
**ARCHAEOLOGICAL EXCAVATION AND
WATCHING BRIEF
ON LAND OFF MANDELA CLOSE,
NORWICH
NORFOLK
(ENF 125357)**

Work Undertaken for
Draper and Nichols Limited

May 2011

Report Compiled by
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APS Report No. **57/11**

**ARCHAEOLOGICAL
PROJECT
SERVICES**



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1. SUMMARY

An archaeological evaluation and watching brief was undertaken on land at Mandela Close, Norwich, Norfolk.

The excavation was required as the development lay within the Area of Main Archaeological Interest as defined by the Norwich Local Plan (adopted November 2004).

The excavation revealed 19th century deposits dumped to reclaim probable marshy ground by the river or filling an old channel of it. A modern pipe trench and remnants of a late Victorian textile factory were recorded.

Finds retrieved consisted of 18th-19th century and later artefacts, with no earlier material recovered.

2. INTRODUCTION

2.1 Definition of an Excavation

An archaeological excavation is defined as, “a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits, features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during the fieldwork are studied and the results of that study published in detail appropriate to the project design” (IfA 2008).

2.2 Definition of a Watching Brief

An archaeological watching brief is defined as “a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where

there is a possibility that archaeological deposits maybe disturbed or destroyed.” (IfA 2008).

2.3 Planning Background

A Planning Application (08/00830/F) was submitted to and approved by Norfolk County Council for the construction of flats on land at Mandela Close, Norwich. A brief for archaeological evaluation had been prepared but development on the site commenced ahead of the evaluation. Subsequently, a second brief prepared by Norfolk Landscape Archaeology (NLA) outlined the necessary works required to determine whether archaeological deposits within the site might be preserved by the piling scheme already deployed and to mitigate the impact of the rest of the development. The programme of archaeological works comprised the excavation of a trench within the footprint of the building, followed by a watching brief on the southernmost footings and on the excavation of a rainwater harvesting tank pit on the east side of the site.

The excavation of the first trench was carried out between 21st and 26th October 2010 in accordance with a specification designed by APS (Appendix 1) and approved by NLA. The watching brief on the footings was undertaken on 5th and 9th November 2010 and on the rainwater tank pit on 19th and 20th April 2011.

2.4 Topography and Geology

Mandela Close is located some 700m northwest of the city centre of Norwich in the Coslany area of the City. It is situated at the west end of Mandela Close adjacent to the River Wensum at Grid Reference TG 2262 0912 (Fig 2). The development covers 550 square metres.

The development is located immediately adjacent to the eastern bank of the river, the natural slope of area being gently westwards towards the river, although the

ground surface is probably built up with deposits of medieval and later dates.

As an urban area, soils have not been mapped. Previous investigations in the vicinity have established that natural deposits consisting of sands and gravels occurred some 2m below the current ground surface. The site lies at approximately 4m OD.

2.5 Archaeological and Historical Background

Although two Roman roads passed through the present boundaries of Norwich, known settlement began in about 720 AD with small Anglo-Saxon villages on both banks of the River Wensum. During the Danish occupation of c870-917 the main settlement on the north bank, *Northwic*, was surrounded by a defensive bank and ditch and in the subsequent reign of Athelstan, a mint was established here. The first documentary reference to Norwich is in the *Liber Eliensis* of c980 (Ayers 1994) and the name derives from the Old English for ‘north town’ (Ekwall 1989). According to the *Anglo-Saxon Chronicle* the borough was burned and ravaged by Danish forces led by King Swain in 1004 (Ayers 1994).

The Domesday Survey of 1086 records over 25 churches and 1320 burgesses in the borough. The castle was built in 1068-75 and the cathedral begun in 1096.

The site lies in the Coslany area of Norwich. The place-name Coslany is Old English in origin and means ‘Cost’s long island’. It was first recorded in 1146-9 but probably has pre-850 origins. It has been suggested that Oak Street, c.100m to the east of the site, is the northern continuation of Ber Street, one of the Roman roads. Part of this is based on the discovery of an Early Saxon cemetery at Eade Road in the city (Carter and Roberts 1973).

From 1253 a new defensive bank and ditch

was constructed around the whole town. This was improved with a masonry wall between c1297 and 1344. The wall was 4m high with over 40 towers and 12 gates and enclosed much open space, the development area lying just within it. By 1300 the northern part of the town was a prosperous textile producing district (Ayers 1994) but fell into decline after the Black Death of 1348/9.

Regeneration of the area began in the following century with the movement of weavers and dyers from the western part of the city. They were supplemented after 1565 with an influx of weavers and dyers from the Low Countries, forming one third of the population by 1600 (Ayers *et al.* 1992). Late 16th century buildings survive at 98-106 Oak Street (NHER 26144-6), 160m northeast of the site. Working at single looms in their houses, the ‘strangers’ revitalised the cloth trade helping to give the town a wealth which lasted well into the following century (Ayers 1994). Although most returned to Europe or left for America by 1650, their introduction of silk thread to make lighter cloth helped the industry prosper up to the 1780s. From this time, the Norwich worsted industry lost out to the industrialised north, especially to the proliferation of power looms in the factories of the West Riding. Norwich, with its lack of mineral resources and water power, was late to take up this invention with 84% of weavers’ looms remaining in houses as late as 1838. By 1861 the boot and shoe industry had replaced textiles as the city’s chief employer, the Norwich industry now specialising in silks, shawls and mourning goods, a small number of factories lasting well into the 20th century (Wilson 2004).

On Anthony Hochstetter’s map of 1789, regarded as the first truly accurate map of the town (Ayers 1994), the site appears to be in horticultural use. It is still shown as an open area, to the rear of buildings fronting Oak Street, on both Millard and

Manning's map of 1830 and on city surveyor A. W. Morant's map of 1873 (Norfolk County Council).

On the 1st edition OS map, surveyed in 1883 (Fig 4), the area of the northern part of the site, including the location of Trench 1, was a garden; the remainder being the coal yard of a textile factory. This was the St. Mary's Silk Mills of Francis Hinde and Sons Limited, Silk Crape Manufacturers (Eyre's Directory 1883). By the 2nd edition OS map, surveyed in 1907, the factory buildings had been extended over the coal yard, Trench 1 lying just to the north of these (Fig 5). There is a further northward extension to the factory on the 1939 OS map, over and beyond the area of Trench 1, and this building can be seen on a Ministry of Defence aerial photograph of 1945/6 (Norfolk County Council).

