:

There is little evidence for occupation in this character zone during the Prehistoric, but extensive evidence that the land within it was utilised at this time. There have been many artefact finds made throughout the zone from

the Prehistoric period. There is evidence of settlement on the ridge of higher ground around Stickney and Sibsey, and in the Pinchbeck area.

Generally, there was probably very little or no settlement within the character zone during the early medieval period, with possible exceptions of settlement in the Stickney/Sibsey area and around Crowland. Outside of the areas of possible settlement, any settlement was probably isolated and associated with seasonal use of the fen for grazing or salt production. It is not clear whether any of the Roman settlements continued into the early medieval period, although given the gradual inundation of the fens towards the end of the Roman period this seems unlikely. Crowland Abbey was established in the eighth century. In the later medieval period some fen reclamation took place, although this was probably fairly limited in extent and mainly around the fen edge.

Reclamation of the fenland landscape began in earnest during the eighteenth and nineteenth centuries. During this time many new drainage channels were cut and pumping stations constructed to overcome the challenge of draining land that was below sea-level. These engines were initially wind-powered, but steam engines became common throughout the zone. Indeed, it is likely that the clean air and skies for which the zone is so valued today are largely a modern phenomenon. The reclaimed land was divided into a pattern of rectilinear fields, separated from one another by drains rather than hedges.

This pattern is still much in evidence today, as the consolidation of fields that occurred elsewhere in the county could not be undertaken here due to the necessity of retaining the boundary ditches for drainage purposes¹⁵.

- 6.6.2 We observe that the PDA lies at the southern end of this zone, far from the ridge on which Sibsey and Stickney lie. This is in that zone where early Medieval settlement would have been dispersed. The PDA was located in Tydd St Giles Fen and lying at 0m OD in comparison to the local settlements of Sutton St Edmund (2m OD) to the west, Gorefield (3m OD) to the south, Newton (3m OD) to the east and Tydd St Giles (2-3m OD) to the north east. Clearly, the difference between the PDA at 0m OD and the nearby, historical settlements, at 2-3m OD made all the differences in terms of where local people were able to live and between which they were able to maintain communication links.
- 6.6.3 The description of *Character Zone FEN2* as containing steam engines used for drainage and the reference to rectilinear fields is much in evidence in that part of the PDA within South Holland and immediately to its west and north. Plates 17-18 show the location of such a steam engine just north of the PDA and they also show the characteristic rectilinear fields. Figures 7 and 8 show examples also. These fields are evident today when visiting the area.

¹⁵ Pages 92-93. Historic Landscape Evolution. Character Zone FEN2. In: John Lord and Alastair MacIntosh, Lincolnshire County Council. 2011. The Historic Character of The County of Lincolnshire English Heritage Project No. 4661 Main The Historic Landscape Character Zones



Plate 17: Selected part of Yeakell, Thomas Jr. Map (1812) of Holbeach and Leverington. This has been made semi-transparent so as to enable the modern reader to better understand Plate 18 and where the PDA was located in the early 19th C.

These Maps were consulted via the British Library Map Viewer.

Holbeach - <https://britishlibrary.georeferencer.com/maps/b9f04e08-4ebb-5da1-a62a-4b83212802f2/> - accessed 23-10-2022

Leverington - <https://britishlibrary.georeferencer.com/maps/c819ac21-bf01-5f6f-a7a9-2c6fe9f8c202/> - accessed 23-10-2022



Plate 18: Selected part of Yeakell, Thomas Jr. Map (1812) of Holbeach and Leverington. This map, which captures the landscape in the early 19th C, shows the location of Scrimshaws Farm (also on Figure 7). Just a handful of properties exist within Sutton St Edmund at this time and this is a notable difference from later mapping and the present day.

Most noticeable at the characteristic v-shaped road which forms the northern edge of the PDA. To the north of this road and to its south is named Tidd St Giles Fen.

The North Level Main Drain (1831-34) is not yet excavated. However, we can see that a length of drain, which would later form part of the North Level Main drain, does exist between Tidd St Giles Fen and Newton Fen.

The Straight Reach Drain is mapped and we note a Steam Engine is located a short distance north of the PDA and is labelled on the map. These were used locally during the 19th C to great effect in draining the Fens.

These Maps were consulted via the British Library Map Viewer.

Holbeach - <https://britishlibrary.georeferencer.com/maps/b9f04e08-4ebb-5da1-a62a-4b83212802f2/> - accessed 23-10-2022

Leverington - <https://britishlibrary.georeferencer.com/maps/c819ac21-bf01-5f6f-a7a9-2c6fe9f8c202/> - accessed 23-10-2022

- 6.6.1 The landscape is described as follows by the publication on Character Zone FEN2 as follows and this is a very useful summary of the landscape at this time:

There are some nucleated settlements scattered throughout the character zone, located on ridges of slightly higher ground. There are also some linear settlements, which are formed by the infilling of several dispersed settlement types within the character zone. All other settlements in the character zone comprise a combination of isolated farmsteads and ragged linear settlements along the main roads. It is generally possible to see several farmsteads or other houses in every direction from any position within the character zone. Although the overall settlement pattern is dispersed, the density of settlement is quite high by comparison to other areas of fen or marsh in the county as a whole.

Much of the planned enclosure landscape survives to this day, although this survival is probably due to the necessity of retaining field boundary drains to ensure the continued viability of the agricultural land. Certainly throughout the character zone there is a strong feeling of openness, with few hedges demarcating fields. Those areas of modern consolidated fields generally have more surviving elements of hedgerows within their field boundaries than those areas of surviving planned enclosure. There are some areas of surviving ancient enclosure which are focussed around the nucleated settlements in the north and south of the character zone and around the linear settlements in the centre of the character zone¹⁶.

- 6.6.2 That part of the land which lies within Fenland District Council, Cambridgeshire has a closely linked history of course. It falls within the parish of Tydd St Giles. The Victoria County History describes the parish as follows:

Tydd St. Giles, the northernmost parish in Cambridgeshire, is situated 6 miles north of Wisbech. The Shire Drain divides it on the north and west from the sister parish of Tydd St. Mary in Lincolnshire. This stream has shrunk to a shadow of its former self but is an important boundary, separating, as it has done, two counties, two dioceses, and in all probability two Anglo Saxon kingdoms. The upper part of the Shire Drain, forming the western boundary of Tydd, has been known since the 17th century as Lady Nunn's Old Eau, from the wife of a 14th-century Tydd landowner. (fn. 1) The eastern boundary of the parish is also a county boundary, and was in 1934 adjusted to conform with the modern course of the River Nene. (fn. 2) The neighbouring parish on the south is Newton-in-the-Isle. The most important watercourse in the parish, after the Nene, is the North Level Main Drain (1831-4), the successor to the Shire Drain, which cuts straight across from south-west to north-east and has considerably altered the local topography. The parish is crossed by the main road from Wisbech to Long Sutton (A 1101) and the Peterborough to Sutton Bridge branch of the former Midland and Great Northern Joint Railway (1866), which has a station (Tydd) about 3

¹⁶ Pages 92. Description. Character Zone FEN2. In: John Lord and Alastair MacIntosh, Lincolnshire County Council. 2011. The Historic Character of The County of Lincolnshire English Heritage Project No. 4661 Main The Historic Landscape Character Zones

miles east of the village just outside the county boundary. The soil is highly fertile and much given over to orchards and market gardens. As in most Marshland parishes, as opposed to those in the fens proper, there is a network of by-roads and a more scattered type of settlement. At Tydd, besides the main village round the church, which is roughly in the centre of the parish, there are hamlets at Four Gotes and Tydd Gote, (fn. 3) where the high road enters and leaves the parish, and at Foul Anchor in the extreme north-east corner, near the outfall of the North Level Main Drain into the Nene.¹⁷

- 6.6.3 The North Level Main Drain runs just 100m southeast of the PDA and is a dominant landscape feature when visiting the local area. The Straight Reach Drain runs north from the North Level Main Drain and forms the western edge of the PDA as it does so. The Lady Nunn's Old Eau meanders through the centre of the PDA and also drains into the North Level Main Drain.
- 6.6.4 With this area, we are fortunate to benefit from the huge amount of data and interpretation presented as a result of the publication of *The Fenland Project, Number 10: Cambridgeshire Survey, Isle of Ely and Wisbech*¹⁸. Although aimed at understanding the Fenlands in the Medieval and earlier periods (and therefore not focussed primarily on the Post-Medieval period when the present day landscape was mainly formed) this study is very useful in helping us understand the PDA in relation to the land surrounding it. This is especially the case with land to its east and south (which is within Cambridgeshire).
- 6.6.5 Figure 98 (Medieval Landscape) within The Fenland Project, No 10¹², depicts the landscape within which the PDA lies. It shows the location of Tydd St Giles to the northeast and the distribution of sites of known Medieval activity. There are none on the PDA. However, there are four such sites depicted just south of Sutton St James, to the north of the PDA. These were the site/s of salterns (used in the production of salt) and are evidence of one of the ways in which the local landscape was being exploited by its inhabitants in the Medieval period.
- 6.6.6 Figure 99 (Medieval fields) within The Fenland Project, No 1012, also depicts the landscape within which the PDA lies. It shows the layout of fields, communication routes, drains and flood banks. We note that the PDA lies to the west of the *Roman Bank*, a large sea defence, which is understood to be early Medieval (rather than Roman) in date and which provided a defence against inundation from marine flooding. Land west of it was incrementally reclaimed (drained) throughout the Medieval and Post-Medieval periods. Monastic land ownership was important to the Medieval activity while investors (sometimes referred to as adventurers) funded and organised much of the later drainage work of the 17th C and beyond.

¹⁷ T D Atkinson, Ethel M Hampson, E T Long, C A F Meekings, Edward Miller, H B Wells and G M G Woodgate, 'Wisbech Hundred: Tydd St. Giles', in *A History of the County of Cambridge and the Isle of Ely: Volume 4, City of Ely; Ely, N. and S. Witchford and Wisbech Hundreds*, ed. R B Pugh (London, 2002), pp. 224-232. British History Online <http://www.british-history.ac.uk/vch/cambs/vol4/pp224-232> [accessed 23 October 2022].

¹⁸ East Anglian Archaeology. *The Fenland Project, Number 10: Cambridgeshire Survey, Isle of Ely and Wisbech*. EAA 79. Cambridgeshire County Council 1996.

- 6.6.7 Such engineering works were often designed by Dutch engineers (such as Cornelius Vermuyden). Further drainage improvements took place close to the PDA in the 19th and 20th centuries with deep straight drains supplementing the more meandering Lady Nunns Old Eau, which still divides the PDA (and forms the county boundary, Figure 1). As noted above, a steam engine was installed to the north of the PDA by the early 19th C and would have made pumping more efficient than the earlier methods (Plates 17-18).
- 6.6.8 The archaeological potential of the PDA for the Early Medieval and Medieval periods is considered to be Low, by this assessment. The PDA would, very likely, have been marsh/fen in this period. It may have been used for grazing animals. We would not anticipate there being a high chance of cut archaeological features of this date. The only HER records related to this period are located in the local villages, which are on higher ground and which are known to date to the Medieval period.
- 6.6.9 The archaeological potential of the PDA for the Post-Medieval period modern period is considered to be High, by this assessment. The types of remains most likely to be encountered are agricultural in character, or to be land boundaries (ditches). Such remains are likely to be of low value (sensitivity).
- 6.6.10 The archaeological potential of the PDA for the modern period is considered to be High, by this assessment. The types of remains most likely to be encountered are structures of a domestic and agricultural type (Farmhouses and ancillary buildings). Most specifically we mean the remains of Scrimshaw's Farmhouse and Fraser's Cottage, which are both visible on 19th C mapping (Figure 7). Such remains are likely to be of low value (sensitivity).
- 6.6.11 In saying this, we note there are significant modern landscape features (drains and banks) which are present on the boundaries of, and within the PDA. However, these are being avoided by the proposals and will not be impacted directly in any way.
- 6.6.12 We also note the presence of a Steam Engine (for pumping water in order to drain the Fen) located to the north of the PDA (Plate 18). Such remains are important in terms of industrial archaeology, for example. There is no sign of such remains within the PDA.
- 6.6.13 Therefore, we restrict our comments to that part of the PDA which could be impacted.

6.7 MAP REGRESSION

- 6.7.1 During the Post-Medieval and modern periods, our understanding of settlement, land-use and the utilisation of the landscape is enhanced by cartographic and documentary sources, which can give additional detail to data contained within the HER.
- 6.7.2 Plates 17 and 18 show selected parts of the Yeakell, Thomas Jr. Map (of 1812). This image is created from part of the map showing Holbeach and part showing

Leverington. The mapped landscape in the early part of the 19th C (1812) captures the field systems at a time when drainage of the Fens (in this area) was well underway. The long straight drains that have shaped today's landscape are already in use in the area. The Straight Reach Drain, which runs along the western boundary of the PDA, is an example of this. Even so, the field system, especially on the eastern side of the PDA, within Fenland, is still characterised by large, irregular shaped fields. This contrasts to the more regular, rectangular landscape to the west, in South Holland.

- 6.7.3 A steam engine is mapped just north of the PDA on Plates 17 and 18, being, more evidence of the increased drainage of this landscape at this time. Within the PDA, buildings associated with Scrimshaws Farm are located on the western edge of the PDA and are labelled on later maps (Figure 8).
- 6.7.4 By the mid-19th C, when the Tithe Map for Tyd St Mary (Plate 19) was drawn (1838), we can see that the western part of the PDA was largely tenanted by William Scrimshaw (of Scrimshaws Farm). Two buildings are shown on the western edge of the scheme and the plots are largely described as Fen Land (up and down).
- 6.7.5 By the mid-19th C, when the Tithe Map for Tid St Giles (Plate 20) was drawn (1843), we can see that there are three separate clusters of buildings/yard areas within the eastern part of the PDA. The plots are in use as a mix of arable and pasture and there is a road/trackway running north-south through the PDA. The location of the Treading Drain and Treading bank are clearly labelled on this map. We note that the transition from using Fen land mainly for pasture, into a system where it was used increasingly for arable, was gathering pace at this time.
- 6.7.6 Figure 8 shows the landscape in 1886 and we can see that Scrimshaws Farm and Frasers Cottage are labelled within the western part of the PDA. There are two buildings shown in the south-eastern part of the PDA, these were also visible in the Tithe Map (Plate 20). The landscape does not show specific changes between this late 19th C layout and that seen up to 1959 (Figures 9-11).
- 6.7.7 The two buildings formerly located in the southeastern part of the PDA disappear by the 1980s (Figure 12). Scrimshaws Farm, was re-named Fenwick Farm and tracks to and from it are visible. Those tracks are still visible now, though the farm buildings were removed by the 21st C (Figures 13-15).

In effect the 19th and 20th C mapping confirm that the PDA has been in agricultural use for at least the last 200 years, prior to that records show this area was Fen. The exploitation of it for agricultural and other use would have been more piecemeal than these 19th C onward maps.

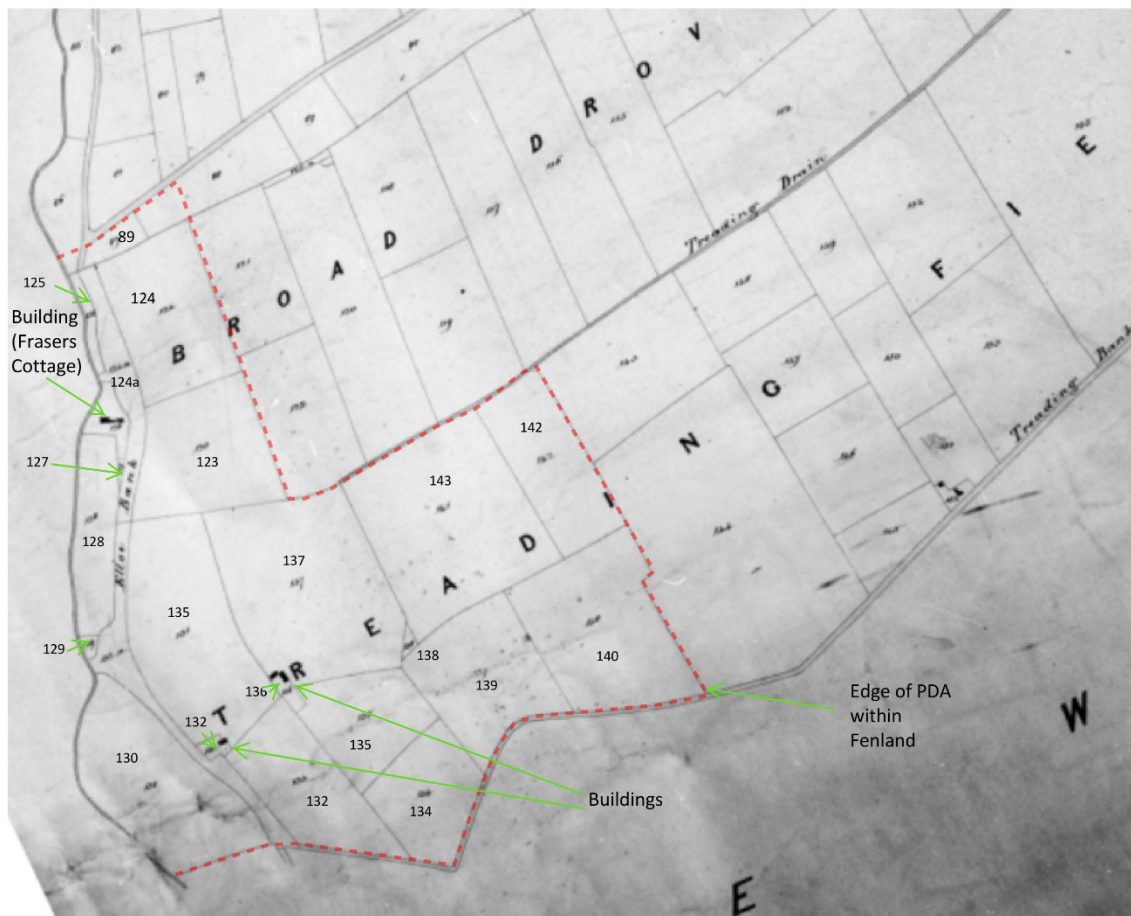


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Plate 19: Selected section of Tithe Map, Tyd St Mary (1838). Reference IR 29/20/350. Description. Tithe apportionment of Tyd St Mary [Tydd St Mary] (parish), **Lincolnshire**.

