

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

**Proposed Design Amendments to the approved
132kV Overhead Electricity Wood Pole Line
from New Kinmel Bay Substation to existing
132kV Tower Line near Moelfre
ARCHAEOLOGICAL ASSESSMENT**

CPAT Report No 849

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132kV Overhead Electricity Wood Pole Line
from New Kinnel Bay Substation to existing
132kV Tower Line near Moelfre
ARCHAEOLOGICAL ASSESSMENT**

**By N W Jones and F Grant
March 2007**

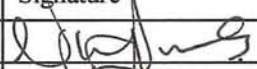

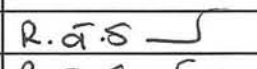
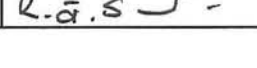
Report for SP Power Systems Ltd

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7.0 ARCHAEOLOGY

7.1 INTRODUCTION

7.1.1 This section of the environmental statement covers to the archaeological baseline conditions and the assessment of the impact of the amended design on known and potential archaeological sites. The baseline and assessment has been prepared by the Clwyd-Powys Archaeological Trust in February 2006 and represents an up to date record of the current state of knowledge.

7.2 METHODOLOGY

7.2.1 The first stage of the assessment involved a desk-based study of the corridor, according to the guidelines in the IFA (*Institute of Field Archaeologists*) *Standard and Guidance for Archaeological Desk-Based Assessments*, which is now held to be the standard for works of this kind. This involved the examination of readily available primary and secondary records, including published, documentary, cartographic, and aerial photographic sources. The archives and repositories consulted included the following: the regional Historic Environment Record held in Welshpool; *Coflein*, the online record created by the National Monuments Record, part of the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW); the Denbighshire County Archives in Ruthin; the Flintshire County Archives in Hawarden; the National Monuments Record; and the National Library of Wales in Aberystwyth.

7.2.2 For the purpose of the study the search area has been defined as extending for 500m on either side of the proposed overhead powerline corridor, with the exception of sites such as historic parks and gardens, listed buildings, and scheduled ancient monuments where the visual impact might extend beyond these boundaries.

7.2.3 Following the completion of the desk-based study, a programme of field examination was undertaken which involved a systematic walkover survey of the powerline corridor, with specific attention paid to the pole locations. Any archaeology encountered was recorded to an appropriate level of detail for inclusion in the Environmental Statement and to meet the general needs of the existing archaeological record for the county.

7.2.4 Findings have also been assessed in the context of their relative importance according to accepted criteria for designated sites, as is set out in Appendix 7.1. In addition, reference has been made to national planning policies and other available references for guidance on assessing impacts on scheduled ancient monuments, listed buildings and registered parks and gardens, and these are referred to in Appendix 7.2.

7.2.5 It should be noted that the methodology followed for assessing the setting of Scheduled Ancient Monuments, Historic Parks and Gardens and Listed Buildings and the impact assessment itself have been passed to and integrated by Gillespies Landscape Consultants into the landscape impact assessment in Section 8.

7.3 BASELINE

7.3.1 The following section provides a descriptive summary of the known and potential archaeological resource within, and immediately adjacent to, the route corridor, drawing on the results from the desk-based study and field survey. The evidence provided by known archaeological sites within 500m of the corridor has been used to produce a general chronological overview, with specific reference to those sites which lie within the corridor. The perceived significance and potential of those sites which may be affected by the proposals is presented in section 7.4. Where appropriate, sites have been identified by their Primary Record Number (PRN).

Mesolithic and Neolithic

7.3.2 Although there is no direct evidence for early prehistoric activity within the study area, evidence from elsewhere along the coastal plain between Abergele and Prestatyn indicates the presence of Mesolithic occupation in this general area. Small-scale excavations in peat deposits at Prestatyn have revealed important evidence of settlement between about 4,200-2,500 BC, associated with shell middens

which indicate the exploitation of coastal resources (Bell forthcoming). Evidence for early activity is closely related to changes in sea level, and ten periods of marine transgression have been identified along the Lancashire coast which it is thought would also have affected the area around the mouth of the Clwyd. It has been assumed that during periods of regression land in low-lying areas may well have been settled which was then inundated during subsequent transgressions. From the later Mesolithic period onwards it is thought that vast areas of the coastal plain were inundated and the area of elevated boulder clay (see Fig. 1) became the closest inhabitable land to the sea. Evidence from borehole data has identified a number of peat deposits at varying depths which might be associated with archaeological deposits (Manley 1981). The available evidence does not relate directly to the route corridor, and the closest evidence for peat is from a borehole 0.75km north-east of the northern terminus. There is, however, the potential for similar deposits within the northernmost one kilometre of the route, as well as for early activity along the northern limit of the boulder clay (Fig. 1). The only relevant artefact recorded from the area is a Neolithic arrowhead (PRN 102007) found at Dinorben Hillfort.

Bronze Age

7.3.3 Cropmark evidence has identified three possible ring ditches (PRNs 19341, 25232, and 106081) to the east of Fardre. Such sites are normally assumed to be the ploughed-down remains of earthen burial mounds. It has also been suggested that the placename Pen y Garnedd (PRN 102008) might indicate the presence of a burial cairn, although none is yet known here. The only Bronze Age artefacts recovered from the area are a palstave (PRN 19105) and a hoard of bronze horse trappings (PRN 101999) from Dinorben Hillfort.

Iron Age

7.3.4 The main evidence for Iron Age activity in the area comes from Dinorben Hillfort (PRN 102000), the site of which lay 200m to the east of the corridor, near St George. Excavations have demonstrated that the multivallate hillfort was occupied from around the 6th century BC to the 4th or 5th century AD. Formerly a Scheduled Ancient Monument (SAM De12), the hillfort has now been completely destroyed by quarrying and was de-scheduled in 1997. Recent excavations outside the defences have revealed significant evidence for prehistoric activity. Other evidence for possible Iron Age activity is provided by two enclosures (PRNs 101756 and 101757) to the north-west of Fardre.

Romano-British

7.3.5 A Roman road has been postulated (RR67b; PRN 46850) between *Varae* (St Asaph) and *Kanovium* (Caerhun), although no evidence has been revealed to identify its exact course. The Ordnance Survey have suggested that the road may have followed the line later adopted by the present B5381, which runs east to west close to the southern end of the corridor. A small number of Roman artefacts have been recovered which indicate the presence of Roman activity in the area, including a spindlewhorl (PRN 101983) and quernstone (PRN 101984) from Pant-y-clyd, near the southern end of the corridor, and another spindlewhorl (PRN 102009) and a coin hoard (PRN 101890) from Dinorben Hillfort (PRN 102000),.

Medieval

7.3.6 The excavations at Dinorben Hillfort revealed some evidence for occupation during the early medieval period, although there is no indication of any activity of this date within the corridor. Towards the northern end of the corridor several fields preserve remnants of ridge and furrow cultivation (PRN 83571) which may have its origins in the medieval period. This area was formerly part of Morfa Rhuddlan saltmarsh and it is likely that this was subject to piecemeal enclosure and reclamation following the canalisation of the Clwyd in 1277 that allowed maritime access to Edward I's castle at Rhuddlan. The fieldname 'Henllan', recorded on the Tithe Survey for Abergele parish, may also allude to an old enclosure. The field boundaries in this area clearly suggest two phases of enclosure, the earlier of which comprises small, irregular fields, which may well be medieval in date. Further to the south the corridor crosses a sunken track, or holloway (PRN 83569), which could also be medieval in origin.