The factory was taken over by Samuel Courtauld and Company, Textile Manufacturers, in the mid 1960s (Kelly's Directory 1966 and 1975). It was demolished in about 1980 when three post-medieval seal matrices were found (NHER 26298) in a cellar at the site of the current 'Silkfields' old people's flats. These are shown nearing completion on an aerial photograph of 1988 and the current development occupies the southern part of the surrounding gardens (Norfolk County Council).

The development lies within the Area of main Archaeological Interest as defined in the Norwich Local Plan.

An evaluation on the north side of the Oak Street/Mandela Close junction 100m to the east, revealed evidence of occupation from the Saxo-Norman to post-medieval periods including the possibility of horn working in the vicinity (Hall 2003). Investigations 30m north of this site identified a considerable quantity of Late Saxon pottery along with 12th century gravel extraction pits and a 13th century post hole

structure fronting Oak Street. A smithy occupied the site in the 15th century (NHER 351).

Located on the river 80m south of the development, the Pump House at New Mills (NHER 26142) was rebuilt in 1897 but the site was used for a water mill from 1429 and then for pumping the city's water supply from 1583.

Immediately to the south of the development an archaeological evaluation in 2001 revealed an old channel of the river Wensum, along the western edge of the site, overlain by 18th and 19th century demolition layers. Closer to Oak Street, the remains of a tannery, dating to the 13th and 14th centuries was found along with post-medieval cellared buildings (McDonald and Gardner 2001).

An evaluation on Oak Street immediately to the south of New Mills Yard revealed Late Saxon gravel surfaces and post holes indicative of structures, probably buildings on the Oak Street frontage. A beaten earth floor was also thought to be of Late Saxon date. There were also medieval clay surfaces and pits which produced horn cores from sheep or goat and cattle, probably for use in tanning, and post-medieval remains (Adams 2007).

In 1972, during the construction of the Inner Link Road roundabout on the opposite bank of the river, a great depth of Victorian infilling was revealed on the site of Norwich City railway station, built in 1882 (NHER 26236).

3. AIMS AND OBJECTIVES

The aim of the work was to recover as much information as possible on the origins, date, development, phasing, spatial organisation, character, function, status, significance and nature of social, economic and industrial activities on the site.

The objectives of the evaluation were to establish the type and date range of archaeological activity that may be present within the site; to determine the likely depth and extent of archaeological activity, the spatial arrangement of any archaeological features that may be present within the site, the extent to which the surrounding archaeological features extend into the application area and also to establish the way in which any archaeological features identified fit into the pattern of occupation and land-use in the surrounding landscape.

4. METHODS

A rectangular trench (Fig. 3) was excavated by mechanical excavator using a toothless ditching bucket within the footprint of the new building. The exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological remains. The trench measured 3m by 3m, later expanded by 1m to the east to facilitate the insertion of the shoring required to attain greater depth.

Each deposit exposed during the excavation was allocated a unique reference number (context number) with an individual written description. A full list of contexts appears as Appendix 2. A photographic record, comprising monochrome print and digital images, was compiled. Plans of trenches were drawn at a scale of 1:20 and sections at 1:10. Recording of deposits encountered was undertaken according to standard APS practice.

Following excavation, finds were examined and a period date assigned where possible (Appendix 3). The records were also checked and a stratigraphic matrix produced. Phasing was based on the nature of the deposits and recognisable relationships between them.

5. RESULTS

The results of the archaeological evaluation are discussed in trench order. Archaeological contexts are described below. The numbers in brackets are the context numbers assigned in the field.

Trench 1 (Fig 7)

This trench was initially excavated as a 3m x 3m square within the footprint of the building. Because of immovable masonry in the west side of the trench, it was extended approximately 1m to the east in order to accommodate the 3m x 3m square shoring frame (Fig 7, Plan 1). The area within the frame was then excavated to the depth allowed by the shoring which could not be driven any deeper due to a concrete pipe housing (Fig 7, Plan 2).

The earliest deposit reached in a machine sondage (which extended to 3.1m below the current surface) was at least 0.6m thick slightly humic sandy silt (024) with occasional large 18th-19th century brick fragments (Fig 8, Section 5; Appendix 3). Augering reached a depth of 3.85m below the current surface before hitting something solid but due to the saturated conditions the auger did not retain any material. Layer (024) was overlain by 0.6m thick dark grey sandy silt layer (023) with 18th-19th century flat roofing tile fragments above which, in the southern part of the trench, was 0.4m thick mid grey sandy silt (022) with frequent brick and mortar fragments. In the northern part of the trench layer (023) was overlain by 0.1m thick mid greyish brown silty sand (027) (Fig 8, Sections 6, 7, Plates 6, 7) above which was 0.64m thick brick and mortar rubble layer (026).

These layers were cut by at least 2.8m long, 1.8m wide, and at least 0.9m deep northeast-southwest aligned near vertical sided cut [021] (Fig 8, Sections 5-7, Plates 5-7). This contained a concrete pipe

housing (025) which had a rounded top and vertical sides and was 0.7m wide and at least 0.6m deep. Traces of timber revetting used in construction survived at the sides of the trench which had been backfilled with a number of different layers. Soft dark grey silt (020) was overlain by 0.05m thick dark grey sandy silt band with 70% pebbles (019). Above this was 0.65m thick dark grey sandy silt (018) with frequent brick fragments, and sherds of late 18th to mid 19th century Pearlware. Sealing this was 0.35m thick mid brown sandy silt (017) while the top fill was 0.33m thick loose black cinders with occasional gravel and brick fragments (016).

The pipe trench was sealed by up to 0.68m thick dark grey and black silty sand layer (008) containing late 18th to mid 19th century Pearlware, brick fragments and 19th-early 20th century glass (Appendix 3).

Cut into this layer was wall construction trench [014] which was filled by 1m wide, 0.15m thick concrete footing [012] (Fig 8, Sections 3, 4, Plate 3). This supported northwest to southeast aligned red brick (with one course of blue brick) wall [011] and adjoining southwest to northeast aligned red brick wall [015]. These were both 0.31m wide and laid in English Bond with white mortar and survived to a height of 0.22m. Rubble deposits (010) and (013) filled the construction trench which was sealed by a 0.2m thick layer of compacted cinders (006) above which was a 0.25m thick layer of dark grey cinders (005). These layers probably represent a yard area of the factory.

Cutting the cinder layers on the south side of the trench was a large, irregular sided feature [009] (Fig 8, Sections 1-3, 5, 7, Plates 2, 3, 5) at least 4m long and 1.2m wide and 1.93m deep. This was filled with loose light yellowish brown sand with occasional pebbles (007). This feature was sealed by up to 0.18m thick mid brown

silty sand (004), probably a former building site surface.

