

# **Stainsby Wetlands, Stainsby, Derbyshire - Archaeological Desk Based Assessment The National Trust**

OASIS No ecusltd1-103917



*Report prepared by:*  
ECUS Ltd.  
Brook Holt  
3 Blackburn Road  
Sheffield  
S61 2DW  
0114 266 9292

**June 2011**

## **ECUS Ltd**

Report to: **The National Trust**

Report Title: **Stainsby Wetlands, Stainsby, Derbyshire –  
Archaeological Desk Based Assessment**

Revision: **Final**  
Issue Date: **June 2011**  
Report Ref: **3240**

Originated By: **Andrew Burn**  
**Heritage Consultant**      Date: 30<sup>th</sup> June 2011

Reviewed By: **Simon McCudden**  
**Technical Director**

Approved By: **Simon McCudden**  
**Technical Director**

*Prepared by:*  
ECUS Ltd.  
Brook Holt  
3 Blackburn Road  
Sheffield  
S61 2DW  
TEL: 0114 2669292  
FAX: 0114 2668243

The report and the site assessments carried out by ECUS on behalf of the client in accordance with the agreed terms of contract and/or written agreement form the agreed Services. The Services were performed by ECUS with the skill and care ordinarily exercised by a reasonable Environmental Consultant at the time the Services were performed. Further, and in particular, the Services were performed by ECUS taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between ECUS and the client.

Other than that expressly contained in the paragraph above, ECUS provides no other representation or warranty whether express or implied, in relation to the services.

This report is produced exclusively for the purposes of the client. ECUS is not aware of any interest of or reliance by any party other than the client in or on the services. Unless expressly provided in writing, ECUS does not authorise, consent or condone any party other than the client relying upon the services provided. Any reliance on the services or any part of the services by any party other than the client is made wholly at that party's own and sole risk and ECUS disclaims any liability to such parties.

This report is based on site conditions, regulatory or other legal provisions, technology or economic conditions at the time of the Service provision. These conditions can change with time and reliance on the findings of the Services under changing conditions should be reviewed.

ECUS accepts no responsibility for the accuracy of third party data used in this report.

# CONTENTS

1. INTRODUCTION.....	5
2. LOCATION, LAND USE AND GEOLOGY .....	5
3. METHODOLOGY .....	7
4. STUDY AREA .....	7
5. HISTORIC MAPPING.....	14
6. SITE VISIT .....	14
7. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND .....	17
8. DISCUSSION AND CONCLUSIONS.....	19
9. RECOMMENDATIONS .....	19
10. CONFIDENTIALITY AND PUBLICITY .....	20
11. REFERENCES.....	20

## **EXECUTIVE SUMMARY**

*In June 2011 ECUS Ltd undertook an archaeological desk based assessment on behalf of The National Trust. The assessment was required by the client due to the proximity of a number of designated heritage assets within 1km of the proposed development. The area proposed for redevelopment is located 1.89km to the North of the nationally important sites of Hardwick Hall and Hardwick old hall. The site of Stainsby mill, dating to the 18<sup>th</sup> century is also located adjacent to the east of the site and is a listed building (LB no 261440). The Scheduled Ancient Monument of Stainsby defended manorial complex (SM no 14408) which partially survives as earthworks, is located 370m to the North West of the site.*

*It was noted that the defences and layout of the manorial complex are very large for a moated manor site and it is possible that there are Norman or Anglo Saxon precedents of the later medieval manor. This could potentially increase the significance of the site.*

*The Desk Based Assessment revealed that although there are crop mark sites known within the 1km study area, possibly dating from the Iron Age or Roman British Period there is little other evidence for pre-medieval activity. The most significant potential archaeology is that related to medieval and post medieval water management features relating to a series of ponds, leats and possible mill sites. These may survive in the landscape and may be impacted upon by the proposed development.*

*It has become apparent that there has previously been a significant amount of open cast mining in the vicinity of Stainsby. This mining has the potential to have destroyed some archaeological feature in the vicinity of Area A. However this seems to have been fairly localised and so there is still potential for many features to survive.*

*ECUS Ltd has recommended that a targeted level 1 or 2 archaeological survey and investigation of the environs of each of the development sites be undertaken. This will allow a better level of understanding of the survival of potentially significant historic water management features and identify any specific impacts the development may have upon them.*