Tithe Apportionment records listed to indicate ownership, tenancy and land use:

Plot	Owner	Tenancy	Land Use
555	Reverend John Black	William Scrimshaw	Fen Land (Up and Down)
554	Robert and William Scrimshaw	William Scrimshaw	Fen Land (Up and Down)
553	Robert and William Scrimshaw	William Scrimshaw	Fen Land (Up and Down)
552a	Robert and William Scrimshaw	William Scrimshaw	Fen Land (Up and Down)
552	Robert and William Scrimshaw	William Scrimshaw	Grass
551	Robert and William Scrimshaw	William Scrimshaw	Fen Land (Up and Down)
550	Robert and William Scrimshaw	William Scrimshaw	Fen Land (Up and Down)
580	Robert and William Scrimshaw	William Scrimshaw	Fen Land (Up and Down)
581	Robert and William Scrimshaw	William Scrimshaw	Fen Land (Up and Down)
582	Robert and William Scrimshaw	William Scrimshaw	Fen Land (Up and Down)
583	Robert Ward	Philip Fuller	Fen Land (Up and Down)
584	Samuel Cole	William Watton	Fen Land (Up and Down)
585	Samuel Cole	William Watton	Fen Land (Up and Down)
586	Samuel Cole	William Watton	Fen Land (Up and Down)



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Plate 20: Re-drawn section of Tithe Map Tid St Giles (1843). Tithe apportionment of Tid St Giles [Tydd St Giles] (parish), **Cambridgeshire**.

Plot	Owner	Tenancy	Land Use
87	Reverend Nathaniel Colville	Robert Scrimshaw	Fen Lane Field, Pasture
123	James Frazer Edward	Robert Scrimshaw	Broad Drove Field, Arable
124	James Frazer Edward	Robert Scrimshaw	Broad Drove Field, Arable
124a	James Frazer Edward	Robert Scrimshaw	Treading Field (Road)
125	James Frazer Edward	Robert Scrimshaw	Pasture
126	James Frazer Edward	Robert Scrimshaw	Yard
127	James Frazer Edward	Robert Scrimshaw	Arable
128	James Frazer Edward	Robert Scrimshaw	Arable
129	James Frazer Edward	Robert Scrimshaw	Arable
130	James Frazer Edward	Robert Scrimshaw	Arable
131	John Peck	John Peck	Arable
132	John Peck	John Peck	Pasture
132a	John Peck	John Peck	Road
133	John Peck	John Peck	Arable
134	John Peck	John Peck	Arable
135	John Peck	John Peck	Arable
136	John Peck	John Peck	Yard
137	John Peck	John Peck	Pasture
138	John Peck	John Peck	Garden
139	John Peck	John Peck	Arable
140	John Peck	John Peck	Arable
141	John Peck	John Peck	Arable
142	John Peck	John Peck	Arable

7 ASSESSMENT OF SIGNIFICANCE

7.1 ASSESSMENT OF SIGNIFICANCE (NON-DESIGNATED ARCHAEOLOGICAL HERITAGE ASSETS)

- 7.1.1 Existing national policy guidance for archaeology (the NPPF as referenced in Appendix 4) enshrines the concept of the 'significance' of heritage assets. Significance as defined in the NPPF centres on the value of an archaeological or historic asset for its 'heritage interest' to this or future generations.
- 7.1.2 As identified by desk-based work, the likely archaeological potential by period and the likely significance of any archaeological remains which may be present are summarised in table 6 (below). Known heritage assets and previous archaeological investigations (events) are shown on Figures 3a, 4 and 5.

7.2 REGIONAL RESEARCH FRAMEWORK

- 7.2.1 As described in Table 4 evaluative data-gathering will comprise four stages:
 - Stage 1 - Research using existing Data/models (this has been completed in the form of this document)
 - Stage 2 - Geophysical Survey
 - Stage 3 - Geoarchaeological Borehole Survey
 - Stage 4 - Trial Trenching
- 7.2.2 Only Stage 1 above has, so far, been completed. Therefore, we would expect the Research Aims of the project to develop as new data became available. However based upon what is know we anticipate the following research aims will be relevant. These are all derived from either the East of England Research Framework¹⁹ or from the Brief (Appendix 5).
- 7.2.3 Geoarchaeological Research Aims
- 7.2.4 The Brief states (Appendix 5, Section 3.7) that *"The objective of the geoarchaeological investigation is to define zones of landscape stability within the vertical sequence that may have been of sufficient stability for human occupation at various periods in the past. Such areas would be targeted for combined archaeological and paleoenvironmental investigation depending upon the nature and depth of construction impacts. The window sampling should look to reconstruct past environment, looking in particular for the presence of peat, indicative of freshwater within the fenland landscape, and any insipient soils which may be associated."*
- 7.2.5 Data which increased understanding on the above would assist with assessing the impact of this proposal. It would also assist in increasing our understanding of conditions beyond the edges of the PDA and would act as a source of

¹⁹ <https://researchframeworks.org/eoe/> - accessed 8-12-2022

reference for the area.

7.2.6 Roman Period Research Aims

7.2.7 *LIA-Rom 06: How can we increase our understanding of the Iron Age and Roman environment?* Sites such as the PDA could provide useful data to assist in answering this question. The environment in this location has changed radically and the people living in it during the Roman period and beyond it have adapted to that change.

7.2.8 *LIA-Rom 13: How can we increase our understanding of Late Iron Age and Roman farmsteads?* Sites such as the PDA may contain Roman period remains and, if they do, these remains are likely to relate to farming communities. Such sites, in areas such as the Fenland can provide data which contrasts to that recovered from other types of landscape.

7.2.9 Post-Medieval and Modern Period Research Aims

7.2.10 *P-Med 14: How can we characterise the post-medieval historic landscape and the factors which affected it?* The PDA contains modern period remains and they occur in a very specific type of landscape. The drained Fenland landscape is a very specific type of landscape and the proliferation of farmhouses in the 19th C onwards is a local phenomenon linked to that drainage.

Table 6: Potential and Significance of non-designated assets

Period/Topic	Likelihood of remains being present based on baseline (desk based research)	Likelihood of remains being present based on the addition of evaluative fieldwork	Value (sensitivity) of receptor - See Table 2)
	Low, Medium, High	Low, Medium, High	
Early Prehistoric Palaeolithic-Mesolithic	Low	TBC	Low
Early Prehistoric Neolithic	Low	TBC	Low
Later Prehistoric Bronze Age	Low	TBC	Low
Later Prehistoric Iron Age	Low	TBC	Low
Roman	Medium	TBC	Medium
Early Medieval	Low	TBC	Low
Medieval	Low	TBC	Low
Post-Medieval	High	TBC	Low
Modern	High	TBC	Low
Geoarchaeological	High	TBC	Medium

8 SITE CONDITIONS AND POTENTIAL IMPACTS

8.1 INTRODUCTION

- 8.1.1 This section of the document draws upon the baseline; which was specifically designed to support this impact assessment.
- 8.1.2 Effects on the historic environment can arise through direct or indirect impacts. For the purpose of this report, direct impacts describe those that directly cause damage to the fabric of a heritage asset. Typically, these activities are related to construction works and will only occur within the proposed development area. It is with direct impacts that this Section (on Archaeology) is most focussed.
- 8.1.3 Impacts may be encountered at all stages in the life cycle of a development from construction, operation and decommissioning.

8.2 PRESERVATION AND DESTRUCTION

- 8.2.1 This section first considers how previous land use on the potential development area (PDA) has both created archaeological potential and reduced it. It then goes on to consider the proposals and how they may impact upon those potential remains (if any).

8.3 FACTORS AFFECTING ARCHAEOLOGICAL SURVIVAL

- 8.3.1 Archaeological remains can survive as earthworks and as below ground archaeological features, finds and layers. Part of the assessment process is to consider what factors may have affected archaeological survival. That is to say, what conditions would have enhanced the chances of survival and what conditions would have reduced the chances of survival.
- 8.3.2 The subject of archaeological preservation has been covered comprehensively elsewhere²⁰, and it is a topic which is subject to ongoing review as our understanding grows. The following addresses some familiar scenarios for assessment reports such as this, to allow the reader an insight into some 'typical' scenarios.

8.4 TYPICAL PRESERVATION CONDITIONS IN RURAL LOCATIONS

- 8.4.1 In rural locations, below ground remains are likely to be sealed by a relatively thin series of layers. Typically, a topsoil of c.100-200mm and a subsoil of 100-300mm. Therefore, they may be sealed by 200-500mm of deposits. There are variations to this including landscapes affected by colluvial or alluvial deposits.

²⁰ Historic England 2016. Preserving Archaeological Remains. Decision-taking for Sites under Development

There is also peat rich area where soil deposits can be significantly deeper. Earthworks are most common in areas not subject to modern, mechanised ploughing, although earthworks can be preserved in hedgerows, wooded areas and even as plough-reduced remnants within arable fields.

- 8.4.2 Hydrology has a significant role to play in the preservation of remains and proximity to watercourses and wetlands should be considered as it affects the variety and type of artefacts/ecofacts that could be present on a site.

Factors which enhance preservation	Factors which increase destruction
Pasture/grassland provides a relatively static condition for archaeological remains	Mechanised ploughing especially of deep rooting crops (e.g. Sugar Beet) causes truncation of archaeological deposits.
	Drainage for agricultural or mineral extraction reasons can affect hydrology and therefore remove the conditions in which waterlogged remains may survive.

8.5 SPECIFIC SITE CONDITIONS

- 8.5.1 The above summary of likely conditions holds to a point at the PDA. There was trial trenching carried out on this land in advance of a previous planning application for the Treading Wind Farm. The scheme did not progress. However, the records of topsoil depth and other underlying deposits are of direct relevance to this assessment. Six trial trenches were opened and the topsoil layer within each varied between 380mm and 480mm. We would expect there to be topsoil of 350-500mm depth overlying geological deposits.
- 8.5.2 This being the Fens it is not a simple matter of predicting the depth of archaeological sensitivity as lying immediately below topsoil (as is the case with much of rural England). In this case, we need to consider the potential for archaeological and geoarchaeological information to be held at different depths, hence the inclusion of the information at Table 7 below. As this indicates there are 8m of deposits recorded by borehole.

8.6 TABLE 7: DETAILS TREADING BANK BOREHOLE (B)

Treading Bank Borehole B - BGS ID: 504004			
Geological Classification	Description of Strata	Thickness in metres	Depth in metres
Barroway Drove Beds	Clay, grey compacted soil horizon	0.15	0.15
	Peat	0.15	0.30
	Clay, grey with rusty mottling	1.35	1.65
	Clay, grey-brown humic	0.01	1.66

	Clay, grey brown very silty	0.18	1.84
	Silt, yellow brown	0.02	1.86
	Clay, grey-grey, streaky with occasional rootlets	1.69	3.55
	Core Loss – probably sticky clay	0.30	3.85
	Silt, grey very clayey	1.15	5.00
	Silt, fine sandy clayey	2.75	7.70
	Clay, grey, silty	0.09	7.79
Lower Peat	Clay, peaty, dark brown, wood fragments	0.01	7.80
	Peat, dark brown	0.05	7.85
Crowland Bed	Clay, grey, silty with a few rounded small flints	0.35	8.20

- 8.6.1 A solar farm is not likely to impact much lower than 1m below the existing ground level (for piles) and so most of that deposit sequence would not be impacted. However, we also know, from the trenching carried out for the Treading Wind Farm, that sandy deposits were encountered at approximately 1m below the existing ground level. This from Trench 2/AH2 which had deposits of sand within it, the upper surface of which was c. 1m below the existing ground level. While no cut archaeological features were recorded in this trench, it is the level of the sand which is of potential interest as such roddons have been the target of human activity at various times in this area. This because they were slightly drier/higher than surrounding ground.
- 8.6.2 In summary, the investigation for the Treading Wind Farm recorded a small amount of evidence suggesting the roddons may be present and that the site has potential to preserve archaeological remains. These remains are undated and we anticipate that, should this project progress, it would be important to date some of the peat deposits encountered in the site and then to understand the depth at which archaeological remains are preserved and to what period they date. That being done, it would be possible to compare that depth of archaeological sensitivity to the proposed depth of piles and other intrusive works. At which point the archaeological impact assessment would be possible.

9 CONCLUSIONS

9.1 ARCHAEOLOGY

9.1.1 The land is assessed as having the following potential and sensitivity for below ground remains.

Period/Topic	Likelihood of remains being present based on baseline (desk based research) Low, Medium, High	Likelihood of remains being present based on the addition of evaluative fieldwork Low, Medium, High	Value (sensitivity) of receptor - See Table 2)
Early Prehistoric Palaeolithic-Mesolithic	Low	TBC	Low
Early Prehistoric Neolithic	Low	TBC	Low
Later Prehistoric Bronze Age	Low	TBC	Low
Later Prehistoric Iron Age	Low	TBC	Low
Roman	Medium	TBC	Medium
Early Medieval	Low	TBC	Low
Medieval	Low	TBC	Low
Post-Medieval	High	TBC	Low
Modern	High	TBC	Low
Geoarchaeological	High	TBC	Medium

9.1.2 The following data-gathering measures are needed in order to comply with the brief (Appendix 5).

Stage 1 - Research using existing Data/models (this has been completed in the form of this document)

Stage 2 - Geophysical Survey

Stage 3 - Geoarchaeological Borehole Survey

Stage 4 - Trial Trenching

9.1.3 Once these investigations are completed, an impact assessment will be completed and the above table will be updated accordingly.

