

Annex 18.2

North and South Killingsholme
Historic Environment Desk
Based Assessment

(AC Archaeology)

Able UK Ltd Marine Energy Park: North and South Killingholme, North Lincolnshire

NGR TA1670018700

Historic Environment Desk-based Assessment

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archaeology

ABLE MARINE ENERGY PARK, NORTH AND SOUTH KILLINGHOLME, NORTH LINCOLNSHIRE

Centred on TA1670018700

Historic Environment Desk-Based Assessment

1. INTRODUCTION

- 1.1 This report sets out the results of a largely desk-based assessment of the historic environment (archaeology and cultural heritage) issues relating to the proposed Able Marine Energy Park at North and South Killingholme, North Lincolnshire, centred on TA1670018700 (Fig. 1). This assessment has been prepared by AC archaeology Ltd, on behalf of Able UK Ltd during July and August 2010.
- 1.2 The proposed development will affect approximately 240ha of land on the Lincolnshire Marsh and will include manufacturing areas, a Bio-Mass/Carbon Capture facility, access roads, parking and landscaping. An additional area of construction will extend some 39ha into the estuary. The proposed application area boundaries comprise Rosper Road to the west, the Humber or the sea wall to the east, Haven Road to the north and the above ground pipelines to the south. Much of the north-west part of the application area, perhaps 50% of the total onshore development, has already been 'developed' for vehicle storage and distribution facilities (shown in grey on Figs. 3 – 5). Much of the remainder is agricultural land, mostly arable, with some pasture. Localised areas of developed land lie along Rosper Road and Station Road.
- 1.3 The topography is a gently undulating till surface (Middle Marsh) flanked by the much lower lying coastal plain (Outmarsh) which is largely below 4m OD. The underlying geology comprises boulder clay overlying Upper Cretaceous chalk on Middle Marsh and marine and estuarine drift deposits (silts, sands and coarse gravels with occasional peat horizons) over the till surface on Outmarsh.
- 1.4 The scope of this assessment includes only the terrestrial archaeological factors. A separate report on the offshore issues is in preparation. The following may be regarded as heritage assets and have been included in the study:

- Archaeological sites and finds including Scheduled Monuments;
- Buildings of historic interest, including Listed Buildings;
- Areas of palaeo-environmental potential;
- Historically important hedgerows and boundaries;
- Conservation areas;
- Registered (and locally important) parks and gardens;
- Historic landscape designations, and;
- Historic battlefields.

2. LEGISLATION AND GUIDANCE

Relevant protection, guidance and policies relating to the protection, maintenance and enhancement of archaeological sites and other aspects of cultural heritage may be summarised as follows:

2.1 Scheduled Ancient Monuments

Scheduled Ancient Monuments, as defined under the Ancient Monuments and Archaeological Areas Act (1979) are sites which have been selected by a set of non-statutory criteria to be of national importance. These criteria comprise period, rarity, documentation, group value, survival/condition, fragility/vulnerability, diversity, and potential. Where scheduled sites are affected by development proposals there is a presumption in favour of their physical preservation. There is also a presumption against developments which have a significant impact on the integrity of the setting of scheduled monuments. Any works, other than activities receiving class consent under The Ancient Monuments (Class Consents) Order 1981, as amended by The Ancient Monuments (Class Consents) Order 1984, which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up a Scheduled Ancient Monument require consent from English Heritage, on behalf of the Secretary of State for the Department for Culture, Media and Sport.

2.2 Listed Buildings/Structures

Buildings of national, regional, or local historical and architectural importance are protected by the Planning (Listed Buildings and Conservation Areas) Act, 1990. Buildings designated as 'Listed' are afforded protection from physical alteration or effects on their historical setting.

2.3 National policy

General policy and guidance for the conservation of the historic environment are now contained in *Planning Policy Statement 5: Planning for the Historic Environment* (formerly Planning Policy Guidance notes 15 and 16), released 23rd March 2010. Archaeological sites, buildings, parks and gardens, battlefields or other aspects of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are now considered *heritage assets* under a unified policy system.

World Heritage Sites, Scheduled monuments, Listed buildings, Conservation Areas, Registered Parks and Gardens and Registered Battlefields are considered to be 'designated' heritage assets and afforded a higher level of protection than non-designated assets. The relevant policies are listed below:

Policy HE1:	Heritage assets and climate change
Policy HE2:	Evidence base for plan-making
Policy HE3:	Regional and local planning approaches
Policy HE4:	Permitted development and Article 4 directions
Policy HE5:	Monitoring indicators
Policy HE6:	Information requirements for applications for consent affecting heritage assets
Policy HE7:	Policy principles guiding the determination of applications for consent relating to all heritage assets
Policy HE8:	Additional policy principle guiding the consideration of applications for consent relating to heritage assets that are not covered by Policy HE9
Policy HE9:	Additional policy principles guiding the consideration of applications for consent relating to designated heritage assets
Policy HE10:	Additional policy principles guiding the consideration of applications for development affecting the setting of a designated heritage asset
Policy HE11:	Enabling development
Policy HE12:	Policy principles guiding the recording of information relating to heritage assets

The *Draft National Policy Statement for Ports* (Department of Transport, issued November 2009) sets out, in Section 2.24, paragraphs 1-20, guidance for the assessment of heritage issues in new ports facilities and on decision making and recording.

2.4 Hedgerows

Hedgerows of historic importance are afforded protection under The Hedgerow Regulations 1997, section 97 of the Environment Act 1995. The scheme came into effect on 1 June 1997 and any hedgerow, which is defined, at that date, as being of historical or ecological importance may require consent from the local planning authority prior to removal. Although afforded protection by statute, historically important hedgerows are not considered to be 'designated' assets within the definition contained in PPS5.

2.5 Local Authority Plan Policies

Relevant saved policies for the management of archaeology and cultural heritage are set out in the North Lincolnshire Council Plan adopted May 2003.

HE5 - Development affecting Listed Buildings

The Council will seek to secure the preservation, restoration and continued use of buildings of special architectural or historic interest. When applications for planning permission relating to a Listed Building or Listed Building consent are being assessed, the primary consideration will be the need to preserve or enhance the fabric and character of the building. Permission or consent will not be granted unless it has been demonstrated that the proposed works would secure this objective. The Council will encourage the retention and restoration of the historic setting of Listed Buildings. Proposals which damage the setting of a Listed Building will be resisted. Whenever appropriate, proposals which would entail the loss of historic fabric from a Listed Building will be conditional upon a programme of recording being agreed and implemented.

HE8 - Ancient Monuments

Development proposals which would result in an adverse effect on Scheduled Ancient Monuments and other nationally important monuments, or their settings, will not be permitted.

HE9 - Archaeological Evaluation

Where development proposals affect sites of known or suspected archaeological importance, an archaeological assessment to be submitted prior to the determination of a planning application will be required. Planning permission will not be granted without adequate assessment of the nature, extent and significance of the remains present and the degree to which the proposed development is likely to affect them.

Sites of known archaeological importance will be protected. When development affecting such sites is acceptable in principle, mitigation of damage must be ensured and the preservation of the remains in situ is a preferred solution. When in situ preservation is not justified, the developer will be required to make adequate provision for excavation and recording before and during development.

3. ASSESSMENT METHODOLOGY

- 3.1** The principal aims of the study have been to identify and characterise the archaeological and cultural heritage resource of the proposed application area.

The information derived from the study has been used:-

- To assess the importance of the currently recorded archaeological resource of the study area
- To assess the potential for the discovery of additional sites of archaeological or cultural heritage interest within the boundaries of the proposed application area, and;
- To allow a consideration of survey methods that might be used to more fully identify the archaeological and cultural heritage resource.

The study does not attempt to provide a detailed assessment of impacts of development on the identified and potential resource, nor provide any detailed mitigation proposals at this stage.

- 3.2** For the purposes of data gathering and assessment, the study area will comprise the proposed application area (an area of c. 240ha) plus a c. 250m wide surrounding zone. More general reference will be made to other significant archaeological sites which lie outside this zone, where appropriate. The results of the searches are

discussed, by period, in Sections 5-11, summarised in Tables 1-3 (Appendix 1) and the location of the identified heritage assets, including previous surveys, are shown on Figs 2-5. Extracts of historical maps are included as Appendix 2.

3.3 This assessment has comprised a review of:

- Archaeological information held in the North Lincolnshire Council Sites and Monuments Record (hereafter NLSMR), North Lincolnshire Museum, Scunthorpe, and by the National Monuments Record (hereafter NMR), Swindon;
- Data held on the Portable Antiquities website (www.finds.org.uk) for the parishes of North Killingholme and South Killingholme;
- Listed Building information held by NLSMR and by the NMR;
- Historical, cartographic, printed and documentary sources held in Lincolnshire Archives (LA) and Lincoln Central Library (Lincoln);
- Heritage designation data held on the MAgiC website (www.magic.gov.uk);
- Aerial photographs from the collection held by the NMR;
- Aerial photographs held by the Cambridge University Collection of Air Photos (CUCAP);
- Lidar data held by NLSMR;
- Soil survey map of England and Wales 1983, and 'Soils and their use in Northern England';
- Data acquired from a site visit on 8th July 2010 and 13th October 2010. The purpose of the visits was to record current landuse, the presence of historic hegerdrows and, in areas of woodland, to identify any surviving earthworks;
- Other published or unpublished information.

3.4 Aerial photographs held at the NMR comprised 164 vertical photographs taken between 1945 and 1999, and 9 oblique photographs taken between 1983 and 2006. A further 6 oblique photographs and 2 runs of vertical photographs, all taken in 1984, were examined at CUCAP, Cambridge. The resultant NMR and CUCAP listings are included in Appendix 3. Cropmark or soilmark features (representing medieval cultivation remains) have been transcribed from both vertical and specialist oblique aerial photography. In addition to the medieval cultivation remains, a number of palaeo-channels was also noted and plotted. Oblique photographs were scanned and rectified for tilt and distortion using Paintshop and Coreldraw programmes. All marks of archaeological significance were then plotted onto Ordnance Survey base

maps using Coreldraw. This is a simple technique for rectification utilised by RCHM(E) surveyors without recourse to more sophisticated software and is suitable for oblique views of limited distortion. All archaeological features and palaeochannels were plotted on an Ordnance Survey 1:10000 scale base map.

4. PREVIOUS SURVEYS

4.1 A number of archaeological investigations have been undertaken within the study area, either as part of development control activities or as part of the *Humber Wetlands Project (Lincolnshire Marsh research area)*. These investigations include fieldwalking, geophysical survey, field evaluation, watching briefs and excavation. The results of this fieldwork have been included in Sections 6-11, below, summarised in Table 1 and shown on Figs 2-3.

4.2 Non-Intrusive Survey

The Humber Wetlands Project

This was part of a long term landscape survey being undertaken in order to investigate and interpret the palaeoenvironmental and archaeological record of the Humber Wetlands area. The project aims were to identify and record settlement, or other remains, on the wetlands which are currently, or may in the future, be subjected to damage or loss through development or modern agricultural practices. Their methodology comprised systematic fieldwalking surveys and transect coring. Several areas of fieldwalking survey (only) were undertaken within the application area (Events F1-F13), covering as much as c. 20% of the application area. The survey areas are shown on Fig 2 and summarised in Table 1. The surveys record isolated find spots and small artefact scatters but no significant concentrations of were identified. The principal results of the surveys are shown on Fig 4 and summarised in Table 2.

Geophysical Survey

A number of geophysical surveys, by gradiometer, have been undertaken within the application area in advance of road realignment (Event G1), the construction of the Able Vehicle Redistribution and Storage Facility (Events G3, G4, G6, G8 and G12) and the Humber Link pipeline (Events G9 and G10). In total some 20% of the application area, both inside and outside the 'developed' portions, has been subjected to recorded survey. These surveys have recorded several areas of

archaeological potential. The extent of these surveys is shown on Fig. 2, summarised on Table 1 and the principal results are shown on Fig. 4.

4.3 Intrusive Survey

An extensive programme of archaeological evaluation and mitigation has been undertaken within 'developed' part of the application area, largely in advance of the Able Vehicle Redistribution and Storage Facility. The extent of these surveys is shown on Fig. 3 and summarised in Table 1. The principal results are shown on Fig 4 and summarised in Table 2.

The Able Vehicle Redistribution and Storage Facility

This development has prompted the majority of the archaeological surveys within the northern part of the application area. A series of evaluations (Events E1-E3 and E5) were undertaken in those fields to be developed, broadly corresponding to anomalies identified by geophysical survey but also with control trenches to provide a full sample. Further detailed assessment of potential for the preservation of waterlogged deposits and palaeoenvironmental information was undertaken (Events E18-E20). From the results of these evaluations a mitigation strategy was drawn up and areas containing significant archaeological features or deposits were targeted for more detailed survey (Events E17 and E24). Relevant information was also collected from non-archaeological geotechnical surveys (E4) undertaken within those areas.

Within the 'developed' part of the site there is one area of 'preservation in situ', agreed as part of a mitigation strategy for the planning consent, that remains unused, without any new surfacing. This area will require inclusion in future mitigation strategies for the Marine Energy Park.

5. THE PREHISTORIC LANDSCAPE

5.1 Post-Glacial

Following the last ice age, around 8,000 bp, the low lying areas of North Lincolnshire were flooded by rising sea water, to as much as perhaps 5m above current Ordnance Datum. After c. 2,000 years bp sea-level regressed and the Humber estuary was left as a recognisable topographic entity fringed by low lying marshland giving rise to

heavy, largely stone-free soils prone to water logging. A forest of alder, oak and birch developed over the glacial till.

No pre-Mesolithic artefacts have been recorded within the application area.

5.2 Mesolithic – Bronze Age

The forest was fully established by around 6681±BP and a lower peat developed on the forest floor during the later Mesolithic due to a change to a slightly wetter climate. A significant marine transgression during the Bronze Age laid down a thick layer of marine clay over the peat, associated with the formation of saltmarsh. A subsequent reduction in the rate of sea level rise, or a marine regression, facilitated the development of freshwater marsh identified from the deposition of a layer of *Phragmites* clays (van de Noort & Davies, 1993). The area therefore has some potential for the presence of littoral occupation, at intervals throughout the early prehistoric period. This may be concentrated in areas where even slightly raised land (above c. 4m OD), within or adjacent to, former marshland once offered the potential for temporary or more permanent settlement to exploit both terrestrial and marine environments. Elsewhere along the estuary there is proven potential for sites of prehistoric date, beneath alluvium and where the conditions are such that archaeological deposits (including organic remains such as wooden trackways dating from the Bronze Age to Romano-British period) remain preserved *in situ*.

Specific archaeological discoveries of the early prehistoric period within the study area are largely limited to individual artefacts recovered during fieldwalking surveys (Fig. 4; Sites A2, A8, A10, A12, A15, A17, A22, A44 and A47) or as residual finds within later features during archaeological investigations (Site A6). These comprise Late-Mesolithic to Early Bronze Age flint cores, blades and flakes. Two areas were identified as containing a concentration of finds (Sites A20 and A25) containing thirteen and four flint artefacts respectively. A larger assemblage of twenty seven flints (Site A13), dating from the Mesolithic through to the Early Bronze Age, was recovered during a trench evaluation undertaken prior to the construction of the Able Vehicle Redistribution and Storage Facility (Area E). The majority came from three trenches on slightly higher ground, implying a preferred location, but the limited quantity of artefacts suggested there was no sustained occupation of the site during the early prehistoric period.