Above this, 0.4m thick clayey sand and gravel layer (003) appeared to be the yellowish brown surface or levelling for the 'Silkfields' development seen on the 1988 aerial photograph (Norfolk County Council). This was covered by 0.1m thick mid brown clayey sand (002), probably a remnant of the 'Silkfields' garden, over which the contractor had laid a 0.15m thick surface of compacted light yellowish grey gravel and sand (001).

Watching brief on footings (Fig 6)

A watching brief was maintained on the footings on the south side of the site which were excavated to a depth of between 0.7m and 0.8m below the current surface.

Close to the southwest corner of these footings an irregular shaped remnant of red brick factory floor (031) measuring roughly 2.2m by 1.9m survived (Fig 6, Plate 8). The individual bricks were late Victorian examples measuring 230mm x 105mm. Part of the floor was covered in a sooty deposit.

A small remnant of internal factory [029] brick wall survived over the floor extending slightly out from the south side of the footings (Fig 6, Fig 8, Section 8, Plates 8, 9).

Other than the surviving remnant of floor, the footings were to sit on finely crushed sand, gravel, brick and concrete rubble layer (032). This was overlain by up to 0.35m thick fairly compacted crushed brick and mortar demolition rubble layer (028) (Fig 8, Sections 8-10, Plates 9,11). In the southeast corner this was overlain by up to 0.17m thick mid brown sandy silt with gravel and small brick fragments (033) (Fig 8, Section 9). This was sealed by up to 0.3m thick clayey sand and gravel, the same general levelling layer (003) for the 'Silkfields' development as recorded in Trench 1 which was overlain

by the contractor's gravel and surface (001).

Three rectangular stone blocks measuring over 1m across, clearly part of the crape factory demolition, had been pulled from the footings by the contractor (Plate 12).

Watching brief on rainwater tank pit (Fig 6)

A further watching brief was maintained on the excavation of the pit for a rainwater harvesting tank adjacent to the new building at the east end of the site

The 3.4m long by 2.8m wide pit was excavated, with the aid of a shoring frame, to a depth of 3.1m. The lower 1.4m (Fig 8, Section 11, Plates 14, 15) of the pit cut through a layer of dark grey clayey silt (040) which was similar to (024) in Trench 1 although no brick fragments were observed. This was overlain by 0.78m thick mid brownish grey sandy silt (039) a levelling layer for the factory. Further red brick internal factory walls were recorded: east-west aligned [034], northwest-southeast aligned [035] and slightly curving [036] encompassing brick floor [037] (Plate 13). These structures were sealed by 0.7m thick mid reddish brown silty sand (038), the levelling layer for the modern 'Silkfields' development.

6. DISCUSSION

A dark silty deposit (040) in the base of the rainwater tank pit may have represented formerly marshy ground adjacent to the river or the fill of an old course of it.

The earliest deposits revealed in Trench 1 (024), (023) and (022), recorded to a depth of 3.1m below the current surface, contained fragments of 18th-19th century brick and were probably layers of dumping, either built up over the marshy ground or filling the old river channel, to enable factory construction to take place.

These deposits were cut by a substantial pipe trench containing a concrete pipe housing, possibly a sewer or storm drain. Its alignment suggests it may have run along the north side of the factory as it was in 1907 (Fig 5). The trench was sealed by a substantial rubble layer, probably laid as levelling for the subsequent factory extension shown on the 1939 OS map and represented in the trench by walls 011 and 015 which were set on a substantial concrete footing and are on the correct alignment.

In the south side of the trench a large sand and gravel feature of unknown purpose postdated the c1980 factory demolition and was sealed by the levelling layer for the late 1980s 'Silkfields' development.

No artefacts earlier than the 18th-19th centuries were recovered during the investigation. This would tend to support the idea that the site was largely unoccupied prior to this time probably being marshy ground adjacent to the River Wensum.

From the watching brief on the footings, the alignment of wall [029] and the bricks of floor (031) matches that of the crape factory walls shown on the OS maps. The same applies with wall [035] in the rainwater trench pit, with adjacent walls and flooring probably forming part of a small internal structure. As they are composed of 19th century bricks they are almost certainly remnants of the factory.

7. CONCLUSIONS

An archaeological excavation and subsequent watching brief was carried out on the site of a proposed housing development at Mandela Close, Norwich.

The excavation revealed 19th century deposits dumped to reclaim probable marshy ground by the river or an old channel of it. A modern pipe trench and

remnants of a late Victorian textile factory were recorded.

Finds retrieved consisted of 18th-19th century and later artefacts, with no earlier material recovered.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Draper and Nichols Limited who commissioned this investigation, in particular Paul Dawson who provided assistance on site. Thanks are also due to the staff of Norfolk Archives. The work was co-ordinated by Gary Taylor who edited this report with Tom Lane.

9. PERSONNEL

Project Coordinator: Gary Taylor
Site Supervisor: Mark Peachey
Site Assistant: Jonathon Smith
Watching Brief: Mark Peachey, Russell Trimble, Bob Garland
Finds Processing: Denise Buckley
Photographic reproduction: Mark Peachey
CAD Illustration: Mark Peachey
Post-excavation analysis: Mark Peachey

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Ordnance Survey 1939 1:2500 map

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11. ABBREVIATIONS

APS Archaeological Project Services

IfA Institute for Archaeologists

NHER Norfolk Heritage Environment Record

OD Ordnance Datum (height above
sea level)