## **1. Introduction**

- 1.1 The development site is located on the southern edge of the settlement of Stainsby located to the north of Hardwick in Derbyshire (SK 45159 65186). This archaeological desk based assessment was required in order to assess the potential impacts of future development on any archaeological remains in the vicinity of the site. The purpose of this desk based assessment is to both inform the National trust and the county archaeologist on the significance of any surviving remains located within the site. The assessment also seeks to assess the archaeological potential of the site and put forward a preferred strategy for any further archaeological work if required.
- 1.2 The proposed works are outlined below on areas labelled on figure 1:
- 1.3 Area A – Stainsby Pond and Dam: Design and create overflow feature on dam top to take surplus water during peak flows into the small, triangle of land at the foot of the dam to create a small wetland to reduce flow rates (by functioning as a temporary flood water holding area), buffer water quality and provide wetland wildlife habitat.
- 1.4 Area B – Stainsby wetland: Design and create a buffer wetland that receives water from Stainsby Brook during peak flows via a high-level intake sluice/weir at the southwest corner, functioning as a temporary flood storage area to reduce flows, buffer water quality and provide habitat for wetland wildlife, and outflows via a sluice back to the brook at the northwest corner.
- 1.5 Area C – Stainsby Mill: Design and create additional water vole habitat and enhance existing habitat on low-lying grassland area and improve water capacity of pond to supply the water mill.

## **2. Location, Land use and Geology**

### **2.1 Location**

The site proposed for redevelopment is actually three separate fields proposed as sites for artificial wetlands as outlined above. The site is located to the south of Junction 29 of the M1 and centred at National Grid Reference SK 45159 65186. The area is surrounded by open fields, water meadow and woodland in the bottom of the a natural valley. Two of the fields are located south of Stainsby to the west of the M1 motorway; the third is located directly to the east of the M1.