Excavations prior to the construction of the Conoco CHP plant (Site A53), southwest of the application area, identified limited evidence for early prehistoric activity in the form of several pieces of worked flint and some Late Bronze Age pottery.

5.3 Iron Age

Early salt production associated with Bronze Age and Iron Age settlements on the former scrubland of the Lincolnshire marshes has been recorded. Water was taken from the deep estuarine creeks at high tide and used in the salt making process. Archaeological evidence suggests that this industry began as early as the 4th century BC and continued throughout the Iron Age and into the Romano-British period. Clearance of woodland during the Bronze Age was probably related to the growth of mixed arable farming which was firmly established by the Iron Age. The estuary, with its marine, freshwater and terrestrial landscape, offered potential for more permanent settlement, although evidence for significant marine transgression even after this time has been identified.

Archaeological investigations undertaken within the northern part application area, prior to the construction of the Able Vehicle Redistribution and Storage Facility, have identified Iron Age settlement remains. A rectangular enclosure east of Rosper Road (Site A7) was c.27m wide with substantial (up to 4m wide) ditches. A mid-late Iron Age roundhouse and other structural features were found within the enclosure. The site had been sealed beneath a thick layer of alluvium. A second enclosure (Site A14) was evaluated c. 400m to the south. This was oval in plan, 65m x 45m with a substantial (c.5m wide) ditch and a smaller internal one dividing the interior. Pottery from this also dated it to the mid-late Iron Age, contemporaneous with the settlement to the north. However, recutting of the enclosure ditches and evidence of use through to the early Romano-British period suggest a longer occupation. The two enclosures were divided by a narrow coastal inlet which has been identified and recorded through geophysical survey and trial trench evaluation. There was no alluvium sealing the southern enclosure and it is possible that this became the principal settlement after the northern enclosure was abandoned due to rising sea levels during the late Iron Age.

Within the broader study area, archaeological investigations in advance of the construction of the Conoco CHP plant identified a settlement site which was occupied in several distinct episodes from the early Iron Age (Site 53) into the Romano-British period. The earliest phase consisted of an unenclosed roundhouse and several

boundary ditches on low ground close to a former creek. Fragments of briquetage (salt-boiling vessels) were recovered, providing evidence of salt production or storage on the shore at this period. Following a brief hiatus, which may coincide a period of inundation, the site was reoccupied during the late Iron Age on slightly higher ground to the north and this settlement continued well into the Romano-British period. To the north, a large boundary ditch (Site A50) was recorded running parallel to Rosper Road for over 400m with several further smaller drainage or boundary features. These may be associated with the settlement to the south.

6. ROMANO-BRITISH LANDSCAPE

- 6.1** Although the study area lies outside the major road communication network dominated by Lincoln and the Humber Crossing at Brough, the significance of saltworking, coastal trade and associated settlement around the estuary should not be underestimated. Extensive areas of Romano-British settlement and industrial activity are known within the coastal plain on the south Humber shore, generally located above the 4m contour. All have been recorded from cropmarks, geophysical surveys and excavations related to recent industrial developments.
- 6.2** Romano-British activity has been recorded within the northern part of the application area during archaeological investigations associated with the realignment of Clough Road and, subsequently, the Able Vehicle Redistribution and Storage Facility. The activity comprises a series of boundary or field ditches on two alignments (Sites A1 and A5). No settlement evidence was identified on the site although the presence of pottery, daub and animal bone suggests it may have been close. The activity may represent part of a small scale agricultural settlement possibly associated with small scale salt production. Equally it may represent an outlying part of the Chase Hill complex, an extensive Romano-British ladder settlement to the northwest of the study area. Adjacent to this, outside the application area, two further ditches containing pottery and Roman ceramic building material (Site A62) were recorded during trench evaluation. To the north, an occupation site (Site A45) was discovered in the 1960s during construction of a gas plant.
- 6.3** The Iron Age settlement (Site A53), to the south of the application area, continued in use into the Romano-British period having shifted north to higher ground during the Late Iron Age. Centred around a pattern of enclosures and a driveway, the pottery evidence suggests it was occupied by peasant farmers with little access to romanised goods. During the mid-late 3rd century, the settlement contracted to an area within the main enclosure. An archaeological evaluation undertaken to the NE

(Site 49) recovered late 3rd -4th century pottery suggesting that the settlement may have migrated again. The excavations identified evidence for several phases of flooding within, and adjacent to, the site and the enclosure and boundary ditches showed frequent recuts. Two isolated sherds of Roman pottery have been recovered on the higher ground within the application area. (Sites A19 and A26), on the fringes of the settlement. Despite the obvious difficulties of living on the edge of the marginal land, the level of Romano-British settlement in this area is probably fairly intensive.

- 6.4** Two sherds of pottery were recovered from the lower ground. This is considered to have been marginal land during the Romano-British period although activity on the saltmarsh at this time cannot be discounted.

7. SAXON LANDSCAPE

- 7.1** Archaeological evidence suggests that from the AD 5th century both rural and urban populations in Lincolnshire declined dramatically resulting in the large scale abandonment of settlements. Sites around the Humber Estuary, particularly if based on saltworking or coastal trade, would have been highly susceptible to these changes and any changes in the sea levels may have quickly rendered the Outmarsh inhospitable. It is clear however, by 1086, that saltworking was well-established along the Lincolnshire coast, the nearest sites being in the parishes of Habrough and Stallingborough, but now in areas well inland. Whether this was the result of late Saxon re-establishment of the industry or evidence of continued exploitation is unclear. The Humber would have been a major trading route for importing goods into the north of England and it is possible that creeks within the study area may have acted as landing places at some time.

- 7.2** It has been suggested (Cameron, 1991) that the place name of Killingholme derives from ‘*Ceolwulfingas*’ and –‘ham’ (Killingham) meaning ‘the homestead of the followers of *Ceolwulf*’. The ham may have been replaced by the Scandinavian word *holmr*, meaning ‘higher ground in a marshy area’ reflecting a change in local dialect. The –*ingas* is believed (Cameron, 1991) to belong to an early period of Anglo-Saxon settlement.

- 7.3** There is no recorded archaeological evidence for the Saxon period within the study area. A quantity of 5th Century AD pottery recovered during the excavations at Chase Hill Farm, to the northwest of the study area, may be significant.

8. MEDIEVAL LANDSCAPE

- 8.1** The villages of North and South Killingholme are classic 'row' villages, extending along a north-south spine road. They developed on the slightly higher ground of Middle Marsh and the place-name evidence (see Section 7, above) suggests that they were established by the 11th century. Although the detailed topography of the pre-enclosure landscape cannot be recovered, its general principles are clear, not only from later maps, but also from documents, particularly a 1585 survey of East Halton and Killingholme with 18th century transcription and a late 18th century farm sale brochure. The village cultivated large tracts of arable in a two open field system, East and West fields, which were separated by the spine road along which the farmsteads and other dwellings lay.
- 8.2** The effects of saltworking on the estuary has been addressed by Pawley (1984, pp. 67, 85), who notes that salterns (which are known to have existed at East Halton to the north and at Stallingbrough to the south) have the effect of leaving large accumulations of debris along the shoreline. As these grew in size the saltmarshes were pushed further east towards the sea and the debris became pasture. In addition, higher tide levels during the 14th century resulted in a build up of mud and silt along the shore, thus extending the coastline eastward. It is possible, therefore, that the application area includes both cultivated land and former saltmarsh which became pasture following the accumulation of saltworking debris and alluvial deposits. Russell's reconstruction of the pre-enclosure common field landscape (Russell and Russell, 1982; reproduced in Appendix 2) clearly shows the definition between the areas (East Field and Marsh) with the boundary following topographic features which are still recognisable in the modern landscape, albeit in a straightened or slightly altered form.
- 8.3** The earthwork and cropmark remains of some of the pre-enclosure fields have been identified from the examination of aerial photographs and Lidar topographic surveys and from geophysical surveys (Fig. 5). Three principal areas of cultivation have been identified within the application area (Sites A37, A38 and A39), all of which display a 'reverse S' plan typical of Medieval ridge and furrow cultivation. Sites A37 and A38 survived as cropmarks and were transcribed from aerial photographs. Site A39, in the southwest corner of the application area and extending south into the broader study area, was identified by study of Lidar data and may survive as earthworks in that area. Site A52 is a continuation of this cultivation. Site A36, a sinuous double

ditched feature also identified from aerial photographs, appears to mark the eastern extent of ridge and furrow cultivation and may represent both a headland and a former seabank of medieval date. Further ridge and furrow earthworks within woodland in Burkinshaw's Covert had been recorded and surveyed during a watching brief (Site A18). Recent examination of Lidar images taken in 2006 show them in greater detail as surviving earthworks over a more extensive area (A64). There are no well-preserved ridge and furrow earthworks in the application area.

- 8.4** All the above described cultivation remains are located just around (or above) the 4m contour and rarely extend into the edge of the alluvium. This corresponds with the pre-enclosure map depicting the use of higher ground for cultivation and the lower lying saltmarsh appearing to be unusable or more suited to pasture.
- 8.5** The hedgerow forming the parish boundary between North and South Killingholme (Site A33) is shown on enclosure map of 1776-79 and may be Medieval in origin.
- 8.6** A ditch containing a single sherd of Medieval pottery was recorded during an evaluation in 2006 (Site A58). No other associated features or finds were recorded.

9. POST-MEDIEVAL LANDSCAPE

- 9.1** The agricultural landscape of North and South Killingholme was radically altered by Parliamentary enclosure, which was imposed between 1776 and 1779 (see Appendix 2). The open fields and common grazing land of the Medieval villages was enclosed and allocated to private landholders. This was often accompanied by large scale drainage works allowing areas of former marshland to be drained and used for arable cultivation. The straightening of the drains running through the application area was probably undertaken during this period.
- 9.2** The planting of field hedges also occurred at this time and a number of hedgerows survive within the application area that appear to have been established at the time of enclosure (Sites A34 and A35).
- 9.3** There are three post-Medieval lighthouses on the shore of the Humber, immediately south-east of the application area. Killingholme North Low Lighthouse (Site A40), Killingholme High Lighthouse (Site A41) and Killingholme South Low Lighthouse (Site A42) are all Grade II Listed Buildings. All were constructed during the mid 19th century to as a crucial navigational aid for shipping entering the Humber. Sites A41

and A42 lie within the military storage compound (Plate 1), while site A40 has been converted to a private dwelling.



Plate 1: Lighthouses A42 (foreground) and A41; looking west towards application area

9.4 An unnamed group of buildings (Site A4), probably a farm complex, are shown to the east of Chase Hill Wood on early Ordnance Survey maps. Within the broader study area a Brick and Tile yard (Site A57) and Marsh Farm (Site A61) are both shown on first edition Ordnance Survey maps and no longer survive.

9.5 The historic landscape character of the application area is predominantly *Recently Enclosed land* with some *Recently Enclosed land with 20th century subdivision*. Two areas of *Ancient Enclosure*, shown as *Old Enclosures* on the Russell maps are in areas of 'developed' land.

10. MODERN LANDSCAPE

10.1 The construction of Immingham Docks in 1912 (following the passing of the Humber Commercial Railway and Dock Act in 1904) led to a period of great industrial growth in that area in the early part of the 20th century, transforming the former marshland.

A network of railways was opened to more readily transport goods and workers to and from the docks at Immingham and Grimsby. The Barton and Immingham Light Railway (Site A21), which runs through the application area, was opened in around 1910 and closed in 1963. Part of Killingholme Station (Site A28) still stands and is now a private house.

- 10.2** The growth of industry in the area meant that the docks and associated infrastructure was highly vulnerable to attack during both World Wars. There are a number of sites within the study area built to assist in the defence of these important industrial sites.
- 10.3** The site of the North Killingholme Royal Naval oil storage depot (Site A43) lies to the north of the application area. This was established just before the outbreak of the First World War. To its east, on the shore of the Humber, lies the site of Killingholme gun battery (Site A56), built to protect the oil storage depot on its seaward side and operational between 1916-17.
- 10.4** Further defensive structures were constructed within the application area during the Second World War. Three barrage balloon sites operated by 942 Squadron Balloon Command are recorded (Sites A9, A16 and A23). The shelters associated with Site A23 are still extant and in use as agricultural buildings. The exact location of Sites A9 and A16 are not known. Outside the application area, a series of 'T' shaped ditches (Site A59), dug as aircraft landing obstacles, have been recorded from aerial photographs. A heavy anti aircraft battery (Site A46), designated 'Humber M' is recorded at Chase Hill Wood.
- 10.5** Examination of aerial photographs and historic maps has identified a number of former buildings within the application area (Sites A29, A30, A31 and A32). Of those only a single building survives, at Site A32, a small red brick building originally part of a larger complex. A row of about sixteen houses has been identified south of Marsh Lane (Site A60) but no trace now survives.

11. UNDATED FEATURES

- 11.1** A number of cropmark features have been identified from the examination of aerial photographs (Sites A24, A48, A51, A54 and A55). No further investigation has been undertaken on these features and they remain undated. An earthwork feature, Site

A70, was identified during the site walkover and may relate to the former (Medieval) sea wall.

12. SUMMARY OF HERITAGE ASSETS

Heritage assets within the proposed application area

- 12.1** No designated heritage assets lie within the proposed application area. The nearest scheduled monuments (Manor Farm and North Garth; both medieval moated sites) lie c.2km west of the study area.
- 12.2** Thirty two non-designated heritage assets have been recorded within the application area (Sites A1-A28 and A33-A36). These comprise earthwork/cropmark features, find spots, sites identified from documentary sources and excavated evidence. A further seven previously unrecorded heritage assets (Sites A29-A32 and A37-A39) have been identified as a result of examination of historic mapping, Lidar survey data held by NLSMR and aerial photographs. These comprise the cropmark remains of ridge and furrow cultivation and the location of former buildings. In addition. Most hedgerows in the application area are considered to be of historic importance.
- 12.3** All heritage assets within the application area are summarised in Appendix 1: Table 2 and have been discussed in detail in Sections 5-11.

Heritage assets within the broader study area

- 12.4** There are three designated heritage assets within the broader study area. Killingholme North Low Lighthouse (Site A40), Killingholme High Lighthouse (Site A41) and Killingholme South Low Lighthouse (Site A42) are Grade II Listed Buildings and lie immediately south-east of the application area.
- 12.5** Twenty non designated heritage assets have been recorded within the broader study area (Sites A43-A62). These comprise earthwork/cropmark features, findspots, sites identified from documentary sources and excavated evidence. Two previously unrecorded heritage assets (Sites A63 and A64) have been identified as a result of examination of Lidar survey data held by NLSMR. These comprise extensive areas of ridge and furrow cultivation within what is now woodland.
- 12.6** All heritage assets within the broader study area are summarised in Appendix 1: Table 3 and further discussed in Sections 5-11.

Conservation areas and other designations

- 12.7** The study area does not contain or lie adjacent to any Conservation Areas or other designated areas of Archaeological Importance.
- 12.8** There are no Registered Gardens of Special Historic Interest or Registered Battlefields within the study area.