Post-Medieval

7.3.7 The general field patterns suggest that the area was subject to significant reorganisation and enclosure during the post-medieval period, with many large, regular fields, and straight roads and drainage ditches. In the north of the area this field system overlies and largely replaced an earlier system of small, irregular fields.

7.3.8 There are numerous sites in the area relating to post-medieval activity, including two grade II* listed buildings, Fardre (PRN 102558) and Hendre Fawr (PRN 102006), which date from the 16th and 17th centuries respectively, and a grade II listed toll house (PRN 41046). To the east of the corridor is Kimmel

Park, a grade II* registered historic park and garden (PRN 22959), which has its origins in the 17th century, although the present appearance of the park largely dates from the late 18th and 19th centuries, while the house itself was built in the 1870s. There are another six post-medieval farmsteads within 500m of the corridor, as well as three quarries, three wells and a number of other sites of minor significance. Several sites are within the immediate vicinity of the corridor, including two wells (PRNs 83563-4), a marl pit (PRN 83567), and a quarry (PRN 83568).

Archaeological summary

7.3.9 The following designations have been considered and/or identified:

- i) Landscapes of Outstanding Historic Interest in Wales. None of the assessment area falls within a Landscape of Outstanding or Special Historic Interest, as defined in the *Register of Landscapes, Parks and Gardens of Special Historic Interest* (Cadw 1998 and 2001)
- ii) Parks and Gardens of Special Historic Interest in Wales. No such parks or gardens have been recognized in the area of interest (as defined in Cadw 1995), although Kinmel Park lies around 1km to the east.
- iii) Conservation Areas. The only conservation area within the immediate environs of the route is St George village.
- iv) Scheduled Ancient Monuments (SAMs). None has been identified along the powerline route corridor.
- v) Listed buildings. None has been identified within the powerline route corridor, although three listed buildings lie in close proximity to it.
- vi) National Trust inalienable land. It has not been possible in the time available to establish whether any inalienable land is present in or beside the development area.

7.3.10 The archaeology of the proposed route and its immediate environs is depicted as point data on Figure 2, while those sites for which there is a potential impact are depicted on Figures 3 and 4. Each site of archaeological interest identified during the desktop and field surveys as lying within the corridor has been classified according to its perceived significance as it appears at present. A full description of the classification system is provided in Appendix 7.1. Those sites which lie outside the corridor are assumed to be unaffected by the scheme and have not been classified. The following includes listed buildings within 500m of the overhead line route and historic parks and gardens within 1km, while those listed buildings lying at a distance of between 500m and 1km are included subsequently as a more general overview.

Category A Sites

7.3.11 Category A sites are those which are considered to be of national importance. There are no category A sites within the corridor, although the following lie in close proximity and accordingly their setting has been assessed in section 8.

PRN	Name	Site type	Period	Designation	NGR
22959	Kinmel Park	Historic Park and Garden	Post Medieval	Grade II*	SH982748
41046	Hendre Fawr outbuildings and yard	Farm	Post Medieval	Grade II	SH9633776906
102006	Hendre Fawr House	House	Post Medieval	Grade II*	SH9633776906
102558	Fardre House	House	Post Medieval	Grade II*	SH9629875467

PRN 22959 Kinmel Park

7.3.12 Kinmel was the seat of the Hughes family and the present house was built around 1871-74 on the site of two earlier buildings, set within a landscape park with a well-preserved formal garden. The house is sited at the base of a north-facing slope with the main vistas to the north-north-west and north-east, the main view towards the house being from the north-west. The ruins of an earlier house, known as Old Kinmel, lie in the walled garden to the east of the present house, and there was certainly an associated park dating from the 17th century, of which lime and oak planting survives. The construction of a new

mansion in 1791 led to a redevelopment of the park with new planting of specimen trees and woodland. The house itself is registered grade II*, while the stables and one of the lodges have a similar listing (Cadw 1995, 142-5).

7.3.13 The boundaries of the park have been defined in the *Register of Landscapes, Parks and Gardens of Special Historic Interest* (Cadw 1998, 142-5), and include the essential setting, which encompasses an area around St George village to the west and on either side of an avenue to the north, and the significant views into and out of the park (see Figure 2).

PRN 102006/PRN 41065 Hendre Fawr House and outbuildings

7.3.14 Hendre Fawr is a grade II* listed building and was probably built or radically altered by the Holland family of Fardre in the early 17th century. A wall-painting over the corner fireplace in the upper chamber has the Holland arms, and is dated 1636, whilst an inscription below reads ANNO DOMINI 1633 / H / R I. This is attributed to the marriage of Roger and Jane Holland, who died in 1642 and 1641 respectively. Hendre Fawr is a large two-storey farmhouse built of rubble stone with slate roofs. The L-shaped plan comprises a main range with a cross-wing, at the north-western end, and a stair tower in the re-entrant angle. The main front faces the farmyard, and the parlour was probably added slightly later, at the south-east end. Listed as Grade II*, it is a house of major importance in the area, which has a particularly well preserved interior of the early 17th century.

7.3.15 The house is sited at the base of a north-east facing slope, at the south-eastern edge of the coastal plain, and is overlooked by the higher ground of The Warren and Tower Hill to the south-east. The essential setting of the house might be considered to comprise the associated farm complex which surrounds it, including the farmyard, buildings and garden. However, as there are no definitive guidelines on what constitutes the setting of a listed building others might argue that this should include a wider area, to include part of the farmed landscape within which it is sited.

7.3.16 The adjoining farm complex is also listed as Grade II (PRN 41046), and comprises a range of stone-built outbuildings including a salting house, a bakehouse, and perhaps also a brewhouse. The yard is walled with a high retaining wall to the rear, and a stone-coped low wall to the front, both having a central gate.

PRN 102558 Fardre House

7.3.17 This is a two-storey house originally dating from the 16th century, but with later modifications. Built in stone with two storeys, a slate roof and brick chimney stacks. It is listed as Grade II* as a house of major importance in the area.

7.3.18 The house is sited on a south-east facing slope on the north-west side of a col between Fardre Hill to the north-east and the head of the Nant y Creigiau valley to the south-west. It is overlooked by the higher ground of The Warren to the north-west, and St George Quarry to the north-east, the former location of Dinorben Hillfort.

7.3.19 The house is positioned at the south-west corner of the original farm complex, with a garden to the south-west and a range of buildings to the east. More recent expansion has included the addition of a number of large agricultural buildings to the north.

Category B Sites

7.3.20 Category B sites are those which are considered to be of regional importance. There are no category B sites within the corridor, although the following statutory designations lies in close proximity and accordingly its setting has been assessed.

PRN	Name	Site type	Period	Designation	NGR
41045	The Turnpike	Toll house	19 th Century	Grade II	SH9660676153
41046	Toll Bar Cottage	Toll house	19 th Century	Grade II	SH9674677229

PRN 41045 The Turnpike

7.3.21 The toll house was built around 1850 on the early 19th-century turnpike road from Abergele to St Asaph. It is listed Grade II as a well-preserved example of a mid 19th-century toll house in a Tudor-Gothic style. The turnpike was moved in 1863 by Act of Parliament during enparkment, to the line of the old A55. The building is sited on the south side of the road on the lower part of a north-east facing slope with

ground rising to The Warren to the south-west and falling to the coastal plain to the north-east. The essential setting might be considered as comprising the garden to the south and the stretch of turnpike immediately to the north, although it could be argued that this should take into account a greater length of the road. The critical views are considered to be to the north, reflecting the former position of the toll gate.