APPENDICES

10 APPENDIX 1 – TABULAR DATA SUPPORTING THE ASSESSMENT

10.1 CONSERVATION AREA/S (INNER, MIDDLE AND OUTER STUDY AREAS)

Name of Conservation Area	Plan	Guidance
Parsons Drove	https://www.fenland.gov.uk/media/14662/Parson-Drove-Conservation-Area/pdf/Parson_Drove_Conservation_Area.pdf?m=636590525070700000	https://www.fenland.gov.uk/conservationareas

10.2 SCHEDULED MONUMENTS (INNER, MIDDLE AND OUTER STUDY AREAS)

ListEntry	Name	Grade	Hyperlink
1004982	Romano-British settlement S of Shell Bridge	Scheduled Monument	https://historicengland.org.uk/listing/the-list/list-entry/1004982
1010672	Boundary cross, Old Fen Dike	Scheduled Monument	https://historicengland.org.uk/listing/the-list/list-entry/1010672
1010688	Boundary cross, Manor Hill Corner	Scheduled Monument	https://historicengland.org.uk/listing/the-list/list-entry/1010688
1010689	St Ives Cross	Scheduled Monument	https://historicengland.org.uk/listing/the-list/list-entry/1010689

10.3 LISTED BUILDINGS (INNER, MIDDLE AND OUTER STUDY AREAS)

ListEntry	Name	Location	Grade
1064525	CROSS, APPROXIMATELY 4 METRES TO SOUTH OF CHURCH	CROSS, APPROXIMATELY 4 METRES TO SOUTH OF CHURCH, HILLGATE, Gedney Hill, South Holland, Lincolnshire	II
1064538	CHURCH OF ST EDMUND	Sutton St. Edmund, South Holland, Lincolnshire, PE12	II
1064539	BRIDGE AND SLUICES	Parson Drove, Fenland, Cambridgeshire, PE13	II
1064539	BRIDGE AND SLUICES	CLOUGHS CROSS, Parson Drove, Fenland, Cambridgeshire	II
1064540	HAWTHORN FARMHOUSE	Sutton St. Edmund, South Holland, Lincolnshire, PE12	II
1064543	SANDY GATE FARMHOUSE	Sutton St. James, South Holland, Lincolnshire, PE12	II
1064546	REMAINS OF CROSS, MANOR HILL CORNER	Tydd St. Mary, South Holland, Lincolnshire	II
1123923	LASCELLES	Matching, MATCHING GREEN, Epping Forest, Essex	II
1125894	HOLLYCROFT FARMHOUSE	FRONT ROAD, Wisbech St. Mary, MURROW, Fenland, Cambridgeshire	II
1125899	THE MANOR HOUSE	STATION ROAD, Wisbech St. Mary, Fenland, Cambridgeshire	II*
1125900	Four headstones, south west of tower of Church of St John the Baptist	Church of St John the Baptist, Church End, Parson Drove, Parson Drove, Fenland, Cambridgeshire	II
1125915	THE LAURELS	HIGH ROAD, Newton-in-the-Isle, Fenland, Cambridgeshire	II
1125918	WAR MEMORIAL	THE BANK, Parson Drove, Fenland, Cambridgeshire	II
1125919	The Laurels	The Bank, Parson Drove, PE13 4JD, Parson Drove, Fenland, Cambridgeshire	II
1125920	YUCCA HOUSE	CHURCH END, Parson Drove, Fenland, Cambridgeshire	II
1125921	THE OLD RECTORY	CHURCH END, Parson Drove, Fenland, Cambridgeshire	II
1125922	STORE AND WORKSHOP	Parson Drove, Fenland, Cambridgeshire, PE13	II
1125922	STORE AND WORKSHOP	Parson Drove, GLOUGHS CROSS, Fenland, Cambridgeshire	II
1125924	THE CHESTNUTS	MAIN ROAD, Parson Drove, Fenland, Cambridgeshire	II
1125925	THE HOLLIES	MAIN ROAD, Parson Drove, Fenland, Cambridgeshire	II
1125926	CHURCH OF ST GILES	CHURCH LANE, Tydd St. Giles, Fenland, Cambridgeshire	II*
1125927	STEPHEDICE	CHURCH LANE, Tydd St. Giles, Fenland, Cambridgeshire	II
1125928	PAGET HALL	HOCKLAND ROAD, Tydd St. Giles, Fenland, Cambridgeshire	II
1125950	BRIDGE OVER DRAIN AT CORNER OF FENDYKE LANE AND HIGH ROAD	FENDYKE LANE, Gorefield, Fenland, Cambridgeshire	II
1125952	BARN, WEST OF PARK FARMHOUSE	GOREFIELD ROAD, Leverington, Fenland, Cambridgeshire	II

ListEntry	Name	Location	Grade
1125957	THE SHRUBBERIES	HIGH ROAD, Newton-in-the-Isle, Fenland, Cambridgeshire	II
1146771	CHURCH OF HOLY TRINITY	HILLGATE, Gedney Hill, South Holland, Lincolnshire	II*
1146795	GEDNEY HILL MILL	MILL LANE, Gedney Hill, South Holland, Lincolnshire	II
1161019	BARN, NORTH WEST OF PARK FARMHOUSE	GOREFIELD ROAD, Leverington, Fenland, Cambridgeshire	II
1161053	POCKFIELD FARMHOUSE	LEVERINGTON COMMON, Gorefield, LEVERINGTON COMMON, Fenland, Cambridgeshire	II
1161066	HONEYHILL FARMHOUSE	Gorefield, Fenland, Cambridgeshire, PE13	II
1161076	NEWTON HOUSE FARMHOUSE	HIGH ROAD, Newton-in-the-Isle, Fenland, Cambridgeshire	II
1161123	BRIDGE AND SLUICES	Sutton St. Edmund, South Holland, Lincolnshire, PE13	II
1161123	BRIDGE AND SLUICES	Sutton St. Edmund, GLOUGHS CROSS, South Holland, Lincolnshire	II
1161136	ROOKERY FARMHOUSE	MAIN ROAD, Parson Drove, Fenland, Cambridgeshire	II
1161163	BELL TOWER, SOUTH EAST OF CHURCH OF ST GILES	CHURCH LANE, Tydd St. Giles, Fenland, Cambridgeshire	I
1204806	HEADSTONE IN CHURCHYARD IN CHURCH OF ST EDMUND, ABOUT 14 METRES SOUTH OF THE PORCH	Sutton St. Edmund, South Holland, Lincolnshire, PE12	II
1204812	GUANOCK HOUSE	Sutton St. Edmund, South Holland, Lincolnshire, PE12	II
1204813	YARWOOD HOUSE	Sutton St. Edmund, South Holland, Lincolnshire, PE12	II
1204887	DUNTUN HALL	HALL BANK, Tydd St. Mary, South Holland, Lincolnshire	II
1224879	Three headstones, south of nave of Church of St John the Baptist	Church of St John the Baptist, Church End, Parson Drove, Parson Drove, Fenland, Cambridgeshire	II
1224887	K6 TELEPHONE KIOSK	Parson Drove, THE GREEN, Fenland, Cambridgeshire	II
1310221	FORMER LOCKUP, ABOUT 50 YARDS SOUTH WEST OF SWAN INN	FORMER LOCKUP, ABOUT 50 YARDS SOUTH WEST OF SWAN INN, MURROW BANK, Parson Drove, Fenland, Cambridgeshire	II
1310255	BARN, EAST OF SYCAMORE HOUSE	MAIN ROAD, Parson Drove, Fenland, Cambridgeshire	II
1310313	PARK HOUSE	GOREFIELD ROAD, Leverington, Fenland, Cambridgeshire	II*
1331962	PARK HOUSE, PARK ROAD	Tydd St. Giles, Fenland, Cambridgeshire	II
1331967	CHURCH OF CORPUS CHIRSTI	FRONT ROAD, Wisbech St. Mary, MURROW, Fenland, Cambridgeshire	II
1331974	CHERRYTREE HOUSE	GOREFIELD ROAD, Leverington, Fenland, Cambridgeshire	II
1331975	CHURCH OF ST PAUL	Gorefield, Fenland, Cambridgeshire, PE13	II
1331976	BARN, WEST OF POCKFIELD FARMHOUSE	LEVERINGTON COMMON, Gorefield, LEVERINGTON COMMON, Fenland, Cambridgeshire	II
1331978	THE MANOR HOUSE	FITTON END ROAD, Newton-in-the-Isle, NEWTON, Fenland, Cambridgeshire	II
1331990	Three headstones, east of the Church of St John the Baptist	Church of St John the Baptist, Church End, Parson Drove, Parson Drove, Fenland, Cambridgeshire	II
1331998	Church of St John the Baptist	Church End, Parson Drove, Parson Drove, Fenland, Cambridgeshire	II*
1331999	318 Main Road	Parson Drove, PE13 4LF, Parson Drove, Fenland, Cambridgeshire	II
1332000	SYCAMORE HOUSE	MAIN ROAD, Parson Drove, Fenland, Cambridgeshire	II
1359240	THE RED LION PUBLIC HOUSE	HILLGATE, Gedney Hill, South Holland, Lincolnshire	II
1359248	REMAINS OF CROSS ABOUT 20 METRES NORTH WEST OF CROSS	Sutton St. James, South Holland, Lincolnshire	II

10.4 NON-DESIGNATED HER MONUMENTS WITHIN 1KM OF THE EDGES OF THE PDA (CAMBRIDGESHIRE)

PrefRef	MonUID	Name	RecordType	MonType	Evidence	Date
1858	MCB2369	Decoy pond, Gorefield	MON	DECOY POND	DOCUMENTARY EVIDENCE	Post Medieval
8422	MCB10098	Decoy pond, Leverington	MON	DECOY POND	DOCUMENTARY EVIDENCE	Post Medieval
MCB20854	MCB20854	Lady Nunn's Old Eau	MON	DRAIN	DOCUMENTARY EVIDENCE	13th century
MCB27444	MCB27444	North Level Drain, Tydd St Giles	MON	DRAIN	EARTHWORK; DOCUMENTARY EVIDENCE	Post Medieval
MCB31541	MCB31541	Bradley's Farm, Gorefield	MON	FARMHOUSE	DOCUMENTARY EVIDENCE	19th century
MCB31542	MCB31542	Bradley's Bridge, Newton-in-the-Isle	MON	BRIDGE	DOCUMENTARY EVIDENCE	19th century
MCB31550	MCB31550	Chestnut House, Tydd St Giles	MON	HOUSE; BARN	DOCUMENTARY EVIDENCE; DOCUMENTARY EVIDENCE	19th century
MCB31781	MCB31781	Primitive Methodist Chapel, Gorefield	MON	METHODIST CHAPEL; METHODIST CHAPEL	DOCUMENTARY EVIDENCE; DOCUMENTARY EVIDENCE	19th century to Late 20th century

PrefRef	MonUID	Name	RecordType	MonType	Evidence	Date
MCB31782	MCB31782	Honeyhill Farm, Gorefield	MON	OUTBUILDING; FARMHOUSE	DOCUMENTARY EVIDENCE; DOCUMENTARY EVIDENCE	19th century

10.5 EVENTS (HER) WITHIN 1KM OF THE EDGES OF THE PDA (CAMBRIDGESHIRE)

EvUID	RecordType	Name	Description	Date
ECB6664	EVT	Evaluation at Treading Windfarm Site, 2010	Between 21st and 23rd September 2010, Oxford Archaeology East were commissioned to carry out an archaeological evaluation and palaeoenvironmental survey across a 2km site east of the village of Sutton St Edmund, on the Cambridgeshire / Lincolnshire border. The investigation consisted of six trenches and hand augered boreholes within the footprint of proposed wind turbines and additional augerholes across the site to map the sediment deposits. Two undated ditches were recorded, one located within the topsoil, high up in the stratigraphic sequence within Trench 4 and the other at over -2.93m OD at the very base of Trench 3. The hand-auger cross section revealed a relatively continuous macro-stratigraphy to the deposits in this locality, with a change from a silt dominated horizon to a clay dominated horizon. This change potentially represents a marine regression from outer to inner/peri-estuarine conditions and would have increased the amount of available land for human settlement/utilisation, such as the recorded marine retreat in the Romano-British period, before a further period of marine transgression. A silt dominated unit identified towards the centre of the site may represent a topographic rise in the landscape, and would have formed a favourable location for human habitation/utilisation.	01/01/2010 - 31/12/2010

10.6 NON-DESIGNATED HER MONUMENTS WITHIN 1KM OF THE EDGES OF THE PDA (LINCOLNSHIRE)

PrefRef	MonUID	RecordType	Name	Description
MLI20513	MLI20513	MON	MEDIEVAL SETTLEMENT OF SUTTON ST EDMUND	THERE MAY HAVE BEEN MEDIEVAL SETTLEMENT HERE. THE ENTRIES FOR SUTTON ST EDMUND IN DOMESDAY BOOK HAVE BEEN INCLUDED WITH LUTTON. {1}
MLI22303	MLI22303	MON	SETTLEMENT SITE, GUANOCKGATE COTTAGE	At TF37581387, Roman hut sites and quantity of sherds, in two fields west of Willow Bank and NE of GuanoCKgate Cottages, Sutton St Edmund, discovered Sept 1947, and excavated by W Featherby. Traces of surface variation visible on APs, and apparently form part of extensive area of roddons, ditches, etc. {1}{2}{3}{4} The area under crop, showing very slight surface undulations. The farmer knows of no post 1947 archaeological finds.{1}
MLI22304	MLI22304	FS	RB POTTERY FOUND, NEXT TO THE VICARAGE	Whole Romano-British grey ware jar found in a field next to the vicarage. Drawn by H Healey.{1}
MLI22307	MLI22307	MON	POSSIBLE RB SETTLEMENT, STRAIGHT REACH	A group of angular ditched enclosures of a probable Romano-British settlement, seen on aerial photographs as cropmarks and soilmarks under plough, at Straight Reach, Sutton St Edmund. Second and/or third century Romano-British sherds were found from the west of the area, and are in Wisbech Museum. {1}{2}{3}{4}{5} The above sherds have been misplaced by Wisbech Museum. The indicated area, under crop, shows no surface evidence of occupation. {1}
MLI22309	MLI22309	MON	RB POTTERY	Roman sherds found at Sutton St Edmund. Probable duplication of 22303. {1}{2} Indicated site under crop. Farmer knows of no archaeological finds and Wisbech Museum have no record of the above material.{1}

PrefRef	MonUID	RecordType	Name	Description
MLI22312	MLI22312	BLD	ST EDMUND'S CHURCH, SUTTON ST EDMUND	ST EDMUND'S CHURCH WAS BUILT IN 1795, AND IS A REBUILDING. {1}{2}
MLI22330	MLI22330	MON	POSSIBLE RB SETTLEMENT, EDWARDS FARM	Cropmarks or soilmarks of probable Roman settlement, comprising a group of angular enclosures, and possible old watercourses, visible on AP at Edward's Farm, Tydd St Mary. RB sherds reported from concentration to north TF380119. {1}{2}{3}{4}{5} The indicated areas, under crop, no surface evidence of occupation. Wisbech Museum have no record of finds here.{1}
MLI22331	MLI22331	MON	ENCLOSURES, WILLOW BANK	Cropmarks or soilmarks of probable Roman settlement sites visible on AP at Edward's Farm, Tydd St Mary. {1}{2}{3}{4}{5} The indicated areas, under crop, show no surface evidence of occupation. Wisbech Museum have no record of finds here. {1} Willow Bank - group of very irregular enclosures, and old watercourses. {5}
MLI94514	MLI94514	MON	Headstone, Churchyard of St Edmund, Sutton St Edmund	Grade II listed headstone, dating from 1699. It is rectangular and is inscribed to 'John Gay The Yondes The 1 of Aug 1669'. For the full description of this listed building please refer to the National Heritage List for England. {1}
MLI97748	MLI97748	BLD	259, Broadgate Road, Chapel End, Sutton St Edmund	PRN 25675 The United Free Methodist chapel is indicated on the 1904 OS County Series map. It is now in use as a house (2010). It is not marked as a chapel on the 1982 OS 1:10000 map. It is built of red brick with darker red brick dressings and has a gabled roof with a slate covering and overhanging eaves resting on brackets. The three bay gabled front has a central round-arched doorway with paired doors, flanked by tall narrow round-arched windows, with coloured glass in the margin lights and stars in the angles. A large stone tablet above the door is obscured but a second smaller tablet above that is inscribed with a date of 1870. The side elevations have four bays of segmental-headed sash windows and dentil brick in the eaves cornices. A gabled annexe is attached to the north side.{1}{2}{3}
MLI124050	MLI124050	MON	(Fenwick House), Sutton St Edmund	Site of (Fenwick House), Sutton St Edmund. Demolished 19th century farmstead. Loose courtyard with three sides of the courtyard formed by working agricultural buildings. The farmhouse was detached from the main working complex. Isolated location. {1}
MLI124051	MLI124051	BLD	Guanockgate Cottage, Sutton St. Edmund	Guanockgate Cottage, Sutton St. Edmund. Partially extant 19th century farmstead. Regular courtyard of T plan. The farmhouse is detached from the main working complex. There has been a partial loss (less than 50%) of traditional buildings. Isolated location. Large modern sheds are located on the site. {1}
MLI124052	MLI124052	MON	Unnamed farmstead, Sutton St. Edmund	Site of a farmstead, Sutton St. Edmund. Demolished 19th century farmstead. Regular courtyard of L plan. The farmhouse was detached from the main working complex. Isolated location. {1}
MLI124053	MLI124053	BLD	Unnamed farmstead, Sutton St. Edmund	Unnamed farmstead, Sutton St. Edmund. Extant 19th century farmstead. Row with additional detached elements. The farmhouse is detached from the main working complex. Isolated location. {1}
MLI124062	MLI124062	BLD	Chestnut Farm, Sutton St. Edmund	Chestnut Farm, Sutton St. Edmund. Partially extant 19th century farmstead. Regular courtyard of E plan. The farmhouse is detached from the main working complex. There has been a partial loss (less than 50%) of traditional buildings. Isolated location. Large modern sheds are located on the site. {1}

