

Introduction

Previous Archaeological Works Relating to the Improvement Scheme

The archaeological works summarised here were the final stage of a programme of archaeological investigations associated with the A160/A180 Port of Immingham Improvement Scheme.

Prior to the submission of a planning application, a series of archaeological investigations were carried out by Wessex Archaeology and West Yorkshire Archaeological Services along the route of the proposed road improvements. In the first instance, these included aerial photography mapping and interpretation studies (Deegan 2008), and geophysical surveys (Webb 2008, 2009). The results from this work identified a number of areas of heightened archaeological potential along the route of the proposed development, including concentrations of cropmarks or geophysical anomalies that were thought to represent Late Iron Age or Roman agricultural enclosures, field systems, and possible domestic settlement. In several locations, areas of upstanding medieval or post-medieval earthworks were also identified.

The results from the first series of investigations prompted further geophysics, field-walking and targeted trench evaluation (Williams 2010). This latter work included the excavation of thirteen trial trenches in fields adjacent to the A160/A180 Brocklesby Interchange. These excavations demonstrated that the linear features identified in the various aerial photographs and geophysical survey exercises formed a palimpsest of Late Iron Age and Romano-British features (*ibid.*, p.21). This work informed the cultural heritage section of an Environmental Impact Assessment which was subsequently used in the preparation of the heritage chapter of an Environmental Statement. A further campaign of geophysical survey and trench evaluation was completed in 2014 (Tuck *et al.* 2014, Daniel 2014). This work again highlighted the significant Iron Age and Roman archaeology in the vicinity of Brocklesby Interchange.

Further work was carried out in 2014 to mitigate the construction of ponds and replacement habitats for water voles displaced by the scheme on the site of the former South Killingholme Day School. Archaeological monitoring and recording during topsoil-stripping in this area was undertaken by Wessex Archaeology (Wessex Archaeology, 2019). The foundations and footings associated with the post-Second World War school building were recorded, but the results were otherwise of minor archaeological interest. A fuller account of these works is included in the assessment report (Network Archaeology, 2016).

Site Description

The development area lies within the extended southern floodplain on the southern side of the Humber Estuary. The topography is correspondingly flat, with gentle undulations, at an elevation that varies between 0m and 20m above Ordnance Datum (aOD). The geology is recorded as Quaternary glacial tills and glacial or fluvioglacial sands and gravels, overlying rocks of the Upper Cretaceous Burnham Chalk Formation.

The historic landscape of this part of northern Lincolnshire has been designated as the Northern Marshes Regional Character Area. This area is described as being heavily influenced by modern industry, particularly along the banks of the estuary from North Killingholme to Cleethorpes, and along the main transport arteries of the A160 and A180 roads (Lord and MacIntosh 2011, pp.21-22). Away from this industrial zone, much of the area remains predominantly rural, and is characterised largely by post-Enclosure field systems and nineteenth-century drainage dykes. Ancient enclosures are present around the village edges, as are preserved areas of ridge and furrow.

At the time of the archaeological works, the land was predominantly under arable cultivation with three exceptions; Area SMS4c, on the north side of the new Habrough Junction, was pasture that incorporated surviving ridge and furrow earthworks, while Areas IMM16 and AMA6 at Rosper Road consisted of unused waste ground under a cover of weeds and scrub.

Historical and Archaeological Background

Early Prehistoric

In general, archaeological evidence for earlier prehistoric activity in the region is sparse. Isolated finds of flint tools have demonstrated that north Lincolnshire was occupied intermittently during the early Palaeolithic period, during the warmer interglacial periods occurring at the end of the last Ice Age (May 1976 p.13). At Welton le Wold, for example, a group of flint hand-axes were found beneath a 13m-deep glacial till deposit of Devensian date (Bennet 2009, p.1). Further Palaeolithic finds were discovered in a quarry at Kirmington, some 4km to the east of the Brocklesby Interchange site. Here, hand-axes were found on a layer of coarse shingle that has been interpreted as a storm beach at the head of a coastal inlet (NLHER 2260). As with Welton le Wold, this site dated to the Hoxnian Interglacial and demonstrated the presence of human groups in the region, in this case probably foraging along the shoreline for food and other resources. A later