PRN 41046 Toll Bar Cottage

7.3.22 The toll house was built in c. 1865-75 at the junction of the turnpikes from Abergele to Rhuddlan and St Asaph, and attributed to W E Nesfield for H R Hughes of Kinmel. It is listed grade II as a good example of Nesfield's careful design and detailing on a minor scale, one of the group of varying designs by this architect for Hughes of Kinmel. The building lies on the southern edge of the coastal plain, with rising ground to the south and south-west. The essential setting comprises the garden to the east and the stretches of turnpike immediately to the north and west, although it could be argued that this should take into account a greater length of the roads. The critical views are considered to be to the north and west, reflecting the former position of the toll gates.

Category C Sites

7.3.23 Category C sites are those which are considered to be of local importance. There are two category C sites within the corridor.

PRN	Name	Site type	Period	Condition	NGR
83569	Tylgarth Isaf Holloway	Holloway	Medieval	Near intact	SH9602074932
83571	Morfa Rhuddlan Ridge & Furrow	Ridge & Furrow	Medieval/Post medieval	Damaged	SH967778

PRN 83569 Tylgarth Isaf Holloway

7.3.24 A sunken lane, or holloway, was identified during the field survey running for approximately 100m from a public road in the east to the former site of a well (PRN 83563), to the west of which it continues as an open track. The holloway is approximately 2m wide with banks up to 2m high, topped by trees and overgrown hedges. Although there is no public right of way the track is apparently still used to access the fields to the west. The track is depicted on the Tithe Survey of the area.

PRN 83571 Morfa Rhuddlan Ridge and Furrow

7.3.25 Areas of ridge and furrow are clearly visible on the ground and on aerial photographs of the area. The nature of the earthworks vary from field to field, with those in the south consisting of c. 5m-wide ridges and furrows 1.5m wide, while to the north the ridges appear slightly narrower.

Category D Sites

7.3.26 Category D sites are those which are considered to be of minor importance. There are six category D sites within the corridor.

PRN	Name	Site type	Period	Condition	NGR
83563	Tylgarth Isaf Well	Well	Post medieval	Destroyed	SH9604074925
83564	Parc y Meirch Well	Well	20 th century	Near intact	SH9661775908
83567	Parc y Meirch Marl Pit	Marl Pit	Post medieval	Near destroyed	SH9667276041
83568	Fardre Hill Quarry	Quarry	Post medieval	Near intact	SH9647775729
83570	Tylgarth Isaf Structure	Structure	Post medieval	Near destroyed	SH9601174944
83572	Pen y Ffordd pond	Pond	Modern	Intact	SH9654277556

PRN 83563 Tylgarth Isaf Well

7.3.27 A well is depicted on early Ordnance Survey mapping, although nothing resembling a well or spring was visible on the ground during the field visit. However, the ground within the area of the track is very boggy, suggesting that a spring may be present in the locality. Some large stone blocks, up to 0.5m across, are heaped at the corner of the track at this point which may relate to a former structure, but could be derived from the banks of the track.

PRN83564 *Parc y Meirch Well*

7.3.28 The site is marked on the 3rd edition Ordnance Survey 25" mapping of 1913, and comprises a rectangular brick box with a concrete capping, measuring 3m by 4 m and standing 1.5m high, within which are the remains of a pump. A partially removed iron sheet gives access to the pump mechanism. The well currently feeds a pipe exiting to marshy ground downslope, and is situated at the base of a very steep slope with a gentler slope below.

PRN 83567 *Parc y Meirch Marl Pit*

7.3.29 A near circular hollow, measuring c.15m in diameter and up to c.1m deep, was identified during the field survey and interpreted as a probable marl pit.

PRN 83568 *Fardre Hill Quarry*

7.3.30 The field survey identified a quarried outcrop of pinkish limestone. The exposure faces south-east and stands to a height of 3m, and extends for c.35m. The site is currently vegetated with scrub and trees.

PRN 83570 *Tylgarth Isaf Structure*

7.3.31 A ruined rectangular structure, measuring 1.75m by 3.5m and enclosing an area of 1m², was identified during the field survey. It is located just beyond a bend in the track in the vicinity of a well (PRN 83563). The function of the structure is unclear but is possibly related to the well, or may represent an unrelated structure such as a hut or fold.

PRN 83572 *Pen y Ffordd Pond*

7.3.32 The field survey identified a circular pool, 16m in diameter, which appeared to be an artificial pond, standing in an area of generally low-lying and waterlogged ground. The feature does not appear on aerial photographs or maps of the area, and clearly truncates the earlier ridge and furrow (PRN 83571), suggesting that it is of relatively recent origin.

Category E Sites

7.3.33 Category E sites are those whose importance cannot be assessed from existing information, and where further work will be required. There are four category E sites within the corridor.

PRN	Name	Site type	Period	Condition	NGR
46850	St Asaph - Caerhun	Roman Road	Roman	Unknown	SH9561874284
83565	Ynys y Palmant	Placename	Post medieval	Unknown	SH96507740
83566	Cae Odyn	Placename	Post medieval	Unknown	SH95787430
83573	Cae Henllan	Placename	Post medieval	Unknown	SH95787430

PRN 46850 *St Asaph-Caerhun Roman Road*

7.3.34 The B5381 runs along the predicted line of the Roman road linking St Asaph (possibly *Varae*) in the east with Caerhun (*Kanovium*) in the west.

PRN 83565 *Ynys y Palmant*

7.3.35 The NMR contains a reference to several placenames in this area, derived from the Tithe Survey, which contain the word 'palmant', which has been interpreted as referring to a Roman road in this area. The English translation of 'palmant' is pavement, and it is possible that this refers to the Abergele to Rhuddlan former toll road, which is now the A547. Only Ynys y Palmant falls within the survey area.

PRN 83566 *Cae Odyn*

7.3.36 The Abergele Tithe Survey of 1840 records the field name 'Cae Odyn' (No. 1024), which suggests the possible location of a lime kiln. No evidence of such a structure was identified during the field survey, although below ground remains may survive.

PRN 83573 *Cae Henllan*

7.3.37 Field number 280 on the 1840 Tithe Survey of St George parish is listed as 'Cae Henllan', which may possibly refer to the presence of a former church, settlement or enclosure. No evidence of such was identified during the field survey, but the field lies adjacent to the listed farm complex at Fardre.

7.3.38 In addition to the recorded sites listed above, there is also the potential for unrecorded buried archaeological deposits within the area.

Listed buildings and Conservation Areas within 500m to 1km

7.3.39 In addition to those listed buildings within 500m referred to above, there are a further 18 within 1km, 14 of which are in the village of St George, around 800m east of the corridor. St George was the estate village associated with Kinnel Park and, with the exception of a telephone call box and a pillar box, the remaining 12 listed buildings all relate in some way to the estate, including the church, village hall, a smithy, a row of estate cottages, a lodge and park gates. Parts of the northernmost 2km will be visible from the village, though at a distance of between 0.7km and 2.5km.