PrefRef	MonUID	RecordType	Name	Description
MLI124064	MLI124064	BLD	Guanock Farm, Sutton St. Edmund	Guanock Farm, Sutton St. Edmund. Partially extant 19th century farmstead. Regular courtyard with L-plan range plus detached buildings to the third side of the yard. The farmhouse is detached from the main working complex. There has been a partial loss (less than 50%) of traditional buildings. Isolated location. Large modern sheds are located to the side of the site. {1}
MLI124065	MLI124065	BLD	Chestnut Farm, Sutton St. Edmund	Chestnut Farm, Sutton St. Edmund. Extant 19th century farmstead. Regular courtyard with L-plan range plus detached buildings to the third side of the yard. The farmhouse is detached from the main working complex. Isolated location. Large modern sheds are located to the side of the site. {1}
MLI124066	MLI124066	MON	Unnamed farmstead, Sutton St. Edmund	Unnamed farmstead, Sutton St. Edmund. Redeveloped 19th century farmstead. Regular courtyard of U plan. The farmhouse was detached from the main working complex. Isolated location. Large modern sheds are located on the site. {1}
MLI124067	MLI124067	BLD	King Edwards Farm (Edwards's Farm), Sutton St Edmund	King Edwards Farm (Edwards's Farm), Sutton St Edmund. Partially extant 19th century farmstead. Regular courtyard with L-plan range plus detached buildings to the fourth side of the yard. The farmhouse is detached from the main working complex. There has been a partial loss (less than 50%) of traditional buildings. Isolated location. Large modern sheds are located to the side of the site. {1}
MLI125317	MLI125317	MON	Sutton St Edmund War Memorial	Sutton St Edmund war memorial is located on the junction of Cross Road and Broadgate. Unveiled in 1920, the memorial is a double plinth pedestal surmounted with an ornate cap and cross monument, surrounded by iron railings. It commemorates the fallen of the First World War and the Second World War. {1}

10.7 EVENTS (HER) WITHIN 1KM OF THE EDGES OF THE PDA (LINCOLNSHIRE)

EvUID	RecordType	Name	Description
ELI107	EVT	Excavation of Roman settlement, Guanockgate Cottage	Roman settlement site was excavated at Guanockgate cottage. {1}
ELI1418	EVT	Evaluation at Broadgate Road, Sutton St. Edmund	Trial trenching prior to the development of a private residential building consisted of three trenches. No archaeological deposits were identified. The majority of the area excavated had been previously used as a landfill site, probably in the 1950s/ 1960s. {1} {2}
ELI2757	EVT	Plot 6 Cross Road	A watching brief was carried out at the proposed development site of a single storey dwelling, no archaeological evidence was recorded. {1}{2}
ELI7869	EVT	Watching brief on land at Ashlea Farm, Guanockgate, Sutton St Edmund	A watching brief was carried out during groundworks associated with the construction of a new poultry house and associated access and drainage. No archaeological features were encountered. {1}{2}
ELI9034	EVT	Archaeological Watching Brief at Bowmore House, Broadgate, Sutton St Edmund	A watching brief was undertaken during ground works for the erection of a dwelling off Broadgate, Sutton St Edmund. A modern land drain, three fragments of fired clay and a fragment of animal bone were found. {1}{2}
ELI10361	EVS	Site visit to nonconformist chapel, Broadgate Road, Chapel End, Sutton St Edmund	The nonconformist chapel was visited as part of a survey of nonconformist chapels in South Holland District. {1}
ELI10939	EVT	Evaluation at Treading Wind Farm Site, Sutton St Edmund	Six trial trenches were excavated on the site of the proposed Treading Wind Farm, Sutton St Edmund. Two undated ditches were revealed, in the Cambridgeshire part of the site - the majority of the site is outside Lincolnshire. {1}{2}
ELI10940	EVS	Auger Survey at Treading Wind Farm Site, Sutton St Edmund	An auger survey was undertaken on the site of the proposed Treading Wind Farm, Sutton St Edmund. The majority of the site is outside Lincolnshire. {1}{2}

11 APPENDIX 2 - METHODOLOGY FOR ASSESSING POTENTIAL IMPACT/S ON HERITAGE ASSETS

11.1 INTRODUCTION

- 11.1.1 The primary aim of any assessment is to identify the heritage assets within a development site, and to provide a report on them which should enable the reader to understand their historical context, offer guidance on their level of value/importance, identify the significance of impact that the development might have upon them, and recommend mitigation to limit the impact of the development on them.

11.2 TERMINOLOGY

- 11.2.1 In summary, the key terms are:

- *Value*– describes the relative value/sensitivity of a heritage asset. This varies from not known too Very High. This is also referred to as *Sensitivity* in some instances.
- *Impact*– Describes the potential impact upon a heritage asset. This varies from no change to Major and each of these can be Adverse or Beneficial impacts. This is also referred to as *Change* in some instances.
- *Effect*– A significance matrix combines Value and Impact in order to describe the potential *effect* of the proposals upon a heritage asset.
- *Harm* - Proposed development affecting a heritage asset may have no impact on its significance or may enhance its significance and therefore cause no harm to the heritage asset. Where potential harm to designated heritage assets is identified, it needs to be categorised as either total loss, substantial harm, less than substantial harm (within which there is a range) or no harm. This is in order to identify which policies in the National Planning Policy Framework (paragraphs 199-202) apply.

11.3 IMPACT

- 11.3.1 The development may impact a heritage asset in one of several ways.
- 11.3.2 Direct Impact: A direct impact upon a heritage asset involves the physical alteration or destruction of the latter as a result of the construction, operation or decommissioning of a development. Direct impacts could include the site clearance, reduction of levels, foundations, services, access roads etc.
- 11.3.3 Indirect Impact: Sometimes known as a secondary impact. An indirect impact arises where the connection between the development and the

asset is remote or unpredictable and can affect an asset lying outside the development site. Frequently associated with 'setting' impact/s, an indirect impact can be physical or visual, and in certain circumstances noise, smell, dust and other sensory experiences might also be considered under this heading. Another topic which can come up under this is hydrology if a certain asset is sensitive to change in the water table for example.

11.3.4 Cumulative Impact: A cumulative impact may arise from the multiple effects of the same development on a single asset, or the multiple effects of the development and of other developments on an asset.

11.3.5 It should be noted that the terms impact and effect are frequently used interchangeably.

11.4 DESCRIBING POTENTIAL EFFECTS

11.4.1 In order to use consistent terminology, in a recognised way, our approach to describing effect/s is based on the Design Manual for Roads and Bridges (DMRB), LA 10430F²¹. The DMRB is a widely used scalar approach to assessing and describing potential impact/s. One of the useful characteristics it has is to remind us of the need to consider development as having the potential to have a negative, positive or neutral impact.

11.4.2 When we are working on a Renewable Energy Scheme, we also follow the guidance in: Historic England 2021 Commercial renewable energy development and the historic environment Historic England Advice Note 15.²²

11.4.3 The relative value (importance) of a heritage asset in Table 8 is based upon Table 3.2N Environmental value (sensitivity) and descriptions.

Table 8: Factors for Assessing the Value of Heritage Assets

Value (sensitivity) of receptor / resource	Typical description
Very High	Very high importance and rarity, international scale and very limited potential for substitution: <i>World Heritage Sites (including those nominated).</i> <i>Assets of acknowledged international importance.</i> <i>Assets that can contribute significantly to acknowledged international research objectives.</i>

²¹ Design Manual for Roads and Bridges. LA 104 Environmental assessment and monitoring (formerly HA 205/08, HD 48/08, IAN 125/15, and IAN 133/10). Revised August 2020

²² Historic England 2021 Commercial renewable energy development and the historic environment Historic England Advice Note 15. Swindon. Historic England. <https://historicengland.org.uk/images-books/publications/commercial-renewable-energy-development-historic-environment-advice-note-15/heag302-commercial-renewable-energy-development-historic-environment/>

Value (sensitivity) of receptor / resource	Typical description
High	High importance and rarity, national scale, and limited potential for substitution: <i>Scheduled Monuments (including those proposed).</i> <i>Non-designated monuments of which could potentially be worthy of scheduling.</i> <i>Listed Buildings.</i> <i>Assets that can contribute significantly to acknowledged national research objectives.</i>
Medium	Medium or high importance and rarity, regional scale, limited potential for substitution: <i>Conservation Areas.</i> <i>Designated or non-designated assets that contribute to regional research objectives.</i>
Low	Low or medium importance and rarity, local scale: <i>Non-designated assets of local importance.</i> <i>Assets compromised by poor preservation and/or poor survival of contextual associations.</i> <i>Assets of limited value, but with the potential to contribute to local research objectives.</i>
Negligible	Very low importance and rarity, local scale: <i>Assets with very little or no surviving heritage interest.</i>
Unknown	The importance of the resource has not been ascertained.

11.4.4 Factors that need to be considered in assessing the magnitude of the impact are given in Table 9, based on the LA 104 (2020, Table 3.4N Magnitude of impact and typical descriptions), but in modified form, for each historic environment sub-topic (archaeological remains, historic buildings, historic landscapes etc) has its own set of factors, which are set out in great detail in the Design Manual.

Table 9: Magnitude of impact and typical descriptions

Magnitude of impact (change)		Typical description
Major	Adverse	Loss of resource and/or quality and integrity of resource; severe damage to key characteristics, features or elements.
	Beneficial	Large scale or major improvement of resource quality; extensive restoration; major improvement of attribute quality.
Moderate	Adverse	Loss of resource, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
	Beneficial	Benefit to, or addition of, key characteristics, features or elements; improvement of attribute quality.
Minor	Adverse	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements.
	Beneficial	Minor benefit to, or addition of, one (maybe more) key characteristics, features or elements; some beneficial impact on attribute or a reduced risk of negative impact occurring.
Negligible	Adverse	Very minor loss or detrimental alteration to one or more characteristics, features or elements.
	Beneficial	Very minor benefit to or positive addition of one or more characteristics, features or elements.
No change		No loss or alteration of characteristics, features or elements; no observable impact in either direction.

- 11.4.5 The significance of the impact of a development on a particular heritage asset is then established from the matrix (Table 10) also taken from the LA 104 (2020, Table 3.8.1).

Table 10: Significance Matrix

	Magnitude of impact (degree of change)					
	Significance of Effect Category Matrix	No change	Negligible	Minor	Moderate	Major
Environmental value (sensitivity)	Very high	Neutral	Slight	Moderate or large	Large or very large	Very large
	High	Neutral	Slight	Slight or moderate	Moderate or large	Large or very large
	Medium	Neutral	Neutral or slight	Slight	Moderate	Moderate or large
	Low	Neutral	Neutral or slight	Neutral or slight	Slight	Slight or moderate
	Negligible	Neutral	Neutral	Neutral or slight	Neutral or slight	Slight
Note: The 'Significance of Effect Categories' can be either Very Large, Large, Moderate, Slight or Neutral						

- 11.4.6 The DMRB also contains a hierarchical list of Significance of Effect Categories. These are used in the Matrix of Table 10. We note the list describing this scale of Effect does not make a judgement on whether total loss, substantial harm, less than substantial harm or no harm will be caused. In terms of cultural heritage it is these terms which must be used in order to equate the impact assessment with the NPPF, hence our use of the Sliding Scale of Harm below.

- 11.4.7 Therefore, our assessment text will use these Significance of Effect Categories and then go on to describe what, in our professional opinion, this means in terms of the Sliding Scale of Harm.

11.5 THE SLIDING SCALE OF HARM

- 11.5.1 There is a recognition, by some heritage professionals, that “significant impacts derive from one spectrum (visible in the methodology of the Design Manual for Roads and Bridges, published by Highways England) and that harm is ruled by another spectrum - and that the two do not necessarily align with each

other”²³.

11.5.2 Therefore, we note that a major adverse change on a high sensitivity asset would result in a large or very large effect in terms of the DMRB methodology. However, that does not necessarily equate to substantial harm. Conversely, a minor adverse change on a Low sensitivity asset may result in a slight effect. However, that does not necessarily equate to less than substantial harm. It is the specific and relative sensitivity to change of each heritage asset that must be considered when equating the impact assessment with harm.

11.5.3 Professional judgement, with reference to key planning decision/s is used to equate the results of the assessment process to the NPPF. Therefore, we note that even a ‘slight’ or ‘negligible’ effect is considered to fall within less than substantial harm²⁴. We also note that there is, increasingly, an acceptance of the notion of a scale within less than substantial harm. A useful example of a Planning Decision reflecting this scale is provided by the following text:

6.28 As generally agreed, the less than substantial category comprises a sliding scale, spectrum or gradient from (at the bottom) the merest trace of harm, to (at the top) a very significant degree of harm a touch below what would fall within the substantial category of harm.²⁵

11.5.4 In order to visualise this, we refer to the following Graphic (Table 14) as a means of understanding the Sliding Scale of Harm and allowing others to appreciate how we are understanding it.

Table 11: Sliding Scale of Harm in 5 Categories

Total Loss	
Substantial Harm	
Less than Substantial Harm	Major
	Moderate
	Minor
No Harm	

²³ 2019. Edis, J. The Harm Paradox: An Essay on Harm Affecting Heritage Assets.

²⁴ This in line with the judgement in *R.(James Hall and Company Limited) v City of Bradford Metropolitan District Council and Co-Operative Group Limited* [2019] EWHC 2899 (Admin). Section 34 of which clarified three categories of harm.

²⁵ This quoting from paragraph 6.28 of the judgement of LAND AT CITROEN SITE, CAPITAL INTERCHANGE WAY, BRENTFORD TW8 0EX APPLICATION REF: GLA/4279 & 01508/A/P6

12 APPENDIX 3 – PLANNING FRAMEWORK

12.1 NATIONAL PLANNING POLICY FRAMEWORK

- 12.1.1 The significance of a heritage asset is defined in the National Planning Policy Framework (NPPF) 2021 as being made up of four main constituents, architectural interest, historical interest, archaeological interest and artistic interest. The setting of the heritage asset can also contribute to its significance. Setting is defined in the NPPF (Glossary) as follows:

“The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.”

- 12.1.2 Historic England advocates in The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning: 3 (Revised December 2017) that a stepped approach should be taken to the assessment of impacts on setting and significance. This guidance, which was originally issued by English Heritage in 2011, is generally known as GPA3. It should be noted that the advice states in paragraph 1 that it does not constitute a prescriptive methodology.
- 12.1.3 The most recent authority relating to the concept of the setting of heritage assets is to be found in the case known as Catesby Estates²⁶, which in essence confirms that the setting of heritage assets is not confined to visual matters or views. Abstract and historical considerations are part of setting, and while it is reasonable to consider the extent of setting there is usually no fixed boundary to it.
- 12.1.4 The assessments of setting and significance (and the assessments of impact) are normally made with primary reference to the four main elements of special significance identified in the NPPF.
- 12.1.5 The NPPF requires any impact involving harm to the significance of a designated heritage asset to be considered in terms of either “substantial harm” or “less than substantial harm” as described in paragraphs 199 to 202 of that document. Paragraph 199 states that:

“When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.”

²⁶ Catesby Estates Limited v Steer [2018] EWCA Civ. 1697.

12.1.6 Paragraph 200 of the NPPF then states that:

“Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

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

b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.”

12.1.7 Paragraph 201 of the NPPF then goes on to describe the balancing exercise in cases where there is less than substantial harm as follows:

“Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.”

12.1.8 Paragraph 203 of the NPPF describes the approach to be taken towards non-designated heritage assets, as follows:

“The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.”

12.1.9 Footnote 68 of the NPPF, which is attached to paragraph 200, states that “Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.” Further guidance on non-designated heritage assets is contained in National Planning Practice Guidance, as revised in July 2019, notably paragraph 040 which states that “Irrespective of how they are identified, it is important that the decisions to identify them as non-designated heritage assets are based on sound evidence”, and paragraph 041 which in full reads as follows:

“What are non-designated heritage assets of archaeological interest and how important are they?”

12.1.10 The National Planning Policy Framework identifies two categories of non-designated heritage assets of archaeological interest:

12.1.11 (1) Those that are demonstrably of equivalent significance to scheduled monuments and are therefore considered subject to the same policies as those for designated heritage assets (National Planning Policy Framework

footnote 63). They are of 3 types:

those that have yet to be formally assessed for designation.

those that have been assessed as being nationally important and therefore, capable of designation, but which the Secretary of State for Digital, Culture, Media and Sport has exercised his/her discretion not to designate.

those that are incapable of being designated by virtue of being outside the scope of the Ancient Monuments and Archaeological Areas Act 1979 because of their physical nature.

12.1.12 The reason why many nationally important monuments are not scheduled is set out in the document Scheduled Monuments, published by the Department for Digital, Culture, Media and Sport. Information on location and significance of such assets is found in the same way as for all heritage assets. Judging whether sites fall into this category may be assisted by reference to the criteria for scheduling monuments. Further information on scheduled monuments can be found on the Department for Digital, Culture, Media and Sport's website.

12.1.13 (2) Other non-designated heritage assets of archaeological interest. By comparison this is a much larger category of lesser heritage significance, although still subject to the conservation objective. On occasion, the understanding of a site may change following assessment and evaluation prior to a planning decision and move it from this category to the first.

12.1.14 Where an asset is thought to have archaeological interest, the potential knowledge which may be unlocked by investigation may be harmed even by minor disturbance, because the context in which archaeological evidence is found is crucial to furthering understanding.

