

CHAPTER 11: HISTORIC ENVIRONMENT

Introduction

- 11.1 This chapter assesses the potential likely impacts of the proposed development on the historic environment of the site and surrounding area. The assessment includes a summary of known heritage assets found both within the site and its study radius; identifies the potential impact on these assets; and, where appropriate, proposes possible mitigation measures to offset any identified adverse effects (both temporal and spatial) that may arise in association with the construction and use of the proposed development.
- 11.2 This chapter includes:
- A brief introduction and description of the proposed development and its study area;
 - The methodology adopted for establishing the historic environment (i.e. archaeological and cultural heritage) baseline and for assessing the predicted impacts on any buried archaeological remains or other heritage assets and/or their settings;
 - A summary and description of the study area and site's archaeological and historical background, including the results of two archaeological desk-based assessments (PCA 2007; PCAS March 2014), a geophysical survey (PCG 2013), heritage impact assessment (PCAS April 2014a) and trial-trench evaluation (PCAS April 2014b) of the application site
 - An assessment of potential impacts on the historic environment of the site and its study area;
 - Recommendations for mitigation and proposed measures to offset potential impacts.
- 11.3 The site covers approximately 28.09 hectares of land that is predominantly in agricultural use at the time of writing (Figure 11.1) and is split between two parcels of land (Fig. 11.2). The proposed development is described in detail in Chapter 3 of this ES.

Methodology

Guidance

- 11.4 The methodology for this assessment is based on current best practice and guidelines and conforms to:
- National Planning Policy Framework (NPPF). Department for Communities and Local Government. March 2012;
 - Scheduled Monuments. The Ancient Monuments and Archaeological Areas Act 1979. DCMS, 2010;
 - The Setting of Heritage Assets, English Heritage Guidance, 2011;
 - By-Laws, Code of Conduct. Institute for Archaeologists (IfA), 2012;
 - Standard and Guidance for historic environment desk-based assessment. IfA 2012;
 - Standard and Guidance for commissioning work on, or providing consultancy advice on, archaeology and the historic environment; IfA 2013;
 - The Hedgerow Regulations 1997. DoE 1997;
 - Lincolnshire Archaeology Handbook (Lincolnshire County Council, June 2012).

Scope of Assessment

Spatial Scope

- 11.5 The spatial scope of the assessment comprises a study of the site itself and all known heritage assets recorded on the Lincolnshire Historic Environment Record (HER) within a 500m study radius of the site. The assessment also incorporates all additional designated heritage assets within a 1km study radius, including listed buildings, Scheduled Monuments, Conservation Areas; and Registered Historic Parks and Gardens (Fig. 11.3). Any heritage assets clearly visible or discernible from the site beyond this radius have also been included.

Temporal Scope

- 11.6 In 1995, an archaeological fieldwalking survey on the site to the south of Tytton Lane East (west of the A16), recorded a cluster of three or four areas of darker soil

within one field. These areas were slightly raised and produced concentrations of Romano-British pottery, which included shelly wares, grey wares and colour-coated pottery. The site was centred on TF3207 4167 and covered approximately 100m² (HER 13642).

- 11.7 The same western part of the site was previously studied in 2007, as part of a larger archaeological desk-based assessment commissioned by Chestnut Homes (PCA Lincoln 2007). The assessment re-investigated the Roman pottery scatter found in 1995 and carried out additional, limited fieldwalking on the site, which was unproductive, primarily due to dense ground cover. The assessment recommended further evaluation of the site in the form of a geophysical survey, possibly followed by targeted evaluation, to assess the scope of the possible Roman site.
- 11.8 In October 2013, Pre-Construct Geophysics (PCG), undertook a fluxgate gradiometer survey of the application site. Much of the site appeared to be archaeologically sterile, but a group of anomalies (one of which was detected within the general vicinity of the previously recorded Roman pottery scatter), were believed to signify archaeological remains (Fig. 11.4). Some of these were possibly industrial – perhaps associated with early salt production, although this hypothesis was not supported by the artefactual evidence. Overall, the recorded magnetic variation on the site clearly related to the palaeoenvironment, in the form of tidal channels or creeks and pools. The survey also recorded traces of at least one recently removed field boundary (evidenced from historic mapping), with suggestions of other relatively modern examples recently removed or infilled (PCG 2013, see Volume 2, 11.2).
- 11.9 Concurrently with the geophysical survey of October 2013, Pre-Construct Archaeological Services (PCAS) carried out a second archaeological desk-based assessment of the proposed development site. The assessment found that the site had a high potential for containing buried Roman settlement remains and post-medieval remains – the latter associated with a former railway line on the site; or infilled field-boundary ditches and ponds. The assessment recorded that during the intervening medieval period, the application site was probably utilised as parkland or agricultural land associated with the former medieval manor of Tytton and its deserted hamlet. The latter is believed to have been located on the site of the

present Tytton Hall, a non-designated farmhouse located approximately 250m due east of the site (PCAS March 2014, see Volume 2, 11.1).

11.10 In December 2013, PCAS carried out a Heritage Impact (Settings) Assessment of the Q1 site to evaluate any potential indirect (settings) impact associated with the proposed development on any designated heritage assets contained within an extended study radius. The assessment found that only one prominent, designated heritage asset was visible from the site: the 82m-high tower of the Grade I Saint Botolph's Church (The Boston Stump), located c. 2.5km to the north (Fig. 11.3, No.5). The assessment concluded that the proposed development has the potential to cause adverse changes of **Minor to Moderate** magnitude to the setting of this asset. Policy C8 of Boston Borough's Local Plan protects the Boston Stump by ensuring that any new development does not visually compete with the tower. On this basis, the use of further mitigation measures were recommended for the proposed development, to suggest that any visual impact is minimised or reduced to an acceptable level (PCAS April 2014a, see Volume 2, 11.3).

11.11 Based on the recommendations of the two archaeological assessments, a field evaluation was undertaken on the site by PCAS Ltd, during December 2013 and January 2014 (Fig. 11.5). The evaluation comprised the excavation of 14 trial-trenches (PCAS April 2014b; and see Volume 2, 11.4). The trenches were positioned across the application site to investigate potential archaeological features identified as anomalies on the geophysical survey (PCG 2013, see Volume 2, 11.2). Three control trenches positioned to investigate areas devoid of geophysical anomalies were confirmed as negative, as were another seven trenches. In six of the latter trenches (8, 10, 11, 12, 13 & 14), the geophysical survey had recorded potential industrial sites possibly associated with salt production: these anomalies were not substantiated by the trial-trenching (Trench 8 contained the remains of a post-medieval field boundary). Sondages subsequently excavated in the five archaeologically-negative trenches revealed successive, natural flood deposits that could potentially be concealing earlier archaeological features. The remaining four trenches (3, 4, 5 & 6), were all located on the north-western side of a large, former palaeochannel identified by the geophysics. These trenches contained multiple earth-cut features, including pits, ditches and a large pond feature. The vast majority of pottery dates to between the 2nd and 3rd century AD, although smaller groups of

early Roman and 4th century pottery were also retrieved (Rowlandson 2014: see Volume 2, 11.4, Appendix 3).

- 11.12 The results of the evaluation suggest that a multi-phase (Iron Age and Roman) occupation site represented by a series of ditches and pits was located on higher ground on the north-western bank of a palaeochannel. The limits of this activity are indicated by the surrounding negative trenches and the site corresponds exactly with the location of a Roman pottery scatter discovered in 1995. The evidence suggests that this is a small domestic site, dating between the 1st and 4th centuries AD. Such sites are relatively rare in the Boston area, where evidence of Roman occupation is minimal.

Baseline Data Collection

- 11.13 The baseline conditions of this assessment have been established on the basis of the previous pieces of research and intensive field evaluations detailed above. The assessments included data gathering exercises to collate all available sources of archaeological and historical information for the site within its 500m designated study radius and 1km non-designated radius. All stages of the project examined relevant information held by the Lincolnshire Historic Environment Record; the Lincolnshire Record Office; Lincolnshire County Council; Boston Borough Council; English Heritage; cartographic, online and documentary sources relevant to the project and general area; and appropriate soil and geological information (see Table 11.1 below).
- 11.14 A site visit was conducted in October, 2013 as part of the revised desk-based assessment and settings assessment (PCAS March 2014; PCAS April 2014), together with a visual and photographic survey. Particular attention was paid to visible landmarks, surface features and artefacts, heritage assets, adjacent roads, fields and boundary markers. All observations were recorded and photographs were taken of the site, surrounding area and heritage assets.