OS Ordnance Survey

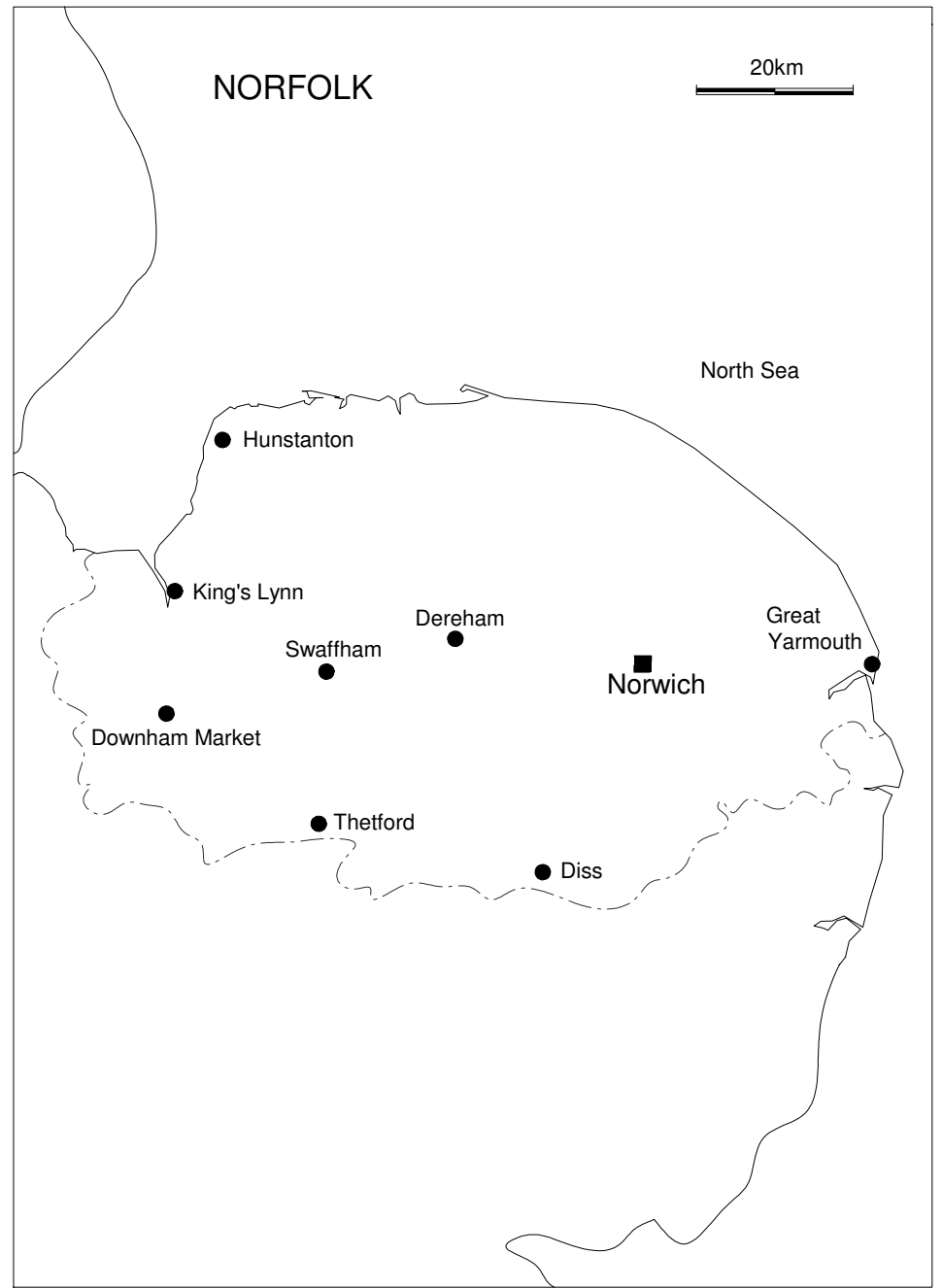
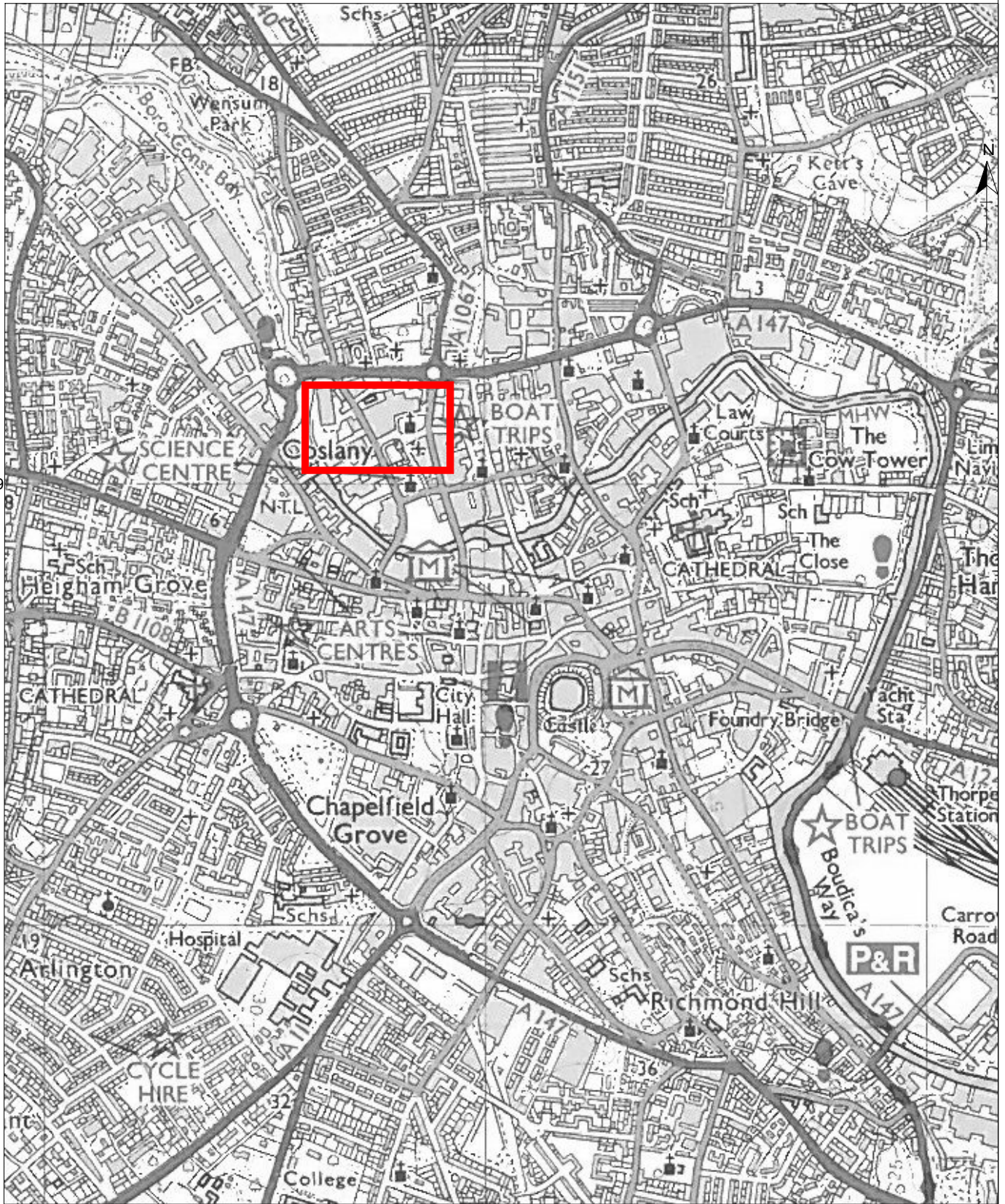