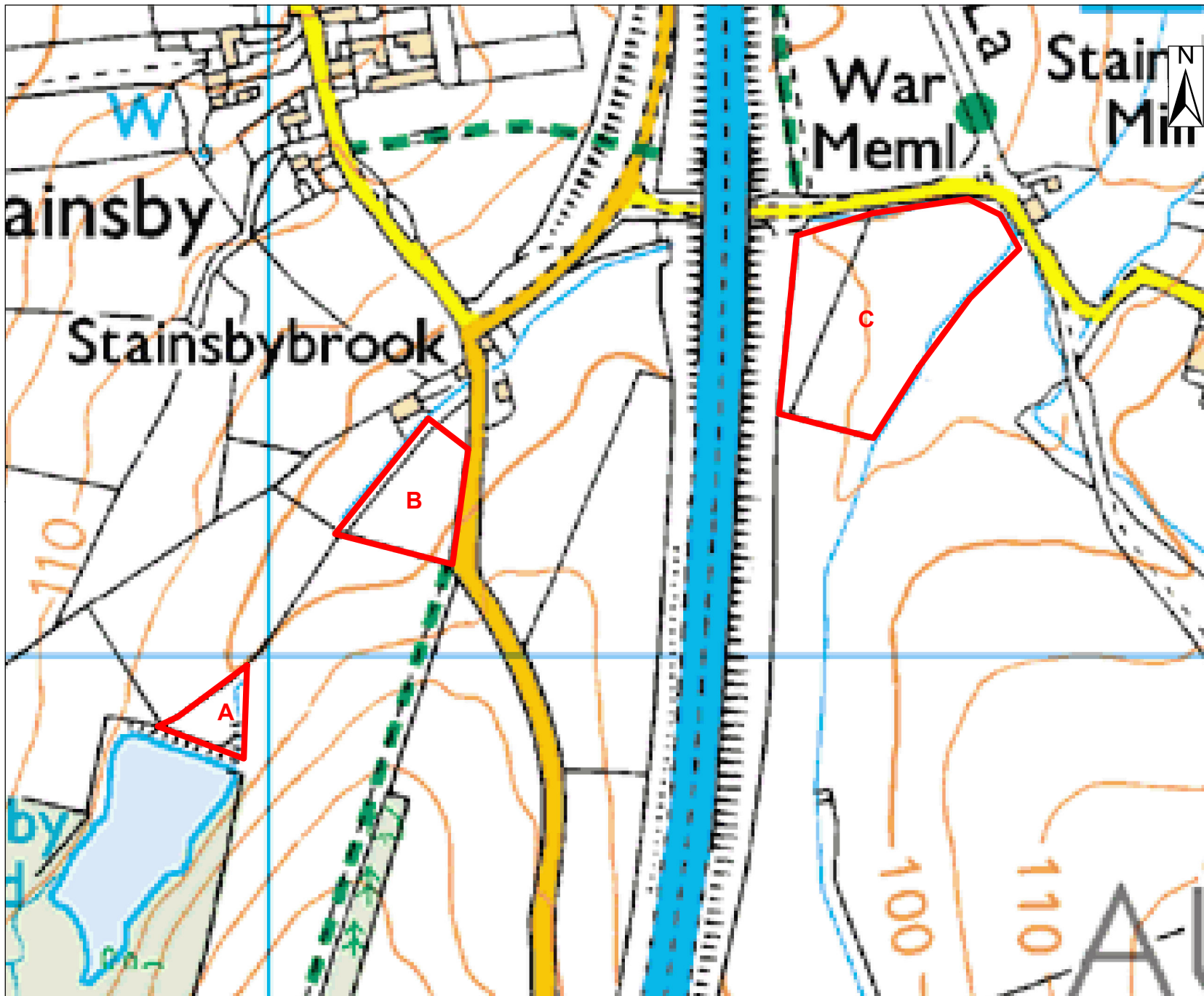
### **2.2 Land use**

The sites have all been in agricultural use for most of the Post Medieval period and as a result most likely heavily ploughed at some point.


### **2.3 Geology**

The site is on superficial geological deposits of Devensian till over laying Pennine coal measures formation mudstone, siltstone and sandstone. (BGS online)





**Key**

 Site boundaries

0 40 80 120 160  
Meters

**Client: The National Trust**

**Project: 3240  
Stainsby Wetlands**

**Figure 1: Site locations**

### 3. Methodology

#### 3.1 Sources consulted

This desk based assessment has consulted the following sources:

- Derbyshire County Council HER
- National Monuments Record
- Derbyshire County archives
- British history online
- National trust
- British Geological survey
- East Midlands Regional Research Framework

### 4. Study Area

#### 4.1 Sites recorded in the NMR

4.1.1 The NMR records 3 sites within 1km of the development area, these are summarised in the table below.

UID	NAME	MONUMENT TYPE	SUMMARY
1146232	Stainsby Defended Manorial Complex	Manorial complex	The monument includes two World War II air raid shelters located within the grounds of the former medieval manorial complex at Stainsby (SK 46 NW 9). The shelters survive infilled beneath the ground surface and are still visible as earthworks. Schedule
316026	Stainsby Defended Manorial Complex	Manorial complex	The monument includes two World War II air raid shelters located within the grounds of the former medieval manorial complex at Stainsby (SK 46 NW 9). The shelters survive infilled beneath the ground surface and are still visible as earthworks. Schedule
	Stainsby Park	Medieval Deer Park	Stainsby Park - Md. park, first recorded c.1260.