Table 11.1: Sources of Baseline Information

Baseline Topic	Data Source
Designated Heritage Assets (as defined in NPPF Annex 2)	
World Heritage Sites	- National Heritage List for England, English Heritage; UNESCO; Magic/Defra
Scheduled Ancient Monuments	- National Heritage List for England, English Heritage; Magic/Defra; Boston Borough Council
Listed Buildings	- National Heritage List for England, English Heritage; -Lincolnshire Historic Environment Record
Protected Wreck Sites	- National Heritage List for England, English Heritage; Magic/Defra; Maritime and Coastguard Agency
Registered Parks & Gardens	- National Heritage List for England, English Heritage; Lincolnshire CC; Magic/Defra
Registered Battlefields	- National Heritage List for England, English Heritage; Magic/Defra; The Battlefields Trust
Conservation Areas	- National Heritage List for England, English Heritage; Lincolnshire CC; Magic/Defra; Boston Borough Council
Non-designated Heritage Assets	
Non-scheduled archaeological remains; Historic landscapes; Buildings of local historic interest; Artwork;	- Site visits and walkover surveys (2007; 2013); - Archaeological Field Evaluation (Dec 2013) - Lincolnshire Historic Environment Record; - Lincolnshire Record Office; - Portable Antiquities Scheme; - Archaeology Data Service (ADS); - Archaeological assessment of local borehole data; - Aerial photographic data (RAF, NMR, LHER; Google Earth); - Historic and Ordnance Survey maps
Archaeological Events	- Lincolnshire Historic Environment Record;
Ancient Woodlands	- Defra / Magic; Published landscape character assessments; Historic maps
Important Hedgerows	-Site visit; - Lincolnshire Record Office; -Historic Maps; Ordnance Survey maps

Breadth of Topic

11.15 Those elements of the historic environment with archaeological, historic, architectural or artistic interests that hold significance are now referred to as **'heritage assets'** - **'a building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions'** (NPPF 2012, Annex 2). These include archaeological sites, monuments and artefacts, historic buildings and other

components of the built environment, and historic landscapes and historic landscape elements, which together comprise the cultural heritage resource.

11.16 The assessment within this chapter considers the impacts of the proposed development upon the heritage resource, both as a result of the construction phase and the residual impacts once the development is completed. The assessment has been carried out in three stages: firstly it evaluates the sensitivity of the resource; secondly it considers the magnitude of the impact; and thirdly it assesses the significance of the impact. The latter stage is a combination of the results of stages 1 and 2. The criteria for assessing the heritage resource and levels of impact are described below.

Establishing sensitivity and value of the receptor / resource

Stage 1: Sensitivity

11.17 Heritage assets fall into two groups (NPPF, Annex 2):

- Designated heritage assets: A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation; and:
- Non-designated heritage assets: historic landscapes, important hedgerows, buildings of local historic interest, artwork and non-scheduled archaeological remains.

11.18 At the time of writing there is no nationally agreed method of measuring the relative significance of Heritage Assets. The relative importance of archaeological remains is currently judged using criteria in Annex 1 of the Scheduled Monument consent guidance document issued by DCMS in March 2010. The criteria are: **'period, rarity, documentation, group value, survival, fragility, diversity, and potential'**. The DCMS and NPPF Annex 2 define **Significance** (for heritage policy) as, **'the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic'**.

11.19 Designated heritage assets have an agreed significance recognised in their citations and are inherently of International or National significance. The significance of non-designated assets is a matter of professional judgement, founded upon the assessment of an asset's actual or potential ability, either individually or as part of a group, to contribute significantly to acknowledged international, national, regional or local research objectives. Such professional judgements are contingent upon the variable quality of the available data and the understanding of the assessor. Consequently they may be contested and may need revision, if fuller information should become available.

11.20 For the purposes of this assessment, all identified heritage assets have been ascribed a significance rating of International; National; Regional; Local; Less than Local; or Unknown. The considerations used when ascribing these significance ratings are set out in Table 11.2 below:

Table 11.2: Asset significance criteria

Asset Significance	Criteria used for establishing heritage asset significance
International	<p>World Heritage Sites.</p> <p>Archaeological sites and monuments, historic buildings and historic landscapes of acknowledged international importance.</p> <p>Archaeological sites and monuments, historic buildings and historic landscapes that can contribute significantly to international research objectives.</p> <p>Extremely well-preserved historic landscapes with exceptional coherence, time-depth or other critical factors.</p>

Asset Significance	Criteria used for establishing heritage asset significance
National	<p>Scheduled Ancient Monuments.</p> <p>Non-designated archaeological assets of schedulable quality and importance.</p> <p>Archaeological assets that can contribute significantly to national research objectives.</p> <p>Grade I, Grade II* and Grade II Listed Buildings.</p> <p>Conservation Areas Non-designated structures of clear national importance.</p> <p>Designated and Non-designated historic landscapes of outstanding interest and demonstrable national value.</p> <p>Non-designated historic landscapes of outstanding interest.</p> <p>Well-preserved historic landscapes with considerable coherence, time-depth or other critical factors.</p>
Regional	<p>Non-designated archaeological assets that can contribute significantly to regional research objectives.</p> <p>Unlisted historic buildings that can be shown to have exceptional qualities in their fabrics or historical associations.</p> <p>Historic townscapes or built-up areas with important historic integrity in their built environments.</p> <p>Non-designated landscapes of regional value.</p> <p>Averagely well-preserved historic landscapes with reasonable coherence, time-depth or other critical factors.</p>
Local	<p>Non-designated archaeological assets of local importance.</p> <p>Archaeological assets compromised by poor preservation and/or poor survival of contextual associations.</p> <p>Archaeological assets of limited value but with potential to contribute to local research objectives.</p> <p>Unlisted historic buildings of modest quality in their fabrics or historical associations.</p> <p>Historic townscapes or built-up areas with limited historic integrity in their built environments.</p>

Asset Significance	Criteria used for establishing heritage asset significance
Less than Local	Assets with little or no surviving archaeological interest. Buildings of no architectural merit and no significant historical associations. Landscapes with little or no significant historical interest.
Unknown	Heritage assets of unascertained value.

Sensitivity of a heritage asset to physical impacts

11.21 Given that the physical structure of a heritage asset is integral to its significance, the significance rating ascribed (using the above or similar criteria), correlates directly with the asset’s sensitivity to direct physical impacts, such as would be caused by the development’s construction groundworks. This is clarified in Table 11.3 below.

Table 11.3: Stage 1 sensitivity of heritage assets to direct physical impacts

Asset Significance	Sensitivity to physical Impacts
International	Very High
National	High
Regional	Medium
Local	Low
Less than Local	Very Low

Heritage asset sensitivity to indirect Impact

11.22 The DCMS and NPPF describe the **Setting** of a heritage asset as, ‘**The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral**’. Unlike the physical attributes of a heritage asset, an asset’s setting does not always make a significant contribution to its value and can be neutral or negative.

11.23 Where the setting of an asset does make a significant contribution to that asset's overall significance, the asset's sensitivity to impacts on its setting will correlate directly with the asset's overall significance. Conversely, where an asset's setting is judged not to make a significant contribution to that asset's significance, that asset is judged to be **Not Sensitive** to impacts on its setting. This relationship is clarified in Table 11.4 below:

Table 11.4: Stage 1 sensitivity of heritage assets to indirect (settings) impacts

Sensitivity	11.24 Description
Very High	Heritage Assets of International importance, that are visually prominent and whose visual setting contributes significantly to their importance; Invisible or partially visible heritage assets of International importance whose location and topographical context aid our understanding of their form and function.
High	Heritage Assets of National importance that are visually prominent and whose visual setting contributes significantly to their importance; Invisible or partially visible heritage assets of National importance whose location and topographical context aid our understanding of their form and function.
Medium	Heritage Assets of Regional importance that are visually prominent and whose visual setting contributes significantly to their importance; Invisible or partially visible heritage assets of Regional importance whose location and topographical context aid our understanding of their form and function.
Low	Heritage Assets of Local importance whose landscape setting contributes significantly to their importance.
Not Sensitive	Any heritage asset of International, National, Regional, Local or lesser importance whose landscape setting does not contribute to its importance.