12.1.15 Decision-making regarding such assets requires a proportionate response by local planning authorities. Where an initial assessment indicates that the site on which development is proposed includes or has potential to include heritage assets with archaeological interest, applicants should be required to submit an appropriate desk-based assessment and, where necessary, a field evaluation. However, it is estimated that following the initial assessment of archaeological interest only a small proportion – around 3% – of all planning applications justify a requirement for detailed assessment.

12.1.16 Paragraph 205 of the NPPF also makes provision for the recording of heritage assets that are likely to be demolished or destroyed by development.

12.1.17 Paragraphs 206 and 207 of the NPPF advise on development affecting conservation areas and World Heritage Sites.

12.2 LEGISLATION

- 12.2.1 Legislation affecting scheduled monuments is contained the Ancient Monuments and Archaeological Areas Act 1979. The Act details the designation, care and management of scheduled monuments, as well as the procedures needed to obtain permission for works which would directly impact upon their preservation.
- 12.2.2 The decision maker is required by section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to have special regard to the desirability of preserving a listed building or its setting or any features of special architectural or historic interest which it possesses. The decision maker must also give considerable importance and weight to the desirability of preserving the setting of the listed building²⁷. For present purposes, one of the meanings of preservation, as it is meant in section 66(1) of the Act, is to keep safe from harm²⁸. There is a strong presumption against the grant of permission for development that would harm the setting of the listed building, though the presumption can be overcome in certain circumstances.
- 12.2.3 The decision maker is required by section 72(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to pay special attention to the desirability of preserving or enhancing the character or appearance of a conservation area. The decision maker must also give considerable importance and weight to the desirability of those objectives²⁹. For present purposes, one of the meanings of preservation, as it is meant in section 66(1) of the Act, is to keep safe from harm³⁰. There is a strong presumption against the grant of permission for development that would harm the character and appearance of the conservation area, though the presumption can be overcome in certain circumstances.
- 12.2.4 The decision maker is required by section 16(2) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to have special regard to the desirability of preserving a listed building or its setting or any features of special architectural or historic interest which it possesses. The decision maker must also give considerable importance and weight to the desirability of preserving the setting of the listed building³¹. For present purposes, one of the meanings of preservation, as it is meant in section 66(1) of the Act, is to keep safe from harm³². There is a strong presumption against the grant of permission for development that would harm the setting of the listed building, though the presumption can be overcome in certain circumstances. In this instance, Heritage Setting is

²⁷ Barnwell Manor Wind Energy Limited v East Northamptonshire District Council and others [2014] EWCA Civ. 137.

²⁸ South Lakeland v Secretary of State for the Environment [1992] 2 AC 141.

²⁹ Barnwell Manor Wind Energy Limited v East Northamptonshire District Council and others [2014] EWCA Civ. 137.

³⁰ South Lakeland v Secretary of State for the Environment [1992] 2 AC 141.

³¹ Barnwell Manor Wind Energy Limited v East Northamptonshire District Council and others [2014] EWCA Civ. 137.

³² South Lakeland v Secretary of State for the Environment [1992] 2 AC 141

covered by a separate document and is not commented upon further here.

12.3 LOCAL PLANNING POLICY – SOUTH HOLLAND DISTRICT COUNCIL

- 12.3.1 The South Holland District Council website (Planning Section) links to the South East Lincolnshire Local Plan 2011-36 (<http://www.southeastlincslocalplan.org/adopted-plan/> - accessed 15-10-2022). The relevant part for this assessment is Policy 29: The Historic Environment. The following text is drawn from that Policy.

Policy 29: The Historic Environment

Distinctive elements of the South East Lincolnshire historic environment will be conserved and, where appropriate, enhanced. Opportunities to identify a heritage asset's contribution to the economy, tourism, education and the local community will be utilised including:

- *The historic archaeological and drainage landscape of the Fens;*
- *The distinctive character of South East Lincolnshire market towns and villages;*
- *The dominance within the landscape of church towers, spires and historic windmills;*

To respect the historical legacy, varied character and appearance of South East Lincolnshire's historic environment, development proposals will conserve and enhance the character and appearance of designated and non-designated heritage assets, such as important known archaeology or that found during development, historic buildings, conservation areas, scheduled monuments, street patterns, streetscapes, landscapes, parks (including Registered Parks and Gardens), river frontages, structures and their settings through high-quality sensitive design.

A. Listed Buildings

1. Proposals to change the use of a Listed Building or to alter or extend such a building will be granted where the Local Planning Authority is satisfied that the proposal is in the interest of the building's preservation and does not involve activities or alterations prejudicial to the special architectural or historic interest of the Listed Building or its setting.

2. Proposals involving the demolition of Listed Buildings will not be permitted, unless in an exceptional case, or wholly exceptional case (depending on their grade) where a clear and convincing justification is made in line with national policy⁹.

3. Proposals that affect the setting of a Listed Building will be supported where they preserve or better reveal the significance of the Listed Building.

B. Conservation Areas

Proposals within, affecting the setting of, or affecting views into or out of, a Conservation Area should preserve (and enhance or reinforce, as appropriate) features that contribute positively to the area's character, appearance and setting. Proposals should:

- 1. Retain buildings/groups of buildings, existing street patterns, historic building lines and ground surfaces;*
- 2. Retain architectural details that contribute to the character and appearance of the area;*
- 3. Where relevant and practical, remove features which are incompatible with the Conservation Area;*
- 4. Retain and reinforce local distinctiveness with reference to height, massing, scale, form, materials and plot widths of the existing built environment;*
- 5. Assess, and mitigate against, any negative impact the proposal might have on the townscape, roofscape, skyline and landscape;*
- 6. Aim to protect trees, or where losses are proposed, demonstrate how such losses are appropriately mitigated against.*

C. Archaeology and Scheduled Monuments

- 1. Proposals that affect archaeological remains, whether known or potential, designated or non-designated, should take every reasonable step to protect and, where possible, enhance their significance. 2. Planning applications for such development should be accompanied by an appropriate and proportionate assessment to understand the potential for and significance of remains, and the impact of development upon them.*
- 3. If initial assessment does not provide sufficient information, developers will be required to undertake field evaluation in advance of determination of the application. This may include a range of techniques for both intrusive and non-intrusive evaluation, as appropriate to the site.*
- 4. Wherever possible and appropriate, mitigation strategies should ensure the preservation of archaeological remains in-situ. Where this is either not possible or not desirable, provision must be made for preservation by record according to an agreed written scheme of investigation submitted by the developer, undertaken by a suitably qualified person, and approved by the Local Planning Authority.*
- 5. Any work undertaken as part of the planning process must be appropriately archived in a way agreed with the Local Planning Authority.*

D. Registered Parks and Gardens

Proposals that cause substantial harm to a Registered Park or Garden, or its setting will not be permitted, unless in an exceptional case, where a clear and convincing justification is made in line with national policy.

E. Enabling Development

Proposals for enabling development adjacent to, or within the setting of, a heritage asset and used to secure the future of a heritage asset through repair, conservation, restoration or enhancement will only be permitted where:-

- 1. it will not materially harm the heritage values of a heritage asset or its setting;*
- 2. it avoids detrimental fragmentation of management of the heritage asset:*
- 3. it will secure the long-term future of the place and, where applicable, its continued use for a sympathetic purpose;*
- 4. it is necessary to resolve problems arising from the inherent needs of the heritage asset rather than the circumstances of the present owner or the purchase price paid*
- 5. sufficient subsidy is not available from any other source;*
- 6. it is demonstrated that the amount of enabling development is the minimum necessary to secure the future of the heritage asset and that its form minimises harm to other public interests; and*
- 7. the public benefit of securing the future of the heritage asset through such enabling development decisively outweighs the dis-benefits of breaching other policies within the Local Plan and national policy*

F. Development Proposals

Where a development proposal would affect the significance of a heritage asset (whether designated or non-designated), including any contribution made to its setting, it should be informed by proportionate historic environment assessments⁷ and evaluations (such as heritage impact assessments, desk-based appraisals, field evaluation and historic building reports) that:

- 1. identify all heritage assets likely to be affected by the proposal;*
- 2. explain the nature and degree of any effect on elements that contribute to their significance and demonstrating how, in order of preference, any harm will be avoided, minimised or mitigated;*
- 3. provide a clear explanation and justification for the proposal in order for the harm to be weighed against public benefits; and*
- 4. demonstrate that all reasonable efforts have been made to sustain the existing use, find new uses, or mitigate the extent of the harm to the significance of the asset; and whether the works proposed are the minimum required to secure the long term use of the asset.*

12.4 LOCAL PLANNING POLICY – FENLAND DISTRICT COUNCIL

- 12.4.1 The Fenland District Council website (Planning Section) links to the Fenland Local Plan (adopted 2014) (<https://fenland.gov.uk/fenlandlocalplan> - accessed 15-10-2022). The relevant part for this assessment is Policy LP18: The Historic Environment.

12.4.2 The following text is drawn from that Policy.

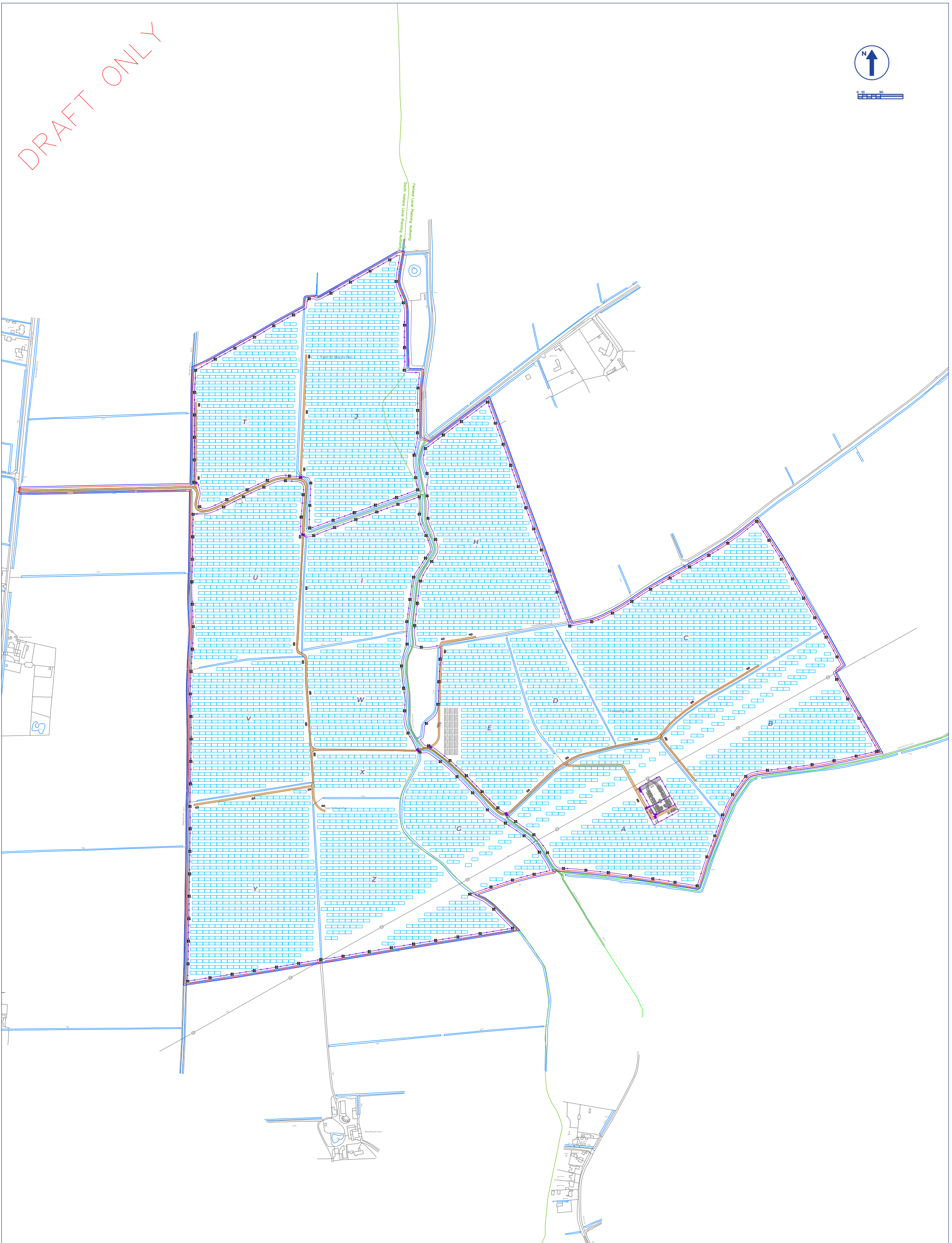
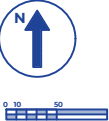
Policy LP18 – The Historic Environment

The Council will protect, conserve and seek opportunities to enhance the historic environment throughout Fenland. This will be achieved through

- *the consideration of applications for planning permission and listed building consent;*
- *the use of planning obligations to secure the enhancement of the significance of any heritage asset, where development might impact on that significance (including impact on setting);*
- *keeping up-to-date and implementing conservation area appraisals and management plans, and using such up to date information in the determination of planning applications;*
- *making use of Article 4 Directions, where appropriate, to prevent unsympathetic alterations to buildings in conservation areas;*
- *the preparation and maintenance of a list of buildings and other heritage assets of local importance;*
- *steps to reduce the number of heritage assets in Fenland on English Heritage's Heritage at Risk Register; and*  *the use of grant schemes, as resources permit, to safeguard heritage assets at risk and encourage sympathetic maintenance and restoration of listed buildings and historic shop fronts. All development proposals that would affect any designated or undesignated heritage asset will be required to: (a) describe and assess the significance of the asset and/or its setting to determine its architectural, historic or archaeological interest; and (b) identify the impact of the proposed works on the special character of the asset; and (c) provide a clear justification for the works, especially if these would harm the asset or its setting, so that the harm can be weighed against public benefits. The level of detail required should be proportionate to the asset's importance and sufficient to understand the potential impact of the proposal on its significance and/or setting. All development proposals that would affect a heritage asset will be determined in accordance with local policy in this Plan and national policy in the National Planning Policy Framework. Where permission is granted, a programme of work and/or the implementation of any necessary mitigation measures may be secured by condition or as part of a planning obligation in order to minimise any adverse impact.*

13 APPENDIX 4 – DEVELOPMENT PROPOSALS

DRAFT ONLY

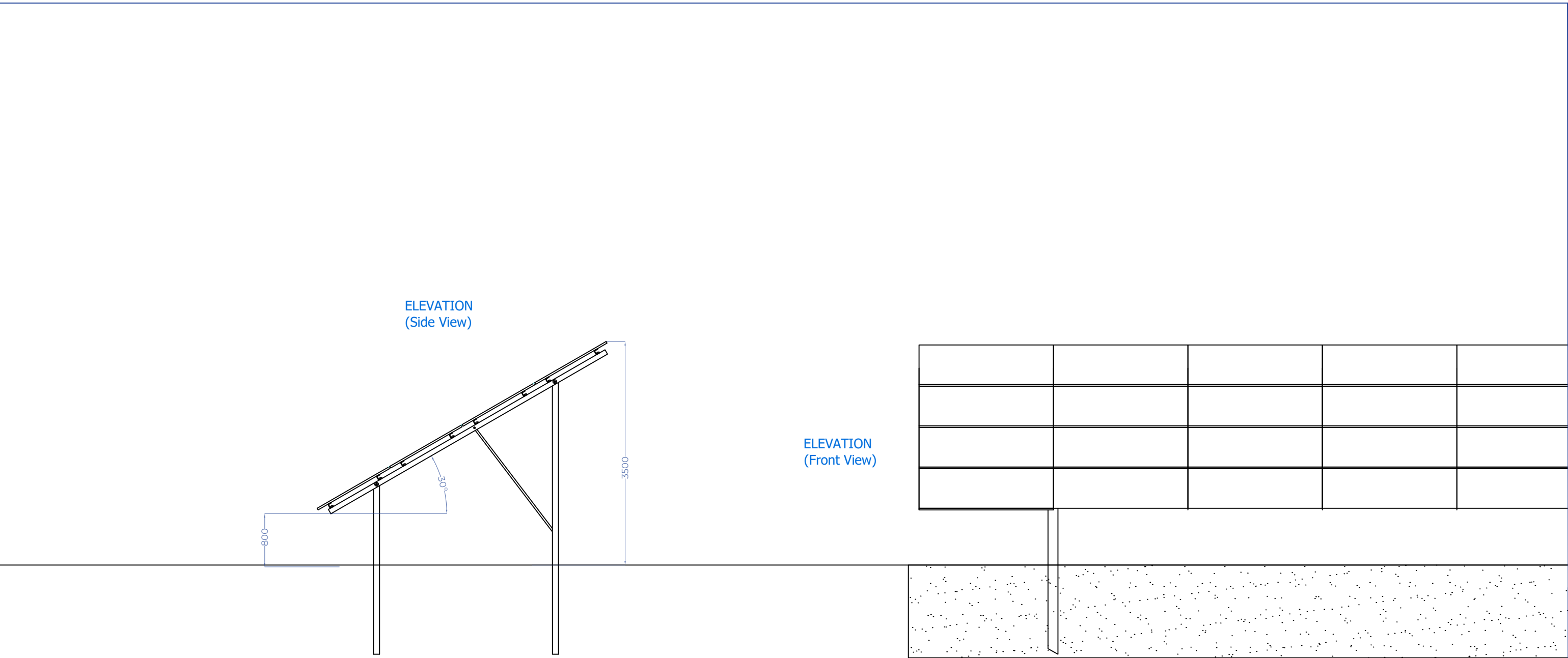


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		Date: 27/09/2022
PACE PATHFINDER CLEAN ENERGY		
Filename:	UKZ157.dwg	