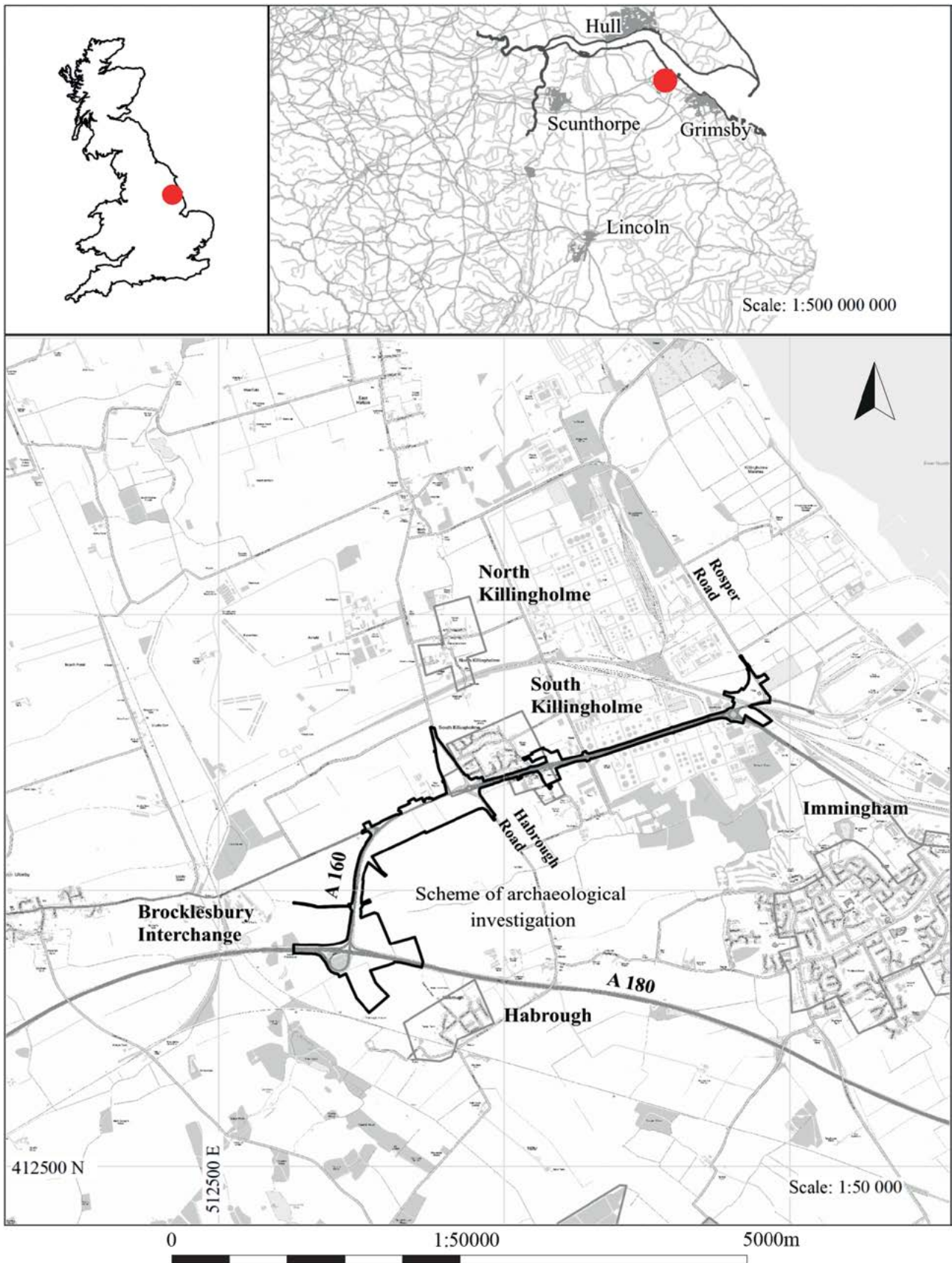


Figure 1.1: Location of the development area

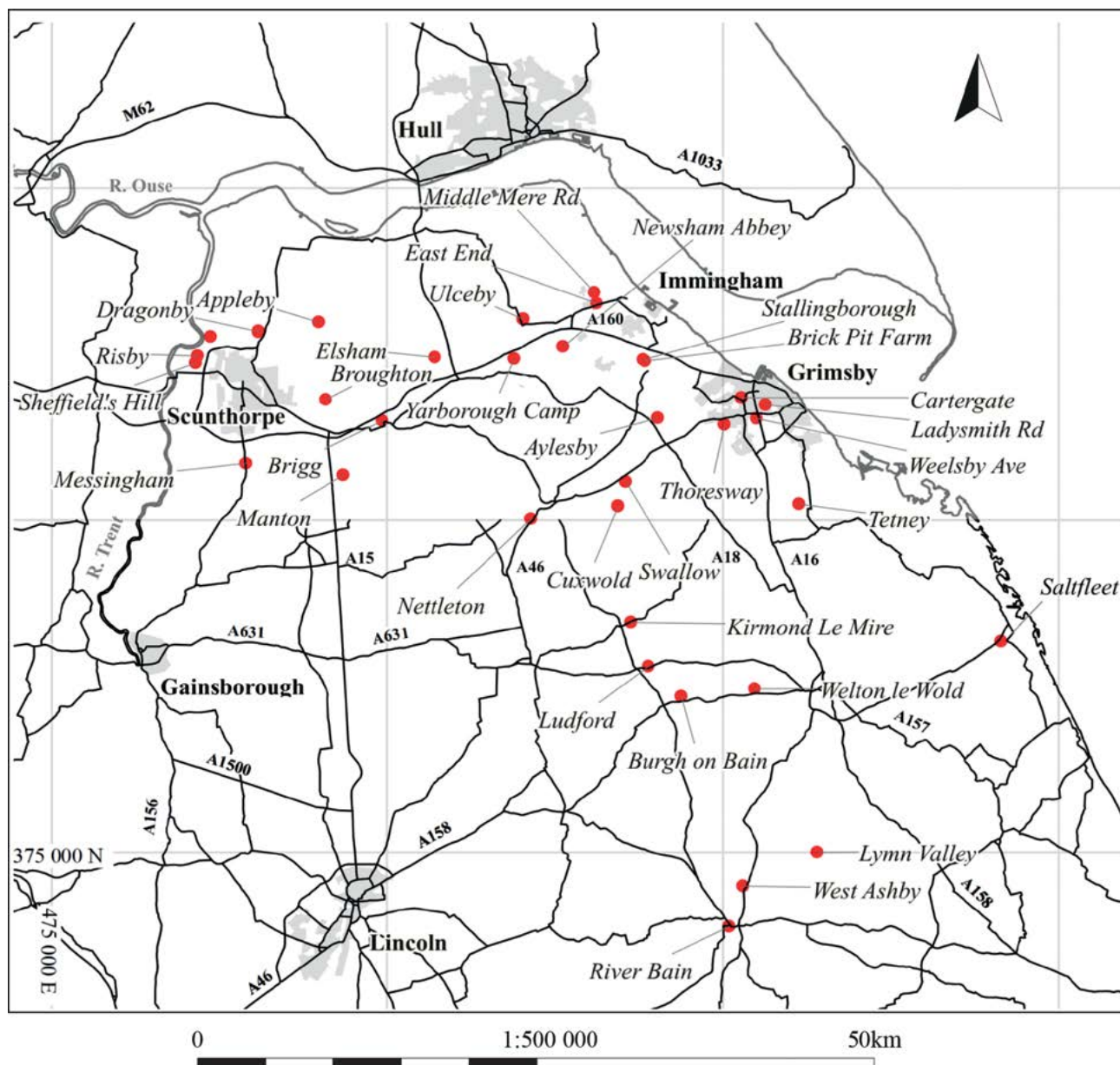


Figure 1.2: Comparison sites referenced in the text

Palaeolithic assemblage of flints is known from Risby Warren (May 1976 p.28), while a solitary flint scraper has also been recovered from Messingham, near Scunthorpe (Buckland 1984 p.11). This find dated to ca 10,000 BC, a period when the north Lincolnshire landscape consisted of boggy, flat terrain cut by extensively braided river channels. Average summer temperatures are thought to have been less than 10°C, while winters were characterised by heavy snowfall and temperatures as low as -20°C. Small groups of early humans would have moved through this landscape, possibly in pursuit of herds of bison or horse (*ibid.* pp.12-14).

Following the final retreat of the glaciers, the Lincolnshire environment was characterised by tundra-like grassland. This would have been exploited by groups of Mesolithic hunter-gatherers after ca 6000 BC, but the actual number of inhabitants is likely to have been very low, with some

estimates putting the population of Lincolnshire at around 140 individuals (Bennet 2009, p.5). Due to this, and partly to the differential recovery of archaeological material, the evidence for Mesolithic activity is correspondingly slight. Mesolithic flint scatters have been recorded both in the Lymn valley near Tetford, and from around the upper headwaters of streams which flow into the River Bain (*ibid.*). Both sites are situated on the uplands of the Lincolnshire Wolds, approximately 40km and 20km to the south of Brocklesby Interchange respectively. Closer to the current site, Mesolithic flints are also known from Sheffield's Hill on the Lincoln Edge between Dragonby and Winterton, and from Risby Warren (May 1976, pp.35-36).

Neolithic

The Neolithic period saw a warming of the environment and the concomitant colonisation of areas of former tundra

and grassland by forest and woodlands. Human activity and occupation of this environment would have involved the clearance of forest cover, the transition to an agricultural, rather than hunter-gatherer, form of subsistence and, as a result, the establishment of permanent or semi-permanent settlements (Phillips 1989).

The Neolithic period is typified by transient, short-term, or seasonal occupation (Whittle 1997, p.64) rather than prolonged, permanent settlement (Phillips 1989). This is perhaps illustrated in North Lincolnshire at Dragonby, 23km to the north-west of Brocklesby Interchange, where pottery sherds from undecorated neolithic bowls were found in the fill of a circular cut or hollow (May 1976, p.43). No other features of similar date were located during the excavation suggesting perhaps nomadic or short-term occupation within the area.