Stage 2: Impact magnitude

11.24 Impact magnitude is the degree of change that would be experienced by a heritage asset and its setting (where applicable) if the development scheme were to be implemented and completed, compared with a 'do-nothing' situation. Impacts can be either direct or indirect. Direct impact could involve the physical destruction of a standing heritage asset or the physical alteration or removal of below-ground archaeological remains during development groundworks. An indirect impact involves an effect (often visual) on the setting of a designated heritage asset, such as a scheduled monument or listed building. Setting is generally considered as what can

be seen and heard to, or from, the heritage asset. Indirect effects can also include those caused by eternal drainage, vibration or subsidence; or increased dust, noise and pollution. Such impacts can be adverse or beneficial, temporary or permanent. The degree of impact magnitude has been considered in terms of major, moderate, minor, negligible or no change, as set out in Table 11.5 below.

Table 11.5: Stage 2 impact magnitude

Magnitude	11.25 Impact Description
Major	-Where there would be complete or nearly complete demolition or loss (of more than approximately 80%) of an archaeological site or heritage asset to the development. -Comprehensive change to their settings. -Change to most or all key historic-landscape elements, extreme visual effects.
Moderate	-Where there would be considerable loss (between approximately 50% and 80%) of an archaeological site or heritage asset to the development. -Considerable changes to setting that affect the character of the archaeological or built heritage asset. -Change to many key aspects of the historic landscape.
Minor	- Where there would be loss of part (between approximately 15% and 50%) of an archaeological site or heritage asset. -Slight changes to their settings. -Changes to some key historic-landscape elements.
Negligible	- Where there would be a minimal loss (up to 15%) of part of an archaeological site or heritage asset. -Very minor change to key historic-landscape elements; virtually unchanged visual effects; -As the name indicates, negligible impacts are so small that they can reasonably be excluded from further consideration.
No Change	-No Change to archaeological, built-environment or heritage assets.

Stage 3: Impact significance

11.25 The significance of effects upon heritage assets within the study area is assessed by combining the Stage 1 sensitivity of the asset to physical impacts or impacts upon setting (assessed as appropriate, according to the criteria set out in tables 11.3 and 11.4 above), and the Stage 2 magnitude of impact (assessed according to the criteria set out in Table 11.5 above). The results of that combination (Stage 3) are set out in Table 11.6 below.

Table 11.6: Stage 3 Impact significance matrix

Stage 1 Asset Sensitivity	<i>Very High</i>	Very Substantial	Substantial	Moderate	Slight	Neutral
	<i>High</i>	Substantial	Substantial	Moderate	Slight	Neutral
	<i>Medium</i>	Moderate	Moderate	Slight	Slight	Neutral
	<i>Low</i>	Slight	Slight	Slight	Slight	Neutral
	<i>Very Low</i>	Slight	Slight	Slight	Neutral	Neutral
	<i>(Not Sensitive)</i>	Neutral	Neutral	Neutral	Neutral	Neutral
		<i>Major</i>	<i>Moderate</i>	<i>Minor</i>	<i>Negligible</i>	<i>No Change</i>
		Stage 2 Impact Magnitude				

Residual effects

11.26 The development proposals and their potential impacts are assessed in 11.70 – 11.82 and any proposed mitigation measures described in 11.83 – 11.94 below. The purpose of the mitigation is to avoid, reduce and, where possible, remedy any significantly adverse impacts. Residual impacts, i.e., those impacts that remain following the implementation of any recommended mitigation measures, are also identified in 11.83 – 11.94.

Assumptions and limitations

11.27 The following assumptions and limitations apply to this baseline study:

- The LHER records all known archaeological sites and monuments; find-spots and events within the County. The distribution of these elements is representative of previous archaeological discoveries, interventions and current research. Consequently, there is always a small potential for previously unknown and unrecorded archaeology to exist, particularly in relation to pre-historic periods;
- Despite a trial-trench evaluation having been recently conducted on the site it is marginally feasible that there may still be isolated, unrecorded archaeological remains on parts of the site where archaeologically negative trenches were recorded. While it is acknowledged that the field evaluation might not have detected 100% of all discrete archaeological remains within the site, there is a high degree of confidence in the results of this phase of work: it is considered highly unlikely that the site contains any remains of National or Regional

significance that have not already been detected; and that would preclude development or require preservation in-situ;

- The Stage 1 sensitivity of certain designated heritage assets is difficult to accurately assess, due to the fact that the contribution of each asset's setting to its own inherent importance is often an unknown or un-established factor (see Table 11.4). For the purpose of this assessment however, an attempt has been made to research each asset's setting and, where unknown, the maximum level of asset contribution has been adopted for each affected heritage asset.

Consultation

11.28 The Senior Historic Environment Officer from Heritage Trust of Lincolnshire, acting as advisor to Boston Borough Council, has provided helpful heritage advice and guidance throughout each stage of the project to date.

Planning Policy Context

Development Plan

11.29 The adopted Boston Borough Local Plan (April 1999), and the Boston Borough Interim Plan (Non-Statutory Development Control Policy) 2006 provide local planning guidance for the site. The Local Plan contains no 'saved' policies relating to the historic environment or archaeological remains (formerly C6, C11 and C12), (<http://www.boston.gov.uk/>) Policy C8 ensures that any new buildings in the borough do not compete visually with the 82 metre-high tower of St Botolph's Church (Boston Stump).

11.30 Boston Borough Local Plan inset map 28 shows the application site as 'Countryside'. The following saved policies included within the 2006 Boston Borough Interim Plan apply to this area: RTC11, H7, R8, R9, A3, A4, A5 and CO1-CO13. None of these relate to the historic environment or archaeological remains.

11.31 A number of nationally important designated assets and non-designated heritage assets have been identified within the 500m HER study radius. Additional designated

assets have been identified within 1km of the site and, where visible from the site, beyond this radius (see 11.36 – 11.69 below).

Other Material Considerations

National Planning Policy Framework 2012

- 11.32 The National Planning Policy Framework (NPPF) guidance issued by the Department for Communities and Local Government (DCLG) and referred to in English Heritage's correspondence came into force at the end of March 2012. The NPPF advises that Local Planning Authorities **'require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible'** (NPPF, s141).
- 11.33 NPPF paragraph 12.132 states that **'when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.'**
- 11.34 NPPF, Annex 2 defines Significance (for heritage policy) as, 'the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.'

- 11.35 The South East Lincolnshire Local Plan is produced by the South East Lincolnshire Joint Strategic Planning Committee, a partnership of Boston Borough, South Holland District and Lincolnshire County Councils working to create a single Local Plan for the area of South Holland and Boston Borough (LCC July 2012).

Existing Situation

The site and its surroundings

- 11.36 The Q1 application site is located approximately 2km SSW of Boston town centre, within the Parish of Wyberton in the modern Borough of Boston. The site partly incorporates the A16 trunk road, which follows the course of an earlier railway line: approximately two-thirds of the site is situated on the western side of this road. To the west is the B1397 London Road (once the turnpiked high road from London to Boston). The centre of Wyberton Village lies to the southwest and modern development (post-1940s) surrounds this part of the site on its south, west and north sides. An open stream called the Towns Drain runs along the south side (Fig. 11.2; Plate 1).
- 11.37 The remaining, eastern part of the site is an irregularly shaped piece of land situated to the east of the A16. It is bordered to the east by land surrounding Tytton Hall and the remains of its deserted medieval village (DMV) and moat (Plate 2). The whole site is bordered to the north by the rear gardens of modern residential properties fronting onto Tytton Lane East (see Fig. 11.2). The historic core of Wyberton, centred on the medieval church of St Leodegar and Wyberton Park, is located approximately 450m southeast of the site.
- 11.38 Topographically, the site is located within the B1: Bicker to Wyberton Settled Fen Landscape Character Type (<http://southeastlincslocalplan.org/files/2012/01/Boston-Borough-Landscape-Character-Assessment-July-2009.pdf>). It is located between c. 3m and 4m above Ordnance Datum (AOD) and slopes gently down to the south towards the Towns Drain, which runs from the Hammond Beck and through Wyberton Parish to The Haven at Slippery Gowt.