Fence	
PRoW (footpath)	
PRoW (bridleway)	
PRoW (byway)	
Inverter Cabin:	
Battery Storage Container:	

Key	
Area available for solar panels	
Area within land ownership	
Solar array	
CCTV Pole	

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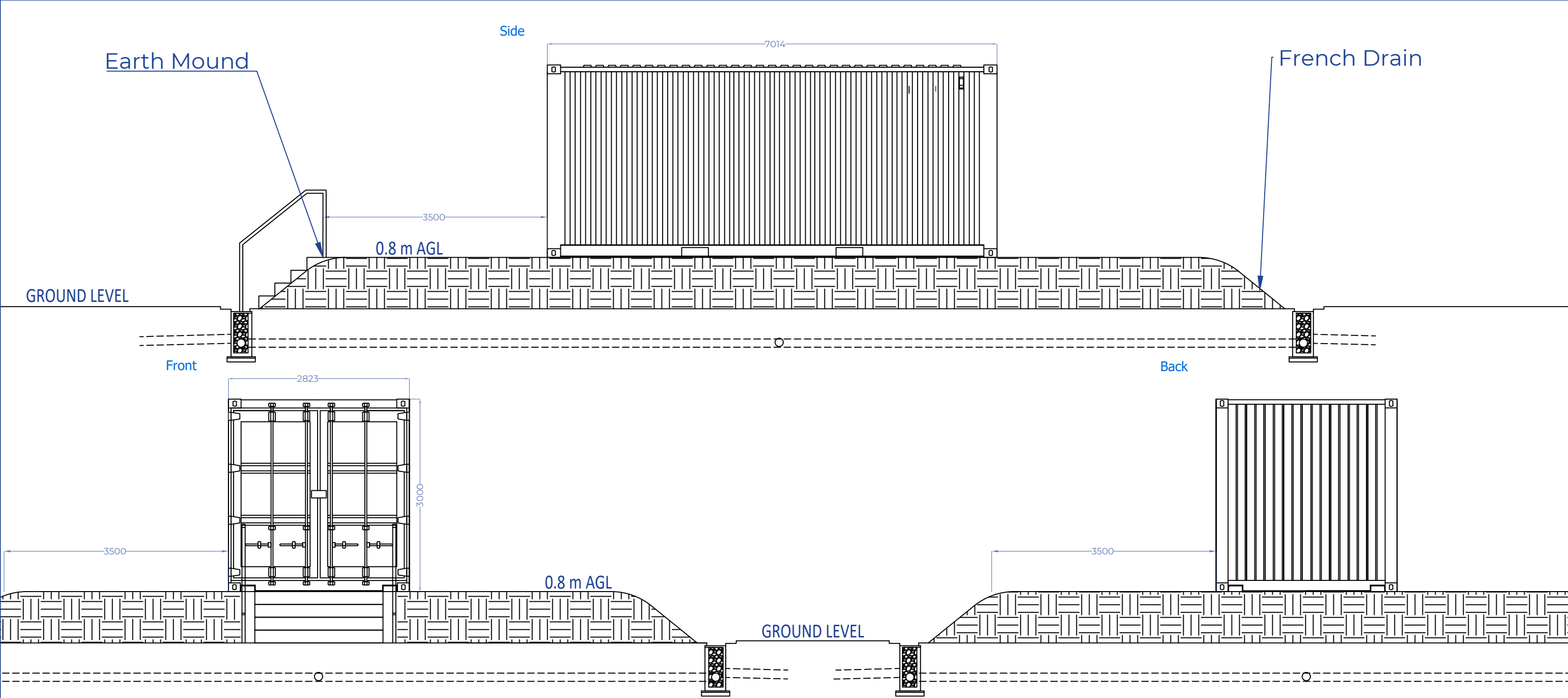
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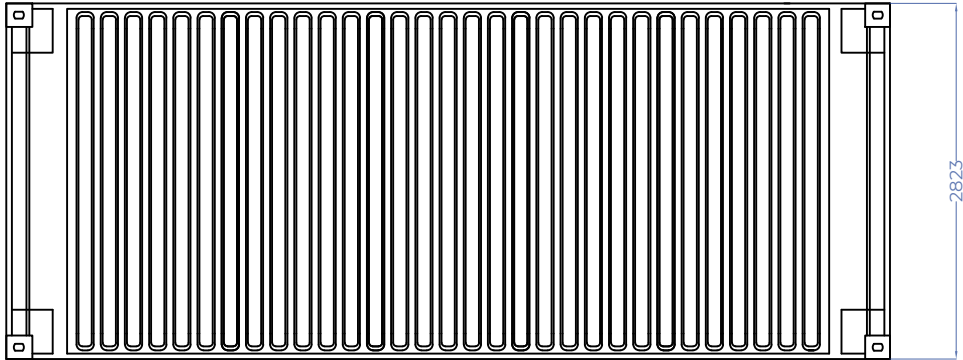
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		SCALE	1:60

ALL DIMENSIONS IN MILLIMETERS AND ARE APPROXIMATE

FILE NAME UKZ015_PACE UK PV Drawings.dwg



Plan



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TITLE: UKZ015_04 Inverter Cabin

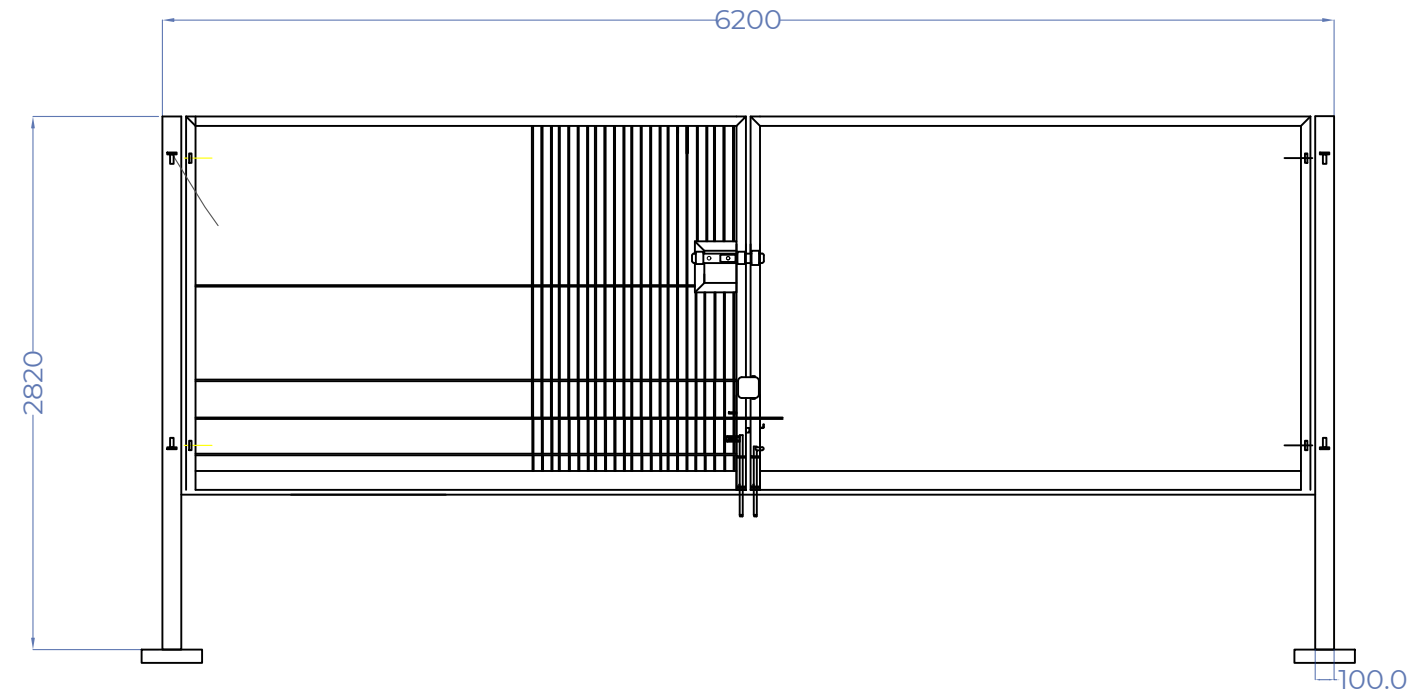
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ALL DIMENSIONS IN MILLIMETERS AND ARE APPROXIMATE

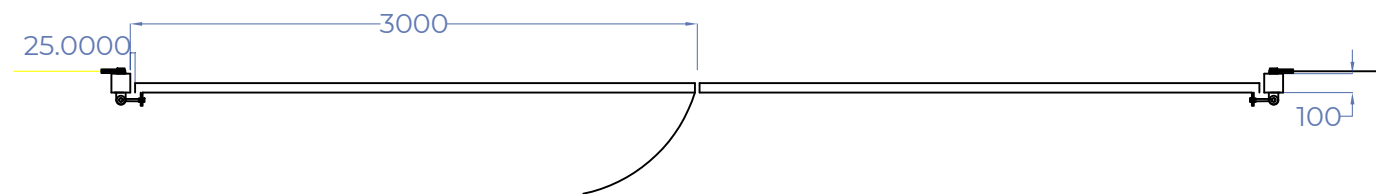
FILE NAME UKZ015_PACE UK PV Drawing.dwg

Note:
The Inverter Station is a
steel structure, Colour: TBC

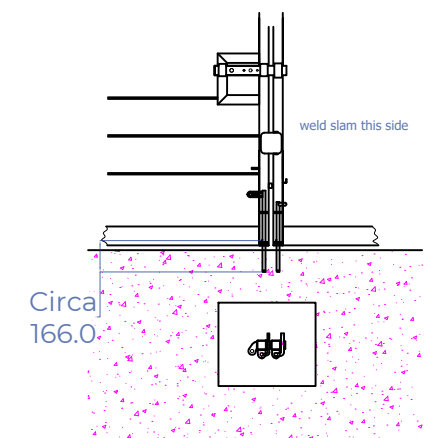
SIDE ELEVATION



PLAN ELEVATION



ENLARGED VIEW ON
DROP BOLT ASSY



DOUBLE LEAF GATE - 2.43M HIGH x 3.0M WIDE

FINISH : GALV & PPC RAL6005

Note:
Internal wire mesh spacings may vary from site to site, based on specific product specification however overall infill panel makeup and dimesions as per detail contained within this General Arrangement Drawing.



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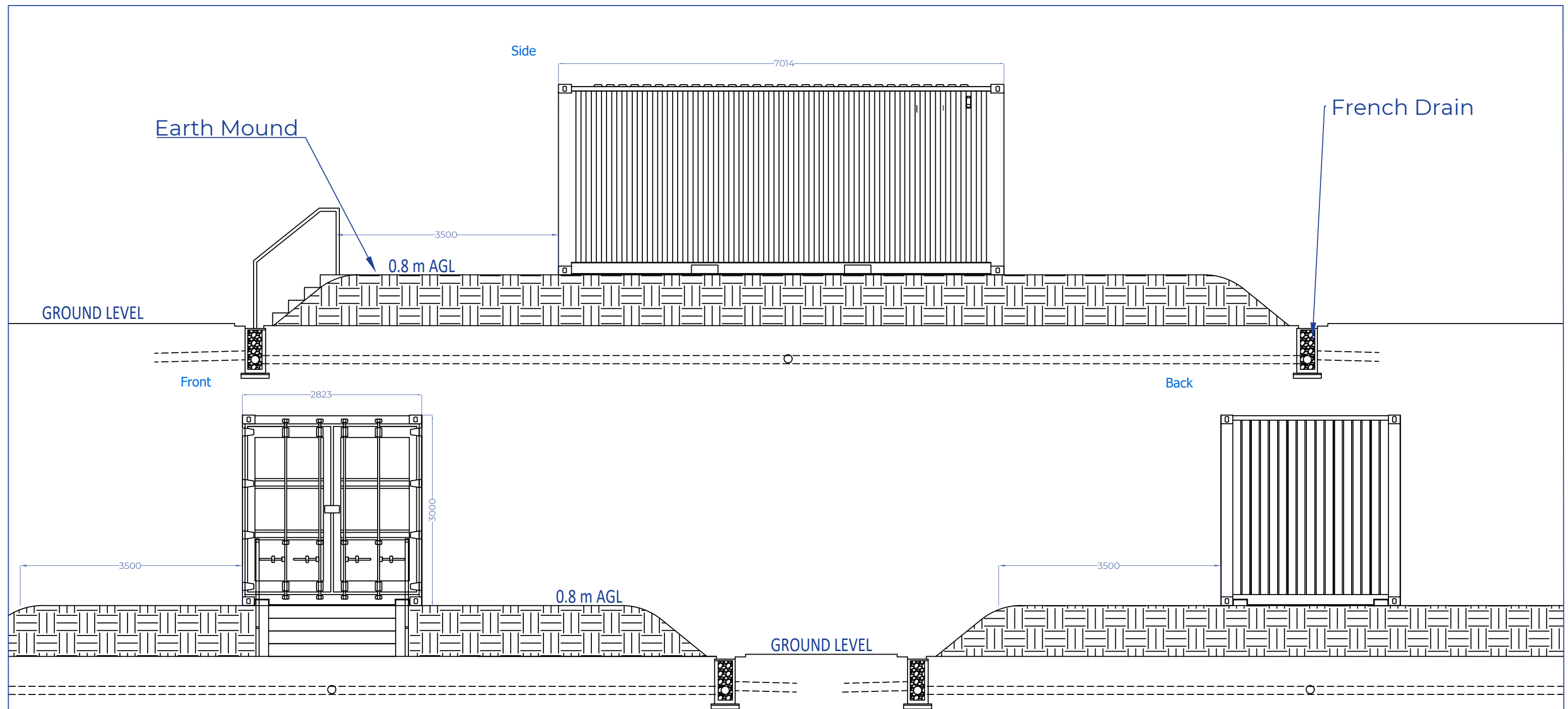
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TITLE: UKZ015_05 Double Gate

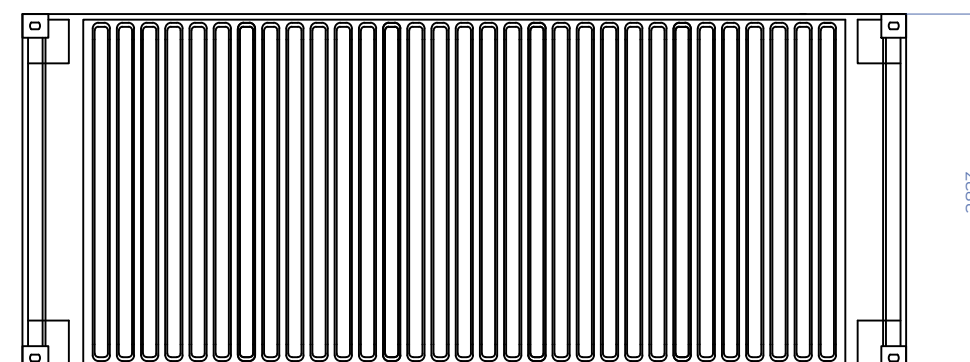
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FILE NAME | UKZ015_PACE UK PV Drawings.dwg