Figure 1 General location Map



TG



Area shown on Fig 4



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Figure 2 Site location map

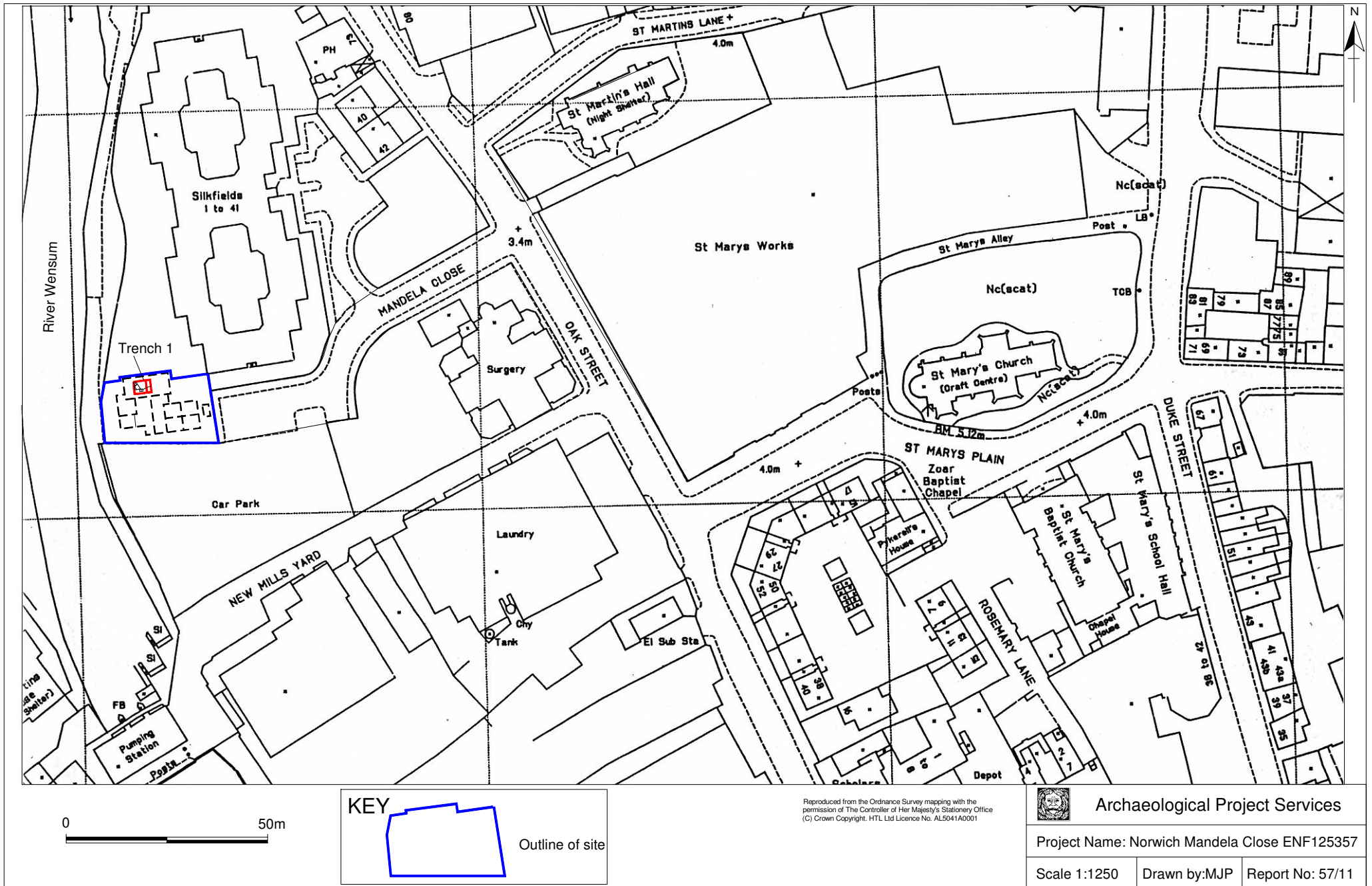
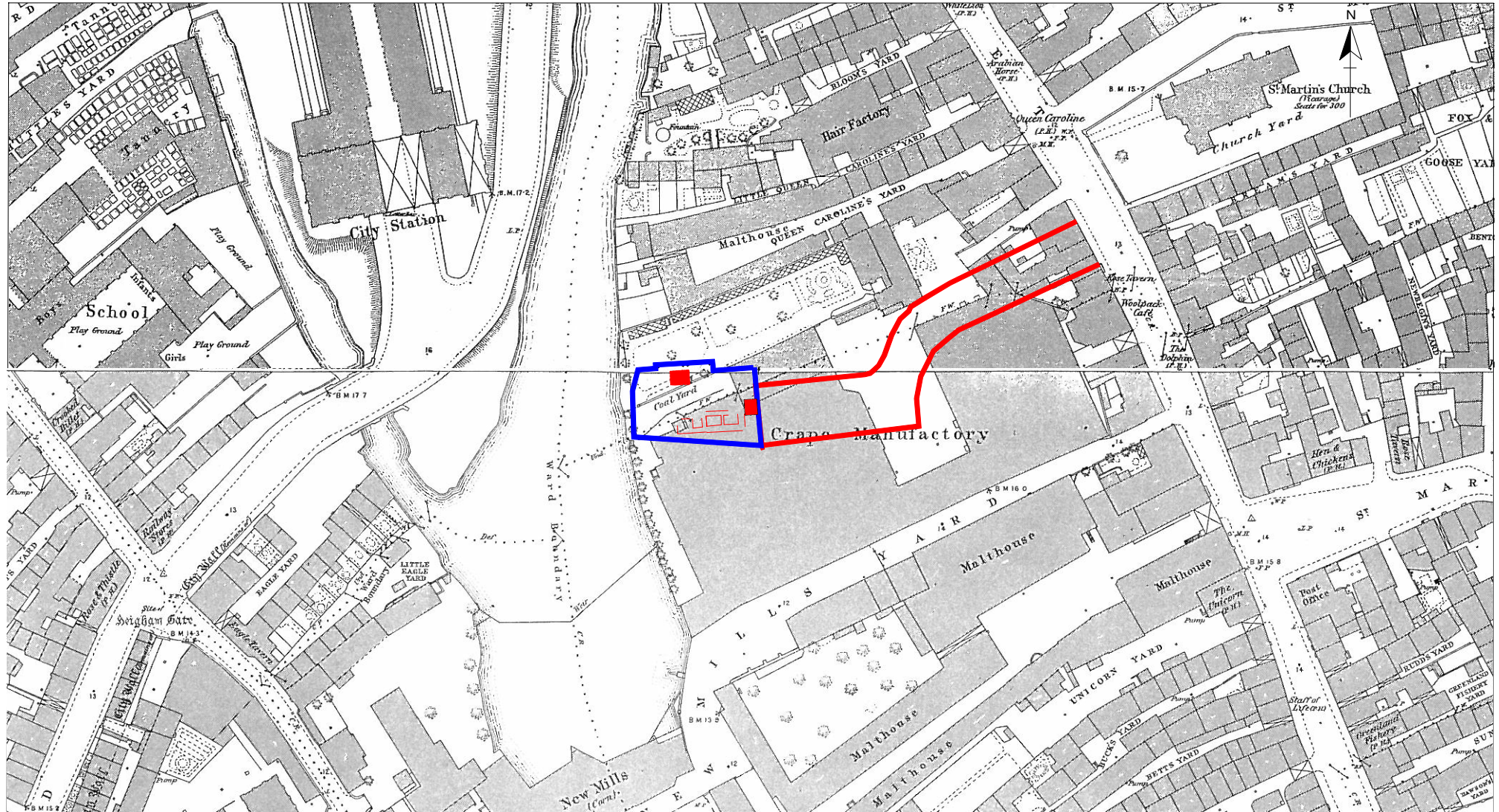