11.39 The BGS online viewer records that the solid (bedrock) geology of the site is Jurassic Amphill Clay Formation mudstone. This formation extends all along the coast around the Wash. The Jurassic clays in this area are overlain by Terrington Beds of marine deposits and tidal creek and river deposits. They are covered by a mix of fertile calcareous and typical alluvial gley and pelo-alluvial gley soils. There are some small areas of man-made salterns. The superficial drift deposits on the site are recorded as Quaternary Tidal Flat deposits of clay and silt.

The Cultural Heritage Resource

11.40 Paragraphs 11.41 to 11.69 below include a description of all designated and non-designated heritage assets within their respective 1km and 500m study radii; as well as a number of tables (11.7 - 11.11) listing all heritage assets identified both within and outside the application site boundary, together with the assessed ratings for their asset significance, sensitivity and impact magnitude. These results are based on the methodology described in section 11.2 and the criteria set out in tables 11.2 and 11.3.

Designated Heritage Assets

11.41 There are no listed buildings or other designated heritage assets within the redline site boundary. There are no World Heritage Sites, Protected Wreck Sites, Registered Parks and Gardens or Registered Battlefields within the site, 1km study radius or visible within the wider area.

Scheduled Ancient Monuments

11.42 There are no Scheduled Ancient Monuments (SAMs) within the application site. There are two SAMs, both located approximately 1km from the site: Wybert's medieval castle to the ESE and a medieval moated site to the north (see Table 11.7). As both of these heritage assets lie on the limit of the study radius for designated assets (1km), their sensitivity to impacts and impact magnitude ultimately depends upon two factors:

- the contribution of each SAM's setting to its own inherent importance (a factor that is not confirmed but is assessed within the scope of this report); and,

- the degree of indirect impact (i.e. effect) upon each SAM's setting.

Table 11.7: SAMs within the 1km study radius

EH UID.	Summary	Distance from site	Asset Significance	Stage 1. Sensitivity to indirect impacts (setting)	Stage 2. Likely Impact Magnitude
31609	Wybert's Castle, medieval moated site (Fig. 11.3, No.2)	c. 1km ESE	National	High	No Change
33137	Medieval moated site 480m north east of Wyberton West Hospital (Fig. 11.3, No.3)	c. 1km N	National	High	No Change

11.43 The site visit found that neither asset is visible from the site, due to their distance; the nature of the surrounding topography; and intervening roads, vegetation and properties. The same conclusion was reached by the recent LVIA (see Chapter 8, of this ES, relating to Landscape and Visual Impact), which recorded no intervisibility between the site and Wybert's Castle; and found that **'views of the application site from all locations north of Tytton Lane East [including the medieval moated SAM] would be screened by existing housing along this road'** (Smeedon Foreman 2013, 23). For the medieval moated site, the LVIA also considered views towards this monument from Low Road but found that the distant view was bisected by the busy A16 road with a line of pylons running through the middle ground. Further views were restricted by mature trees and hedgerows, with intermittent views of buildings (Smeedon Foreman 2013, VP8). It is therefore anticipated that neither asset would be adversely affected by the development proposals. The impact magnitude of the proposed development on these two SAMs is deemed to be **No Change**.

Listed buildings

Buildings are graded according to their importance:

- Grade I - buildings are those of exceptional interest;
- Grade II* - are particularly important buildings of more than special interest;

- Grade II - are of special interest, warranting every effort to preserve them.

11.44 There are no listed buildings within or adjacent to the site. There is one Grade I, one Grade II* and five Grade II listed buildings within 1km of the site. Based on the methodology described in 11.4 – 11.28 and the criteria set out in tables 11.2-11.4, all listed buildings, despite their grading, are assessed as heritage assets of National significance and have a High (or Not Sensitive) sensitivity to impacts on their setting. The latter depends on the contribution of each of their settings to their own inherent importance (see Table 11.8 below).

Table 11.8: Listed buildings within the 1km designated asset study radius

EH UID.	Grade	Summary	Distance from site	Asset Significance	Stage 1. Sensitivity to indirect impacts (setting)	Stage 2. Likely Impact Magnitude
192044	I	Church of St Leodegar (Fig. 11.3, No.4)	c. 750m SSE	National	High	No Change
192045	II*	Wyberton Park House, Church Lane, former rectory (Fig. 11.3, No.7)	c. 850m SSE	National	High	No Change
192046	II	HER 14164: Milestone beside Wortley's Lane (Fig. 11.3, No.8)	c. 300m SW	National	High	No Change
486379	II	126, London Road: House, now offices (Fig. 11.3, No.12)	c. 600m N	National	High	No Change
486380	II	HER 13875: Number	c. 300m NNW	National	High	No Change

		179 and Gateway, 179, London Road (Fig. 11.3, No.13)				
486381	II	Church of St Thomas (Fig. 11.3, No.14)	c. 800m N	National	High	No Change
86384	II	West Skirbeck House, London Road (Fig. 11.3, No.17)	c. 550m NNW	National	High	No Change

Grade I listings

- 11.45 There is one Grade I listed building within the 1km study radius, this is the 12th-century Church of St Leodegar, located c. 750m SSE of the site (Fig. 11.3, No.4). The church has a west tower (without a spire) that was rebuilt in the 15th century. It lies on the eastern side of the Wyberton Conservation Area and is surrounded by mature trees and leafy vegetation: it shares no anticipated intervisibility with the application site. The impact magnitude of the proposed development on this asset is therefore deemed to be No Change (see Summary Table 11.11 B) below.
- 11.46 The Grade I listed Saint Botolph's Parochial Church of Boston (usually referred to as the 'Boston Stump'), is located far beyond the 1km study radius (c.2.5km north of the site), but represents the only designated asset within or beyond the radius that is clearly visible from the site (plates 3 & 4; and see Fig. 11.3, No.5). St Botolph's is highly significant for its architecture: it boasts the highest tower (exclusive of spire) of any parish church in the country, which has always been an important landmark to both seafarers and people travelling across the flat fenlands surrounding the town since its construction in the late 14th-early 15th centuries.
- 11.47 The immediate setting of St Botolph's Church is the town's Market Place, where the principal streets of the town converge. The church is prominent within the Market

Place and the steeple dominates the underlying streets, facing towards the river- the site of the former port and source of Boston's medieval wealth. The church's wider setting is the surrounding suburbs and, further afield, the fenlands. Today, these aspects are punctuated by modern industrial buildings, pylons, cranes and church spires. The church's setting makes a positive contribution to the building's architectural and historical significance.

- 11.48 In accordance with the criteria detailed in Table 11.5, it is anticipated that when completed, the proposed development would cause slight changes to the setting of this St Botolph's Church and change to some key historic-landscape elements – i.e. potential effects of **Minor** impact magnitude. The exact level of impact on this asset is currently uncertain due to the lack of existing visual projections for the proposed Community Stadium when viewed from the wider area. However, it is likely that the large-scale, elevated and sometime illuminated nature of the future development to the east of the A16 could potentially obstruct or vertically challenge some views of the Stump, particularly from the south and southeast.

Grade II listings*

- 11.49 The one Grade II* listed building within the 1km study radius is Wyberton Park House (Fig. 11.3, No.7) on Church Lane, c. 800m SSE of the site, on the southern edge of the Wyberton Conservation Area. This asset is associated with the buried remains of another DMV and ridge and furrow earthworks. This building and its medieval site share no intervisibility with the application site. The impact magnitude of the proposed development on this asset is therefore deemed to be **No Change** (see Summary Table 11.11 B) below.