#### 4.2 Sites recorded in the HER

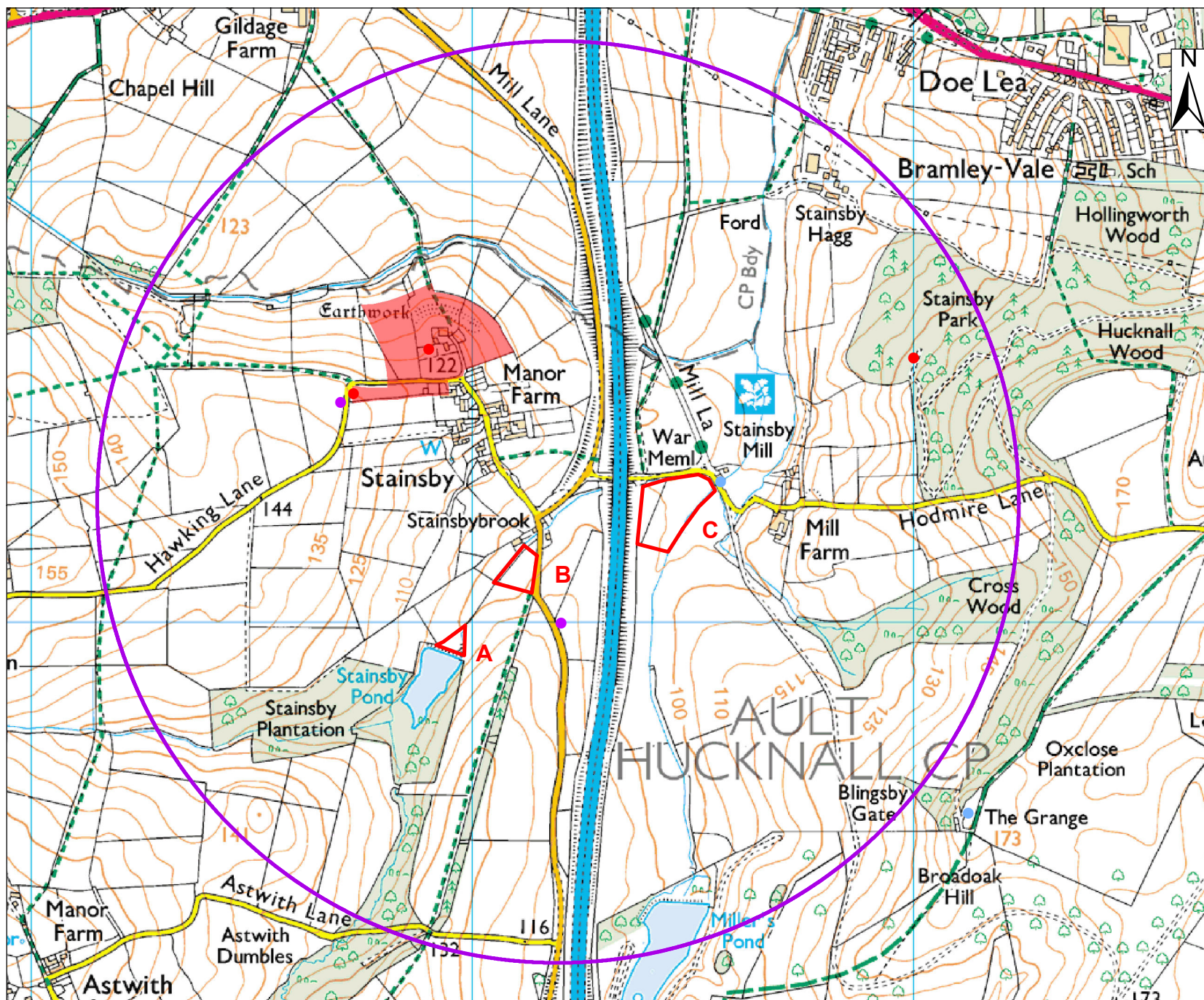
4.2.1 The HER records 17 sites within 1km of the development site. These are summarised in the table below.

UID	NAME	MONUMENT TYPE	SUMMARY
MDR6 070	Hardwick Park, Hardwick Hall, Ault Hucknall	DEER PARK, RIDGE AND FURROW, AVENUE, POND, DECOY POND	Deer park in existence by 1610, with probable medieval origins
MDR6 105	Cropmark Complex,	RECTANGULAR ENCLOSURE	Two possible rectangular enclosures showing as cropmarks on aerial