Figure 3. Trench Location Plan



0 50m

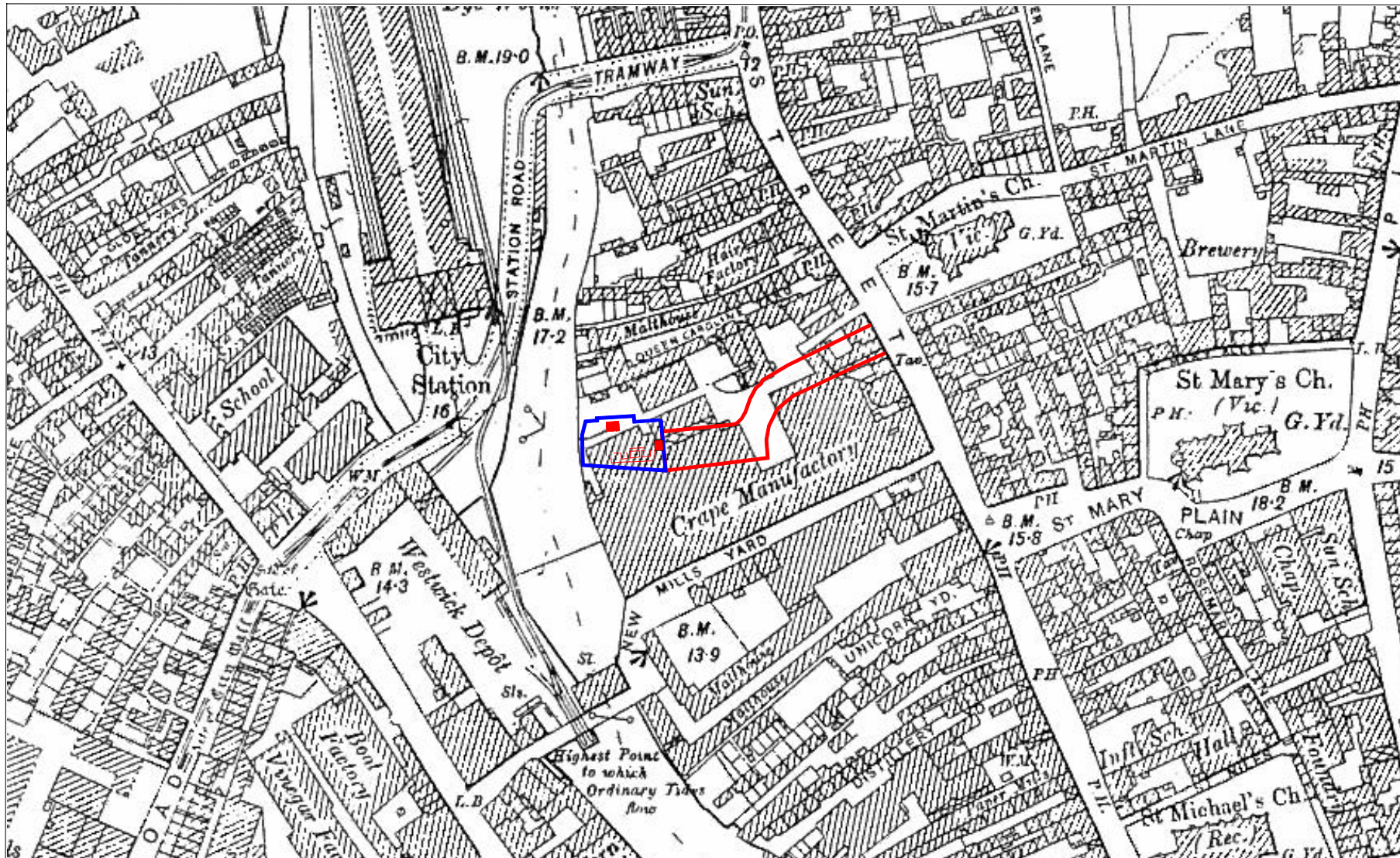


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Scale 1:1250 Drawn by: MJP Report No: 57/11

Figure 4. Location of Mandela Close and site overlaid on 1885 OS 1st edition map




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Figure 5. Location of Mandela Close and site overlaid on 1907 OS 2nd edition map