7.3.40 Other listed buildings within the area include Hendre-uchaf, a 16th-century farmhouse with later additions which lies 900m west of the route, Bodoryn Bach, a Victorian farmhouse with extensive outbuildings which lies 1km to the east of the route, and the tower on Tower Hill 1km to the west, which is part of the picturesque landscape associated with the important medieval revival castle of Gwrych.

7.3.41 The most significant listed building is Dinorben Hall, which is listed Grade II*, the remainder being Grade II. Dinorben Fawr, its original name, first appears in the records in the Black Book of Carmarthen, around 1290, when it was the head of the commote of Is Dulas, and was probably on the site where Llewelyn ap Gruffudd signed the address to the King in 1273 known as 'Abad Dinorben' regarding fairs at Dolforwyn, Powys. By 1334, a survey of the Kings Lands noted it was a decayed manor. The present house is sub-medieval in origin, with a 17th-century extension. Listed Grade II* as a major post-medieval house, it retains much of the original structure, and has important historical connections. Also included in the listing is a threshing barn dated 1837, which is listed Grade II (PRN 41037).

7.3.42 Dinorben Hall is sited on high ground on the south-east side of a broad ridge with land falling to the head of the Nant y Creigiau valley to the south-west. The essential setting can be considered as comprising the farm complex which developed to the south of the house, and the former orchard and garden to the north. The critical views are to the south-south-east towards Kinnel Park and Lodge, and the reciprocal view towards the house.

7.3.43 At its closest point the route passes within 900m to the west of Dinorben Hall and the southern 2km will be sporadically visible from the house, depending on the topography and woodland. Subjectively, therefore, the impact on the essential setting of the house, and the critical views to and from the site, is not considered.

7.3.44 The village of St George is the only designated Conservation Area which lies within the immediate environ of the route. The village straddles the former turnpike road from Abergele to Rhuddlan and is essentially an estate village associated with Kinnel Park which lies immediately to the east. As noted above, there are 12 listed buildings in the village which relate in some way to the estate. Parts of the northernmost 2km of the route will be visible from the village, at a distance of between 0.7km and 2.5km, although the impact on the essential setting is not considered due to the intervening screening of St George Quarry and woodland.

7.3.45 The assessment of the impact of the route on these designated sites is included in Section 8 Landscape and Visual Amenity, below.

7.4 ASSESSMENT

7.4.1 The sites included in the following section are those which lie within the corridor, or within a field through which the corridor passes. It has been assumed that sites lying outside these parameters will be unaffected by the scheme. The exception are sites such as historic parks and gardens, listed buildings, and scheduled ancient monuments, where the visual impact may extend beyond these boundaries; the impact on their setting is discussed in a section 8.

Predicted Physical impacts

7.4.2 The potential of an archaeological site can be based on its perceived nature and appearance, its topography and the distribution and nature of other recorded archaeological features in the locality. It is measured on the basis of **High, Medium, Low and Negligible**.

<i>PRN</i>	<i>Name</i>	<i>Site type</i>	<i>Category</i>	<i>Potential</i>	<i>Magnitude of Impact</i>	<i>Significance of Impact</i>
46850	St Asaph - Caerhun	Roman Road	E	medium	low	low
83563	Tylgarth Isaf Well	Well	D	negligible	low	low
83564	Parc y Meirch Well	Well	D	low	low	low
83565	Ynys y Palmant	Placename	E	low	low	low
83566	Cae Odyn	Placename	E	low	low	low
83567	Parc y Meirch Marl Pit	Marl Pit	D	low	low	low
83568	Fardre Hill Quarry	Quarry	D	low	low	low
83569	Tylgarth Isaf Holloway	Holloway	C	medium	medium	medium
83570	Tylgarth Isaf Structure	Structure	D	low	low	low
83571	Morfa Rhuddlan Ridge & Furrow	Ridge & Furrow	C	low	low	low
83572	Pen y Ffordd pond	Pond	D	negligible	low	low
83573	Cae Henllan	Placename	E	low	low	low

7.4.3 In summary, the significance of all but one of the possible impacts is recorded as low. The exception is Tylgarth Isaf Holloway which is a category C site and crossed directly by the overhead line. This gives rise to a possible moderate impact.

7.4.4 In addition to those recorded sites listed above there is also the potential for the scheme to have an impact on previously unrecorded archaeological deposits which are buried and are not visible on the surface.

7.4.4 As noted above in the methodology section, an assessment of the impacts on the settings of Scheduled Ancient Monuments, Listed Buildings and Registered Parks and Gardens is provided in the Landscape and Visual Amenity chapter below in Section 8.

7.5 MITIGATION

7.5.1 The assessment area extends over a 6km-long tract of countryside, and a small number of sites of archaeological interest have been identified. The potential impact of the proposed route has been considered above, based on the results from the desk-based study and field assessment.

7.5.2 Mitigation strategies and recommendations fall under two headings, the specific (section 7.5.3) and the general (7.5.17). The former relate to those sites and features which have already been detected through one or other forms of survey, and where we consider that some further stage of work is required before the commencement of site works. General recommendations relate to the currently unquantifiable potential of the archaeological resource.

Specific Mitigation Strategies

7.5.3 To inform this section of the report we have maintained the same table format as in section 7.3, as this is appropriate, given the level of consistency in the recommended strategies. As a general guide it should be assumed that the suggested mitigation for Category A and most Category B sites would be *preservation in situ* (see below for explanation). *Preservation by record* would usually be recommended for Category C and probably Category D sites, unless circumstances specific to a particular site dictated otherwise. Category E sites might require *evaluation*, as might some sites in higher categories, depending on the nature of the proposed impact. It should also be stressed at this stage that the archaeological curator might decide on his/her own recommendations.

7.5.4 The following standard archaeological terms are used below as recommended mitigation measures:

Preservation in situ: where a site is considered to be of sufficient significance it may be considered appropriate to preserve the site in its present form, condition and location.

Preservation by record: where proposals will inevitably lead to the loss of a site sufficient recording should be undertaken to provide a full, accurate and permanent record of its nature, form, significance and dating. Preservation by record can take a number of forms, depending on the nature of the site in question, and may be achieved with or without excavation and could include any or all of the following: written record; drawn record; photographic record; artefactual record; survey; and environmental sampling.

Excavation: where a feature of local or minor significance is to be wholly removed as part of the development, its complete excavation may be required in advance of any construction works.

Evaluation: where insufficient information exists regarding a site for a decision to be made regarding its future management a programme of investigative work may be proposed. Such investigation may include geophysical survey, topographical survey and trial excavation.

Watching brief: a watching brief may be recommended to include archaeological monitoring of all relevant groundworks, including topsoiling, in order to identify and record any previously unknown archaeological remains which may be revealed. Sufficient time must be allowed for adequate recording of any remains that are encountered.

Demarcation: in addition, there are a small number of sites which do not appear to be directly threatened by the works as presented in the detailed plans currently available, although it is possible that they may be affected by ancillary works. In these cases it is recommended that the sites be clearly demarcated in advance of on-site works commencing to ensure that they are not disturbed.