	Oxclose Plantation		photographs.
MDR5 926	Medieval chapel (site of), Hawking Lane, Stainsby	CHAPEL	The site of a medieval chapel attached to the scheduled defended manorial complex (see SMR 210). It survives as an earthwork.
MDR5 934	Victorian school, Stainsby	SCHOOL	Victorian school, now a scout centre, possibly on the site of a medieval manor house
MDR5 937	School House, site of Manor House, Stainsby	CRUCK HOUSE, MANOR HOUSE, TEACHERS HOUSE	School house with medieval fabric, including crucks; probably incorporating part of the medieval manor house
MDR5 936	Possible road, Ault Hucknall	ROAD?	Possible road line suggested by stoney band observed in ploughing
MDR1 2132	Stone bridge near Mill Farm, Ault Hucknall	BRIDGE	Substantial stone bridge with a skew arch
MDR5 979	Cropmarks, east of Heath	LINEAR FEATURE, RING DITCH	Cropmarks of ring and linear ditches appear on an aerial photograph.
MDR9 181	Stainsby Mill, Ault Hucknall	WATERMILL, CORN MILL	Late 18th century water-powered corn mill, on a site occupied by a mill from at least the 13th century
MDR5 960	Stainsby Park, Ault Hucknall	DEER PARK	Approximate extent of the medieval deerpark, based on a 17th century map
MDR6 081	Defended manorial complex (site of), Stainsby	BANK (EARTHWORK), DITCH, FISHPOND, HOLLOW WAY	Site of a manor house and chapel; defensive ditch and rampart, together with the outer circuit bank and fishpond, survive as earthworks
MDR5 939	Possible road, Heath	ROAD	Possible buried road surface suggested by a stony band observed in ploughing
MDR1 2829	Moor Lane (route of), Stainsby, Ault Hucknall	ROAD	Route of a lane in existence by the early 17th century but removed in the mid 19th century
MDR1 2829	Moor Lane (route of), Stainsby, Ault Hucknall	ROAD	Route of a lane in existence by the early 17th century but removed in the mid 19th century
MDR1 2133	Victorian post box, Stainsby	WALL BOX	Victorian post box mounted in the wall of a building in Stainsby village







### Key

- Listed Buildings
- NMR monuments
- NMR Events
- Scheduled Ancient Monuments

0 125 250 375 500  
Meters

**Client: The National Trust**

**Project: 3240  
Stainsby Wetlands**

**Figure 2: Historic assets recorded in the NMR**



#### 4.3 Listed buildings

There is only one listed buildings within 1km of the site proposed for redevelopment. This is the Grade II listed 18th century Stainsby Mill.

UID	Name	Easting	Northing	Grade
261440	Stainsby Mill	445569	365326	II



**Plate 1:** Stainsby Mill, Stainsby (geograph.org.uk image 2284146)

#### 4.4 Scheduled Ancient Monuments

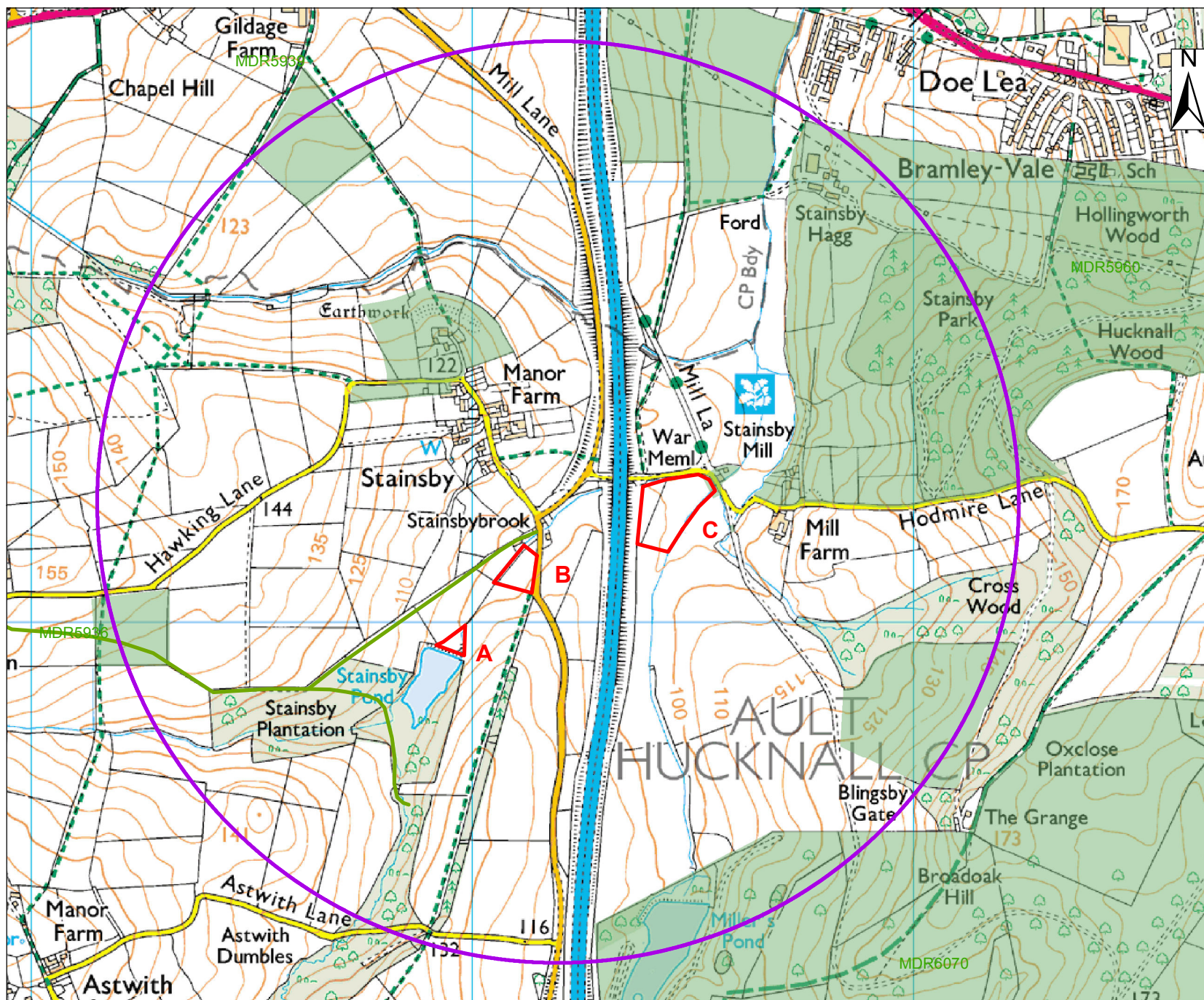
The only Scheduled Ancient Monument in the vicinity of the area proposed for redevelopment is the medieval defended manor of Stainsby. This survives as earthworks (plate 2) however these are truncated by later development, including the construction of several Second World War air raid shelters. The earthworks are most complete on the northern edge of the site. It was noted that the internal mound for the moated site was very large as were the defensive ditch and bank. This evidence is suggestive of either a Motte and bailey castle or Anglo Saxon defended settlement pre dating the manor. Further investigatory work will be required to develop this theory.