Grade II listings

- 11.50 There are five Grade II listed buildings within the 1km study radius. These are all situated between 300m and 800m from the site. The closest are a milestone, located c.300m to the southwest on London Road (Fig. 11.3, No.6); and number 179 London Road (Fig. 11.3, No.13), located c. 300m NNW of the site, to the north of Tytton Lane West. The Grade II listed Church of St Thomas (Fig. 11.3, No.14) is located c. 800m north of the site and is heavily screened by trees, vegetation and intervening

buildings. None of the Grade II assets share any intervisibility with the site; their impact magnitudes are considered to be **No Change** (see Summary Table 11.11 B) below.

Registered parks and gardens

11.51 In England, the Register of Historic Parks and Gardens of special historic interest provides a listing and classification system that is managed by English Heritage under the provisions of the National Heritage Act 1983.

11.52 There are no formally Registered Historic Parks and Gardens on, or in the vicinity of, the application site. The closest is the Grade II listed Boston Cemetery, located on the north side of the city, approximately 3.5km north of the site. Because of this considerable distance, the park (of National significance / High sensitivity), shares no potential intervisibility with the site and its impact magnitude is considered to be **No Change** (see Summary Table 11.11 D) below.

Conservation areas

11.53 The Wyberton Conservation Area (Fig. 11.3, No.1), (designated in 1990) encompasses most of the built village of Wyberton except for properties on the south side of Causeway and to the north of Penmaen on Low Road. The Conservation Area (of National significance / High sensitivity), contains two listed buildings discussed above: the Grade II* Wyberton Park House (Fig. 11.3, No.7) and Grade I St Leodegar's Church (Fig. 11.3, No.4). At its closest point, where it aligns with Low Road, the Conservation Area boundary is located c. 450m southeast of the site (Plate 5).

11.54 Although not currently visible from the application site, some long range intervisibility is anticipated between the north-western boundary of the designated Conservation Area and the proposed stadium following its construction. The recent LVIA found that effects of Moderate Adverse significance would occur: **'The views from this receptor [Viewpoint 8- the NW corner of the Conservation Area] would change as some sections of the application site would be visible. The proposed stadium would be visible above the line of existing vegetation and this**

would change the scale and nature of the urban edge within this view' (Smeedon Foreman 2013, VP8). From a heritage perspective, these anticipated effects on the setting of the Wyberton Conservation Area (at this specific location), as a result of the development would most likely represent a **Minor** impact magnitude, as detailed above in Table 11.5.

Non-designated heritage assets

Ancient Woodland

11.55 Ancient Woodland is land that has had a continuous woodland cover since at least 1600 AD and may be ancient semi-natural woodland (ASNW), which retains a native tree and shrub cover that has not been planted. It is not automatically the case that any ancient woodland is protected (<http://magic.defra.gov.uk/>). DEFRA records no Ancient woodland within the study radius or surrounding area.

'Important' hedgerows

11.56 On the 1st June 1997 the Hedgerows Regulations came into force under Section 97 of the Environment Act, 1995. There is a strong presumption that 'important' hedgerows and other hedgerows, as seen from an archaeological, historical [& landscape and wildlife] perspective, will be protected and wherever possible incorporated into open space and landscaping proposals for new development. Under regulations, it is against the law to remove or destroy certain hedgerows without a hedgerow removal notice and relevant permission from the local planning authority, unless planning permission has been granted for the development (<http://archive.defra.gov.uk/>).

11.57 The interior field boundaries of the application site are composed of drainage ditches containing isolated bushes (Plate 6). Remnants of peripheral hedgerow on the site are primarily associated with modern residential property boundaries, with the exception of a tall hedgerow surrounding the south-eastern corner, where unspecified historic boundary markers were indicated on an early 18th-century map (see Volume 2, 11.1, Fig.4). This hedgerow could potentially qualify for 'Important' status under criteria 5a of Part II, Schedule 1 of the 1997 regulations. The site's

hedgerows are deemed as assets of potentially Local significance, of Low sensitivity to physical impacts. The indicative site Masterplan shows that this hedgerow would be preserved in situ by the proposed development. The level of impact magnitude is therefore anticipated as **No Change** (see Table 11.5; Signet Dwg.: HGO249/PP001)

Non-designated archaeological remains

- 11.58 Using data provided by Lincolnshire HER, the 2007 archaeological desk-based assessment and its 2013 revision (PCA 2007; PCAS Oct. 2013), identified a total of 15 non-designated archaeological sites and find-spots (out of a total of 17 HER records) recorded within a 500m study radius of the application site. Adopting the methodology set out in 11.4 – 11.28, together with (where relevant), the results of the recent LVIA conducted by Smeedon Foreman (2013), (see Chapter 8: Landscape and Visual Impact), the significance and sensitivity of these sites was assessed. The results are shown in tables 11.9 and 11.10 below. Further details of these sites and their locations can be found in the revised desk-based assessment (PCAS October 2013).
- 11.59 Of the 15 non-designated sites one is located within the (western side of) the application site. This site, a Roman pottery scatter (HER 13642), was recently investigated by trial-trench evaluation. The preliminary results suggest that a multi-phase (Iron Age and Roman) occupation site was situated on higher ground on the north-western bank of a former palaeochannel, below the exact site of the Roman pottery scatter discovered in 1995 (see Fig. 11.2). The current information suggests that this archaeological site is of likely **Regional** significance (i.e. a non-designated archaeological asset that could contribute significantly to regional research objectives) - with a **Medium** sensitivity to direct physical impacts. The level of anticipated impact magnitude on these remains is deemed to be **Major** (adverse), i.e. complete or nearly complete, demolition or loss as a result of the development (see Table 11.9 below). The likely effects of the development on this site, their significance and mitigation are considered further in 11.70 – 11.82 and 11.83 – 11.94 below.

Table 11.9: Non-designated archaeological remains within the application site

HER No.:	Description	Asset Significance	Stage 1. Sensitivity to direct physical impacts	Stage 2. Likely Impact Magnitude
13642	Roman pottery scatter: found south of Tytton Lane East during fieldwalking in 1995.	Regional	Medium	Major
N/A	Earth-cut features of potential Iron Age and Roman date identified during the recent evaluation and directly associated with the pottery scatter	Regional	Medium	Major

11.60 An assessment of the remaining 14 non-designated archaeological assets within the 500m study radius (but outside the site), considers the significance of these assets and their sensitivity to potential indirect impact. The assessment deems the majority of these assets to be of Local or Less than Local significance (see Table 11.10 below). Many of them comprise buried archaeological remains, demolished buildings and find-spots, and as such, they are considered as **Not Sensitive** to indirect impacts. These sites are described further chronologically in 11.61 – 11.69 below.

Table 11.10: Non-designated HER assets within the 500m study radius

HER No.:	Description and approximate distance from the application site	Asset Significance	Stage 1. Sensitivity to indirect (settings) impacts	Stage 2. Likely Impact Magnitude
12626	Medieval earthwork to west of Tytton Hall, Wyberton: comprises three sides of the square moat of an earlier moated manor. 260m east.	Regional	Medium	Major
12628	Undated mounting block: alleged reused Roman milestone at Pincushion Inn, Wyberton. 300m SW of site.	Local	Not Sensitive	No Change
12635	Post-medieval findspot from a timber yard: early Westerwald stoneware jug of c. AD 1600. 180m north.	Local	Not Sensitive	Negligible