PRN	Name	Site type	Category	Impact	Mitigation
46850	St Asaph - Caerhun Roman road	Roman Road	E	low	watching brief
83563	Tylgarth Isaf Well	Well	D	low	none
83564	Parc y Meirch Well	Well	D	low	demarcation and avoidance
83565	Ynys y Palmant	Placename	E	low	watching brief
83566	Cae Odyn	Placename	E	low	watching brief
83567	Parc y Meirch Marl Pit	Marl Pit	D	low	watching brief
83568	Fardre Hill Quarry	Quarry	D	low	none
83569	Tylgarth Isaf Holloway	Holloway	C	medium	watching brief
83570	Tylgarth Isaf Structure	Structure	D	low	demarcation and avoidance
83571	Morfa Rhuddlan Ridge & Furrow	Ridge & Furrow	C	low	watching brief
83572	Pen y Ffordd pond	Pond	D	low	none
83573	Cae Henllan	Placename	E	low	watching brief

PRN 46850 St Asaph - Caerhun Roman road

7.5.5 The predicted line of the Roman road crosses the southern end of the corridor. There is no direct evidence to indicate the course of the road and a watching brief is therefore proposed to record any sub-surface remains which may be revealed during groundworks in this area.

PRN 83563 Tylgarth Isaf Well

7.5.6 The field survey failed to identify any remains of the well although a number of boulders were noted in the area. No specific mitigation is therefore proposed.

PRN 83564 Parc y Meirch Well

7.5.7 The well lies around 60m from the nearest pole location and is unlikely to be directly affected. There is, however, the possibility of an impact from ancillary works such as those for access and it is therefore recommended that the site be clearly demarcated in advance of any groundworks to ensure avoidance.

PRN 83565 Ynys y Palmant

7.5.8 The Tithe Survey records a fieldname suggestive of the presence of a pavement or road, and although it has been suggested that this may relate to a Roman road its position suggests that it is more likely to refer to the adjacent turnpike road. A watching brief is therefore proposed to record any sub-surface remains which may be revealed during groundworks in this area.

PRN 83566 Cae Odyn

7.5.9 The Tithe Survey records a fieldname suggestive of the presence of a limekiln, although no trace of such a structure was identified during the field survey. A watching brief is therefore proposed to record any subsurface remains which may be revealed during groundworks in this area.

PRN 83567 Parc y Meirch Marl Pit

7.5.10 A hollow identified during the field survey has been interpreted as a possible marl pit. A watching brief is proposed to record any sub-surface remains which may be revealed during groundworks in this area which may elucidate the form and function of this feature.

PRN 83568 Fardre Hill Quarry

7.5.11 A small stone quarry was identified during the field survey. The site lies within 20m of the nearest pole location, but is assumed to be unaffected by the proposals and no specific mitigation is therefore proposed.

PRN 83569 Tylgarth Isaf Holloway

7.5.12 A well-preserved holloway was recorded during the field survey which will be directly impacted by the erection of a pole. A watching brief is therefore proposed to record any sub-surface remains which may be revealed during groundworks in this area.

PRN 83570 Tylgarth Isaf Structure

7.5.13 The ruins of a structure lie within 20m of the nearest pole location and are unlikely to be directly affected. There is, however, the possibility of an impact from ancillary works such as access and it is therefore recommended that the site be clearly demarcated in advance of any groundworks to ensure avoidance.

PRN 83571 Morfa Rhuddlan Ridge & Furrow

7.5.14 Several areas of ridge and furrow have been identified, all of which have only slight earthwork remains. These areas will be directly affected by the erection of 11 poles, although the overall impact to the earthworks is considered to be minor owing to the small percentage of the area which is likely to be affected. A watching brief is therefore proposed to record any subsurface remains which may be revealed during groundworks in this area.

PRN 83572 Pen y Ffordd pond

7.5.15 A modern pond was identified during the field survey. No specific mitigation is proposed.

PRN 83573 Cae Henllan

7.5.16 The Tithe Survey records a fieldname suggestive of the presence of an old enclosure, although no trace of such a structure was identified during the field survey. A watching brief is therefore proposed to record any sub-surface remains which may be revealed during groundworks in this area.

General Mitigation Strategies

7.5.17 The report has identified a small number of archaeological sites along the course of the route, but this may represent only a fraction, albeit an unknown fraction, of the total archaeological resource. A large part of the problem lies in the fact that this area has seen considerable agricultural activity over the centuries, the effect of which is to level out the remains of past activity, leaving features intact at subsoil level and cultural material in the ploughsoil, but nothing visible on the surface. There is also the potential for evidence of activity during the earlier prehistoric period which may, due to changes in sea level, now be buried by an accumulation of marine and estuarine sediments. Such deposits may be present anywhere along the route to the north of the A457.

7.5.18 The only practical mitigation for previously unrecorded archaeological deposits which may be revealed during the construction phase is as follows:

Watching brief. Undertaken during the excavations for the installation of poles and stays. In the event that something of significance is identified, sufficient time should be allowed to ensure that an adequate record of the remains is made.

7.6 CONCLUSIONS

7.6.1 The combination of detailed desk-based study and systematic field survey provides a thorough assessment of the potential of the terrestrial archaeological resource, together with the likely impacts of the development.

7.6.2 A small number of sites have been identified both within the route corridor and immediately adjacent to it which may be impacted on by the development. Where possible adverse effects have been identified, appropriate mitigation measures have been proposed.

7.6.3 Although there are three Listed Buildings and a Registered Park and Garden within the vicinity of the development, the visual impact is generally likely to be slight, although in individual instances the impact may be moderate.

7.7 ACKNOWLEDGEMENTS

7.7.1 The writers would like to thank the staff of the following for their assistance in the detailed desk-top assessment: the NMR in Aberystwyth; the HER in Welshpool; Denbighshire County Archives, Ruthin; the NLW, Aberystwyth; and SP Power Systems Ltd for facilitating the walkover survey.

7.8 REFERENCES

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Manley, J, 1981. Rhuddlan and coastal evolution. *Journal of Landscape History* 3, 1-15.

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Manuscript Maps

i) Held by the County Record Office, Hawarden
 1796 CROH/DC/220 Enclosure map for Abergele, St Asaph etc. Common marshes and waste.
 1794 CROH/DC/219
 c.1816 CROH/DC/226 Sketch of allotments in the parish of Abergele.
 Early 19thC CROH/DC/229

ii) Held by the National Library of Wales, Aberystwyth

1840 Tithe Survey of Abergele parish (Apportionment 1839)
 1840 Tithe Survey of St George parish (Apportionment 1839)

 1872 Ordnance Survey 1st edition 1:2,500 map Denbighshire 4.8
 1873 Ordnance Survey 1st edition 1:2,500 map Denbighshire 4.12
 1872 Ordnance Survey 1st edition 1:2,500 map Denbighshire 4.16
 1899 Ordnance Survey 2nd edition 1:2,500 map Denbighshire 4.8
 1899 Ordnance Survey 2nd edition 1:2,500 map Denbighshire 4.12
 1899 Ordnance Survey 2nd edition 1:2,500 map Denbighshire 4.16
 1913 Ordnance Survey 3rd edition 1:2,500 map Denbighshire 4.8
 1913 Ordnance Survey 3rd edition 1:2,500 map Denbighshire 4.12
 1913 Ordnance Survey 3rd edition 1:2,500 map Denbighshire 4.16

Aerial Photographic Sources

Sortie No.	Frame No.
CPE/UK/1996	4116-4117
CPE/UK/1996	4257-4258
58/2196	34-35
3G/TUD/UK/33	5108-5109
3G/TUD/UK/33	5334-5335
3G/TUD/UK/33	5401-5405
3G/TUD/UK/33	5034-5035
82/889	43-45
82/889	100-103

Section 7 – Archaeology

Appendix 7.1 - Categories for Assessing Impacts on Designated Sites

The categories are those given in the Cadw draft *Archaeology and the Trunk Road Programme in Wales: a Manual of Best Practice* and have been adopted for the Environmental Assessment Significance Criteria of the present scheme. These categories are based in turn - with the exception of Category E - on those given in the Department of Environment, Transport and Regions' *Design Manual for Roads and Bridges* Volume 11 Section 3 Part 2 (1993). Category E (also termed category U in some classifications) has been introduced to cover archaeological sites and monuments whose existence went unacknowledged in the Design Manual. The descriptions of these are those given in the Scoping Report

Category A: National Importance Monuments that are scheduled and protected under the Ancient Monuments and Archaeological Areas Act (1979); those suitable for scheduling; and those considered by us using professional judgment to be of national importance but not covered by the Secretary of State's criteria for scheduling; many listed buildings; and parks and gardens identified in the Historic Parks and Gardens Register.