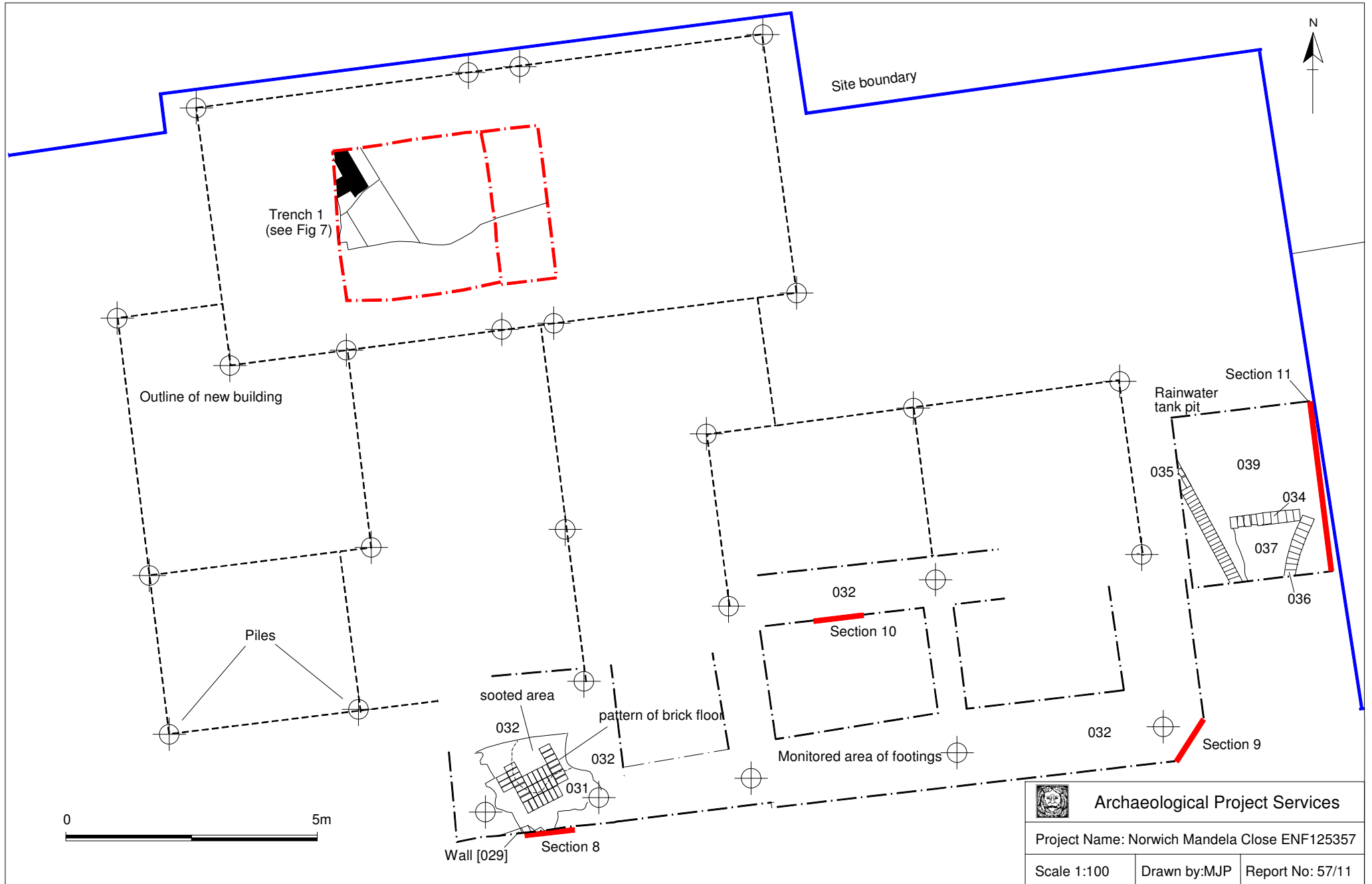
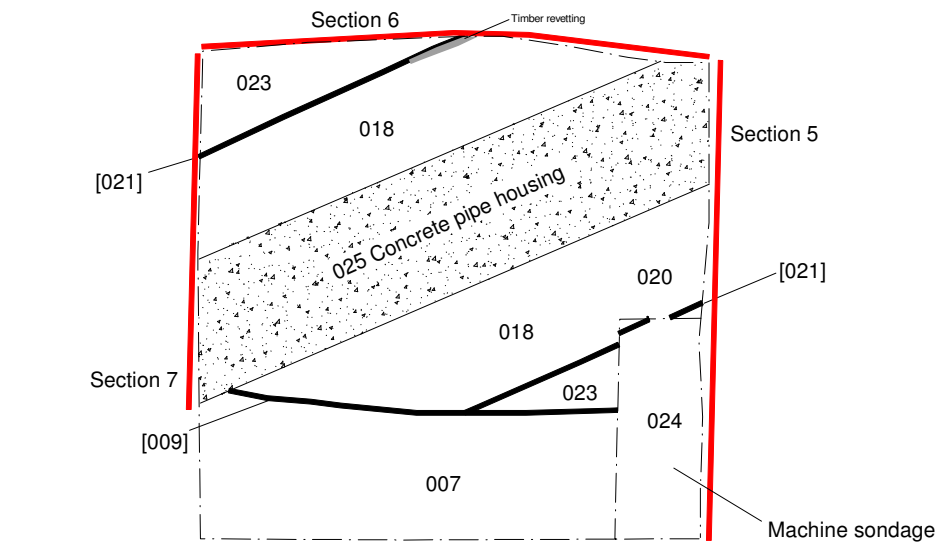
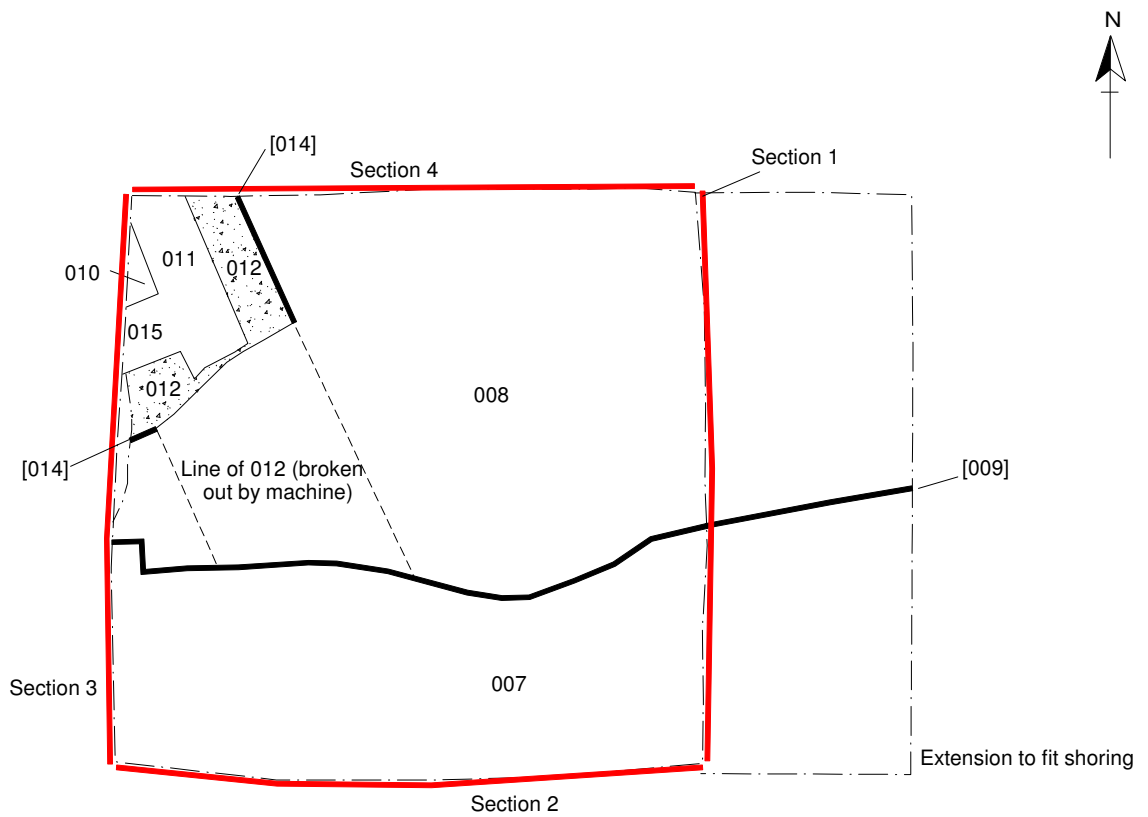