Elsewhere, Neolithic activity is attested to largely by the recovery of worked flints. For example, an assemblage of residual flints was recovered during an archaeological excavation at Brick Pit Farm, near Stallingborough (Davies and Millward 2014, p.16), a site thought to represent an 'island' of glacial till within a flat marshy tidal landscape. Similarly, at Cartergate, Grimsby, residual flints were recovered at the site of a freshwater inlet or channel that had subsequently silted up during the Later Iron Age (Rowe 2010, p.9). Other flints are known from Middle Mere Drain, found during works on the Immingham Combined Heat and Power pipeline (Valentin 2002), and at East End, South Killingholme, recovered during the Humber Wetlands Survey (Ellis *et al.* 2001, p.112). The locations of all these finds, on the margins of former wetlands, indicate the importance of marshland resources during the Neolithic period with repeated, but transitory, visits to various sites by groups of people moving through the landscape.

Aside from chance finds and occasional evidence of settlement activity, the main evidence from the Neolithic period in Lincolnshire, as elsewhere, comes from funerary monuments such as long barrows. Their distribution in Lincolnshire tends to cluster in the uplands of the Wolds, above heights of 75m aOD, with at least 15 examples known in the central and southern Wolds (May 1976, p.45; Jones 1998a). Long barrows are less common on the northern Wolds, but there is an example at Ash Holt, Cuxwold, which survives as an earthwork monument.

Bronze Age

The landscape of North Lincolnshire during the Bronze Age was one of tribal or kinship territories, defined by clusters of barrow monuments. Within these areas, wooded uplands were exploited for timber whilst open grasslands were used for communal grazing and settlement. The intertidal zone, tidal inlets and the lower marshy reaches of rivers were also exploited for their resources.

In general, the distribution of Bronze Age funerary monuments on the Wolds mirrors that of the earlier

Neolithic long barrows, in that they tend to be clustered together on the uplands overlooking the heads of valleys such as at Thoresway, approximately 15km to the south of Brocklesby Interchange and along the western slope of the Wolds, barrows such as at Bully Hill, Kirmond le Mire (HE 1013905) and Ludford Magna (HE 1013891).

There is also a significant distribution of round barrows overlooking the current coastline along the eastern edge of the Wolds, in low-lying locations on the northern margins of the Wolds, in the Ancholme valley (May 1976, p.73) and further to the south, along the valley of the River Witham.

Occupation, rather than funerary activity, has been noted at several sites in the region such as at Risby Warren, approximately 3km to the east of the Neolithic occupation at Dragonby where fragments of early second millennium BC Beaker pottery, two groups of refuse pits and thirteen hearths or camp-fire bases were recovered (May 1976, p.63).

Further evidence of Bronze Age activity comes from Brigg, some 15km west-south-west of Brocklesby Interchange where palaeo-environmental remains from a Late Bronze Age land surface (*ca* 800BC) suggested stock-grazing had been practised on grassland at the edges of the River Ancholme floodplain (Mitchell and Bell 2002, p.64). A dump of cut and trimmed hazel rods, probably for basket-weaving, and a large quantity of oak chippings indicated the utilisation of nearby woodland resources (*ibid.*). Elsewhere, the presence of major routeways through the landscape is known from such features as the Caistor High Street prehistoric trackway. South Ferriby, at the northern end of this routeway, seems to have been the site of a ferry crossing-point, emphasising the links between Bronze Age Lincolnshire and the extensive Bronze Age occupation on the East Yorkshire Wolds.

It is during the Bronze Age that the first evidence of salt production appears along the tidal salt-marshes of the Humber such as at Tetney, approximately 20km to the south-east of Brocklesby which is one of a small number of Bronze Age saltern sites currently known in Lincolnshire.

Iron Age

In contrast to earlier periods, somewhat more is known about the Iron Age in northern Lincolnshire, likely due to a greater density of population within this period.

The evidence from Lincolnshire, as it currently stands, points towards a settled agrarian landscape with a well-defined hierarchy of dispersed settlements, ranging from individual farmsteads, through 'hamlets' formed by several individual holdings, up to larger, more extensive local or regional centres (May 1984). In many cases, the Iron Age field systems were laid out based on the alignments of Bronze Age trackways whilst environmental evidence, such as from Dragonby, points to an increase of woodland clearance, likely to increase the amount land available for farming and grazing.

A good example of a small Iron Age farmstead has been excavated some 9km to the south-east of Brocklesby Interchange at Aylesby. Here, the remains of up to two roundhouses were found in association with boundary ditches of sub-rectangular Iron Age fields (Steedman and Foreman 1995, p.17). Located close to the roundhouses were two ‘four post’ structures which were interpreted as granaries.

The evidence from Aylesby was largely paralleled by excavations at Weelsby Road, Grimsby, approximately 7 km to the east, where the gullies of two Early Iron Age roundhouses were identified in association with a probable granary (Sills and Kingsley 1990 p.50). This farmstead was supplanted in the second century BC by a bronze foundry specialising in the casting of mounts for chariot gear (May 1976, p.162). The Weelsby Road site lay within the tribal territory of the *Parisi* during the Iron Age, although the pottery showed more affinity to that used by the *Corieltavi* tribe of the East Yorkshire Wolds. This shows that the River Humber did not simply form a physical barrier between tribes, but also acted as an important trade route (Rowlandson 2010, p.27).