Category B: Regional Importance Sites listed in the Historic Environment Record (HER) or other sources which are of a reasonably well-defined extent, nature and date and are significant examples in the regional context; those listed buildings not in Category A; Conservation Areas; and National Trust gardens.

Category C: Local Importance Sites listed in the HER or other sources which are of lower potential importance; some landscapes and features designated as of historic or archaeological value in the Local Plan (Note: subject to their value, these may be of greater, regional or national importance).

Category D: Minor Importance Sites listed in the HER or other sources which are of minor interest or are so badly damaged that too little now remains to justify their inclusion in a higher grade.

Category E Sites whose importance cannot be assessed from fieldwork and desk-top study alone, and where further work will be required to establish their true nature and category.

Appendix 7.2 - References for Assessing Impacts on Scheduled Ancient Monuments, Listed Buildings and Registered Parks and Gardens

The impact of the proposed powerline development on nationally designated archaeological sites and their settings has been referred to above. While no physical impact is envisaged, it is plainly evident that there will be a visual impact. However, while the monument itself can usually be well-defined, both from its physical remains and from the envelope drawn around it on the map by the statutory authority, there is no statutory definition of setting.

It is explicitly stated in *Planning Policy Wales* (2002) that *"It is important that the historic environment – encompassing archaeology and ancient monuments, listed buildings, conservation areas and historic parks, gardens and landscapes – is protected (para 6.1.1). More specifically it states that "the desirability of preserving an ancient monument and its setting is a material consideration in determining a planning application, whether that monument is scheduled or unscheduled. Where nationally important archaeological remains, whether scheduled or not, and their settings are likely to be affected by proposed development, there should be a presumption in favour of their physical preservation in situ" (para 6.5.1; our underlining).*

The 'setting' of a monument or building might be considered to be no more than the historic feature itself, together with the curtilage or ancillary land around it within which associated features interacted with it; it might be the ground that surrounds the historic feature such as the field it lies in or the hillslope on which it is situated; it might be the whole valley or plateau on which the feature lies; it might even be the whole landscape around the site. The term 'essential setting' is one that has been adopted to define the area around a designated site that is critical to its function, understanding and appreciation. A second term - 'critical view' - has been coined to describe those important lines of sight both from the monument and from viewpoints to the monument in question and beyond.

In Wales, Cadw (2003, 20) states that within the process known as the Assessment of the Impact of Development on the Historic Landscape (ASIDOHL) *"setting should not be interpreted too narrowly, and for the purposes of [the] process, impacts on settings will be categorised as 'indirect' impacts".*

'Setting' is understood to mean the modern setting of a historic feature, not the original setting, contemporary with the use of the building or monument (Black n.d., 2). Yet it is not as clear cut as this, for as Cadw have stated *"The [visual] impact might be on 'views to' or 'views from' these elements, and it should be assessed with reference to key historic viewpoints and essential settings. These should be considered in relation to a site's original character and function, as well as to the vantage points and visual experience of a visitor today. Determining these aspects in relation to field monuments can be difficult, especially where the key historic viewpoints and essential settings recognised today may be different from those that were important to the original builders or inhabitants of a site"* (Cadw 2003, 21).

Indirect (non-physical) visual impacts are defined as occurring when a development is intervisible with a historic feature. The impact may be seen in terms of both 'views from' and 'views to' the historic feature, and in relevant cases key historic viewpoints looking over specific historic features may need to be assessed. It may, too, be necessary to take account of interruptions to the visual connections between related historic features, and conversely the creation of inappropriate visual connections by the removal of intervening structures, barriers or ground.

Method of Assessment

No detailed guidelines specific to an assessment methodology of the impact on the setting of a designed feature have been produced by Cadw or other national agencies, as far as can be established.

The methodology adopted here utilises the Guide to Good Practice for assessing landscapes of historic interest (ASIDOHLs) produced by Cadw and the Countryside Council for Wales in conjunction with ICOMOS UK (Cadw 2003). Their guidelines were developed to promote good practice in the use of the two volumes of the Register of Landscapes of Historic Interest in Wales (Cadw 1998 and Cadw 2001). The guidelines are concerned primarily with historic landscapes rather than specific historic features which represent elements of those landscapes. Nevertheless, some aspects of the ASIDOHL process can be usefully adopted, and specifically, the section on the assessment of indirect visual effects (Cadw 2003, 21) offers a useful starting point in the assessment of impacts on historic features that are on, or at some distance from, the development site.

This assessment is based on information provided by the regional Historic Environment Record (HER) and by Cadw on the definitive list of Scheduled Ancient Monuments and Listed Buildings in the area.

The method of assessment has involved the use of a Geographical Information System (GIS) to produce viewshed analysis based on digital terrain data and mapping provided by the client, together with point data for known monuments provided by the regional HER. Information provided by the client indicates that the poles will vary between 13m and 17m in height, which has been taken into account in the analysis.

Based on information provided by Cadw it has been established that there are now no extant Scheduled Ancient Monuments within the development area. One Scheduled Ancient Monument, Dinorben Hillfort (SAM De12), formerly existed just to the east of the corridor but this has now been completely removed by quarrying and the site was de-scheduled in 1997. There are, however, five Listed Buildings within 500m of the corridor.

The results of the CPAT assessment of the proposals on these features of historic interest have been passed to Gillespies and have been incorporated into the landscape and visual amenity assessment.