13. ASSESSMENT OF SIGNIFICANCE

13.1 Introduction

This assessment has provided a summary of all recorded heritage assets within the study area as a result of a search of a range of archaeological databases. Each source has its own limitations. Aerial photographs are of variable effectiveness depending on geology, land use and weather conditions, while certain types of remains produce no cropmarks or soilmarks. Documentary sources were seldom compiled for archaeological purposes, contain inherent bias, and provide a comprehensive basis of assessment only for the last two hundred years. National and county databases are also limited in that they only provide a record of known archaeological data.

- 13.2** PPS5 states, in Policy HE6.1, that *Local planning authorities should require an applicant to provide a description of the significance of the heritage assets affected and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage asset and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum the relevant historic environment record should have been consulted and the heritage assets themselves should have been assessed using appropriate expertise where necessary given the application's impact. Where an application site includes, or is considered to have the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where desk-based research is insufficient to properly assess the interest, a field evaluation.*

- 13.3** PPS5 provides no terminology or criteria for ranking the significance of non-designated assets. It is therefore necessary to define a method for the assessment of individual heritage features. In the absence of a nationally accepted means of

ranking the importance of archaeological and cultural heritage assets (other than the Secretary of State’s non-statutory criteria for the assessment to national importance), a set of terms has been applied in order to provide a comparison of the relative importance of any cultural heritage features present on the site. The gradings are set out in Table 4 below and included on Tables 2 – 3 in Appendix 1.

GRADING		GRADES OF SIGNIFICANCE
A	National significance	Any designated or other asset considered to be of national significance due to its archaeological, architectural, artistic or historic interest. The asset would score high using the non-statutory criteria for assessing scheduled monuments.
B	Regional/County significance	Any asset considered to be of regional or county significance due to its archaeological, architectural, artistic or historic interest. The asset would score moderate using the non-statutory criteria for assessing scheduled monuments.
C	Local significance	Any asset considered to be of local significance due to its archaeological, architectural, artistic or historic interest. The asset would score low using the non-statutory criteria for assessing scheduled monuments.
D	Not significant	Any asset that is not considered to be of archaeological, architectural, artistic or historic interest significance

Table 4: Grading of Importance of cultural heritage assets

13.4 Assets of National Significance

Sites A40, A41 and A42, three lighthouses south-east of the application area, are all Grade II Listed Buildings. They are of national significance both for their architectural interest and for their historic interest in the part they played in facilitating the safe navigation of merchant and naval shipping into the Humber Estuary. They lie outside the application area and will not be directly affected by the development although the impact on their settings may require review.

13.5 Assets of Regional/County Significance

Prehistoric sites A7 and A14, Romano-British sites A1 and A5 and undated site A24 all lie within the application area. Prehistoric site A53, Romano-British sites A45 and A53 and ?Medieval/Post-medieval site A33 lie within the broader study area. All are considered to be of regional/county significance for the archaeological information they provide in the understanding of the development of settlement and industry on

the Humber Wetlands. Palaeo-environmental deposits within the reclaimed marsh may be of regional/county significance.

13.6 Assets of Local Significance

Prehistoric sites A2, A6, A8, A10, A12, A13, A15, A17, A20, A22 and A25, Romano British sites A3, A11, A19 and A26, Medieval sites A18, A33, A36, A37, A38 and A39, Post-medieval sites A4, A34 and A35 and Modern sites A9, A16, A21, A23, A27, A28, A29, A30, A31 and A32 and undated site A70 all lie within the application area. Prehistoric sites A44, A47 and A50 Romano British sites A49 and A62, Medieval sites A52, A58, A63 and A64, Post-medieval sites A57 and A61, Modern sites A43, A46, A56, A59 and A60 and undated sites A51, A54 and A55 all lie within the broader study area. All are considered to be of local significance for the archaeological information they provide in the understanding of the development of settlement, industry and national defence of that part of the Lincolnshire Marsh.

13.7 Assets of No Significance

One undated site, site A48, is considered to be of no significance in terms of its archaeological, or other, interest in the understanding of the cultural heritage of the area. A further five sites (Sites A65-A69) comprise geophysical survey anomalies which have been evaluated and found to be of no significance.

14. CONCLUSIONS

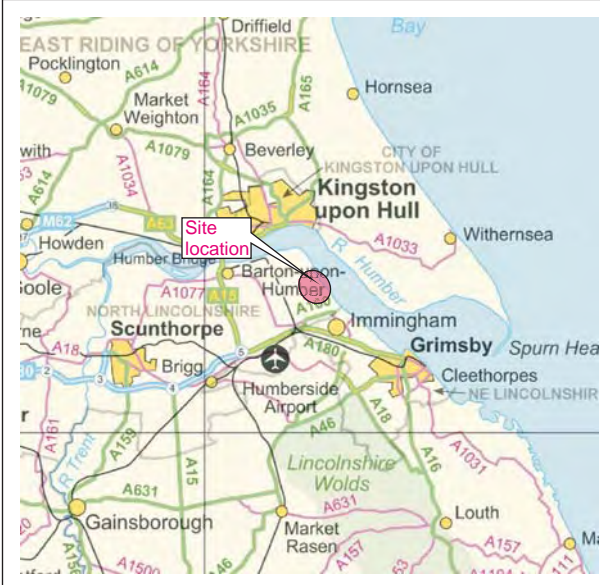
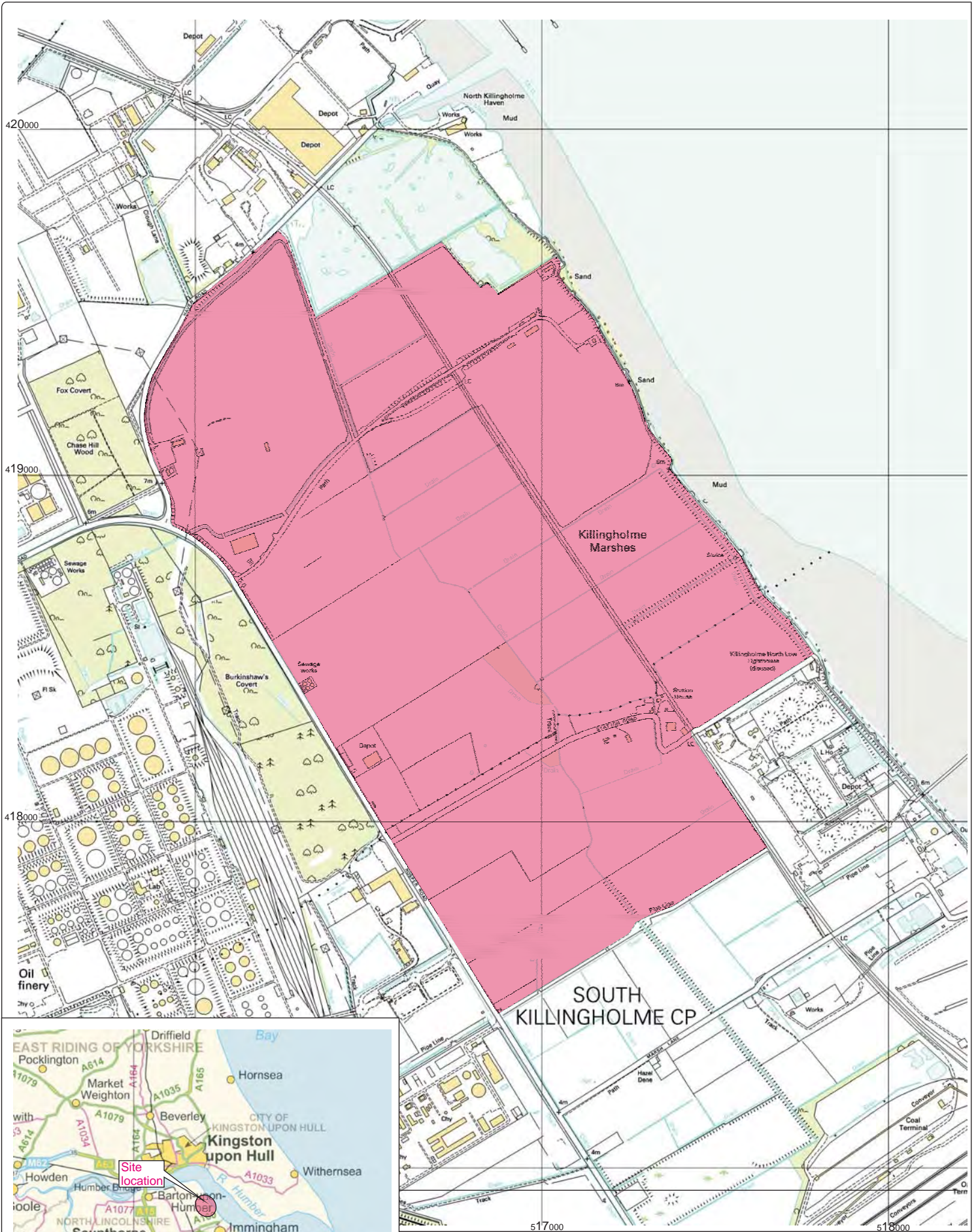
- 14.1** The study area contains a wide range of heritage assets that will require management during the detailed design stages of the Marine Energy Park. There are no designated assets within the application area but three Listed Buildings lie close to its southern boundary. The settings of this group of buildings may be subject to review, but it is considered that the impact of the construction of the MoD depot has already materially reduced the original setting. In addition, as part of the Environmental Impact Assessment for the project, a study will be undertaken to consider the effects on the settings of significant heritage assets within a zone of up to 10km.
- 14.2** The identification of the full archaeological resource of the study area is well-advanced due to the intensity of previous surveys. As much as 60ha of geophysical survey has previously been undertaken as well as more than 12km² of evaluation

trenching and open area excavation. These surveys have largely been undertaken in the northern part of the application area prior to the development of the Vehicle redistribution centre and along the western edge in advance of the Humber Link Pipeline. The new development proposals, if consented, will require a thorough review of the completeness of existing archaeological commitments within those areas of the site previously the subject of planning consent. Where appropriate the completion of mitigation strategies will be reincorporated into new proposals and set out in an updated mitigation strategy.

- 14.3** The area of former saltmarsh (generally below 4m OD) is considered to be of high potential for palaeoenvironmental evidence. Former water channels and creeks have been identified along with peat and clay layers which record the environmental history of a developing post-glacial landscape. This low lying area is unlikely to contain evidence for settlement as marine inundations were frequent and the land was marginal. However, buried creeks, channels and coastline may lie beneath the alluvium, preserving evidence of prehistoric activities along that coastline. Significant palaeo-environmental deposits may exist at depth within this zone.
- 14.4** The area of higher ground at around 4mOD (i.e. off the alluvium) has been shown to contain important prehistoric and Romano-British settlement and industrial remains as well as evidence of its use for cultivation during the Medieval period. The coast and the variety of resources available in this littoral zone are likely to have been significant factors in the choice of location for ancient settlement. The prehistoric and Romano-British settlements tend to lie on the shores of tidal inlets and the application area contains further potential for such areas. Where investigated the archaeological deposits are known to survive at relatively shallow depths below modern ploughsoil.

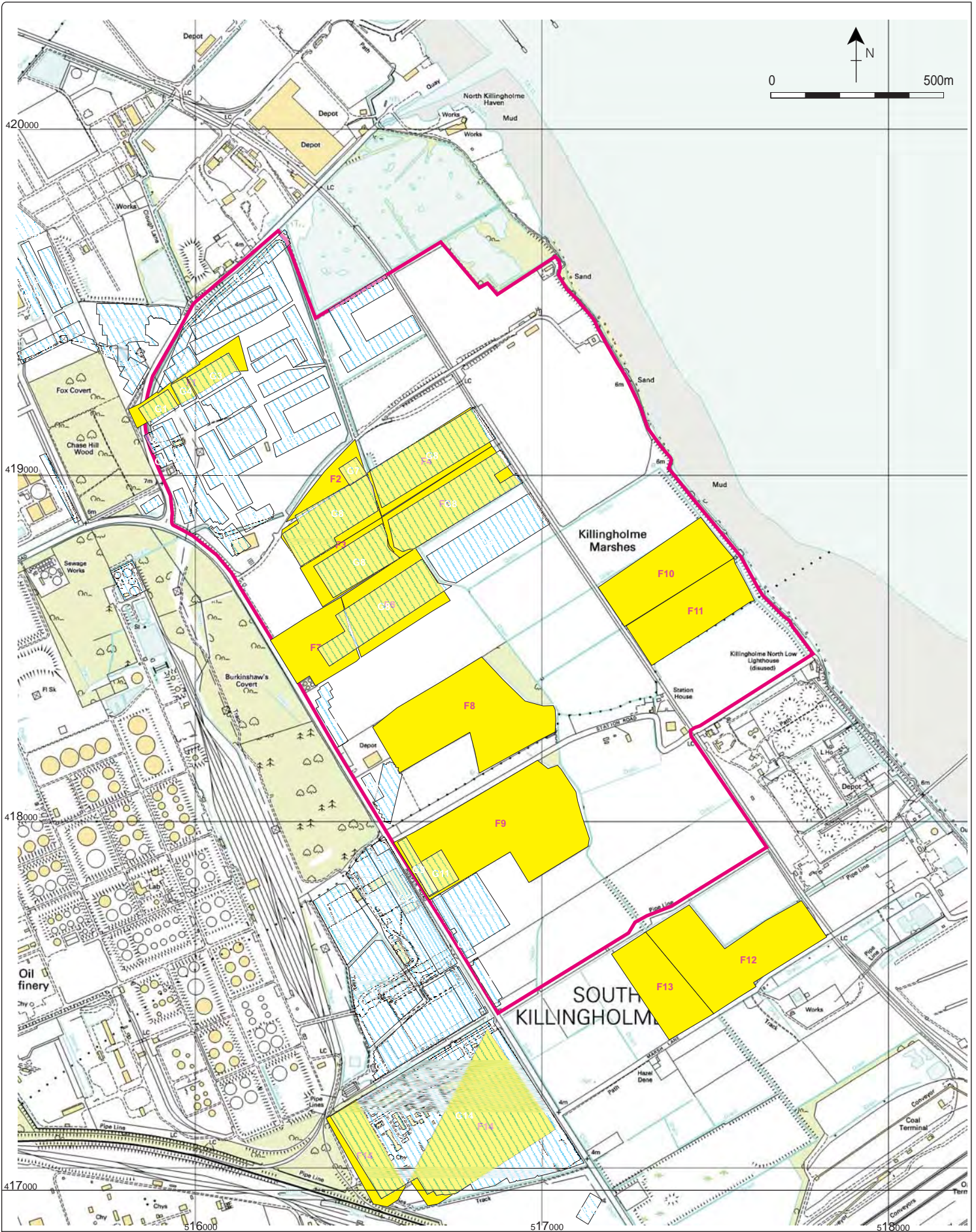
15. REFERENCES

- Bennett, Stewart, and Bennett, Nicholas, 1993, *An historical atlas of Lincolnshire* (University of Hull Press)
- Cameron, Kenneth, 1991, *The place-names of Lincolnshire, part 2* (English Place-Name Society, vol. 64/5)
- Greenwood, C. and J., 1831, Map of the county of Lincoln from actual survey made in the years 1827 and 1828
- LA B.H. 11/14: Killingholme, estate of Samuel Byron, 1853
- LA Dixon 20/1/56: Yarborough sale catalogue, East Halton and North Killingholme, 1925
- LA Dixon 20/1/89: Yarborough sale catalogue, East Halton and Killingholmes, 1943
- LA Dixon 20/1/91: Yarborough sale catalogue, Killingholmes, 1944
- LA Stubbs III/ 38: Plan of North and South Killingholme, 1833
- LA Yarb.4/17/1: Plan of North and South Killingholme, showing Pelham estate, c. 1777
- LA Yarb.4/17/2: Survey sheets and calculations, North and South Killingholme enclosure, c. 1779
- LA Yarb.5/1/1: Book of survey, Sir William Pelham's estates, 1587
- Loughlin, Neil, and Miller, Keith, 1979, *A survey of archaeological sites in Humberside*
- Noort, Robert van der, and Davies, Paul, 1993, *Wetland heritage: an archaeological assessment of the Humber wetlands* (English Heritage report)
- Ordnance Survey, 1-inch scale, sheet 85, published 1824
- Ordnance Survey, 6-inch scale, sheets Lincs; 8SE, surveyed 1886, published 1890; revised 1906, published 1910; revised 1930, published 1932; revised 1946-7, published 1951;
- Pawley, Simon, 1984, *Lincolnshire coastal villages and the sea, c.1300 - c.1600: economy and society*, D.Phil thesis, University of Leicester, 1984 (copy in LA)
- Russell, Eleanor, and Russell, Rex, 1982, Landscape changes in South Humberside: the enclosure of 37 parishes
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PROJECT
Able Marine Energy Park