HER No.:	Description and approximate distance from the application site	Asset Significance	Stage 1. Sensitivity to indirect (settings) impacts	Stage 2. Likely Impact Magnitude
12727	Deserted medieval settlement: documentary evidence for the hamlet of Tytton, mentioned in 1316. Existed on the site of the 19 th -C Tytton Hall farmhouse (& moated manor). 350m east.	Local	Medium	Major
13486	Former post-medieval keeper's cottage at Wyberton level crossing, opened 1848, closed 1970. <50m north.	Local	Not Sensitive	Negligible
13487	Former post-medieval level crossing gatehouse on Saundergate Lane on the disused GNR. 400m south.	Local	Not Sensitive	Negligible
13489	Former post-medieval level crossing gatehouse at Causeway on the disused GNR. 200m south.	Local	Not Sensitive	Negligible
13568	Post-medieval 'granary' in the locality of the medieval manor of Tytton. 300m east.	Local	Low	Major
13569	Medieval stone corbel built into the east wall of the Granary, Tytton Court. 320m east.	Less than Local	Not Sensitive	Minor
13841	Roman occupation features, including ditches and a 2nd-3rd century AD buried soil. Found to east of Westfield House. 450m north.	Regional	Not Sensitive	Negligible
13879	Medieval earth-cut features including ditches and a pit at Low Road, Wyberton; and 12 th -14 th C pottery. Part of the shrunken medieval settlement of Wyberton. 500m SE.	Regional	Medium	No Change
13922	Former post-medieval to modern brick works, north of Tytton Lane West. Evidenced from historic maps. 150m NW.	Local	Not Sensitive	No Change

HER No.:	Description and approximate distance from the application site	Asset Significance	Stage 1. Sensitivity to indirect (settings) impacts	Stage 2. Likely Impact Magnitude
13931	Undated pit on land off Low Road, Wyberton. 500m SE.	Less than Local	Not Sensitive	No Change
14545	Former post-medieval to modern parkland at West Skirbeck House. Evidenced from historic maps. 300m-700m NW	Local	Low	No Change

Prehistoric

11.61 No Prehistoric records are included on the HER within the 500m study radius. This may indicate that the area was too wet for agriculture, settlement or other activity during this period. The revised desk-based assessment recorded a negligible potential for finding buried prehistoric remains on the site (PCAS Oct. 2013).

Roman

11.62 Two Roman records are listed on the HER within the 500m study radius. One relates to the Roman pottery scatter (HER 13642) recovered on the western side of the application site during fieldwalking in 1995. Recent investigations in the form of a geophysical survey (PCG 2013, see Volume 2, 11.2); and trial-trench evaluation (PCAS April 2014; and see Volume 2, 11.4) have shown that this scatter relates to the remains of an Iron Age and Roman occupation site located on the banks of a palaeochannel.

11.63 The second Roman record on the HER relates to a series of pits, ditches and gullies (HER 13841) found near Westfield House and signifying a Roman occupation site – probably a small Roman farmstead located some 450m north of the application site. An alleged Roman milestone (HER 12628) at the Pincushion Inn, Wyberton has been re-examined by the HER and found to be an undateable, large cubical block of freestone, very like a mounting block.

Saxon

- 11.64 Apart from the place-name for 'Wyberton', which is of definite Anglo-Saxon origin, possibly indicating the presence of a farmstead, no Saxon (or contemporary Scandinavian) findings are recorded on the HER within the study radius.

Medieval

- 11.65 The vestigial earthwork remains of a medieval moat (HER 12626) are recorded west of Tytton Hall, c. 260m east of the application site. The 19th-century hall, which is not designated, is located c. 300m east and stands on the site of a medieval manor that was incorporated within the moat. Also associated with this site is documentary evidence for the lost medieval hamlet of Tytton (HER 12727), which was recorded in the Lindsey Survey (Foster and Longley 1924, ix). Aerial photographs (RAF 1946-50) apparently show slight disturbance and some faint cropmarks to the east of the present Tytton Hall, but these are not typical of a deserted hamlet; the only evidence for medieval occupation is fragmentary ridge and furrow: the principal earthworks associated with the manor were ploughed out in the 1980s.
- 11.66 A medieval stone corbel (HER 13569) is built into the east wall of a later granary that stands in the area of the medieval village, east of Tytton Hall. A number of pits excavated here contained 14th-17th century pottery and other material.
- 11.67 Further from the application site, a series of medieval ditches and a pit (HER 13879) were uncovered on land off Low Road, Wyberton, c. 500m southeast of the site on the edge of the study radius. Pottery from these features suggested 12th-14th century occupation that probably relates to the shrunken medieval settlement of Wyberton, associated with Wyberton Park (HER 13473), (PCA 2007, 5).

Post-medieval

- 11.68 Part of the Great Northern Railway 'Loop Line' was constructed across the application site in c.1848 and closed in 1970 (Fig. 11.6). The railway track bed is now subsumed by the line of the A16 trunk road. The former keeper's cottage (HER 13486) for the (former) Wyberton Level crossing, was a two-storey yellow brick building previously

located less than 50m from the north-eastern site boundary. Two other former keepers' cottages: Causeway gate house (HER 13489), c.200m to the south; and Saundergate Lane gate house (HER 13487) c. 400m south, no longer exist.

Modern

11.69 The HER search revealed no exclusively modern records within the study radius. Historic Ordnance Survey maps of the site from the late 19th- and early 20th centuries show a reduced number of field divisions (probably ditches and drains) than were visible on a late 18th- to early 19th century plan of Wyberton Parish. The railway line is first shown extending across the site on the 1st edition OS map of 1890-93. By the time of the 1946 OS revision, a row of houses had been built along London Road to the west of the site; and along Tytton Lane East, as far as the Coach House.

Impact of Development

Predicted likely impacts and significance of effects

11.70 This section identifies the potential impacts that would affect the heritage assets identified within the study radius (both designated and non-designated), during both the construction and operational phases of the proposed development, using significance criteria identified in 11.4 – 11.28 and Table 11.6.

Effects on the historic environment

Construction Phase

11.71 It is anticipated that, subject to the granting of planning permission, construction work will commence in 2015 and take approximately six to seven years to complete. Construction period effects are assessed qualitatively with reference to IAQM (Inst. of Air Quality Management) guidance, which advocates that construction risk be assessed in terms of the four main activities of demolition, earthworks, track-out and construction (Signet Planning 2013, 20) and Chapter 14 of this ES relating to Air Quality. And with an Air Quality Assessment included in Volume 2 of the ES.

Construction impacts to on-site heritage assets

- 11.72 On the basis of the previous information, including the results of the recent trial-trench evaluation (PCAS April 2014; and see Volume 2, 11.4), the below-ground archaeological remains on the site comprise earth-cut features such as pits, ditches and a large pond feature associated with the possible Iron Age and Roman occupation of a specific part of the site. Contrary to the findings of the recent desk-based assessment concerning archaeological potential, the evaluation found no evidence for post-medieval or modern features or surfaces associated with the former GNR railway line and its construction and demolition. The Iron Age and Roman remains are anticipated as of probable **Regional** significance with a **Medium** sensitivity to direct physical impacts.
- 11.73 Any direct impact on archaeological remains is deemed as adverse impact. The primary direct impact of the four main construction activities would be from preparatory groundworks, such as topsoil and subsoil stripping / removal, machine tracking and stock-piling, all of which would directly truncate, compact and/or destroy any below-ground archaeological remains. Further adverse impact associated with the construction phase could include piling, foundation excavations and service runs. All of these effects would be permanent, resulting in the complete or nearly complete loss of the site's archaeological resource. The construction of the proposed development would therefore have direct effects of **Major** impact magnitude upon the site's known archaeological resource. The resulting impact significance would therefore be **Moderate Adverse** (see Summary Table 11.11 G) below.
- 11.74 The presence of further significant archaeological remains on the site has been largely discounted by the results of the recent field evaluation. However, sondages in five apparently archaeologically-negative trenches revealed successive, natural flood deposits that could potentially conceal earlier archaeological features, the presence of which were indicated by geophysical anomalies. The level of impact magnitude associated with any such features encountered during the construction phase of the development would also be **Major**. The resulting impact significance would therefore be **Moderate Adverse** (see Summary Table 11.11 G) below.

Construction impacts to potentially 'important' hedgerows on the site

- 11.75 Under the Hedgerows Regulations 1997, it is against the law to remove or destroy certain hedgerows more than 30 years old without permission from the Local Planning Authority. A tall peripheral hedgerow surrounding the site's south-eastern corner could potentially qualify for 'Important' status under criteria 5a of Part II, Schedule 1 of the 1997 regulations. However, the indicative site Masterplan shows that this hedgerow will be preserved in situ by the proposed development. The level of impact magnitude is therefore anticipated as **No Change**. The resulting impact significance would therefore be **Neutral** (see Summary Table 11.11 F) below.