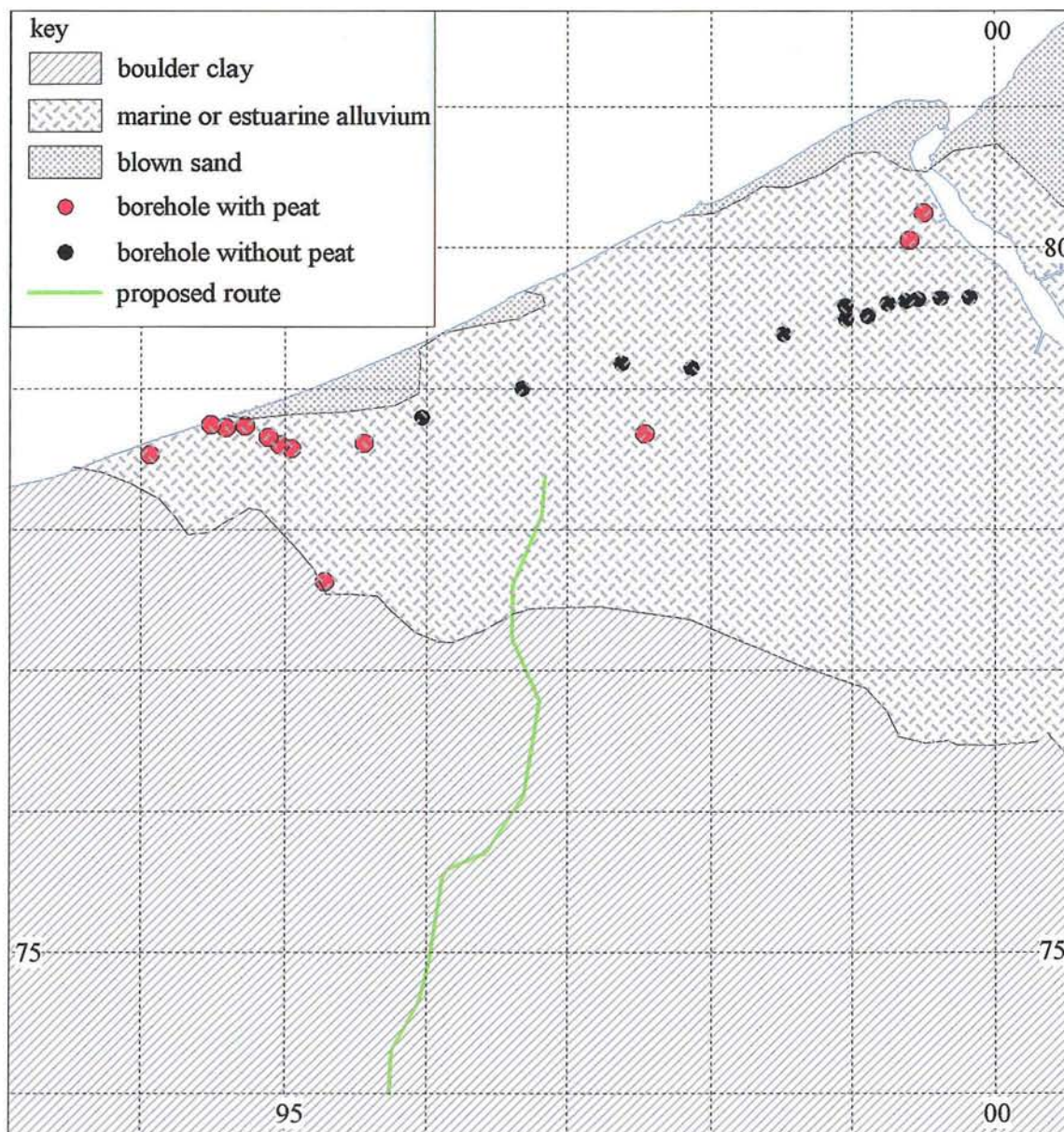


Fig. 1 Drift geology and borehole evidence (after Manley 1981 Figs 3 and 5)