Contrasting with these smaller sites are a number of larger, higher-status settlements, notably Dragonby, 23km to the west of Brocklesby Interchange. Overlooking the Ancholme valley, the site covered an area of at least 8 hectares and consisted of individual roundhouses, each within its own rectilinear enclosure. Considerable quantities of high-status pottery and other artefacts were recovered, leading to the conclusion that the site represented a sizeable and affluent community (May 1996, pp.625-7).

At Nettleton, an important Neolithic funerary and ceremonial complex was superseded in the Late Iron Age by an extensive settlement consisting of rectilinear enclosures forming a characteristic ‘ladder’ alignment oriented on contemporary trackways, in particular, the presumed route of the prehistoric trackway leading to South Ferriby (Willis 2013, pp.371-7).

Evidence of wealth and status is attested by various spot-finds of metal artefacts, such as two late fourth century BC bracelets from South Ferriby (May 1976, pp.125-6) along with a gold stater from Ulceby. A smith’s hoard of late Iron Age metalwork, including two gold torcs, a gold bracelet, several fragments of gold and three bronze and iron horse bits, was also discovered during the digging of a railway cutting in Ulceby Parish in 1847 (May 1976, p.159).

Other Iron Age sites in the region include a rare example of a possible hill fort at Yarborough Camp near Croxton (HE 1016427) whilst at Kirmington (NLHER MLS 2268), an Iron Age settlement formed a precursor to the Roman fort installed to control the natural routeway through the northern Wolds.

The ongoing development of the Port of Immingham and of the offshore wind energy sector has prompted

investigations of a number of sites in the wider landscape, revealing a series of small, isolated Middle Iron Age enclosures, superseded by a more complex pattern of Late Iron Age enclosures and open settlements that extended across a large area of the Humber foreshore (Allen Archaeology 2018). Archaeological works associated with the Hornsea 1 windfarm cable, which passed to the east of Brocklesby Interchange, identified a Late Prehistoric landscape of ditched enclosures and curvilinear ditches interpreted as possible roundhouse drip gullies. Several phases of occupation continued through much of the Roman period, using, maintaining, and adapting the same basic system of enclosures (Wessex Archaeology, 2019).

Romano-British

The pattern of rural settlement present in the Iron Age continued into the Early Roman period, most obviously at Dragonby, Yarborough and Nettleton, all of which survived, and indeed thrived, into the later Roman period. At Dragonby, for example, the Iron Age roundhouses were replaced by stone buildings indicating that there was no major disruption or displacement of the Iron Age settlement nor, perhaps, of the elite in northern Lincolnshire following the conquest (Whitwell 1976, p.15). At Nettleton, the Romano-British settlement developed along either side of Caister High Street, a prehistoric route, which itself continued in use as a major thoroughfare during the Roman period. Tentative phasing of the extensive crop-marks at Kirmington, 4.5km to the south-west of Brocklesby Interchange, suggests that a Late Iron Age settlement and associated droveway were overlain by an early Roman fort, which was in turn superseded by the establishment of a major later Roman settlement (Jones and Whitwell 1991, pp.60-61).

Villa complexes are known at Horkstow, where a mosaic floor was discovered in 1971, and at Winterton where large circular buildings were replaced in the second century AD by an extensive range of buildings flanking three sides of a rectangular courtyard. While some of the buildings related to livestock management, the domestic rooms had painted wall plaster, mosaic floors and a hypocaust heating system (Stead 1976). Although more common in the uplands of the Wolds, spot-finds of Roman building material from across the region indicate that these higher-status buildings may be more common than was previously thought.

Along the Humber shoreline, many of the Later Iron Age sites were incorporated into more extensive Romano-British field systems, these being associated with much larger, estate-like settlements that included aisled buildings, grain stores, metalworking areas and much more. (Allen Archaeology 2018). Further evidence of possible low-status agricultural settlements has been identified at the Heron Renewable Energy Plant 4km east of Brocklesby Interchange and at Hobson Way, Stallingborough, 6.5km to the south-west (Field and McDaid 2011, p.1). Although the pottery from the Heron site indicated a low-status settlement, the presence of briquetage and production-

process residues such as ironworking slag suggests some level of industrial activity was taking place (Allen Archaeology 2018).

It is unclear whether the appearance of these types of settlement were indicative of the growth of a distinct Romano-British rural elite, or simply the 'Romanisation' of Iron Age communities. For instance, further down the settlement hierarchy, the evidence seems to suggest that while there are no major discontinuities associated with the immediate post-Conquest period, at least some of the smaller Iron Age rural settlements such as Aylesby and Weelsby Road went out of use or were abandoned by the end of the second century AD, whilst at Horkstow Road, South Ferriby, a small settlement of probable post-Conquest date did not continue beyond the second century AD (Clay 2004, p.12).