UID	Name	Easting	Northing	NGR
14408	Stainsby Defended Manorial complex (inc site of Chapel)	444909	365638	SK 44909 65638



**Plate 2:** Earthworks of Stainsby Manor looking south east.





### Key

- HER data
- HER data

0 125 250 375 500  
Meters

**Client: The National Trust**

**Project: 3240  
Stainsby Wetlands**

**Figure 3: Historic assets recorded  
in the HER**



## 5. Historic mapping

### 5.1 1:10560 and 1:2500 Ordnance Survey maps (APPENDICES I & II)

- 5.1.1 19<sup>th</sup> century Ordnance Survey mapping shows that the site was part of open agricultural fields throughout the 1800s. There is no evidence of substantial development in the vicinity. However site A to the north of Stainsby Pond is unusual in that it has a triangular shape, presumably dictated by the outflow of the dam from the sluice located at the eastern end and the 17<sup>th</sup> century track way (Figure 3) that was located to the north of the dam. The outflow can be traced on the historic and current mapping to Stainsby mill and this pond presumably formed part of the original mill system. Stainsby pond and dam both appear on the 1<sup>st</sup> Edition 1:10560 (1884) mapping and are potentially much earlier. On the 1967 OS mapping the outflow from the sluice is shown as channelled and can still be seen as a brick built channel along the edge of site A (Plate 3).
- 5.1.2 Although clearly in use as a mill pond of some form for the 18<sup>th</sup> century mill there is a chance that this was part of a designed landscape, as it is set in plantation on the first edition. However it is unclear if this is the case and in fact it is far more likely that the pond has an earlier precedent, especially when considering the first edition mapping shows it as partially silted up.
- 5.1.3 Area B is shown as a series of enclosure fields on the historic mapping. A building is visible along its northern boundary on the 1<sup>st</sup> edition and later OS maps. There are no other features of potential interest within the site boundary in area B.
- 5.1.4 Area C is proximal to Stainsby mill and the mapping evidence shows another small mill pond which is proposed for extension as part of the current scheme. The pond is visible on the full range of historic OS mapping. There are no other features of historic interest visible on the OS mapping.
- 5.1.5 In the 1960s several of the field boundaries in the vicinity of area A move very slightly. This can be attributed to a short intensive period of open cast mining in the area surrounding Stainsby (Pennington K *Pers comm.*). It is likely that many archaeological features were destroyed during this period of intensive mining.
- 5.1.6 There is no evidence from historic mapping of any other historic assets within each site boundary; any impacts would be significantly reduced buy the scope of works in this area.