TITLE
Fig 1: Site and application area location



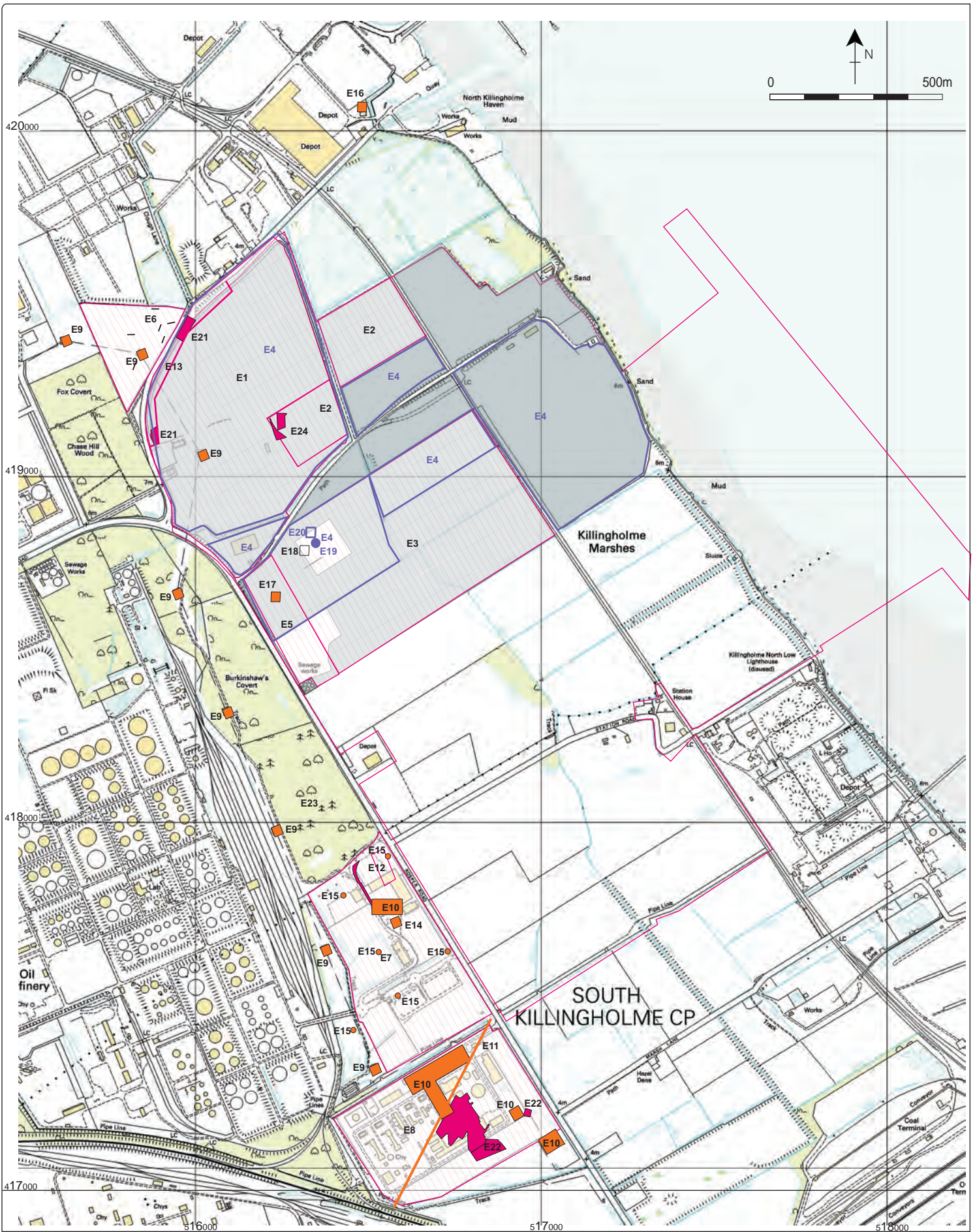
Key

- Fieldwalking survey
- Geophysical survey



PROJECT
Able Marine Energy Park

TITLE
Fig 2: Non intrusive-events undertaken within the study area

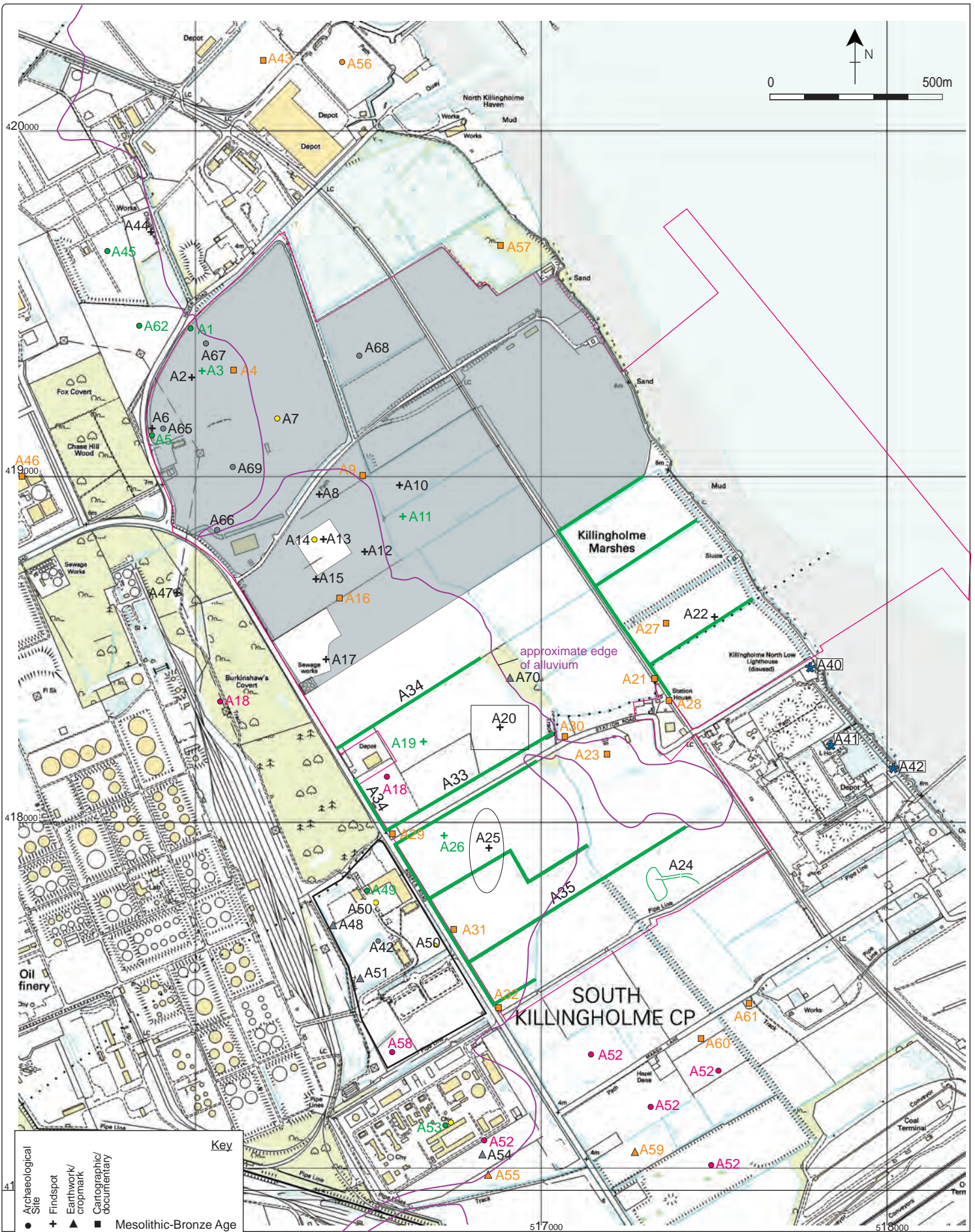


- Key**
-  Area of trial trenching
 -  Archaeological excavation area
 -  Watching brief
 -  Geotechnical borehole survey
 -  Archaeological borehole survey



PROJECT
Able Marine Energy Park

TITLE
**Fig 3:
 Intrusive events undertaken within the study area**



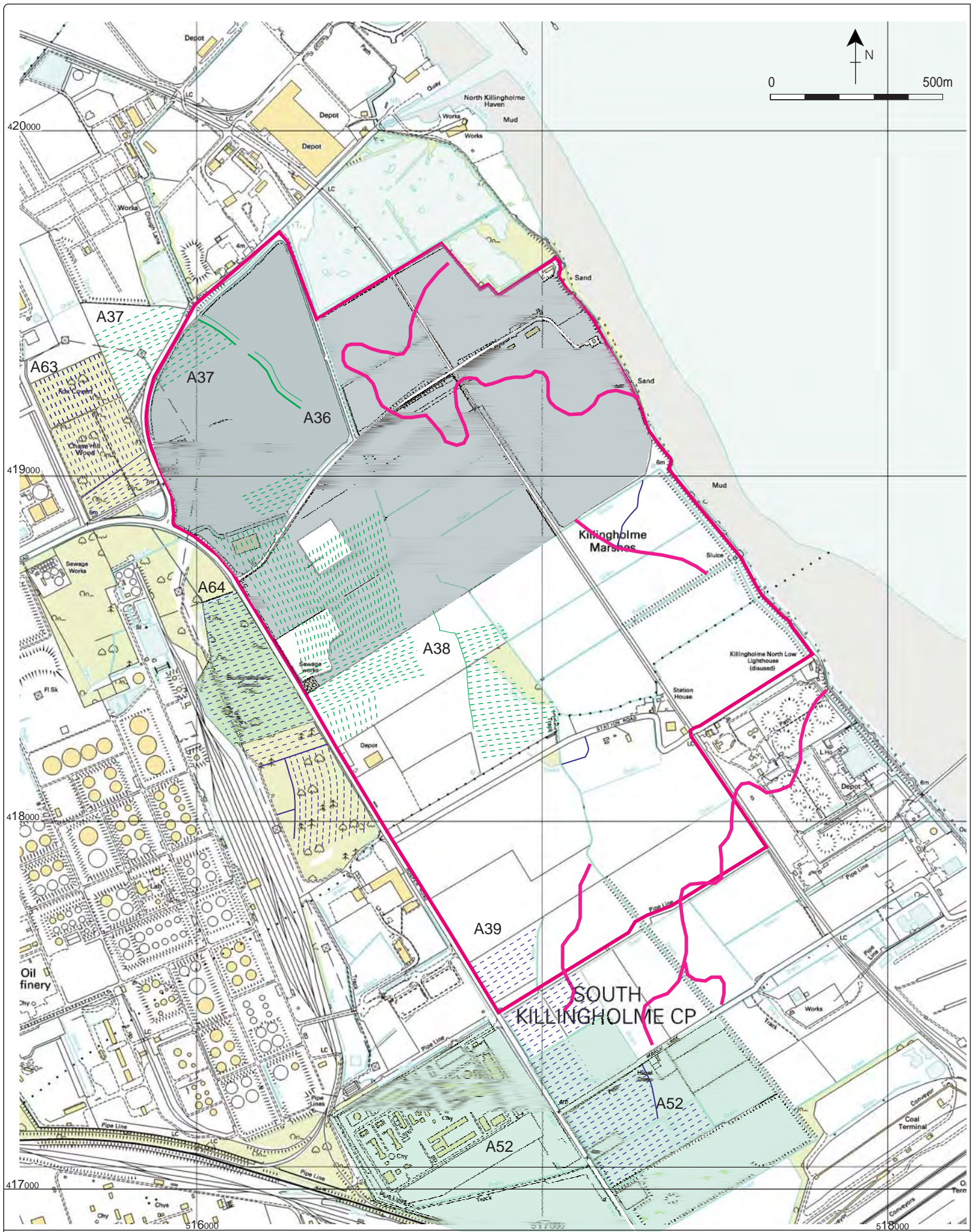
Key

Archaeological Site	Findspot	Earthwork/cropmark	Cartographic/documentary	Mesolithic-Bronze Age
●	+	▲	■	● ▲ ■
●	+	▲	■	Iron Age
●	+	▲	■	Romano-British
●	+	▲	■	Medieval
●	+	▲	■	Post-medieval/modern
●	+	▲	■	Undated
			★	Listed building
			—	Historic hedgerow







PROJECT
Able Marine Energy Park

TITLE
Fig 4:
Location of previously recorded heritage assets



Key

-  Aerial photograph transcription
-  Lidar survey (2006) transcription
-  Area of ridge and furrow recorded by NLSMR
-  Palaeochannel (transcribed from aerial photographs)