A possible ladder settlement or large farm estate has been identified by non-intrusive survey techniques (metal detecting and geophysical survey) at East End Farm, around 2km to the east of Brocklesby Interchange (Steedman 2004; 2005) whilst substantial occupation has been identified at East Halton Skitter, some 6km to the north-east of Brocklesby Interchange. Here, cropmarks associated with two distinct first to second century AD occupation sites were identified, these probably superseded in the third century by a single settlement (Neal, Parry and Cardwell 2000, p.7).

Post-Roman

Place-names derived from Old English include Immingham, Habrough, Limber, Kirmington and Halton. These Anglo-Saxon names are joined by a number of later place-names with Scandinavian elements, such as in Brocklesby, Killingholme, Ulceby, Keelby and Goxhill. Very little is known about the nature and extent of Viking settlement in Lincolnshire but, on documentary evidence, it is thought to have occurred shortly after AD 877, when the Viking 'great army', active in Lincolnshire around AD 869-71 AD, settled on territory that it had captured (Salway 1998, p.97). In any case, the occurrence of all of these place names in the Domesday survey shows that the broad pattern of settlement as it has persisted into the modern era was in place by the late eleventh century.

Little evidence of earlier medieval settlement activity has been identified within the region, the nearest settlement activity being recorded at Riby Crossroads, approximately 5km south-east of Brocklesby. Here, cropmarks investigated as part of a new pipeline route led to the identification of a rural settlement of sixth or seventh to mid-ninth century date including five possible sunken-featured buildings, ditches and pits, several interconnected enclosures, and two trackways, with early and middle Saxon pottery (Steedman 1994).

Other known sites include Anglian cemeteries at Elsham, Manton (10 km and 24km to the west of Brocklesby

Interchange respectively) and at Barton on Humber (12km to the north-west of Brocklesby Interchange) where over 200 burials of sixth and seventh century date, many accompanied by grave goods including weapons, jewellery and domestic accoutrements were recovered (Whitwell 1990, pp.51-53). An Anglo-Saxon cemetery is also known at Aylesby, in a field to the east of the A18 road, some 10km to the south-east of Brocklesby Interchange, where several inhumations and grave goods including brooches were recovered from this site in the 1930s, (LHER 1244, discussed in Hemblade, Steedman and Teal 1993, p.12).

Further to the east, archaeological evidence indicates that salt-making continued to be a significant industry during the early medieval period whilst along the coast from Tetney to Saltfleet, abandoned salterns appear to have been re-used as pasture. The need for sea banks to protect this land from incursion of the sea has been seen as a primary motor in reclaiming land from the sea and extending the area of settlement further into the inter-tidal zone (Grady 1998, p.90).

Aerial photographs have recorded extensive evidence of ridge and furrow cultivation across the region, often related to sites of deserted or shrunken medieval villages. Examples include Aylesby (Steedman and Foreman 1995, p.14), Great Coates, Grimsby (Dennison 1990, p.57), Immingham Golf Course, and Roxton Farm (NELHER 80391), which excavation and documentary evidence suggests fell into decline during the fourteenth century, and Stallingborough (Everson 1981). As with many shrunken or deserted sites, the demise of Roxton Farm sets the decline of the settlement into the wider economic and demographic collapse associated with the Black Death at this time (Hoskins 1981, p.120). Evidence and dating at Aylesby was somewhat less clear-cut, but again suggested a decline in the size of the village during the fourteenth century (Steedman and Foreman 1995, p.27).

Two monastic houses were established in the area during the medieval period, both to the south of Brocklesby Interchange. Nun Cotham Priory, 1.75km to the south, was established in the eleventh century (SAM No. 1108686) and dissolved in 1539 whilst Newsham Abbey was founded in the twelfth century (Page 1906, pp.199-202). Following their dissolution in the early sixteenth century, both became centres of extensive secular estates. At Nun Cotham, earthworks associated with the post-medieval house overlie those of the medieval nunnery whilst at Newsham, the former monastic lands were redeveloped into the post-medieval house and gardens of Brocklesby Park.

In the post-medieval period, the study area and its surrounding region developed a largely pastoral landscape, the first edition Six Inch Ordnance Survey maps (c. 1850) showing an essentially medieval pattern of small villages, including Immingham, Habrough, Brocklesby and Ulceby, the presence of drainage dykes indicative of land improvement being undertaken during this period.

This pattern of land use remained relatively unchanged until more intense industrialisation during the late nineteenth and twentieth centuries which saw the transformation of the coastal plain into a dramatic landscape of docks, oil refineries, tank farms and flare stacks, power stations and railway tracks.

Scope of Mitigation Works.

The planned programme of mitigation initially consisted of 25 targeted intervention areas, though changes to the construction programme meant that five of these areas were no longer subject to groundworks (Table 1.1). Mitigation in the remaining areas included full excavation (EXC), strip, map, sample, and record (SMS), archaeological monitoring and assessment (AMA), and earthwork survey (EWK) as appropriate. A full list of the intervention areas, together with a full account of the archaeological results by intervention area, is given in the post-excavation assessment (Network Archaeology 2016).