## 6. Site visit

- 6.1.1 The Dam located next to area A is shown as having a sluice at its eastern end from the earliest available OS mapping onwards. This however appears to have been a later addition as it is out of character with the rest of the dam which is an earthen bank, reinforcing the interpretation of the dam as potentially older. It is possible that the current sluice was altered during the construction of the brick culvert and possibly related to the open cast mining of the 1960s. The current sluice is stone built and dates from the 19<sup>th</sup> century (Plate 4), although some later repairs suggest that it may have been altered when the 1960s culvert went in.



**Plate 3:** Brick lined culvert at Site A



**Plate 4:** Sluice at eastern end of dam in at Stainsby Pond proximal to site A.



6.1.2 It is possible that the current dam is an improved medieval dam relating to an earlier mill serving the manor at Stainsby. A large defended manorial complex such as this would have had a mill and the most likely location for one would be in the vicinity of Stainsbybrook, possibly to the east of this small settlement. An initial walkover alone does not provide enough information to prove this theory either way and further investigation in the field will be required in order to fully understand the historic water management of the area. Historic mapping also demonstrates that the outflow from Stainsby pond runs through areas B and C as well.



**Plate 5:** Face of the earthen section of the dam at Stainsby pond.

## **7. Historical and Archaeological Background**

### **7.1 Site Context**

The site proposed for possible future development is located to the south of the settlement of Stainsby to the south of Junction 29 of the M1 in Derbyshire. There is little surviving above ground archaeology other than the earthwork remains of Stainsby defended manorial complex, 370m to the north of the development location.

### **7.2 Early Prehistory (c. 10,000 – 2500 BC)**

- 7.2.1 There is no recorded evidence relating to early prehistoric activity recorded in the HER or NMR within the study area.

### **7.3 Iron Age and Romano British (c. 800 BC – AD43; c.AD 43 – AD 410)**

- 7.3.1 There is limited recorded evidence relating to Iron Age activity recorded in the HER or NMR within the study area. This evidence is in the form of two potential crop marks relating to a curvilinear crop mark enclosure to the North West and a series of rectangular enclosures to the South East. The later of these crop marks may also be Romano British in date.

### **7.4 Early Medieval / Anglo Saxon period (c. AD 410 – 1066)**

- 7.4.1 There is no recorded evidence relating to Anglo Saxon activity recorded in the HER or NMR within the study area.

### **7.5 Medieval period (1066 – c.1500)**

- 7.5.1 The Medieval site of Stainsby manor is the most significant medieval site in the vicinity of the development. This manorial site would have been located to the north of Stainsby with a chapel to the west and a small settlement to the south, where Stainsby is currently located. This settlement can be identified by the existence and survival of medieval strip fields, visible on historic mapping. The manorial complex is visible as the earthwork remains of the moat to the northern side of Stainsby and its extent can be seen in the pattern of the field boundaries in the vicinity.
- 7.5.2 It is possible that a medieval mill serving this settlement was located at Stainsby Brook and this is suggestive by a distinct change in the line of the leat from Stainsby pond at this point. This change in route that, seen to the east of Stainsbybrook on the OS mapping, could be the location of a mill race coming off the main leat in order to supply a mill near this location. There is as yet no additional evidence to support this theory.
- 7.5.3 There are also the nearby medieval parks at Stainsby and Hardwick, both of which can be traced from 17<sup>th</sup> century maps and licences to impark. The proposed development will have very little impact on historic assets in the wider area.

### **7.6 Post Medieval period (1500 – c.1900)**

- 7.6.1 The area proposed for redevelopment was preserved as open fields throughout the post medieval period and the only major development is the growth of the settlement of Stainsby and the construction of the 18<sup>th</sup> century mill. This mill is a Grade II listed building (LB no 261440) and this has an extensive water management system including Stainsby Pond, Millers Pond and the Great Pond which is on the edge of the

Hardwick estate. The primary source of power is from the River Doe Lea, which supplies the water to the Great Pond and Millers Pond. However there is also a supply from the brook linking the mill to Stainsby Pond. This extensive system hints at a complicated and changing system of water management to power mills, over a long period of time.