PROJECT

Able Marine Energy Park

TITLE

Fig 5: Features transcribed from aerial photographs and Lidar survey

APPENDIX 1

Summary of heritage assets

TABLE 1: EVENTS WITHIN APPLICATION AREA						
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period
F1	ELS1688	516020	419300	Fieldwalking	Humber Wetlands Project 1999 systematic collection. A Roman sherd, flint core and flakes recovered	Prehistoric Romano-British
F2	ELS1703 ELS1697	516370	418960	Fieldwalking	Humber Wetlands Project 1999 systematic collection. Flint flakes recovered	Prehistoric
F3	ELS1701	516491	418778	Fieldwalking	Humber Wetlands Project 1999 systematic collection. Flint flakes recovered	Prehistoric
F4	ELS1710	516591	418969	Fieldwalking	Humber Wetlands Project 1999 systematic collection. Flint flake recovered	Prehistoric
F5	ELS1709	516600	418879	Fieldwalking	Humber Wetlands Project 1999 systematic collection. Roman sherd recovered	Romano-British
F6	ELS1707	516601	418599	Fieldwalking	Humber Wetlands Project 1999 systematic collection. No finds recovered	-
F7	ELS1702	516380	418469	Fieldwalking	Humber Wetlands Project 1999 systematic collection. Flint flake recovered	Prehistoric
F8	ELS1711	516931	418216	Fieldwalking	Humber Wetlands Project 1999 systematic collection. Flint scatter identified and Roman sherd recovered	Prehistoric Romano-British
F9	ELS1713	516820	418008	Fieldwalking	Humber Wetlands Project 1999 systematic collection. Flint core and flakes and Roman sherd recovered	Prehistoric Romano-British
F10	ELS1727	517398	418797	Fieldwalking	Humber Wetlands Project 1999 systematic collection. No finds recovered	-
F11	ELS1733	507501	418587	Fieldwalking	Humber Wetlands Project 1999 systematic collection. Flint flake recovered	Prehistoric
F12	ELS1730	517502	417598	Fieldwalking	Humber Wetlands Project 1999 systematic collection. No finds recovered	-
F13	ELS1725	517404	417495	Fieldwalking	Humber Wetlands Project 1999 systematic collection. No finds recovered	-
F14	ELS3022	516977	417031	Fieldwalking	Fieldwalking survey undertaken at the site of the proposed Combined Heat and Power Plant at Conoco Humber Refinery. Roman, Medieval and Post-medieval finds recovered	Romano-British Medieval Post-medieval
G1	ELS2197	516030	419490	Geophysical survey	A geophysical survey of 6 blocks undertaken in May 2004 in advance of the realignment of Clough Lane. A palaeo-channel and two areas of pits and ditches were identified	Undated
G2	ELS2193	515610	419420	Geophysical survey	A geophysical survey undertaken to the east of Rosper Road in an area with potential for late prehistoric/RB occupation. The survey identified a number of features, primarily ditches and occasional pits as well as a clearly defined ring ditch and small rectilinear ditched enclosure. The survey also identified the western extent of the former salt marsh.	Undated
G3	ELS2244	516100	419290	Geophysical survey	A geophysical survey undertaken in Sept 2004 as part of the same development proposal as G1 and the results correlate well. Anomalies were interpreted as natural marshland features such as creeks and inlets. A small enclosure and other discrete features were also identified.	Undated

Appendix 1: Data summary tables

TABLE 1: EVENTS WITHIN APPLICATION AREA						
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period
G4	ELS2243	515660	419340	Geophysical survey	A geophysical survey undertaken in 2004 identified a series of anomalies including field systems, and the former shoreline	Undated
G5	ELS1776	516060	418870	Geophysical survey	Geophysical survey undertaken in 1999 along a section of a proposed gas pipeline. A number of anomalies were detected comprising poorly defined linear and pit-type features.	Undated
G6	ELS2522	516160	418872	Geophysical survey	Geophysical survey undertaken in 2005 in advance of the development of a vehicle redistribution and storage facility and followed on from earlier surveys undertaken as part of the same development proposals (G4). No anomalies were identified that would indicate the archaeological activities previously recorded	Undated
G7	ELS140	515610	419120	Geophysical survey	Geophysical survey undertaken at Chase Hill Road Powergen Station in 1989. A number of areas were identified for further investigation	Undated
G8	ELS2369	515940	419110	Geophysical survey	Geophysical survey undertaken on Areas E and G in 2005. Archaeological features were identified in Area E including a probable Iron Age/RB enclosure. There was limited activity in Area G	Undated
G9	ELS2516	515424	419637	Geophysical survey	A geophysical survey undertaken in 2006 along part of a proposed hydrogen pipeline. Along with evidence of modern farming practices such as drains and ploughing there was a concentration of archaeological anomalies.	Undated
G10	ELS1780	516600	418100	Geophysical survey	Geophysical survey undertaken in 1999 along proposed Humber Link Pipeline. Few anomalies of archaeological note were identified	Undated
G11	ELS1997	516690	417840	Geophysical survey	Geophysical survey undertaken in 2003 on land East of Rosper Road. Two features of possible archaeological origin were recorded, although both were given a low confidence rating and may have been natural.	Undated
G12	ELS3156	516772	417725	Geophysical survey	Geophysical survey undertaken in 2007 prior to the development of a car park, following from previous surveys undertaken in 2006 (G9). Only weak responses were recorded.	Undated
G13	ELS3304	515718	416235	Geophysical survey	Geophysical survey undertaken along the A160-A180 improvement scheme. Of the fourteen separate blocks surveyed, three blocks contained anomalies with archaeological potential.	Undated
G14	ELS3023	516633	417133	Geophysical survey	Geophysical survey undertaken at land adjacent to the Conoco Humber Refinery. A series of rectilinear ditches and a network of enclosures	Undated
G15	ELS2419	516550	417590	Geophysical survey	Geophysical survey undertaken on land to the east of the Lindsey Oil Refinery. Extensive evidence of ploughing activity was observed along with anomalies of probable archaeological origin.	Undated
G16	ELS37	515790	418690	Geophysical survey	Survey undertaken on the Lindsey Oil Refinery site. Occupation features identified	Undated
G17	ELS2515	515812	419362	Geophysical survey	Survey undertaken on Area F. Potentially significant features identified in the north-east corner of the block. Modern services and ferrous litter may have masked archaeological features elsewhere	Undated
G18	ELS142	515350	419590	Geophysical survey	Geophysical survey undertaken at Chase Hill Farm. The survey identified a number of areas of archaeological interest	Undated

Appendix 1: Data summary tables

TABLE 1: EVENTS WITHIN APPLICATION AREA						
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period
G19	ELS1779	515300	419900	Geophysical survey	Geophysical survey undertaken to the northeast of Chase Hill Farm as part of the proposed Humber Link Pipeline corridor. A tentative ring ditch and pit-type anomalies were recorded in the northern end of the survey. To the south the results were affected by interference from modern fence and pipes.	Undated
G20	ELS141	515400	419020	Geophysical survey	Part two of a three part survey undertaken in 1989 at the Powergen station, n of Chase Hill Road.	Undated
G21	ELS1410	516550	417310	Geophysical Survey	A geophysical survey was undertaken of the access road and tower base 1 of an overhead power line to the proposed Conoco CHP plant. Conditions were poor and no clear anomalies were identified	Undated
G22	ELS1785	516700	417700	Geophysical Survey	A geophysical survey undertaken along proposed pipeline corridor. An area of strong anomalies, short linear trends and a possible ring ditch was recorded in the north part of the survey	Undated
E1	ELS2362 1496344	516060	419190	Trench evaluation	Area D, Rosper Road. 62 trenches excavated between April - June 2005 to evaluate anomalies identified by geophysical survey. Only nine trenches contained archaeological features or finds comprising RB occupation and an enclosure. The former shoreline was also identified.	Romano-British
E2	ELS2521 1486388	516300	419200	Trench evaluation	Areas D2 and D3. 14 trial trenches excavated to target possible archaeological features identified by geophysical survey. A sub-rectangular enclosure of Middle-Late Iron Age date was recorded in two of the trenches. All remaining trenches were blank	Iron Age
E3	ELS2408 1496353	516582	418829	Trench evaluation	46 trenches were excavated to target anomalies identified by geophysical survey. An Iron Age enclosure complex with pits and ditches was recorded in the northwest part of the site but the majority of the trenches were blank. The former shoreline was also identified.	Iron Age
E4	ELS2831	515904	418805	Borehole Survey	Non-archaeological investigation of ground and groundwater conditions was undertaken, The investigation comprised the excavation of 12 boreholes and trial pit across Areas C, D, E and G.	Undated
E5	ELS2828	516242	418679	Trial pit evaluation	Trial pits were excavated in Area E. No archaeological finds or features were recorded	-
E6	ELS3341	515870	419400	Trench evaluation	Six trenches were excavated in Area F to target anomalies identified by geophysical survey. Features were recorded in the northeast corner and comprised RB pottery and CBM and an undated curvilinear gully.	Romano-British
E7	ELS2517	516500	417600	Trench evaluation	Sixty trenches were excavated in 2006 to investigate anomalies identified by geophysical survey. Only seventeen trenches contained archaeological remains. These comprised a number of prehistoric linear features, possibly a field or enclosure system. Post-medieval and modern remains were also recorded	Iron Age
E8	ELS2947	516694	417155	Excavation	An open area excavation was carried out in 1999-2000 as a result of activity identified in earlier geophysics and evaluation surveys. Several phase of occupation was identified from the Iron Age (two roundhouses) to Romano-British occupation and subsequent abandonment until the land was reused during the medieval period for agriculture.	Iron Age Romano-British Medieval

Appendix 1: Data summary tables

TABLE 1: EVENTS WITHIN APPLICATION AREA						
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period
E9	ELS2227 ELS2228	515890	4183300	Watching brief	A watching brief was maintained during groundworks associated with the construction of an overhead power line from Conoco Immingham CHP to Killingholme Station in 2002. A single Bronze Age scraper was recovered from the topsoil. An area of ridge and furrow was identified following clear felling in Burkinshaw's Covert. This was recorded by full earthwork survey before being largely destroyed by the subsequent groundworks within the working corridor.	Bronze Age Medieval
E10	ELS2956	516854	417162	Watching brief	Watching brief was maintained during groundworks associated with development of the Immingham CHP plant in 2007. No archaeological finds or features were recorded	-
E11	ELS1450	516720	517180	Watching brief	A watching brief was undertaken during groundworks associated with the demolition and removal of a redundant pipeline which ran across an area containing the Iron Age and RB remains. No archaeological features were identified	-
E12	ELS1789	516570	417870	Trench evaluation	Two evaluation trenches were opened on part of the Humber Link Pipeline route following identification of anomalies on previous geophysical survey. No archaeology was observed	-
E13	ELS2259 ELS2284	515980	419320	Trench evaluation	Three evaluation trenches were excavated along the route of the proposed realignment of Clough Road in order to investigate anomalies identified by geophysical survey. Romano-British occupation evidence was recorded and a single flint recovered. Palaeo-environmental sampling was undertaken but indicated that the potential for further study was low.	Prehistoric Romano-British
E14	ELS2518	516560	417750	Watching brief	A watching brief undertaken to record linear features identified during trial trenching. These features appeared to terminate and no additional features were identified.	Undated
E15	ELS2536 ELS2417	516500	417600	Borehole survey	Six boreholes were excavated. No archaeological deposits or artefacts were recorded although the event was recorded as part of a desk-based assessment undertaken on land to the east of the Total Lindsey Oil Refinery	-
E16	ELS2738	516487	420077	Watching brief	A watching brief was maintained during the demolition of a WW1 gun battery in order to examine those parts of the construction not previously visible	Modern
E17	ELS2826	516248	418672	Strip, map and record	A strip map and record monitoring exercise was carried out in 2008 in advance of the construction of a temporary vehicle storage area (Area E).	-
E18	ELS2827	516354	418822	Environmental sampling	Two trenches were excavated across an Iron Age ditch to obtain environmental samples. All the deposits assessed only gave small numbers of identifiable biological remains.	-
E19	ELS2829	516347	418810	Auger survey	Six auger holes were drilled in areas of previous evaluation trenches over an Iron Age enclosure ditch to assess the potential for preservation of waterlogged organic deposits. None were seen in any of the cores taken.	-
E20	ELS2830	516364	418823	Soil assessment	Four trial pits were excavated by a soil scientist around the edge of the Iron Age enclosure to assess the potential for preservation of waterlogged organic deposits within the site.	-

Appendix 1: Data summary tables

TABLE 1: EVENTS WITHIN APPLICATION AREA						
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period
E21	ELS2943	515925	419271	Excavation	Two areas were excavated prior to realignment of Clough Road and following trench evaluation along the route. A number of late Iron Age and Roman features were identified. There was also evidence of medieval ridge and furrow	Iron Age Romano-British
E22	ELS2948	516845	417112	Excavation	Two areas were excavated and showed the same occupational phases seen in the earlier excavation (E??)continued. Early Iron Age settlement focused towards the base of the slope while the Romano-British settlement was on the higher ground. There was some evidence of salt production and metal working and the environmental samples suggest a mainly pastoral landscape.	Iron Age Romano-British
E23	ELS3359	516030	418630	Survey	A programme of woodland management works within Burkinshaw's Covert was carried out in 2009. Historical features within the covert (including ridge and furrow, boundary banks, late C18 field boundaries and rides) were observed and photographed. A possibly medieval bank was replanted as part of these works.	Medieval Post-medieval
E24		516161	419040	Excavation	Open area excavation undertaken as part of a mitigation strategy following the identification of features during an archaeological evaluation.	

TABLE 2: HERITAGE ASSETS WITHIN APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Grading of Significance
A1	MLS20144	515990	419420	Enclosure	A small Romano-British enclosure south of Haven road excavated in 2005	Romano-British	-	B
A2	MLS19797	515990	419280	Findspot	Part of a flint core with at least eight blade flakes removed from it was found during Humber Wetlands fieldwalking	Prehistoric	-	C
A3	MLS19796	516020	419300	Findspot	A single greyware sherd found east of Haven Road during Humber Wetlands fieldwalking in 1999	Romano-British	-	C
A4	MLS20138	516110	419300	Documentary evidence	Unnamed farm buildings east of Chase Hill Wood are recorded on early OS maps and were demolished by 1945. A geophysical survey undertaken in advance of development recorded anomalies possibly associated with their demolition	Post-medieval to modern	-	C
A5	MLS20199	515870	419120	Site	Roman occupation, east of Clough Road. Ditches, pottery and animal bone were recovered in 2004 and further 1 st -4 th century features were recorded in subsequent investigations. A series of field systems was identified and some evidence of small scale salt production.	Romano-British	-	B
A6	MLS20198	515870	419130	Findspot	A microlith and two flint flakes were found during an evaluation in 2004	Prehistoric	-	C
A7	MLS20140	516240	419160	Enclosure	A rectangular iron age enclosure, detected by geophysical survey was evaluated and found to surround an Iron Age roundhouse	Iron Age	-	B
A8	MLS19800	516360	418945	Findspot	Four flint flakes found during Humber Wetlands fieldwalking survey	Prehistoric	-	C