Construction Impacts to off-site heritage assets

- 11.76 There would be no direct physical impacts on any archaeological remains or other heritage assets located beyond the site redline boundary: a proposed roundabout that will be formed on the A16 to create the start of the new Distributor Road will only impact on previously developed land/infrastructure.
- 11.77 The principal indirect impacts on the identified designated heritage assets associated with the construction phase will be dust and particulates emissions associated with construction activities; as well as potential noise and vibration; and construction traffic and installations. The former may lead to an adverse impact in terms of elevated particulate concentrations at neighbouring sensitive receptors (Signet Planning 2013, 18). Specialist detailed assessments of the impact of dust (Air Quality), and of Noise and Vibration associated with the proposed development have been conducted as part of this ES (chapters 14 and 13 respectively).
- 11.78 The proposed development also involves the demolition of two existing dwellings – nos. 262 and 264 London Road. These are early 20th-century residential buildings and are not designated (see Plate 6). There are no adverse historic environment effects associated with their demolition.

Operational/ Consignment Phase

Operational impacts to on-site heritage assets

- 11.79 There are no anticipated, direct impacts on the site's heritage assets associated with the use and occupation of the proposed development. All identified archaeological remains on the site will have been adequately mitigated prior to, and possibly during, the construction phase. The development will therefore have **no impact** upon buried archaeological remains after the completion of the construction phase.

Operational impacts to off-site heritage assets

- 11.80 There is some potential for indirect (primarily visual) impact associated with the completed development on the settings of a number of designated heritage assets, located both within and beyond the 1km study radius. The recent LVIA assessment considered views of the application site from localised receptors situated on the edge of the site or close by and deemed that, '**Viewpoints further afield would not be affected by development within the application site due to the flat topography and intervening vegetation, buildings and other features which form an effective screen.**' However, it also stated that, '**Further views of the stadium may be seen due to its scale and height, especially when in use and flood lit**'; although '**views of the application site from all locations north of Tytton Lane East would be screened by existing housing along this road**' (Smeedon Foreman 2013, 23).
- 11.81 Although not currently visible from the application site, some long range intervisibility is anticipated between the north-western boundary of the designated Conservation Area and the proposed stadium development following its completion. The recent LVIA found that. '**the proposed stadium would be visible above the line of existing vegetation from this viewpoint and that this would change the scale and nature of the urban edge within this view**' (Smeedon Foreman 2013, VP8). From a heritage aspect, these anticipated effects on the setting of the Wyberton Conservation Area would most likely represent a **Minor** impact magnitude of **Moderate Adverse** impact significance (see Summary table 11.11 E below).

11.82 It is also anticipated, based partly on the results of the LVIA, that the proposed stadium development would cause slight (long range) changes to the setting of the Grade I listed St Botolph's Church (the 'Boston Stump'), located c.2.5km north of the site. These changes are potentially of **Minor** impact magnitude, resulting in **Moderate Adverse** impact significance. The exact level of impact on this asset is currently uncertain due to a lack of visual projections of how the proposed Community Stadium will appear from the wider area. However, it is likely that the large-scale and elevated nature of the development to the east of the A16 could potentially obstruct or vertically challenge some views of the Stump from south and southeast (see Summary table 11.11 C below).

Mitigation Measures

Mitigation of on-site heritage assets

11.83 It is proposed to adequately mitigate the anticipated **Major Adverse** development impacts on the site's identified archaeological remains by means of '*preservation by record*' in the form of an archaeological 'Strip, Map, Record' exercise. This will take place during a mitigation phase, to be conducted in advance of any construction works. The 'Strip, Map, Record' excavation area of approximately 1.2 hectares, will be centred upon the four trenches containing identified archaeological remains (trenches 3, 4, 5 & 6). It will aim to determine the extent, nature, date, depth, importance, form and function of all archaeological features in that area, in advance of the construction of the proposed development.

11.84 The existence of further significant archaeological remains on other parts of the site has been largely discounted as a result of the recent field evaluation (see paragraphs 11.11 and Fig. 11.5). It should be noted that in six trenches (8, 10, 11, 12, 13 & 14), the preceding geophysical survey had recorded discrete zones of stronger variation that exhibited some potential as industrial sites: these anomalies were not substantiated by the results of the trial-trench evaluation. However, sondages subsequently excavated in the five archaeologically-negative trenches revealed successive, natural flood deposits that could potentially be concealing earlier archaeological features (PCAS April 2014; and see Volume 2, 11.4).

- 11.85 Following recent discussions with the Planning Archaeologist for Boston Borough Council, it has been decided that the mitigation phase will also include a borehole survey of a former palaeochannel on the site, identified by the 2013 geophysical survey. This work will be conducted using a hand auger or percussion auger (as appropriate), using a transect method. A single transect comprising up to 15 boreholes across Field 3 is envisaged. If deemed suitable, two samples will be collected for Radiocarbon dating. There is currently a large body of published data and unpublished information relating to the palaeoecology of the Boston area and the sedimentary evolution of coastal mudflats and tidal creeks (commonly known as roddons), (Brew et al 2000; Smith et al. 2012; Waller 1994). Information regarding the pre-Roman landscape of the site could be obtained from the many existing palaeoenvironmental studies done in the region: further palaeoenvironmental work would not necessarily provide additional information (O'Brien *pers. comm.*).
- 11.86 All mitigation works will be designed in detail and agreed in advance, in liaison with the Planning Archaeologist for Boston Borough Council. In accordance with the National Planning Policy Framework (NPPF) and current guidelines, all archaeological work (& groundworks), will be conducted in accordance with a Written Scheme of Archaeological Investigation (WSI), submitted by the applicant and approved in writing by the Local Planning Authority in advance of the start of works.
- 11.87 With mitigation measures in place, the development will have no significant, residual direct impact upon buried archaeological remains during the construction phase or subsequent use of the site.

Mitigation of off-site heritage assets

- 11.88 It has been established that there is anticipated indirect (visual) impact of **Moderate Adverse** significance associated with two designated heritage assets (Boston Stump and Wyberton Conservation Area), and their settings, located both within and beyond the assessed 1km study radius (see Summary table 11.11 C & E below). The recent LVIA found that the majority of viewpoints further afield than the site's immediate surroundings would not be affected by the proposed development, due to a combination of factors, including flat topography, intervening vegetation, buildings and other features such as woodland blocks forming an effective screen. The

exceptions to this included more distant (unspecified) views of the stadium; views from Tytton Lane East [VP3]; Tytton Hall [VP4]; Clark Court to the south [VP14]; and London Road [VP15]. Of these, views of the application site from the non-designated heritage asset of Tytton Hall (and its associated assets), were enclosed by a backdrop of tall mature hedgerow and trees. However, the LVIA deemed that the, **'spacious and rural nature of the view of the skyline would change as the proposed stadium would be visible above the line of existing vegetation, particularly in winter.'** An effect of Major Adverse significance was concluded by the LVIA for this asset.

- 11.89 From a heritage perspective, it is deemed that views of the application site from the non-designated heritage asset of Tytton Hall and its four associated HER assets (DMV, moat, granary and stone corbel), will result in **Major** impact magnitude for all five assets (see Summary Table 11.11 H-L) below. Potential mitigation measures already proposed for Tytton Hall by the LVIA include planting to augment the existing hedgerows on the site boundary and help to soften the impact of the urban forms.
- 11.90 The anticipated **Moderate Adverse** impact and long-range intervisibility between the north-western boundary of the designated Conservation Area and the proposed stadium development could be mitigated by means of, **'planting to augment the existing hedgerows on the site boundary to further soften the impact of the development. Planting should include evergreen species to soften the impact in winter'** (Smeeden Foreman 2013, VP8).
- 11.91 The anticipated **Moderate Adverse** impact to the setting of St Botolph's Church is currently uncertain, due to a lack of visual projections of the proposed Community Stadium from the wider area, particularly from south and southeast. However, it is likely that the large-scale and elevated nature of the stadium development to the east of the A16 could potentially obstruct or vertically challenge some views of the Stump. Where possible, views towards St Botolph's Tower should be maintained, in accordance with Policy C8 of Boston Borough's Local Plan. Mitigation could include tall planting to help screen the stadium.