7.6.2 The most significant post medieval development within the landscape would have been the expansion and development of the Hardwick estate. This nationally significant estate developed with the increase in fortune of Bess of Hardwick in the 16<sup>th</sup> century. It is one of the most extravagant and best preserved 16<sup>th</sup> century houses in the country and as a result is a highly significant heritage asset. The development site falls outside of the Hardwick conservation area and Hardwick Park but would have originally been within the boundary of the Hardwick estate. The potential impacts of the proposed development on the context or setting of any original estate or parkland features is negligible.

## 7.7 Modern period (1900 – present)

During the latter 20<sup>th</sup> century there was major change in the area in the form of the construction and subsequent improvement of the M1 motorway. This has completely changed the historic character of the area dividing the valley in two. This has had impact of separating the relationship between historic assets such as the Stainsby pond and Stainsby mill. There is also the development of two Second World War air raid shelters within the manor site at Stainsby.

## 7.8 Previous archaeological research and intervention

There are two recorded interventions within 1km of the development.

UID	NAME	DESCRIPTION	Easting	Northing
1400217	LAND ADJOINING IVY COTTAGE, STAINSBY	Watching brief	444700	365500
1530217	M1 JUNCTION 21-30 IMPROVEMENT: LAND ADJACENT TO HA	Evaluation	445200	365000



## **8. Discussion and Conclusions**

### **8.1 Assessment of potential**

8.1.1 There is some potential for the proposed wetlands development to impact upon any surviving historic water management features in the vicinity of areas A and B of the proposed development. There is medium potential for evidence relating to an earlier, medieval water management system to survive within the landscape and this should be investigated further to ensure any potential impacts from the scheme upon these features are minimal. This is particularly significant when considering the possible relationship to the Scheduled Ancient Monument at Stainsby medieval manor and the potential value that this could add to the context of the manorial site.

8.1.2 There has been extensive 1960s open cast mining in the area surrounding Stainsby and this has dramatically impacted upon archaeology. This has somewhat reduced the archaeological potential, however the open casting has not destroyed all of the archaeology and only a small section of brick lined leat seems directly affected. There is still potential for medieval archaeology to survive within the landscape.

8.1.3 There is very low potential for earlier prehistoric deposits in the vicinity of areas A and B; however the limited below ground impact of the scheme should not affect any such surviving remains adversely.

8.1.4 In area C the reinstatement of a partially silted up mill pond to improve capacity and help improve water vole habitats will actually enhance the historic character, although care must be taken not to impact upon any remains of earlier water management systems if present or remains of the 18<sup>th</sup> century mill complex, as there is potential for impacts upon previously unknown archaeological remains.

### **8.2 Conclusions**

8.2.1 The site proposed for development is within an area rich in medieval and post medieval archaeology. The development has some low potential to impact upon both the setting and the physical remains of these heritage assets. However, any potential impacts can be easily managed by small scale archaeological survey work to improve the understanding of the surviving archaeology of the area of the development.

## **9. Recommendations**

### **9.1 Further work**

ECUS Ltd recommend that a rapid level 2 archaeological survey and investigation (Ainsworth *et al* 2007) of the development areas and the immediate environs be undertaken by a suitably qualified landscape archaeologist with experience of medieval earthworks and water management. This would rapidly gain an understanding of the historic water management of the area and how this would be affected by the proposed wetlands development. This is particularly important in area A and B, where there is potential for water management features predating the 18<sup>th</sup> century to survive in some form. It is also recommended that a watching brief be undertaken during the expansion of the mill pond, in order to identify and record any surviving archaeological features in the vicinity.

## **10. Confidentiality and Publicity**

10.1 Any publicity will be handled by the client.

10.2 ECUS Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

## **11. References**

Ainsworth S, Bowden, M and McOmish, D. 2007 *Understanding the Archaeology of Landscapes; a guide to good recording practice*. English Heritage, Swindon.

Cooper, N J. (ed) 2006 *The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda* Leicester Archaeology Monograph No. 13.

### **Web Resources:**

BGS online: <http://www.bgs.ac.uk/data/services/digmap50wms.html>

## **APPENDIX I – HISTORIC OS MAPPING**