Appendix 1: Data summary tables

TABLE 2: HERITAGE ASSETS WITHIN APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Grading of Significance
A9	MLS21228	516488	419002	Documentary evidence	A barrage balloon site, operated by 942 Squadron Balloon Command, was located on marshland. Access was via a specially constructed track. The area has now been developed and the exact location is uncertain	Modern	-	C
A10	MLS19805	516590	418970	Findspot	A single flint flake was found during the Humber Wetlands fieldwalking project.	Prehistoric	-	C
A11	MLS19804	516600	418880	Findspot	A single greyware sherd was found during the Humber Wetlands Fieldwalking project.	Romano-British	-	C
A12	MLS19801	516490	418780	Findspot	Flint flakes were found during the Humber Wetlands Fieldwalking project	Prehistoric	-	C
A13	MLS20440	516371	418813	Findspot	An assemblage of 27 Mesolithic, Neolithic and Early Bronze Age flints were recovered from evaluation trenches in 2006	Prehistoric	-	C
A14	MLS20441	516355	418823	Enclosure	An Iron Age enclosure was detected by geophysical survey and subsequently partially evaluated. A strategy for preservation in situ has been agreed with NLC.	Iron Age	-	B
A15	MLS19802	516350	418700	Findspot	Five flint flakes recovered during the Humber Wetlands Fieldwalking project	Prehistoric	-	C
A16	MLS21227	516240	418648	Documentary evidence	A barrage balloon site operated by 942 Squadron Balloon Command was located a short distance to the east of Rosper Road. The area is now developed and the exact location is uncertain	Modern	-	C
A17	MLS19803	516380	418470	Findspot	A single flint flake was recovered during the Humber Wetlands Fieldwalking project	Prehistoric	-	C
A18	MLS20098	515410	418210	Documentary evidence Cropmark	Medieval ridge and furrow was identified by geophysical, walkover and topographic survey. Surviving earthworks damaged in places by development	Medieval	-	C
A19	MLS19806	516660	418230	Findspot	A single greyware sherd found during the Humber Wetlands Fieldwalking project	Romano-British	-	C
A20	MLS19727	516880	418220	Findspot	A concentration of flints including a Neolithic scraper, cores and flakes was recovered during the Humber Wetlands Fieldwalking project	Prehistoric	-	C
A21	MLS8827 1365564	513680	415180	Extant structure	The Barton and Immingham Light Railway was authorised in 1907 to give access from Hull to Immingham. It ran from a junction at Goxhill to join the Humber Commercial railway at Immingham. It comprised a single line, opened in 1910/11 and was closed in 1963.	Modern	-	C
A22	MLS19808	517500	418590	Findspot	A single flint flake recovered during the Humber Wetlands Fieldwalking project.	Prehistoric	-	C

Appendix 1: Data summary tables

TABLE 2: HERITAGE ASSETS WITHIN APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Grading of Significance
A23	MLS21225	517240	418210	Structure	A 942 Squadron barrage balloon site on Station Road still has two shelters, both now modified for use as cattle byres. The main balloon anchorage and a secondary anchorage are still in place. There are concrete blocks on the site, some with anchor rings, that may have originated from balloon sites on the marshes	Modern	-	C
A24	MLS20789	517376	417769	Cropmark	A possible enclosure with a double ditched trackway to the east, visible as a cropmark on an aerial photograph	Undated	-	?B
A25	MLS19276	516850	418010	Findspot	A late Mesolithic core and three flint flakes (two of which may be Bronze Age) were found during the Humber Wetlands Fieldwalking project	Prehistoric	-	C
A26	MLS19807	516720	417960	Findspot	A single greyware sherd was found during the Humber Wetlands Fieldwalking project	Romano-British	-	C
A27	1473796	517400	418600	Site	A general location given for the site of Killingholme Marshes heavy anti aircraft battery	Modern	-	C
A28	498356	517390	418335	Site	Killinghome Station. Opened in 1910 and closed in 1965	Modern	-	C
A29	-	516573	417969	Cartographic evidence	Two small buildings first shown on the 1932 OS map on the east side of Rosper Road. No longer extant.	Modern	-	C
A30	-	517071	418253	Cartographic evidence	A terrace of ?five houses first shown on the 1932 OS map on the north side of Station Road, No longer extant.	Modern	-	C
A31	-	516744	417685	Cartographic evidence	A building first shown on the 1910 OS map on east side of Rosper Road. The building, and the plot within which it stood, are no longer visible	Modern	-	C
A32	-	516882	417451	Cartographic evidence	A complex of up to ?three buildings within a small plot are first shown on the 1910 OS map and appear unchanged until 1951. One of the structures (a small red brick, possibly agricultural building) is extant but derelict.	Modern	-	C
A33	MLS20121	516505	418210	Cartographic evidence	A hedgerow which forms the parish boundary between North and South Killingholme. It is shown on enclosure maps and may be Medieval in origin	?Medieval Post-medieval	-	B
A34	MLS20569	516563	419494	Cartographic evidence	Historically important hedgerows which appear on the 1779 North Killingholme enclosure map.	Post-medieval	-	C
A35	MLS20570	517672	417877	Cartographic evidence	Historically important hedgerows which appear on the 1779 South Killingholme enclosure map.	Post-medieval	-	C
A36	MLS20141	516217	419354	Aerial Photographs	Examination of aerial photographs plotted a sinuous double ditched feature which appears to mark the edge of ridge and furrow cultivation in that area. This may represent both a headland and a former seabank of medieval date. A system of creeks were also detected by geophysical survey marking the former high water position. Deposits interpreted as the buried shoreline were recorded during subsequent archaeological evaluations there.	Medieval	-	C

Appendix 1: Data summary tables

TABLE 2: HERITAGE ASSETS WITHIN APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Grading of Significance
A37	-	516058	419392	Aerial Photographs	Examination of aerial photographs plotted cultivation cropmarks. They display a 'reverse S' plan typical of Medieval ridge and furrow	Medieval	-	C
A38	-	516414	418642	Aerial Photographs	Examination of aerial photographs plotted an extensive block of plough levelled ridge and furrow cultivation covering an area of approximately 450ha. One area is bounded on the east by a narrow ditch, possibly a vestige of a headland.	Medieval	-	C
A39	-	516939	417562	Earthworks	Ridge and furrow cultivation identified by a 2006 Lidar survey of the area. Not visible during walkover survey.	Medieval	-	C
A65	20093	515900	419140	Geophysical anomaly	A group of curvilinear anomalies and a faint linear trend were detected by a geophysical survey undertaken in advance of the Southern Energy Corridor pipeline in 1999	Undated	-	D
A66	20094	516060	418830	Geophysical anomaly	A group of linear and pit-type anomalies, rectilinear in nature, was detected by a geophysical survey undertaken in advance of the Southern Energy Corridor pipeline in 1999	Undated	-	D
A67	20139	516060	419400	Geophysical anomaly	Three linear ditches were detected by geophysical survey undertaken in advance of a proposed storage and distribution facility. A second survey detected the same features but no features were found in that location during a subsequent evaluation	Undated	-	D
A68	20147	516470	419340	Geophysical anomaly	Several linear anomalies were detected by geophysical survey undertaken in advance of a proposed storage and distribution facility.	Undated	-	D
A69	20148	516080	419050	Geophysical anomaly	Curvilinear and area anomalies were detected by geophysical survey undertaken in advance of a proposed storage and distribution.	Undated	-	D
A70	-	516934	418422	Earthwork	Bank and ditch observed during walkover survey, may relate to the former Medieval sea wall. Maximum 0.5m high, follows sinuous course through woodland	Undated	-	C

Appendix 1: Data summary tables

TABLE 3: HERITAGE ASSETS WITHIN BROADER STUDY AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Grading of Significance
A40	LB165872 MLS8618	517778	418443	Extant structure	Killingholme North Low Lighthouse. The light house and adjoining keeper's house. Built 1851 for Trinity House with later alterations and additions to rear. The lighthouse was used as a signal station for trawlers until 1920. The date of erection and names of wardens are recorded on a plaque on nearby Killingholme High Lighthouse (Site A28).	Post-medieval	Listed Building Grade II	A
A41	LB165871 MLS8617	517834	418214	Extant structure	Killingholme High Lighthouse. Lighthouse, established 1831, rebuilt 1876-7 for Trinity House. No longer manned, used in conjunction with the Killingholme South Low lighthouse (Site A29) to guide shipping in the Humber. Was a link in the Hull Telegraph in C19.	Post-medieval	Listed Building Grade II	A
A42	LB165873 MLS8619	518011	418148	Extant structure	Killingholme South Low Lighthouse. 1836 for Trinity House. Lighthouse, no longer manned, is used in conjunction with Killingholme High Lighthouse (Site A28) to guide shipping in the Humber. Date of erection and names of wardens recorded on a plaque on A28	Post-medieval	Listed Building Grade II	A
A43	MLS15395	516200	420200	Extant structure	The site of North Killingholme Royal Naval oil storage depot may have been established just before the outbreak of WWI. All tanks now demolished	Modern	-	C
A44	MLS19798	515880	419700	Findspot	Four flint flakes were recovered during the Humber Wetlands Fieldwalking project.	Prehistoric	-	C
A45	MLS1623	515750	419650	Occupation site	RB occupation site, Killingholme Haven. Finds included greywares, samian, mortaria etc with four hearths and evidence for vertical stakes.	Romano-British	-	B
A46	MLS21416	515500	419000	Documentary evidence	The site of a WWII heavy anti-aircraft battery designated 'Humber M'	Modern	-	C
A47	MLS20125	515945	418667	Findspot	An early Bronze Age scraper found during a watching brief on the construction of electricity pylons	Prehistoric	-	C
A48	MLS4635	516426	417662	Cropmark	Linear and enclosure-like features plotted from aerial photographs. Did not appear to correlate with results of a geophysical survey undertaken on same area.	Undated	-	D
A49	MLS1630 MLS20423	516500	417800	Occupation site	Unstratified Roman pottery found during an evaluation	Romano-British	-	C
A50	MLS20422	516635	417431	Boundary ditch	An Iron Age ditch, running parallel to Rosper Road was recorded in 9 trial trenches.	Iron Age	-	C
A51	MLS20124	516552	417404	Cropmarks	Cropmark ditches and sub circular features identified during aerial photographic transcriptions in 2002	Undated	-	C
A52	MLS20104	517065	416789	Cropmark Earthwork	North-south oriented ridge and furrow mapped from aerial photos and identified on geophysical surveys. Most has now been destroyed by development.	Medieval	-	C

Appendix 1: Data summary tables

TABLE 3: HERITAGE ASSETS WITHIN BROADER STUDY AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Grading of Significance
A53	MLS19771	516726	417125	Settlement	Extensive programmes of geophysical survey, watching briefs, augering, trial trenching and open area excavation were undertaken prior to and during construction of the Conoco CHP plant. The works identified an early Iron Age settlement on low ground close to the creek. Then, following a hiatus, a late-Iron Age/early RB settlement developed on higher ground to the north centred around a driveway and a series of enclosures. The settlement contracted to within a single enclosure during the 3 rd century and then appeared to move 150m to the north. Early activity was identified on the site in the form of worked flint and BA pottery	Prehistoric Iron Age Romano-British	-	B
A54	MLS21321	516835	417030	Cropmark	A small square enclosure was visible as a cropmark on an air photograph taken in 2001. It is now masked by the Conoco CHP plant.	Undated	-	C
A55	MLS21101	516849	416980	Cropmark	A cropmark visible on n aerial photograph , probably a post-medieval boundary	Undated	-	C
A56	MLS8195	516465	420198	Site	Killingholme Battery. The site of a WWI gun battery. Two octagonal concrete towers each contained a 12 pounder gun, defending the Naval Oil depot (site A30). The towers were recorded before demolition in 1995	Modern	-	C
A57	MLS20136	516885	419666	Documentary evidence	Site of 'Brick and Tile Yard' with 'Jetty' and 'footbridge' shown on first edition OS map and with the footbridge replaced by 'Windpump' on the second edition.	Post-medieval	-	C
A58	MLS20424	516572	417336	Ditch	A shallow ditch containing a medieval sherd was found during an evaluation in 2006	Medieval	-	C
A59	MLS21322	517300	417000	Cropmark	A T-shaped arrangement of ditches is visible on wartime aerial photographs. They were dug as aircraft landing obstructions and were mostly levelled sometime after the war.	Modern	-	C
A60	MLS21323	517440	417370	Documentary evidence Earthwork	Aerial photographs taken in 1941 showed a row of about 16 terraced houses to the south of Marsh Lane. OS maps suggest they were built between 1902 and 1932 and had been demolished by 1975. Low earthworks were still visible on the site in 2008	Modern	-	C
A61	MLS21324	517630	417500	Documentary evidence	Marsh Farm is shown on the first edition OS map of 1887. It was demolished at some time after 1945	Post-medieval	-	C
A62	MLS21335	515900	419450	Ditch	An archaeological evaluation carried out in 2009 identified ditches dating from the late 2 nd and early 3 rd centuries AD	Romano-British	-	C
A63				Earthwork	Ridge and furrow cultivation earthworks recorded within Chase Hill Wood and Fox Covert during a Lidar survey undertaken in 2006	Medieval	-	C

Appendix 1: Data summary tables

TABLE 3: HERITAGE ASSETS WITHIN BROADER STUDY AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Grading of Significance
A64	ELS2729			Earthwork	Ridge and furrow cultivation earthworks identified within Burkinshaw's covert and in woodland to the south during Lidar survey undertaken in 2006. This extensive area was partially recorded subsequently by a topographic survey and watching brief within the covert (E23)	Medieval	-	C

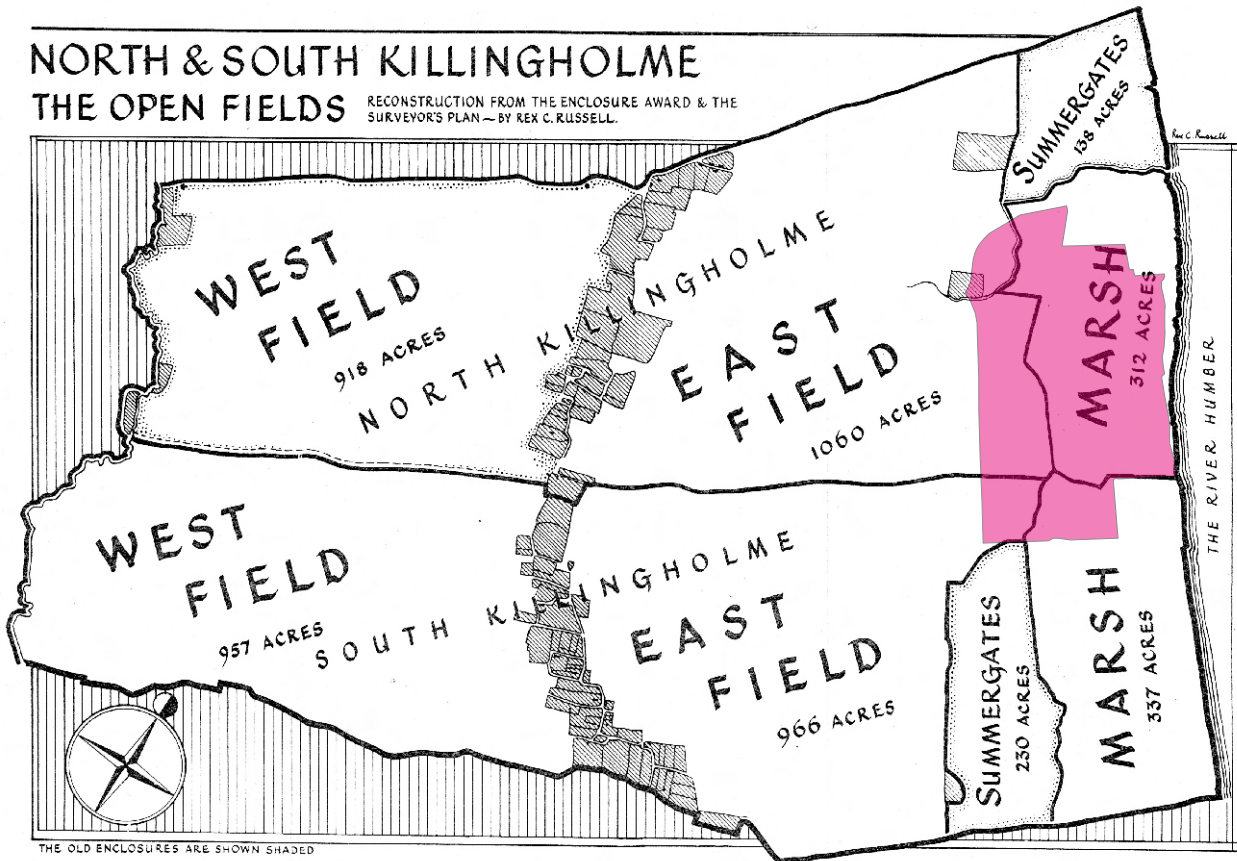
APPENDIX 2

Extracts from historic mapping

NORTH & SOUTH KILLINGHOLME

THE OPEN FIELDS

RECONSTRUCTION FROM THE ENCLOSURE AWARD & THE SURVEYOR'S PLAN — BY REX C. RUSSELL.