11.92 Further mitigation measures to lessen the effects of the proposed development on the surrounding area could include screen planting along the site boundaries; infill planting along existing gappy hedgerows; evergreen planting to soften seasonal (winter) impact; and careful considerations of colour and materials for the development. Another consideration might involve the promotion of the added public benefits of the development, particularly the provision of the new Community Stadium when weighed against long-distance effects on views of the Boston Stump from surrounding areas, agricultural land and fast-moving roads etc.

Residual Effects

11.93 Residual effects are those that persist after the application of the mitigation measures described in paragraphs 11.83 – 11.94 above. Residual effects on the historic environment are primarily associated with the proposed stadium development, which would be of a larger scale than the adjacent residential buildings. Residual indirect impact caused by the stadium on the two identified designated heritage assets and their settings (Boston Stump and the Wyberton Conservation Area), could comprise permanent **Slight to Moderate Adverse**; and **Slight Adverse** impact significance respectively for those assets. Any such residual impact would primarily be associated with the height and floodlights of the proposed stadium, which would consist of irreversible, long term impact, most noticeable during winter (see Table 11.11 C & E below).

11.94 Residual **Slight Adverse** indirect impact is anticipated on three non-designated assets to the immediate east of the proposed stadium (Tytton Hall, its earthwork moat and DMV). Again, any residual effects would consist of long-term impact associated with the proposed stadium and be most noticeable during periods of minimal vegetation cover (see Table 11.11 H, I & J below).

Robustness of Analysis

11.95 This historic environment impact assessment has been undertaken for the application site in accordance with current guidelines and is based on information available at the time of writing.

- 11.96 Any apparent variation or uncertainty in the Stage 1 sensitivity of certain heritage assets is due to the fact that the contribution of each asset's setting to its own inherent importance is not a defined or established factor within the baseline information, but has been assessed within the scope of this assessment (see Table 11.4). Where uncertain, the maximum level of sensitivity has been assessed for each asset, primarily based on its designation status. Any subsequent variation or uncertainty in the Stage 3 results are directly related to any Stage 1 uncertainty.
- 11.97 Throughout this assessment, the Landscape & Visual Impact Assessment (LVIA) presented by Smeeden Foreman has provided useful representative viewpoints of the site from its immediate surroundings. However, no visual projections were available at the time of writing to help assess the extent of potential intervisibility between the proposed development and two designated heritage assets -Wyberton Conservation Area and the Boston Stump.

Summary and Conclusions

- 11.98 The method of study used in this assessment was firstly to determine the scope of the historic environment baseline through the examination of existing data, archaeological desk-based assessment and archaeological field evaluation. Three assessment stages were then undertaken:
- i. An evaluation of the significance of individual, designated and non-designated heritage assets (the historic environment resource); and each asset's sensitivity to either direct or indirect impact (as appropriate);
 - ii. A consideration of the impact magnitude of the proposed development on all identified heritage assets, both within and beyond the site boundary. In some cases, this assessment was aided using the results of the LVIA;
 - iii. An assessment of the significance of the anticipated impact upon each of the identified heritage assets. This latter stage involved a combination of the results of stages 1 and 2, using an established matrix (see Table 11.6 above).
- 11.99 Using the above methodology, this assessment of the likely impact of the proposed Q1 development on the historic environment concludes that there would be **Slight to Moderate Adverse** and **Slight Adverse** residual effects on two designated

heritage assets (Boston Stump, located c. 2.5 km north; and Wyberton Conservation Area, c.450m SSE). In addition, **Slight Adverse** residual effects are anticipated on each of three non-designated assets associated with Tytton Hall and located within c. 250m and 350m of the site (see Table 11.11 H, I & J below).

11.100 Iron Age and Roman archaeological remains identified within the site itself have been assessed as of probable Regional significance with a Medium sensitivity to direct physical impacts. The level of potential impact magnitude on these remains is deemed to be of **Moderate Adverse** significance, due to the anticipated complete, or nearly complete, loss of this archaeological site through the development process.

11.101 There is nothing to suggest at the present time that the archaeological remains on the site are of potential National significance warranting 'preservation in situ' or scheduling and/or precluding development. Consequently, if deemed appropriate, the proposed mitigation for this site would probably comprise 'preservation by record', in the form of a 'Strip, Map, Record' excavation, suggested as an area of approximately 1.2 hectares centred upon the identified archaeological remains and conducted prior to construction. The mitigation would be supplemented by a borehole survey of a buried palaeochannel on the site using an auger and transect method, with samples collected for C14 dating.

11.102 Using the above mitigation method, the proposed Q1 development would ultimately result in **Neutral** residual effects on the identified Iron Age and Roman archaeological site (see Table 11.11 G below).

Table 11.11: Impact Summary Table

Ref	Receptor	Stage 1: Asset sensitivity	Stage 2: Impact Magnitude	Stage 3: Impact Significance	Mitigation Measures	Residual Effects
Designated heritage assets						
A	Two SAMs located within the 1km study radius (see Table 11.7).	High	No Change	Neutral	N/A: No impact / None proposed	Neutral
B	7 listed	High	No Change	Neutral	N/A: No	Neutral

	buildings located within the 1km study radius (one Grade I, one Grade II* and five Grade II), (see Table 11.8).				impact / None proposed	
C	Grade I St Botolph's Church located c. 2.5km north of the site (Fig. 11.3, No.5)	High	Minor	Moderate (adverse)	Tall planting; citing added public benefits of stadium?	Slight – Moderate Adverse
D	Grade II Registered park & garden (Boston Cemetery), located c. 3.5km north of the site (see 11.52)	High	No Change	Neutral	N/A: No impact / None proposed	Neutral
E	Wyberton Conservation Area, located c. 450m SSE of the site (see 11.53)	High	Minor	Moderate (adverse)	Planting to augment existing boundary hedgerows; tall & evergreen planting	Slight Adverse
<i>Non designated heritage assets</i>						
F	Historically 'important' hedgerows (see 11.56-11.57)	Low	No Change	Neutral	N/A: No impact	Neutral
G	Roman pottery scatter and earth-cut features within the	Medium	Major	Moderate (adverse)	Preservation by Record (c. 1.2-hectare 'Strip, Map, Record'	Neutral

	site (see 11.11)				Excavation)	
H	Tytton Hall to east of the site	Low	Major	Slight (adverse)	Planting to augment existing boundary hedgerows	Slight Adverse
I	12626: earthwork moat at Tytton Hall	Medium	Major	Moderate (adverse)	Planting to augment existing boundary hedgerows	Slight Adverse
J	12727: DMV at Tytton Hall	Medium	Major	Moderate (adverse)	Planting to augment existing boundary hedgerows	Slight Adverse
K	13568: Granary at Tytton Hall	Low	Major	Slight (adverse)	Planting to augment existing boundary hedgerows	Neutral
L	13569: stone corbel in Tytton Hall granary	Not sensitive	Minor	Neutral	N/A: No impact / None proposed	Neutral

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List of Figures

Site location based on the 2008 Rev. Ordnance Survey 1:25,000 Explorer map, Sheet 261. ©Crown Copyright. All rights reserved. PCAS Licence No.: 100049278.

Detailed site plan showing nominal field survey numbers and recorded pottery scatter. Scale 1:4,000. ©Crown Copyright. All rights reserved. PCAS Licence No.: 100049278.

Designated heritage assets within the 1km and wider radius. Based on the 2008 Rev. Ordnance Survey 1:25,000 Explorer map, Sheet 261. ©Crown Copyright. All rights reserved. PCAS Licence No.: 100049278.

Geophysical Survey. Not to scale. From PCG 2013.

Evaluation trenching plan, showing archaeological trenches and proposed mitigation excavation area (after PCG 2013). Scale c. 1:5,000.

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