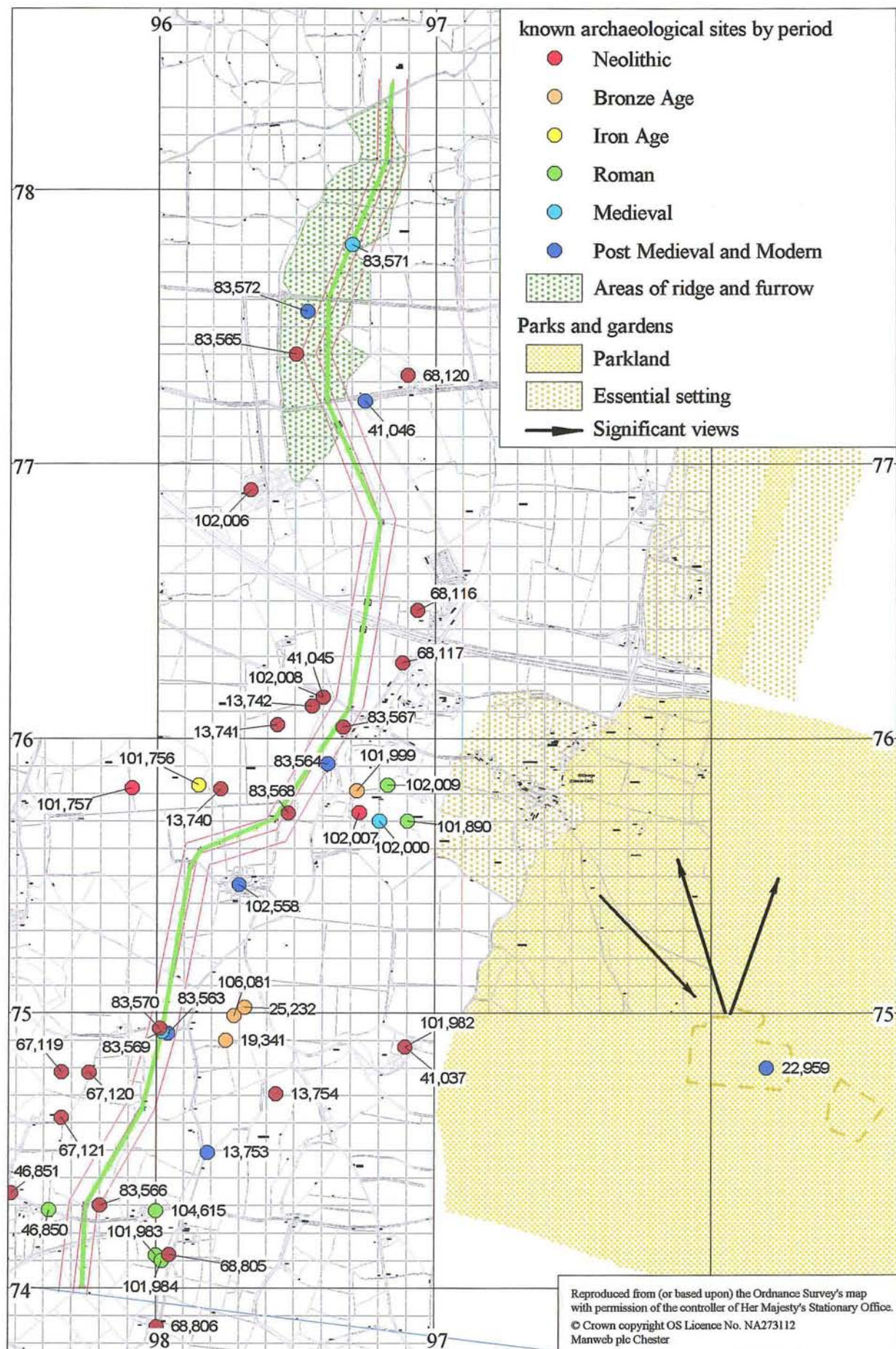


Fig. 2 Route corridor and known archaeology

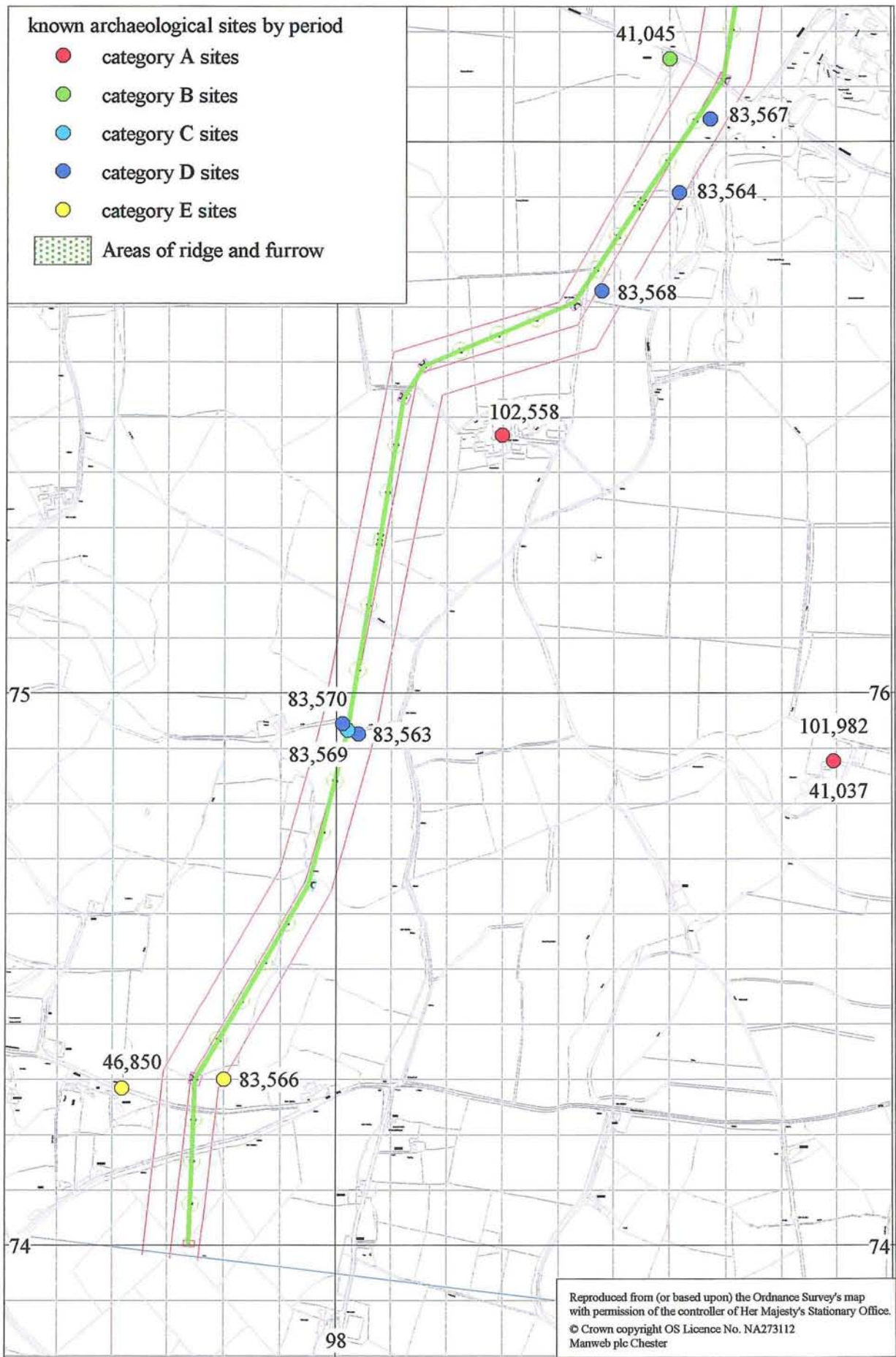


Fig. 3 Route corridor, southern section, showing potential impact on known archaeology

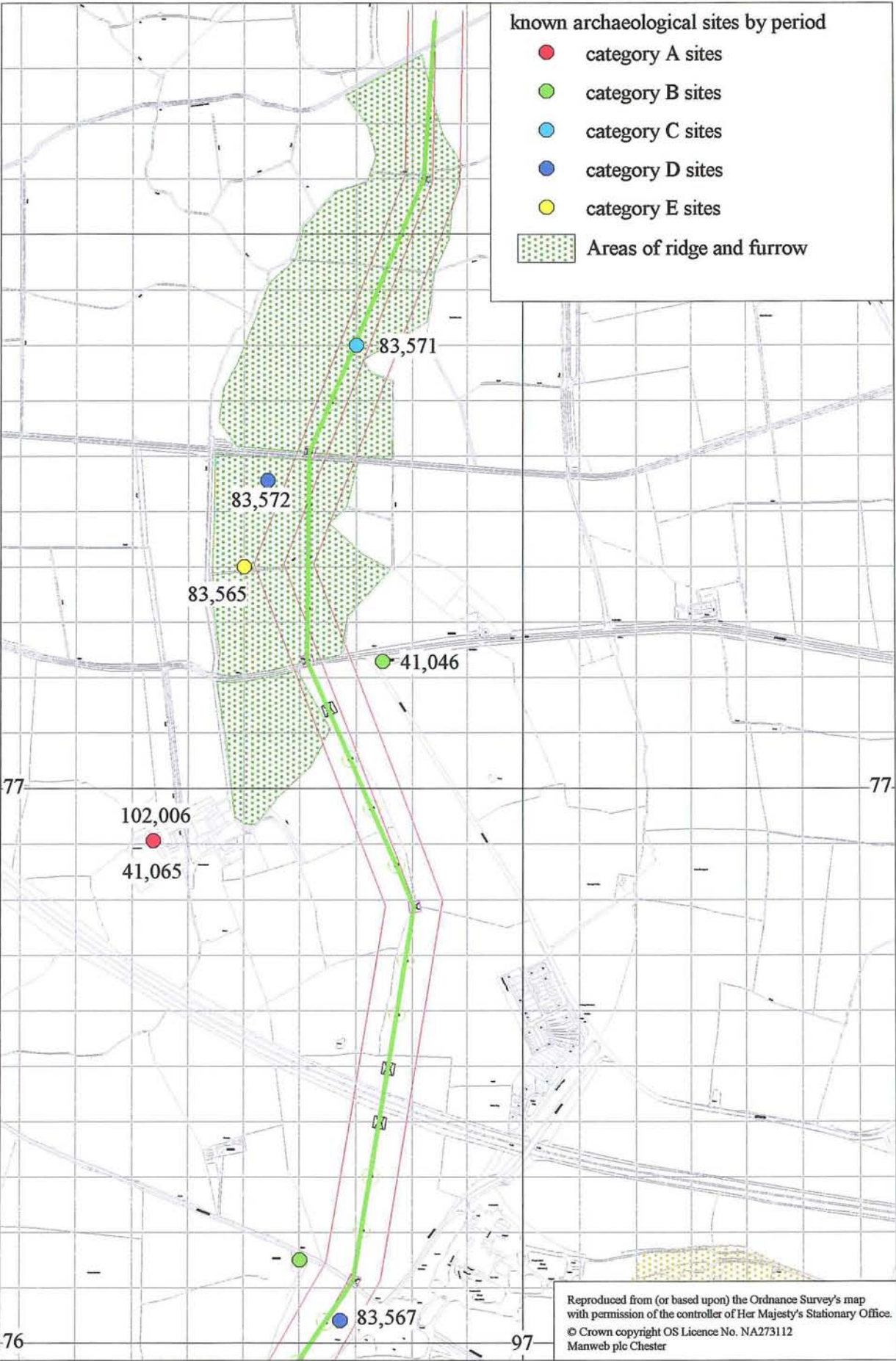


Fig. 4 Route corridor. northern section, showing potential impact on known archaeology