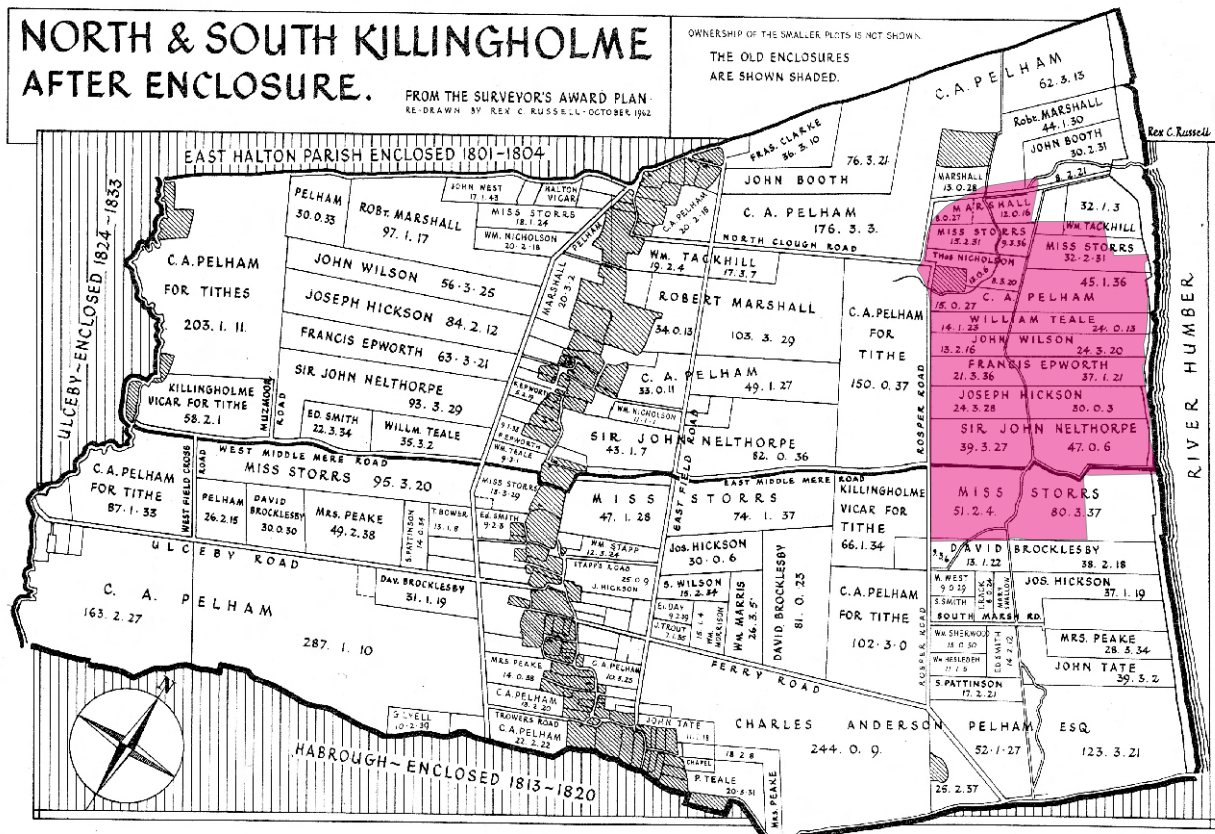


North and South Killingholme pre-enclosure (redrawn by Russell, 1962)

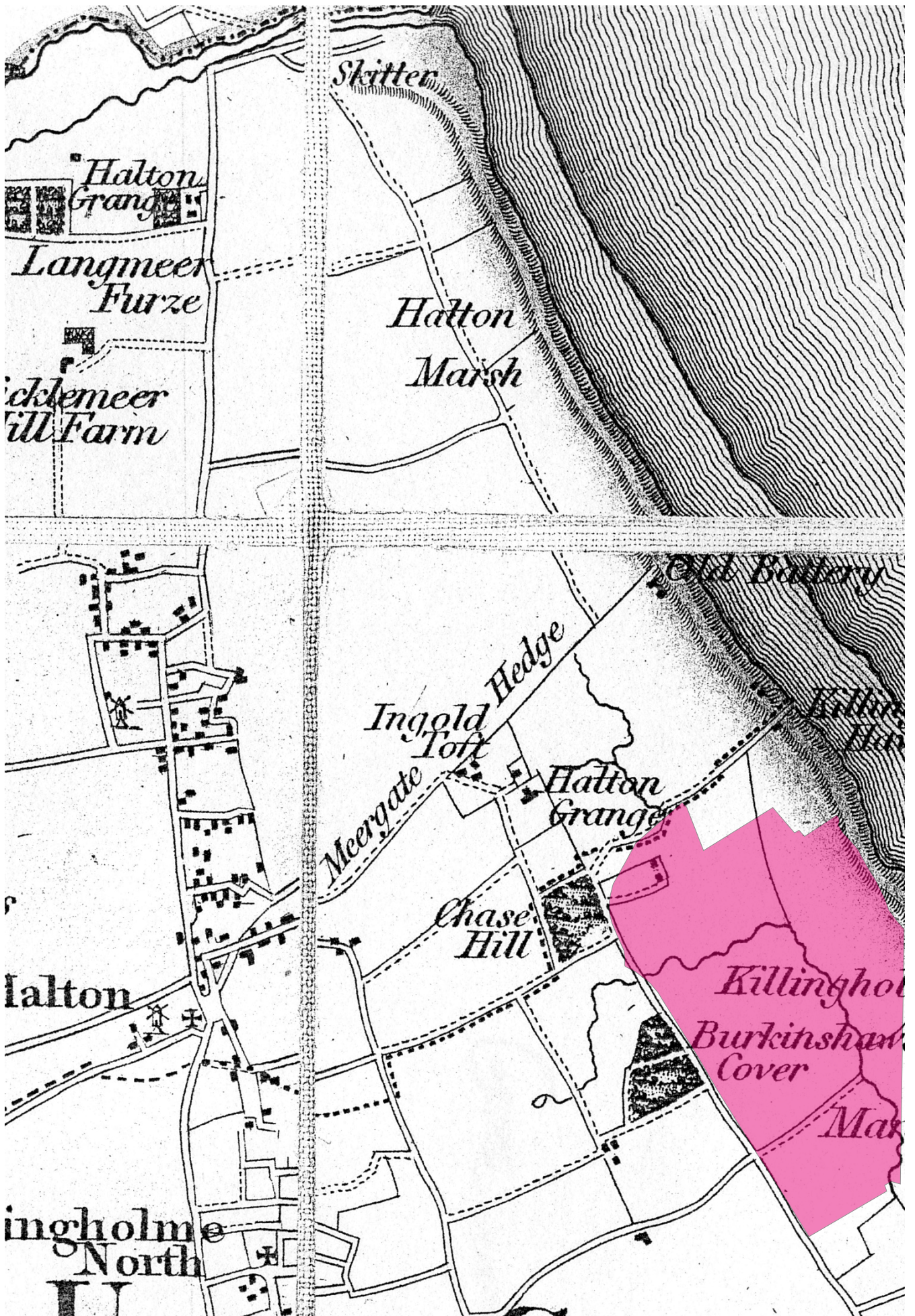
NORTH & SOUTH KILLINGHOLME AFTER ENCLOSURE.

FROM THE SURVEYOR'S AWARD PLAN.
RE-DRAWN BY REX C. RUSSELL—OCTOBER 1962

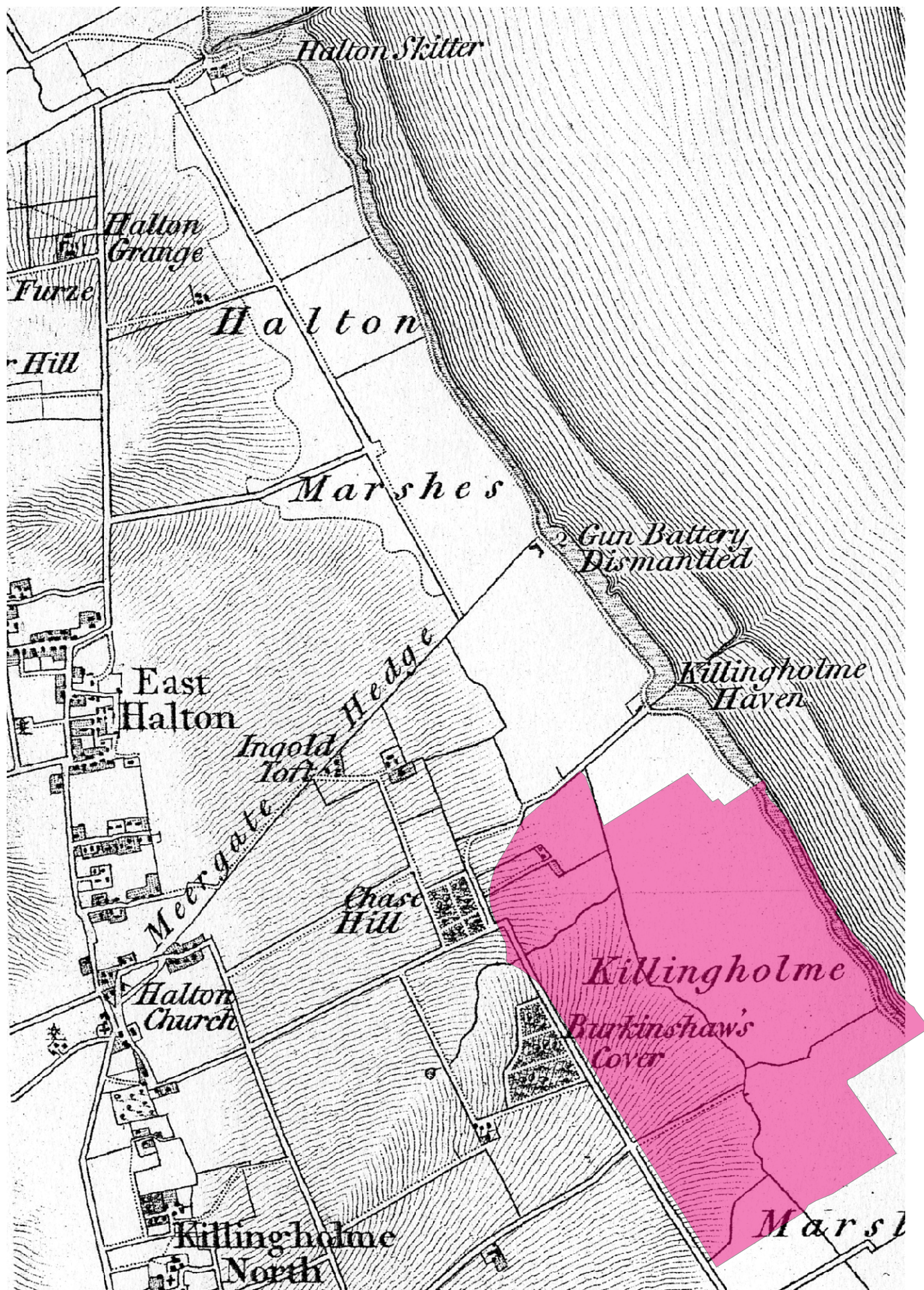
OWNERSHIP OF THE SMALLER PLOTS IS NOT SHOWN.
THE OLD ENCLOSURES
ARE SHOWN SHADED.



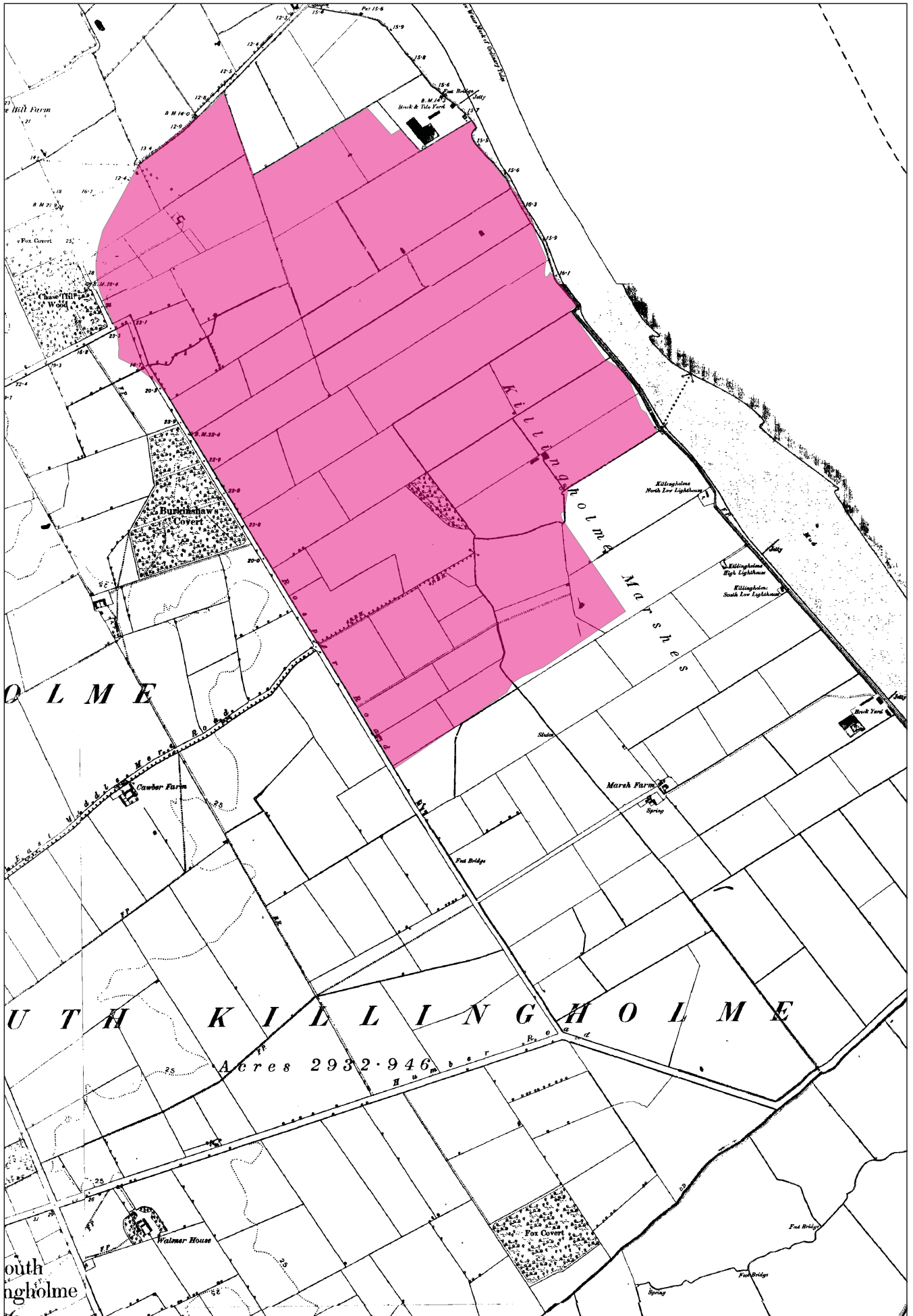
North and South Killingholme post-enclosure (redrawn by Russell, 1962)