The mitigation areas were clustered in three broad locations: the A160/A180 Brocklesby Interchange road junction, at the A160/Rosper Road junction and around

the A160/Habrough Road junction at Killingholme (Figures 1.3 and 1.4). This report presents and discusses the archaeological results from each of these three broad locations in turn. Where appropriate, the results from the various intervention areas have been considered together in order to allow the creation of a consistent, phased site narrative for each of the three locations. The phasing used at the three locations is the same, allowing them to be discussed in relation to each other. In so doing, it has been possible to create an analytical framework in which the archaeological evidence across the 5km length of the mitigation scheme can be considered in its entirety.

The following account addresses specific archaeological objectives in accordance with the regional research agenda (Knight, Vyner and Allen 2012). Since the archaeological evidence uncovered during the project relates primarily to the Iron Age and Romano-British periods, the analysis largely focused on Agenda and Strategy Table 6.4: Late Bronze Age and Iron Age, and Agenda and Strategy Table 6.5: Romano-British (*ibid*, pp.58, 70). Points raised in Agenda and Strategy Tables for other periods are also addressed, where the archaeological evidence allows significant contributions to be made.

Table 1.1: List of archaeological interventions covered in this publication.

Site	Intervention Type	Code
Brocklesby Interchange	Open area excavation	EXC1
	Open area excavation	EXC2a
	Open area excavation	EXC2b
	Open area excavation	EXC3a
	Open area excavation	EXC3b
	Strip, map and sample	SMS1
	Strip, map and sample	SMS2a
Harborough Junction	Strip, map and sample	SMS3
	Strip, map and sample	SMS4b
	Strip, map and sample	SMS4c
	Strip, map and sample	SMS5
Rosper Road	Archaeological	AMA6
	Monitoring Area	
	Strip, map and sample	SMS (IMM16)