Plan



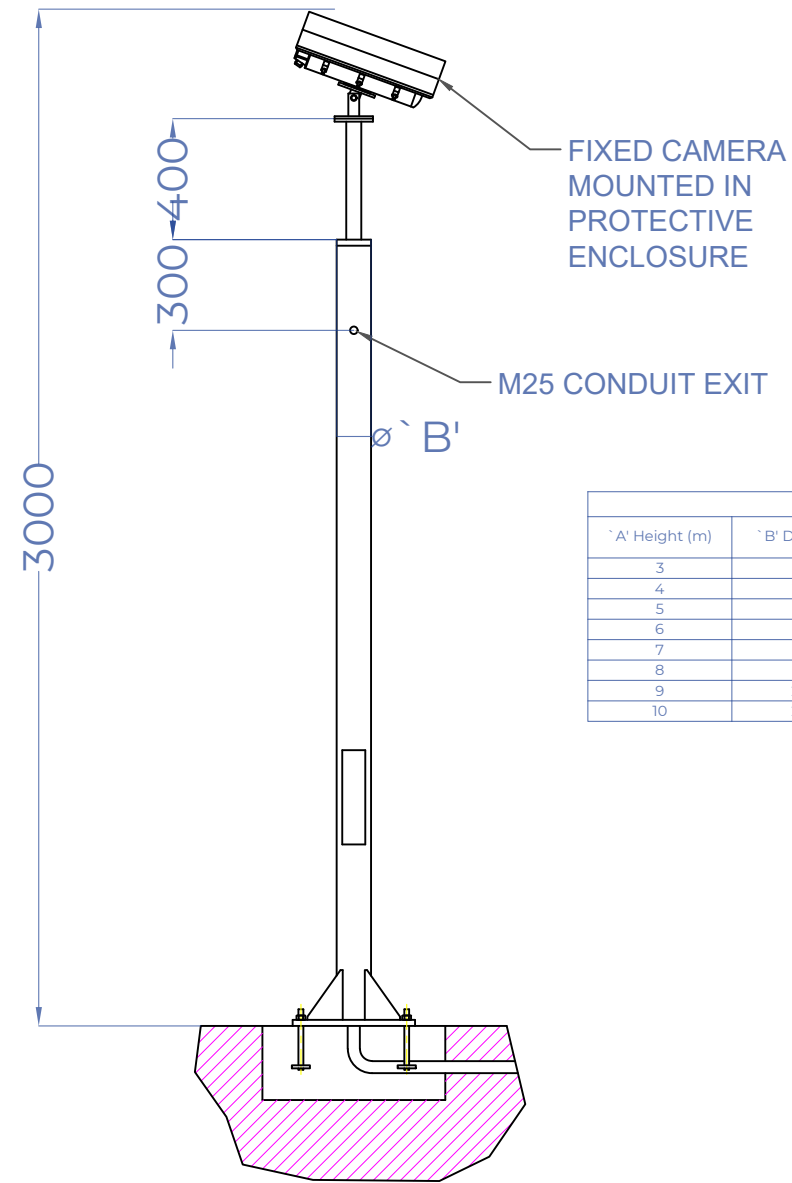
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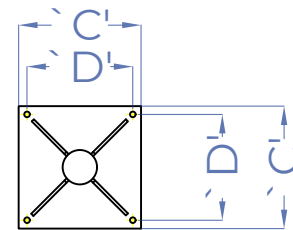
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		SCALE	1:60
ALL DIMENSIONS IN MILLIMETERS AND ARE APPROXIMATE			
FILE NAME	UKZ015_PACE UK PV Drawing.dwg		

Note:
The Inverter Station is a
steel structure, Colour: TBC



POLE SPECIFICATIONS				
A' Height (m)	B' Dia (mm)	C' Base (mm)	D' Bolt Crs (mm)	Holding Down Bolts (mm)
3	139	405x405	350	M16x200
4	168	405x405	350	M16x200
5	193	510	450	M20x300
6	193	510	450	M20x300
7	219	510	450	M20x300
8	219	630	550	M24x400
9	273	630	550	M24x400
10	273	630	550	M24x400



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TITLE: UKZ015_01 CCTV

CODE	UKZ015	PAGE SIZE	A3
DATE	2021-12-09	REVISION	V1
		SCALE	1:25

ALL DIMENSIONS IN MILLIMETERS AND ARE APPROXIMATE

FILE NAME | UKZ015_PACE UK PV Drawings.dwg

Note:
CCTV pole is a metal
structure, Colour: TBC

14 APPENDIX 5 – DESIGN BRIEF FOR ARCHAEOLOGICAL EVALUATION

14.1 AGREEMENT ON CONTENTS OF BRIEF LINCOLNSHIRE AND CAMBRIDGESHIRE

- 14.1.1 This brief was issued by the Cambridgeshire Historic Environment Team. However, it has been agreed by the Historic Environment Officer, Lincolnshire County Council during consultation (20 Oct 2022).
- 14.1.2 We include it within the body of this Baseline as it contains very useful background information and explains the data-gathering which both sets of advisors felt was necessary in order for them to provide detailed advice to the respective LPAs.

BRIEF FOR ARCHAEOLOGICAL EVALUATION:

Cambridgeshire Historic Environment Team

Site: Land at Treading Field, Treading Drain, Tydd St Giles, Cambridgeshire

Planning Application: F/YR22/1070/SC

Company: Abrams Archaeology Ltd

Location: TF 3883 1293

This design brief has been prepared by the Cambridgeshire Historic Environment Team (CHET) on behalf of the Local Authority and sets out the requirements of the required archaeological field evaluation. It should be responded to in a Written Scheme of Investigation (WSI) for submission to and approval by the HET prior to commencement, which should be produced by a professional, accredited Archaeological Organisation who will undertake the fieldwork, write the report(s) of results and prepare the archaeological archives in accordance with local and national guidance.

The brief is valid for six months after the date of issue. On expiry, CHET should be contacted to determine if any changes to its content are needed. The WSI resulting from this brief will be valid for six months after approval by CHET.

The Project Manager is strongly advised to visit the site before completing the WSI to determine if there are any implications for accurately costing the project. The Project Manager must consult the Cambridgeshire Historic Environment Record (CHER) during the production of the WSI and as part of the evaluation process.

Any response to this brief should follow published professional protocols issued by the Chartered Institute for Archaeologists (CIfA):

- CIfA, 2019. *Code of Conduct*
- CIfA, 2020. *Standard and guidance for archaeological field evaluation*

NO FIELDWORK MAY COMMENCE UNTIL WRITTEN APPROVAL OF A SPECIFICATION HAS BEEN ISSUED BY THE HISTORIC ENVIRONMENT TEAM

1.0 SITE DESCRIPTION

- 1.1 This development in the silt fen of northern Cambridgeshire lies at the western edge of Tydd St Giles and continues westwards into South Holland District, Lincolnshire. The development covers a total area of 141.6 hectares, 67.3 hectares of which fall within Cambridgeshire with the remainder of the site within Lincolnshire. The bedrock geology of the area consists of West Walton and Ampthill Clay Formation Mudstone and is overlain by a deep sequence of Quaternary clay and silt Tidal Flat deposits. The site rests at a height of -1m aOD.
- 1.2 The superficial deposits consist of blue-grey clays and silty clays, often interspersed with layers of coarse silty sands below c. 3.5m aOD (Waller 1994¹). Borehole surveys have been undertaken along Treading Drain, which lies to the north-east of the development area, as part of the Fenland Project (Waller 1994¹). The boreholes, drilled to a maximum depth of -5.24m aOD, did not reach bedrock. To the east of the proposed development area the boreholes found layers of sand, indicative of a major roddon. This ancient tidal river infilled with marine

¹ Waller, M., 1994. *The Fenland Project Number 9: Flandrian Environmental Change in Fenland*. East Anglian Archaeology Report No. 70.

deposits shows on LiDAR images as being roughly 600m wide and lies just outside the proposed development area. A narrower roddon to the west is roughly 300m wide and is within the study area. Both cross a deep part of the fen basin on a broadly N-S orientation. Boreholes to the west predominantly contained clay deposits, however thin humic horizons were noted between -2.48m and 1.71m aOD.

- 1.3 Further borehole surveys have been undertaken by Oxford Archaeology, three boreholes and two trenches were investigated within the development area (Cambridgeshire Historic Environment Record reference ECB6664). Two boreholes contained layers of sand, indicative of a roddon running through the south-western area of the proposed development. A trench was excavated over the potential roddon, where a sole undated ditch was identified.
- 1.4 There is little known archaeology known within the vicinity of the proposed development area. However roddon crests in the wider vicinity are known to contain areas of archaeological remains, due to these hard, sand and clay filled channels representing areas of 'high' or more solid ground within the wider fen landscape. An example of this can be seen from the major roddon to the east of the proposed development area, which contains evidence for medieval salterns scattered along its northern reaches (CHER ref. MCB24468, 03826 and MCB4671).
- 1.5 The results of a CHER search are attached in pdf report format with a basic indicative plan only. This will be supplied in GIS format (MapInfo TAB. or ESRI/QGIS shapefile SHP.) at no further cost upon request. To receive this data please complete and return the attached GIS licence form, ensuring this is signed by the responsible officer, to the CHER by email: contact details are included on the form.
Reproduction of spatial data by any other means is not recommended.
- 1.6 Detailed, labelled pdf plans indicating the location of all relevant data in the search area can be provided upon request. NB this will incur an additional fee rate of £80/hour. Please contact the CHER for a quotation.

2.0 DEVELOPMENT DESCRIPTION AND ARCHAEOLOGICAL REQUIREMENTS

- 2.1 The development is for the installation of a solar farm with battery storage, cable runs, ancillary infrastructure and landscaping. Access is likely to re-use existing access along Guanockgate Road. A number of central inverter cabinets will be installed, along with an onsite substation to the south of the area.
- 2.2 Due to the high archaeological potential of the site the applicant is advised to provide information concerning the potential impact of the proposal on archaeological remains. In order to provide this information an archaeological evaluation of the site is necessary. This design brief sets out the requirements for the adequate archaeological evaluation of the site.
- 2.3 The evaluation should include a suitable level of documentary research, including further consultation with information held in the CHER as necessary, to set the results in their geographical, topographical, archaeological and historical context.
- 2.4 The required scheme shall include a field evaluation of the application area.

Non-intrusive methods

- 2.5 Aerial photographic transcription is not required for this site, although the scheme would benefit from a discussion of LiDAR images

- 2.6a **Geophysical Survey:** The project manager should consult a suitably qualified geophysical specialist, to assess the viability of various survey techniques on the site and focusing this work on the larger roddons only, basing this on LiDAR evidence. If the geophysicists consider that techniques can be successfully used in this area, such work must be preceded by a sample scan to assess the effectiveness of the technique in relation to the site-specific geological/topographical conditions. Survey methods must be recommended by the specialist and presented in a specification of works (WSI for Geophysical Survey) and submitted to CHET for approval prior to commencement. Any subsequent survey work must be recommended by the specialist and communicated to CHET.
- 2.6b The following guidance documents should be used to inform and be adhered to for the geophysical survey and its implementation:
CIfA 2014 *Standard and guidance for archaeological geophysical survey*. Chartered Institute for Archaeologists.
Historic England 2008 *Geophysical Survey in Archaeological Field Evaluation*. Historic England.
EAC 2015 *EAC Guidelines for the Use of Geophysics in Archaeology. Questions to Ask and Points to Consider. EAC Guidelines 2*.
- 2.6c A Cambridgeshire Event code should be obtained from the CHER prior to the implementation of this geophysical survey and be shown on all reports, survey and archive components.
- 2.6d Digital copy of the geophysical survey report should be supplied to the CHER (see 5.6 and 6.2 below) and arrangements made to upload the report to OASIS.
- 2.6e Due to the depth and character of deposits at this site a blanket geophysical survey of the site is not advised. Geophysical survey of the area should be targeted upon the larger roddon crests where archaeological remains are most likely.

Intrusive methods

- 2.7 A series of window samples are to be undertaken by power auger or equivalent, by a qualified geoarchaeologist within the proposed development area to investigate and select samples for analysis of the palaeoenvironmental conditions and the character of deposits on and above the fen floor or within the tidal basin. If incipient soils are identified that denote dryland surfaces at depth, or peat horizons are encountered, their contact with sediments that denote a changed environment should be assessed and dated using relevant scientific dating methods.
- Boreholes should be drilled under geoarchaeological supervision and a field log & photographic record of the cores should be kept.
 - Continuous cores should be collected from the modern ground surface to the full depth of the sequence
 - Equipment used should allow sleeved cores (preferably in Perspex tubes) to be recovered.
 - Depending on the equipment used, it may be necessary to recover material contained in the cutting shoe. Any sediment contained in the cutting shoe between each core should be bagged-up and the orientation (top and bottom) labelled to recover as continuous a sequence of deposits as possible. If this is not possible due to the unconsolidated nature of the deposits, bags of the disaggregated cutting shoe sample should be retained.
 - A report of the assessment of the sediments sampled should be presented in the assessment report, which should characterise the sequence obtained and detail significant horizons that occur within the boreholes with a view to defining further analysis of the cores and obtaining absolute dates as part of the mitigation works.

- 2.8 A programme of linear trial trenches (minimum bucket width: 1.80m) is required to adequately sample all expected construction impacts within the development area. The sample percentage will primarily respond to borehole and geophysical survey results but be focused on landforms such as roddons and construction areas such as battery storage areas, kiosks, access and cable routes. **The trench array should not be designed until the results of the borehole and geophysical surveys have been reviewed.**
- 2.9 Archaeological features within the trenches will be sufficiently excavated to conform to section 3.0 below.
- 2.10 **All** features must be investigated and recorded unless otherwise agreed with CHET with the exception of repeating features in trench bases, such as furrows. A sample of these should be examined. Investigation slots through all linear features must be **no less than 1m in width**. Discrete features must be half-sectioned or excavated in quadrants where they are large or found to be deep. The use of a handheld auger (or a power auger where appropriate) is recommended to gain information from very deep deposits/features and should be available in the staff tool kit. Machine assistance may be required for very large/deep features and should be shown as a contingency arrangement in the Written Scheme of Investigation. Sections through linear features should be excavated at approximately 90° to the longitudinal axis to provide a cross-section profile. Cross-sections should be cut vertically and cleaned by hand in order to enhance the definition of stratigraphic sequences. Intersecting features will be investigated to determine the relationship between them. The full section evidence will be shown of trenches – e.g. for sections at trench edges, the vertical sequence to the top of the plough or topsoil should be cleaned to establish the presence/absence of vestigial old land surface soils and other stratified deposits, photographed, drawn and discussed in the report. Built structures should be excavated sufficiently to define the extent of the feature and to achieve the objectives of the evaluation.
- 2.11 The photographic record must consist of high-quality digital uninterpolated images of at least 10 megapixels taken using a camera with an APS-C or larger sensor. Graduated metric scales of appropriate lengths should be used, ensuring the use of vertical scales used against deep sections in combination with horizontal scales. Digital photographs intended for archive purposes must comply with best practice available at the current time – i.e. high quality non-proprietary raw files (DNG) or TIFF images. The incorporation of clear digital images within ensuing reports, to augment the drawn record, is expected.

3.0 OBJECTIVES

Character and Significance

- 3.1 The evaluation should aim to determine, the location, geoarchaeological context, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development. An adequate representative sample of all areas where archaeological remains are potentially threatened should be studied.
- 3.2 The evaluation results will be used to:
- a) document the character, nature, date, condition and significance of the archaeological resource,
 - b) define the nature and extent of any mitigation works that may be required.
- 3.3 **Should a scheme of detailed work be required to mitigate construction impacts on archaeological remains identified during this evaluation, the scheme will be outlined in a further design brief for archaeological investigation.**

Environment, Economy and Industry

- 3.4 Particular study of the following should occur:
- presence/absence of palaeosols and old land surface soils/deposits,
 - the character of deposits and their contents within negative features
 - palaeochannels
 - site formation processes generally.
- 3.5 Buried soils and associated deposits should be inspected on site by a suitably qualified geoarchaeologist whose advice should be sought as to whether soil micromorphology or other analytical techniques will enhance understanding of depositional processes and transformations at the site. If so, suitable samples should be taken from relevant deposits or features for assessment and inclusion in the report.
- 3.6 The assessment of the potential to inform on the general environmental conditions and dietary evidence of the inhabitants of the site through examination of suitable deposits must also be arranged with a suitably qualified specialist. Attention should be paid to:
- the retrieval of charred plant macro & microfossils, faunal remains and land molluscs from former dry land palaeosols and cut features;
 - the retrieval of plant macro & microfossils, insect, faunal remains, molluscs, pollen and other biological remains from waterlogged deposits;
 - provision for the absolute dating of critical contacts should be made - for example: the basal contacts of peats over former dryland surfaces; distinct land use or landmark change in urban contexts
- 3.7 The objective of the geoarchaeological investigation is to define zones of landscape stability within the vertical sequence that may have been of sufficient stability for human occupation at various periods in the past. Such areas would be targeted for combined archaeological and paleoenvironmental investigation depending upon the nature and depth of construction impacts. The window sampling should look to reconstruct past environment, looking in particular for the presence of peat, indicative of freshwater within the fenland landscape, and any insipient soils which may be associated.
- 3.8 The evaluation should also carefully consider the retrieval, characterisation and dating (including absolute dating) of artefact, burial or economic evidence to assist in the characterisation of the site's evidence and in the development of future mitigation strategies.
- 3.9 The assessment of environmental & economic potential should follow advice in these commonly used guidance documents (below), though other guidance is also relevant:
- Historic England, 2011, ***Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition)***.
 - Historic England, 2014, ***Animal Bones and Archaeology: Guidelines for Best Practice***.
 - Historic England, 2015, ***Geoarchaeology: Using earth sciences to understand the archaeological record***.
 - Historic England, 2004, ***Human Bones from Archaeological Sites: A guideline for best practice for producing human osteological assessments and analytical reports***
- 3.10 The excavation of human burials and disarticulated human remains should be conducted according to the principles and technical advice published in:
- Historic England, 2018, ***The Role of the Human Osteologist in an Archaeological Fieldwork Project*** Swindon. Historic England.
- Provision for the in-field recording of human remains by the appointed human osteologist is required. For known burial sites, the Written Scheme of Investigation should include a section written by the osteologist that deals with the methods of excavation (including sieving), sampling, analysis and recommendations for archive preparations.