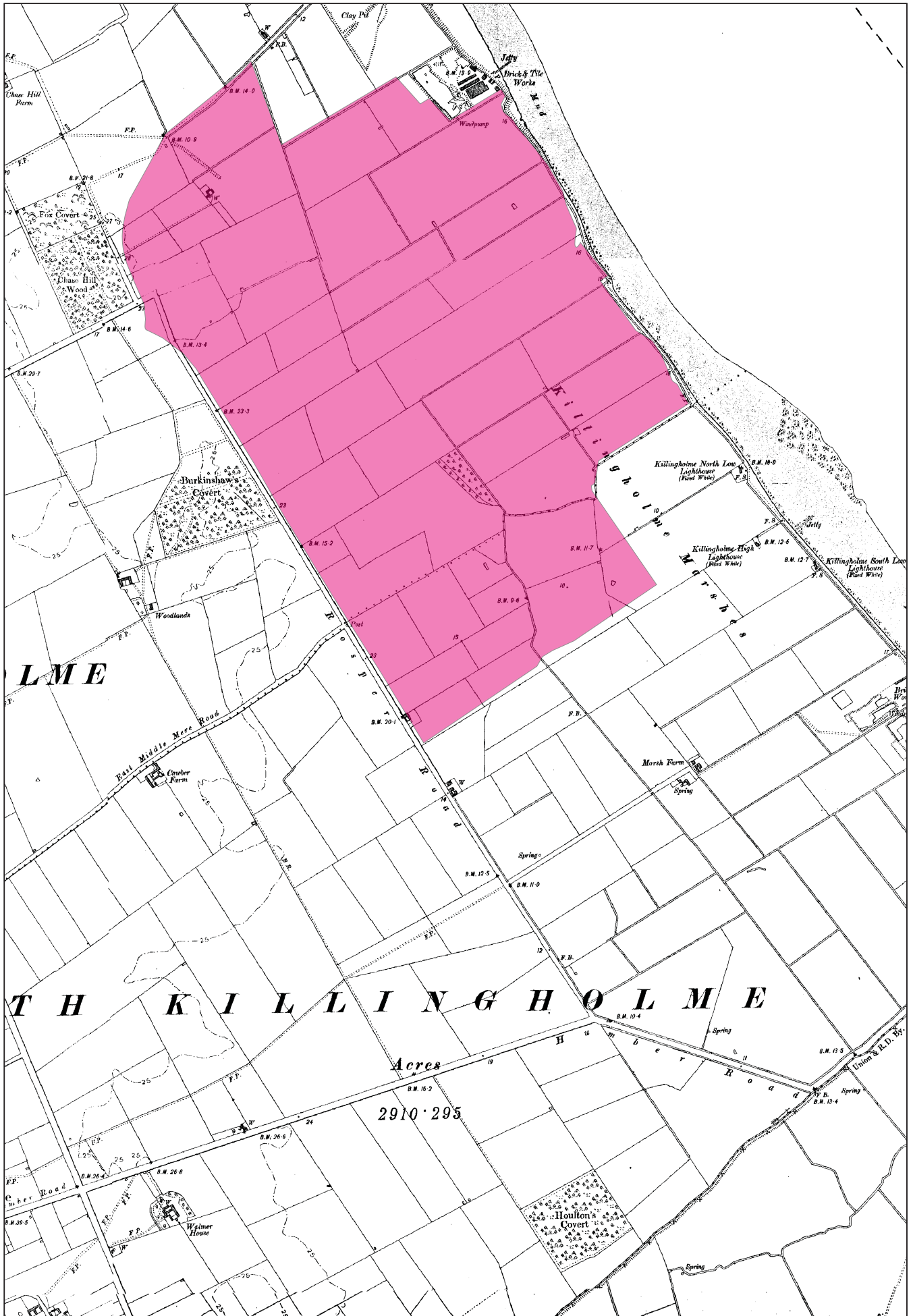
1824: Extract from the Ordnance Survey, 1-inch scale, sheet 85



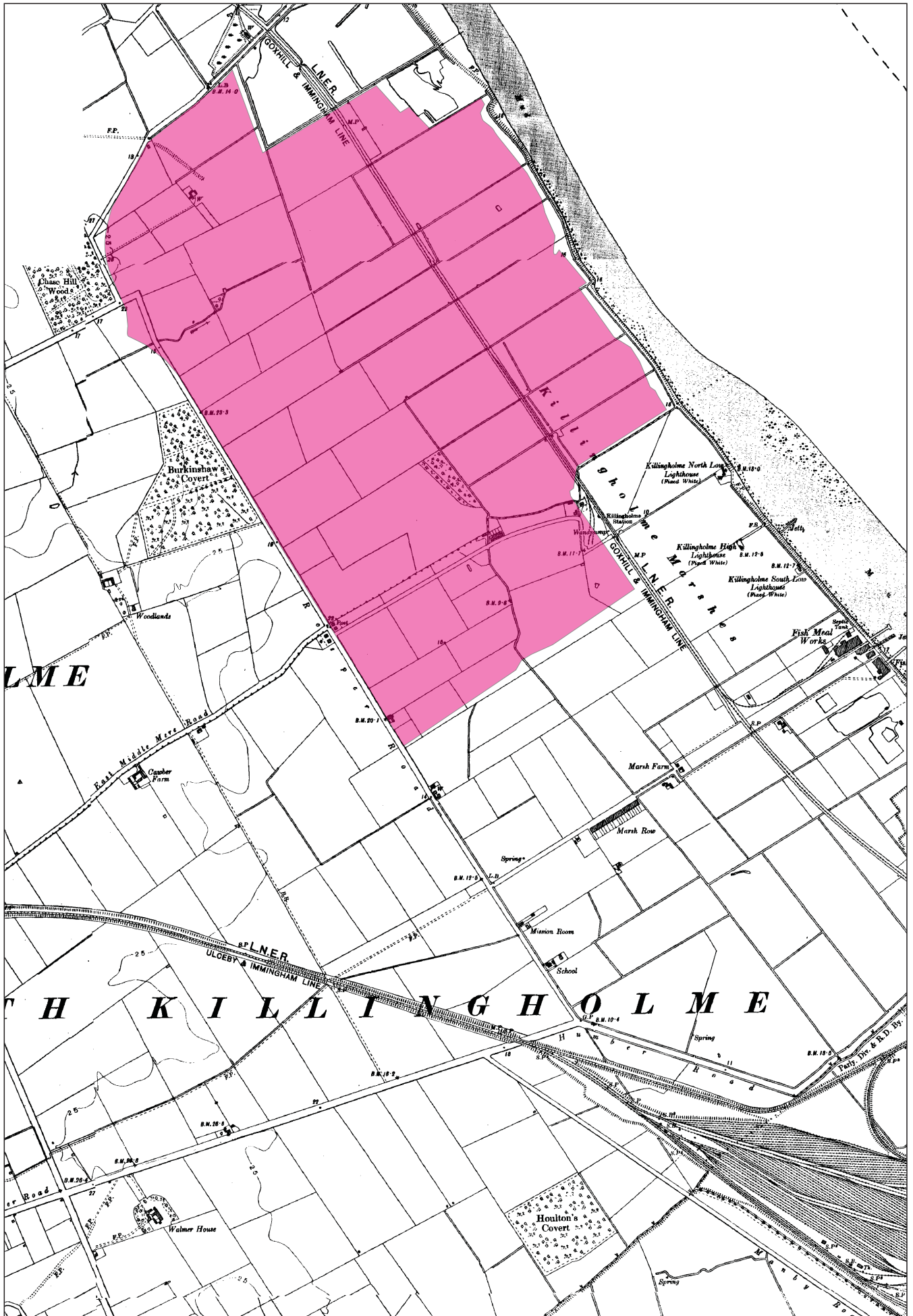
1831: Extract from Greenwood's Map of the county of Lincoln



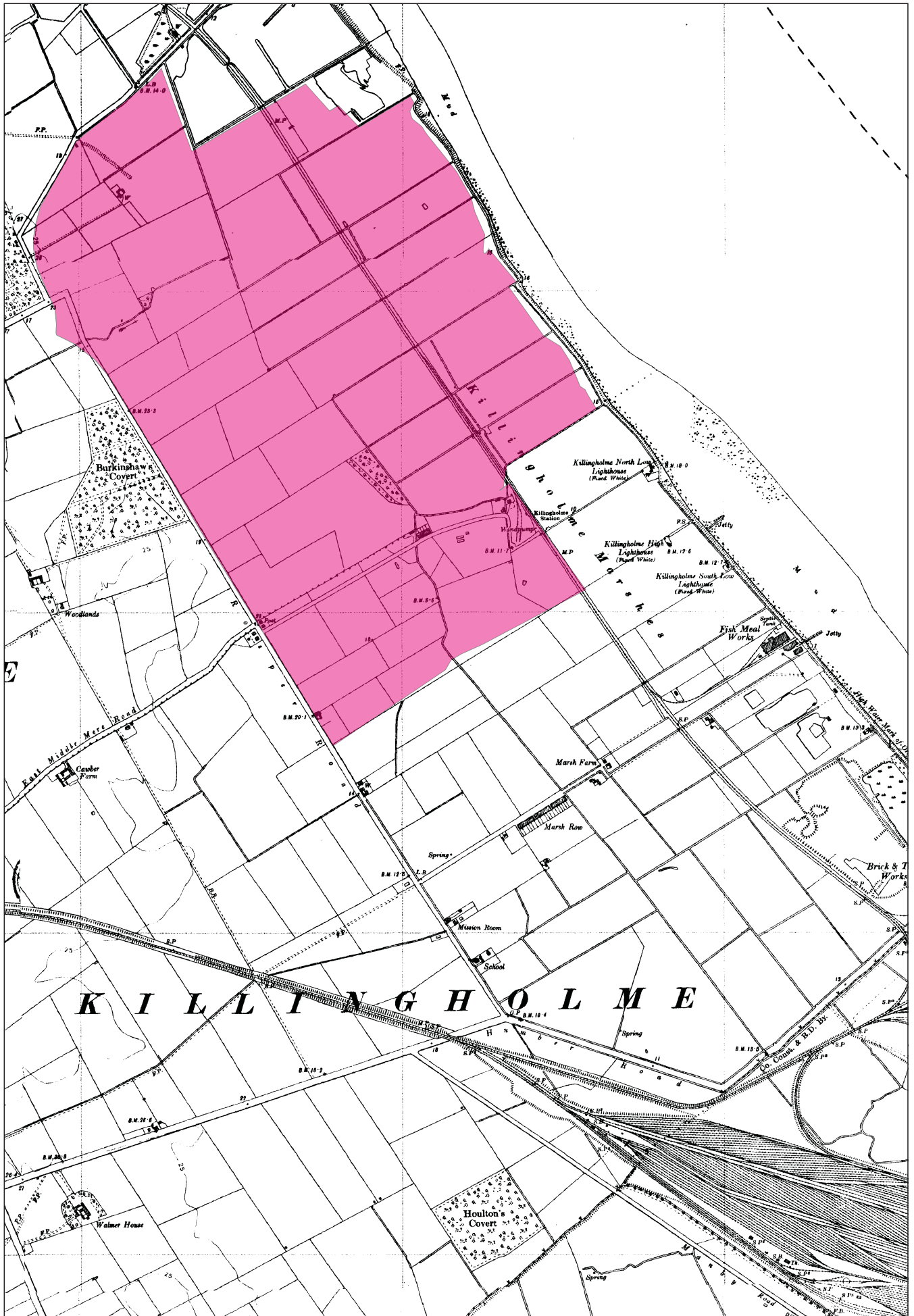
Extract from the Ordnance Survey 6-inch map, surveyed 1885-6, published 1890



Extract from the Ordnance Survey 6-inch map, revised 1906, published 1910



Extract from the Ordnance Survey 6-inch map, revised 1930, published 1932



Extract from the Ordnance Survey 6-inch map, revised 1946-7, published 1951

APPENDIX 3
Air photograph cover search listing

ENGLISH HERITAGE : NATIONAL MONUMENTS RECORD
Air PhotographsCustomer oblique listing - Obliques, Standard Order
Customer enquiry reference number: 51857

Photo reference	Film and frame number	Original	Date	Film type		Map	What can you order?			
							Photocopy	Laser copy	Photographic copy	Digital copy
TA 1617 / 3	NMR 2149 / 1236		29 JUL 1983	Black& white	70mm,120,220	TA 165179	Y	Y	Y	Y
TA 1617 / 4	NMR 2149 / 1237		29 JUL 1983	Black& white	70mm,120,220	TA 165179	Y	Y	Y	Y
TA 1617 / 12	NMR 17473 / 01		26 JUN 2000	Black& white	70mm,120,220	TA 168171	Y	Y	Y	Y
TA 1617 / 13	NMR 17473 / 02		26 JUN 2000	Black& white	70mm,120,220	TA 168171	Y	Y	Y	Y
TA 1617 / 14	NMR 17473 / 03		26 JUN 2000	Black& white	70mm,120,220	TA 168171	Y	Y	Y	Y
TA 1617 / 15	NMR 17473 / 04		26 JUN 2000	Black& white	70mm,120,220	TA 168171	Y	Y	Y	Y
TA 1617 / 16	NMR 17473 / 05		26 JUN 2000	Black& white	70mm,120,220	TA 168171	Y	Y	Y	Y
TA 1617 / 17	NMR 17473 / 06		26 JUN 2000	Black& white	70mm,120,220	TA 168171	Y	Y	Y	Y
TA 1619 / 1	NMR 20616 / 03		12 OCT 2006	Digital colour	35 mm	TA 163192	Y	Y	Y	Y

Total 9 records



ENGLISH HERITAGE : NATIONAL MONUMENTS RECORD

Air Photographs

MAL/59388	21407	V	71714	N	TA 174 182	7	07 JUL 1959	A	6000	6	Black and White 9 x 9	NMR
OS/83051	22191	V	121	N	TA 175 202	4	16 APR 1983	A	15000	6	Infra Red 9 x 9	NMR
OS/83051	22191	V	122	N	TA 183 191	4	16 APR 1983	A	15000	6	Infra Red 9 x 9	NMR
										Total sorties	29	
										Total images	164	

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