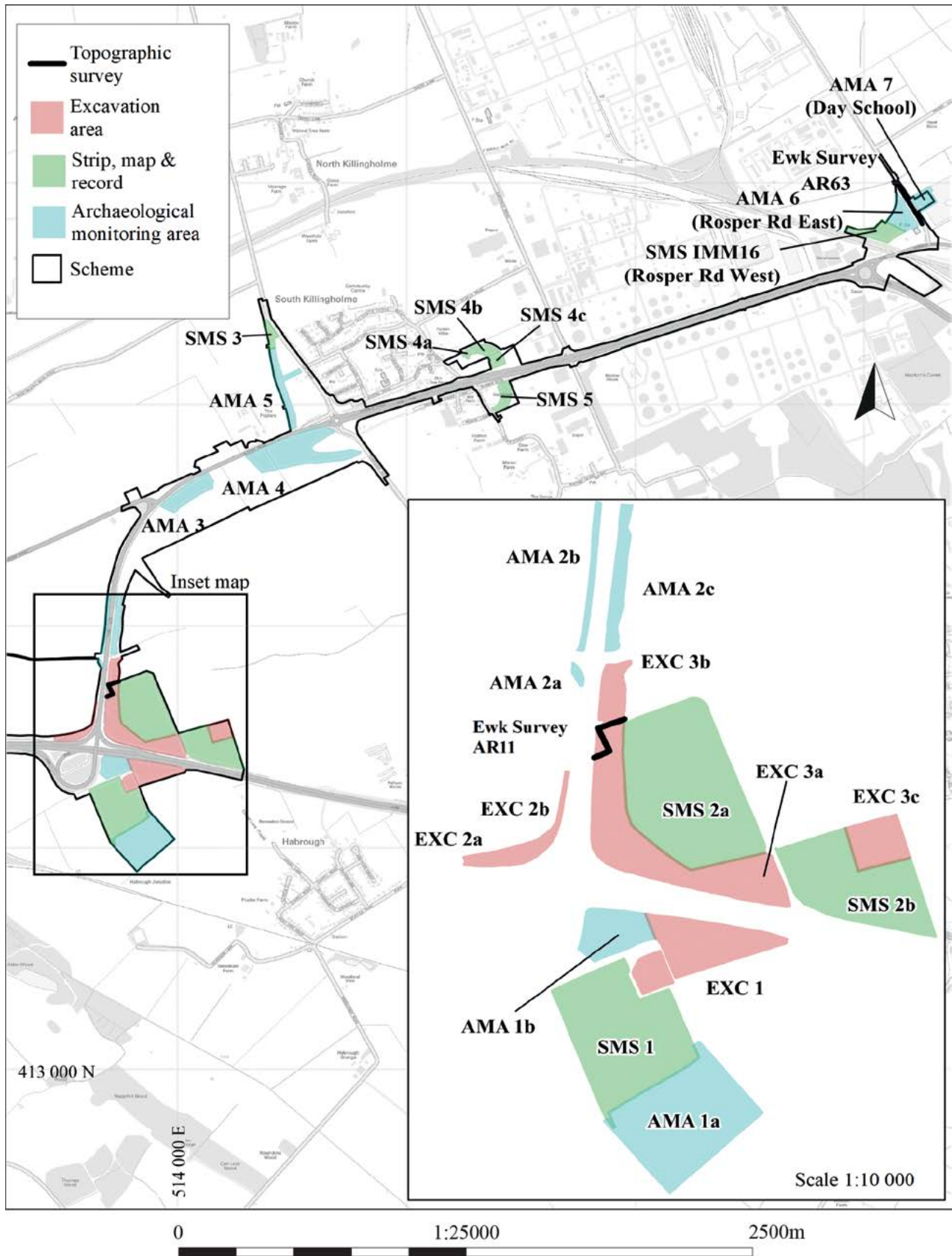


Figure 1.3: Mitigation areas

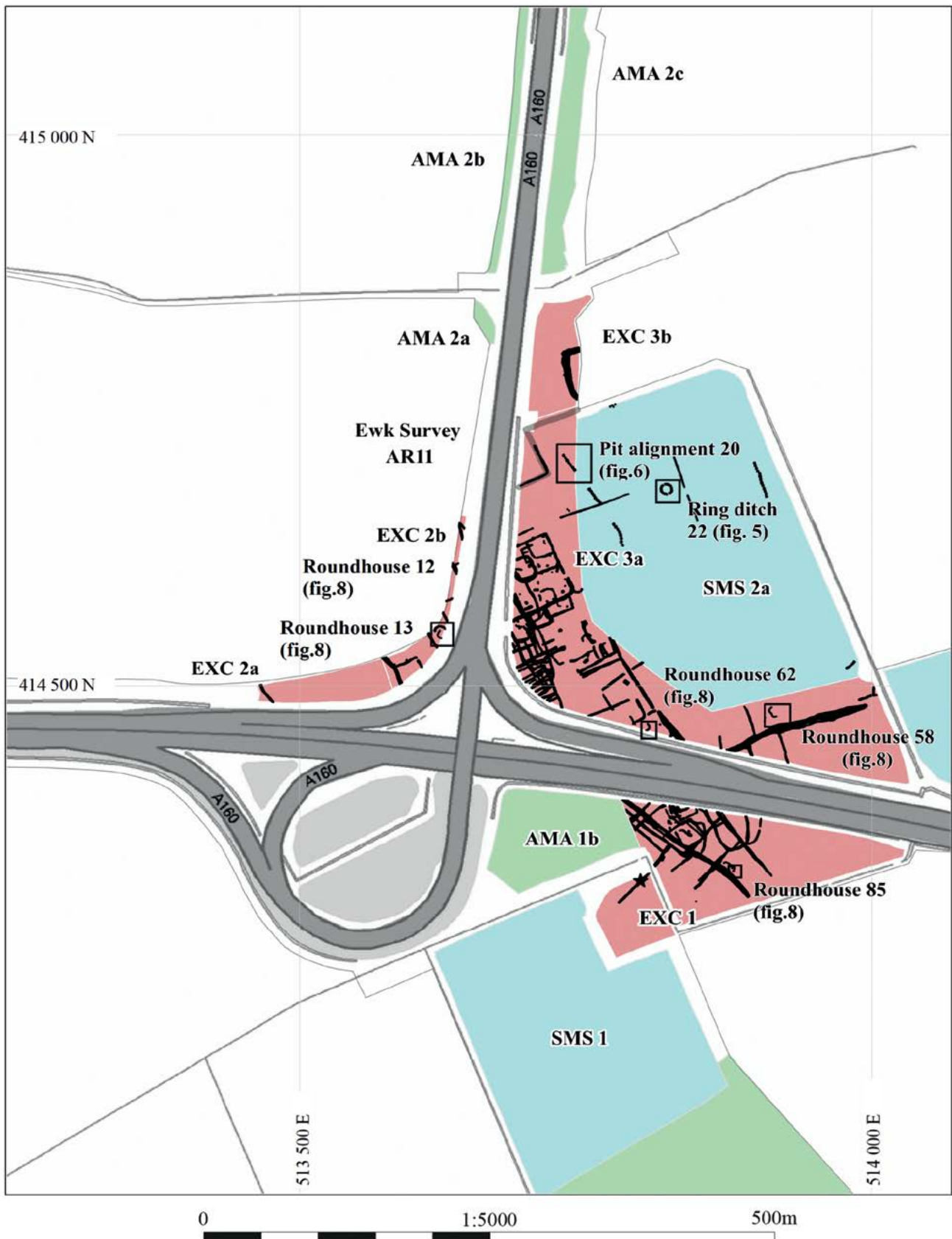


Figure 1.4: Brocklesby Interchange overview