- 3.11 The Project Manager & field team are also advised to consult the following guidance documents in order to provide an adequate strategy for the excavation, field treatment and conservation of any delicate organic materials:

- Historic England, 2012, *Waterlogged Organic Artefacts: Guidelines on Their Recovery, Analysis and Conservation*;
- Historic England, 2010, *Waterlogged Wood: Guidelines on the Recovery, Sampling, Conservation and Curation of Waterlogged Wood*.
- Historic England, 2008, *Investigative Conservation: Guidance on How the Detailed Examination of Artefacts from Archaeological Sites Can Shed Light on Their Manufacture and Use*;

Reference to other specialist investigation and assessment methodologies for artefact studies should also occur.

- 3.12 The project manager must ensure that the results of palaeoenvironmental investigation, industrial residue assessments/analyses & scientific analyses are included in a full evaluation report and sent to the Historic England Science Advisor.

4.0 REQUIREMENTS

- 4.1 The evaluation must be undertaken by an archaeological team of recognised professional competence, fully experienced in work of this character and formally acknowledged by the CHET officers, advisors to the Local Planning Authority (LPA). Inclusion in the Chartered Institute for Archaeologists' Register of Organisations is recommended. Details, including the name, qualifications and experience, of the site director and all other key project personnel (including specialist staff) will be communicated to CHET within a specification of works, or Written Scheme of Investigation (WSI), which must be prepared by the archaeological contractor undertaking the programme. The specification must conform to the guidance in Historic England's MoRPHE publication (*Management of Research Projects in the Historic Environment*, Historic England, 2006, reissued 2015).

This specification must:

- i. be supported by a research design which sets out the site-specific objectives of the archaeological works.
- ii. detail the proposed works as precisely as is reasonably possible, indicating clearly on plan their location and extent.
- iii. provide a realistic timetable for the proposed works including a "safety" margin in the event of bad weather or any other unforeseen circumstances that may affect this timetabling (see 7.2 below).

- 4.2 All aspects of the evaluation shall be conducted in accordance with:

- Chartered Institute for Archaeologists' *Code of Conduct* (CIfA 2019)
- *Standard and guidance for archaeological field evaluations* (CIfA 2020),
- *Standards for Field Archaeology in the East of England* (Gurney, D. 2003, EAA Occasional Paper 14).
- *Research and Archaeology Revisited: a revised framework for the East of England* (EAA Occ. Paper No 24, 2011), as well as the updated agenda in the current online [version](#) to define research objectives:
- *East of England Regional Research Framework* (ALGAO East of England 2020).

- 4.3 Care must be taken in dealing with **human remains** and the appropriate guidance issued by the Ministry of Justice should be followed. Environmental health regulations must also be followed. The CHET officer must be informed immediately upon discovery of human remains. If found during an evaluation, the human remains can be left *in situ*, covered and protected when discovered, depending on the site circumstances and depths of cover soils. Where the reburial of revealed human remains would be considered detrimental to their survival, arrangements for their immediate excavation should be made to establish the date, condition and character of the burial, acquiring absolute dating where necessary. If removal is essential an exhumation licence should be requested from the MoJ. When obtaining an exhumation licence, we would expect the Project Manager of the archaeology programme to inform the MoJ of a realistic timescale for the analysis of the remains and preparation of the archive for deposition, so that the Exhumation Licence reflects this accordingly.
- 4.4 The requirements of the **Treasure Act 1996** (with subsequent amendments) must be complied with. Any finds that could be considered treasure under the terms of the Act made during the process of fieldwork should be reported within 14 days of discovery in line with the [Act](#). Advice and guidance on compliance with Treasure Act issues can be obtained from the **Finds Liaison Office of the Portable Antiquities Scheme** at the Cambridgeshire Historic Environment Team office, to whom all reporting forms should be sent. **Do not** send forms direct to the Coroner, British Museum, or to out of county PAS FLOs. Please use this [form](#) available from our website for reporting any potential treasure objects found in Cambridgeshire. This form has been produced in collaboration with the Finds Liaison Officer for Cambridgeshire and Peterborough, and the Cambridgeshire Coroner's Office to streamline the reporting process.
- 4.5 The archaeological contractor should arrange for specialists to visit the site to view significant remains *in situ* if necessary and included as a field requirement in the WSI.
- 4.6 Care must be taken in the siting of offices and other support structures to minimise impact on the environment. Extreme care must also be taken in the structure and maintenance of spoil heaps for the same reasons and to facilitate a high-quality reinstatement. This is particularly important in relation to pastureland.
- 4.7 The archaeological project manager must satisfy themselves that all constraints to groundworks have been identified, including the siting of live services, Tree Preservation Orders and public footpaths. The CHET officers bear no responsibility for the inclusion or exclusion of such information within this brief.
- 4.8 Before commencing work the project manager must carry out a risk assessment and liaise with the site owner, client and CHET in ensuring that all potential risks are minimised.

5.0 REPORTS

- 5.1 The evaluation report should include a comprehensive assessment of the regional context and present well described, illustrated (including general views of the site, deposits and artefact photos – both *in situ* and /or as cleaned objects) and tabulated archaeological evidence. It should highlight any relevant research objectives published in themed national and regional research frameworks and provide a statement on the significance of the investigated archaeological evidence at the site.
- 5.2 The evaluation report should refer to the CHET evidence submitted with the brief and any additional searches obtained for comparative research.
- 5.3 An appraisal of the evidence acquired from any non-intrusive survey (e.g. AP, LIDAR and GS) should be made in the evaluation report, commenting on the correlation of results and provide reasons why survey and trench-based data do or do not correspond.

- 5.4 The evaluation report should illustrate surviving archaeological remains detailing zones of relative importance against known development proposals. Constraints to the evaluation should be clearly shown and explained. An impact assessment should also be provided.
- 5.5 If any areas of analysis from Section 3 (above) are not considered appropriate for inclusion the report will detail justification for their exclusion.
- 5.6 A digital report, clearly marked **DRAFT**, should be prepared and presented to CHET within four weeks of the completion of site works unless there are reasonable grounds for more time. This report should conform to the format contained within the document **HET Evaluation report guidance 2016** dealing with the production of archaeological evaluation reports and should include a 'check and approval process'. Copies can be obtained from the address below. Reports should also conform to professional guidance published by CIfA: *Standard and guidance for archaeological field evaluation* (CIfA 2020, section 3.4).
- 5.7 CHET supports the national project: Online Access to the Index of Archaeological Investigations (OASIS) project and requires archaeological contractors working in Cambridgeshire to support this initiative. In order that a record is made of all archaeological events within the county occurring through the planning system, the archaeological contractor is required to input details of this project online at the OASIS website: The OASIS reference ID and completed Data Collection Form should be clearly presented in the relevant report. **Any report that does not contain this information will not be approved.**
- 5.8 Following acceptance, the **approved** evaluation report in digital form should be submitted to the **CHET via the OASIS [website](#)** within **two weeks** of approval.

Note: Project Managers must ensure that sub-contracted specialist reports are uploaded at this time (for example: geophysical surveys, air photographic /LiDAR transcriptions, geoarchaeological assessment reports).

6.0 ARCHIVE PREPARATION AND DEPOSITION

- 6.1 To assist with the creation and curation of the project's archive, the Project Manager must contact the CHET office to obtain an **Event number (ECB)** at the outset of the project. CHET use this number as a unique identifier linking all physical and digital components of the evaluation archive. **The unique event number must be clearly indicated on any specification received for this project.** It should be shown on all paperwork (context/photo/enviro sample forms, lists and plans), and on finds bags and sample containers/bags created on site and later shown on ensuing reports and on the OASIS data collection form.
- 6.2 The Project Manager should consult our [guidelines](#) *Deposition of archaeological archives in Cambridgeshire* regarding the requirements for the deposition of the **physical archive** into Cambridgeshire County Council's Archaeological Archive Facility. Please ensure familiarity with the latest online version, as there may be cost implications for preparation/deposition within relevant physical and digital archive repositories.
- 6.3 Arrangements for the long-term storage and deposition of all artefacts must be agreed with the landowner and CHET during the reporting stage. Transfer of Title (ownership) of the archive to Cambridgeshire County Council, or another local, accredited and publicly accessible depository, needs to be arranged at this time and the arrangements should be indicated in the evaluation report. The archaeological organisation's Transfer of Title form should be signed by the landowner and the archaeological Project Manager and submitted to the CHET officer.

- 6.4 The current archive deposition cost is £100 per box (or minimum £50 per archive). This combined charge covers accessioning and uplift (£20) together with a fee to provide for the long-term storage (£80). Further details of charges for the use of the CCC Archaeological Archive Facility can be found in Section 6 of the guidelines. Please note, these charges will be periodically reviewed to remain compliant with or facility's own charging schedule.
- 6.5 In compliance with the General Data Protection Regulation (GDPR), the project manager is responsible for providing a statement confirming that the organisation has secured permission to share the recorded details of all individuals involved in the project, both internal and external to the organisation. This includes all landowners, consultants and external specialist involved throughout the project. The data is collected for specified, explicit and legitimate purposes. Further processing for archiving purposes in the public interest, scientific or historical research or statistical purposes are considered to be compatible with the initial purposes. For more information or clarification regarding GDPR and our archiving process please see section 9 of the [guidelines](#) *Deposition of archaeological archives in Cambridgeshire* (2020).
- 6.6 The site's **digital archive** should be deposited with the Archaeological Data Service or another publicly accessible CoreTrustSeal certified repository on completion of the archaeological programme.
- 6.7 A digital data management plan (DMP) should be included in the WSI. Plans will require project staff to demonstrate consideration of all issues relating to digital data collection or transfer such as metadata, backups, selection of digital files and data to be deposited and long-term archival storage from the beginning of the project. The DMP is expected to be 'living' document and should be reviewed and amended throughout a project. Should any substantial amendments be made to the plan, then the revised version should be submitted to CHET. Version control should be shown on each iteration of the DMP. WSIs that do not contain a digital data management plan will not be approved.
- 6.8 Not all evaluation results will warrant a digital archive. Please discuss the need to prepare a digital archive on completion of the evaluation with CHET.
- 6.9 The site archive specification should conform to the guidelines in MoRPHE (HE 2015), eg section 2.5.3, and the paper and material (physical) archive be deposited within the County Council's Archaeological Archive Facility on completion of the evaluation programme or following any publication of the evaluation results.
- 6.10 Reference should be made to Cifa 2020 *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*, which should be followed. We also encourage archaeological contractors to use the Cifa [Toolkit for Selecting Archaeological Archives](#).

7.0 MONITORING & COMMUNICATING CHANGES

- 7.1 CHET officers are responsible for monitoring and advising on all archaeological programmes within Cambridgeshire and will need to inspect site works at an appropriate time during the fieldwork, review Written Schemes of Investigation, reports of results and archive preparation.
- 7.2 Additional involvement for extra site visits above those specified in the CHET charging schedule and for more than two reviews of WSIs and reports will incur a fee of £80 +VAT per hour of staff time plus any travel costs/other expenses incurred (typically pool car costs or mileage reimbursement).
- 7.3 Monitoring visits should be booked with CHET prior to works commencing on site or 5 working days in advance.

- 7.4 The Project Manager will ensure that sufficient resource is available for this programme of work and that an agreed contingency is included to enable the investigation of unexpected discoveries, the use of a pump or for slower working in poor weather conditions. The use of the reserved contingency fund should be agreed with CHET and the client in advance of use.
- 7.5 Trenches should not be backfilled without the approval of CHET. Further trenching or deposit testing may be a requirement of the site monitoring visit if unclear archaeological remains or geomorphological features present difficulties of interpretation, or to assist with the formulation of a mitigation strategy. Appropriate provision should be made for this eventuality.
- 7.6 Any changes to the specifications that the project manager may wish to make after approval by this office should be communicated directly to CHET for approval.
- 7.7 CHET should be kept regularly informed about developments both during the site works and subsequent post-excavation work.
- 7.8 The archaeological advisory and planning role of Cambridgeshire County Council's Historic Environment Team should be acknowledged in any report or publication generated by this project.

As part of our desire to provide a quality service to all our clients we would welcome any comments you may have on the content or presentation of this design brief. Please address them to the author at the address below.

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15 FIGURES

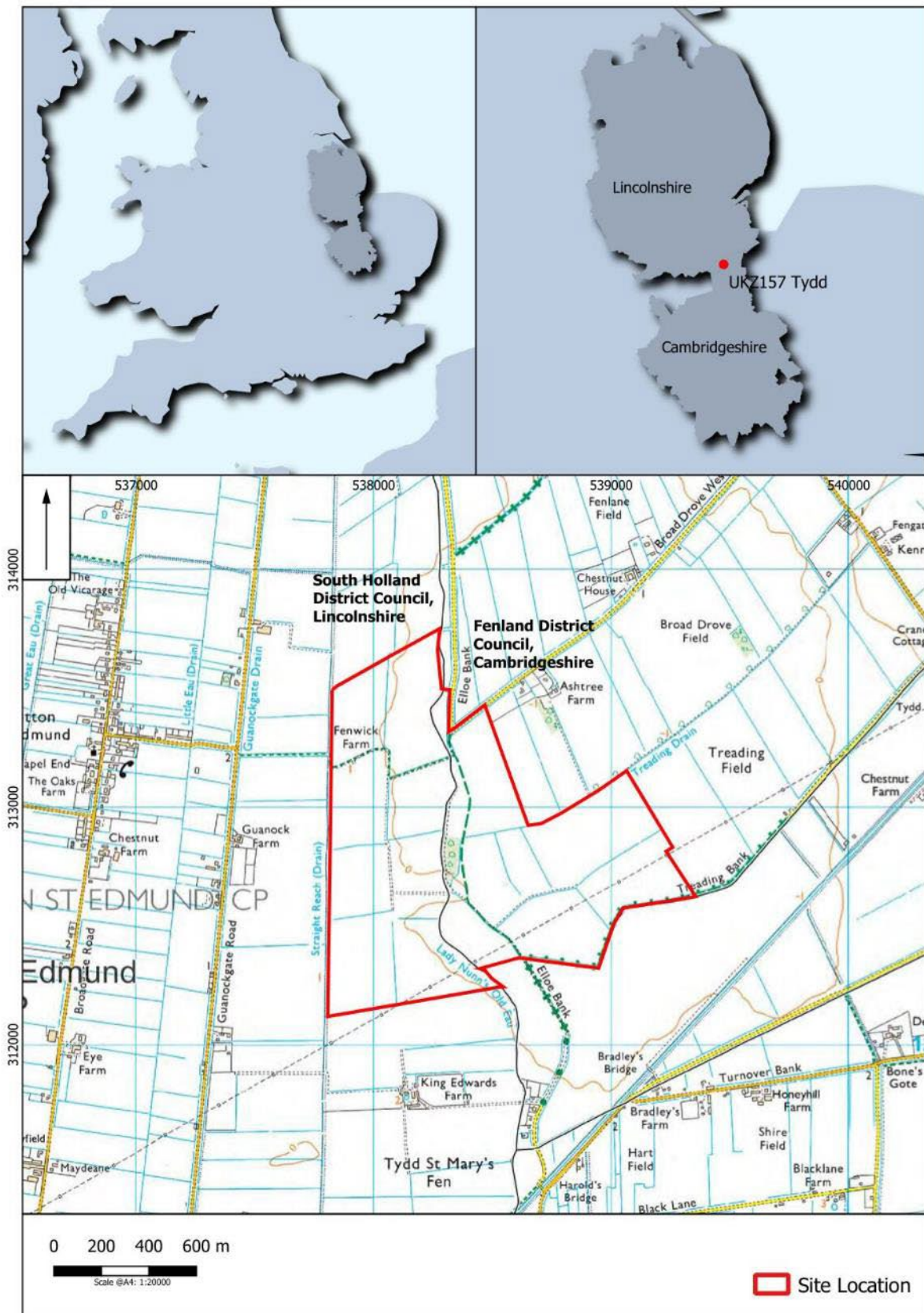


Figure 1. Site Location