Figure 6. Trench Plan




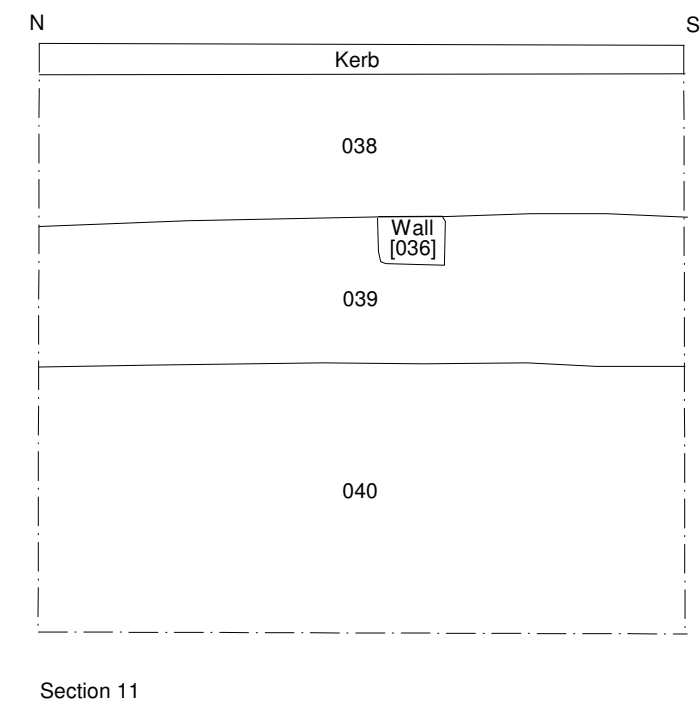
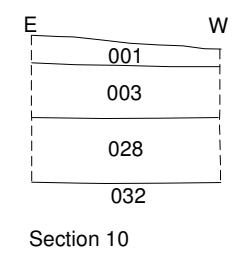
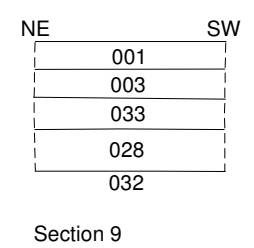
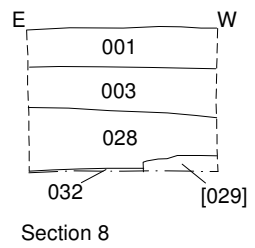
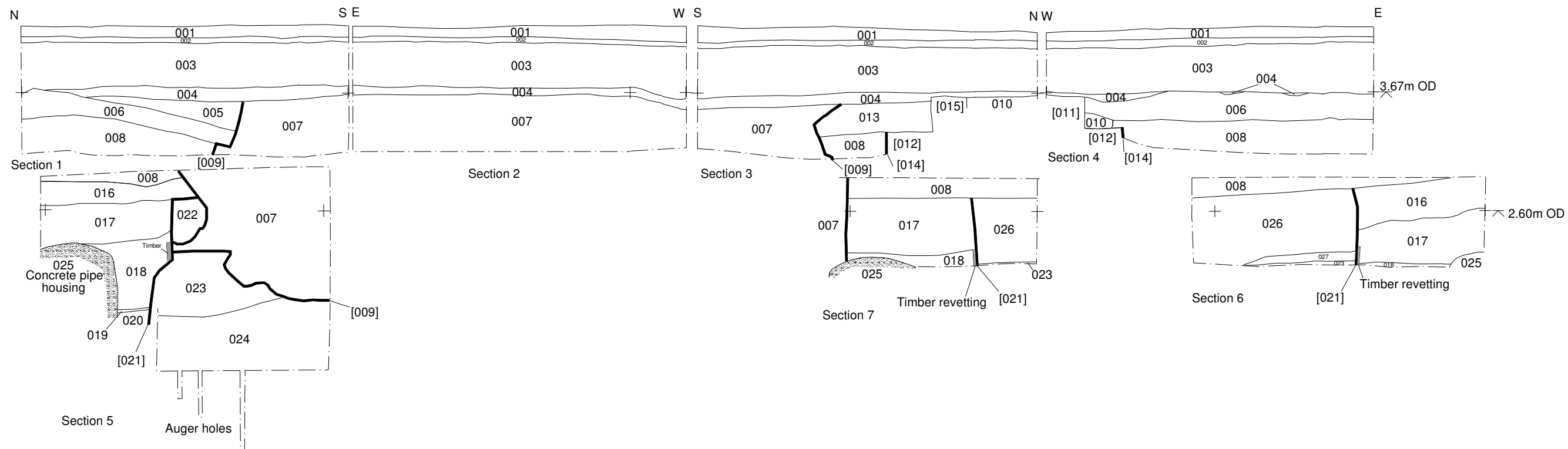
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Figure 7. Trench 1 plans




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Figure 8. Sections



Plate 1. Pre-machining view of site looking northeast towards 'Silkfields' flats



Plate 2. Trench 1, Section 1 looking east



Plate 3. Trench 1, Section 3, looking west showing brick walls 011 and 015 on concrete footing 012



Plate 4. Pushing in the Trench 1 shoring, looking northwest



Plate 5. Trench 1, Section 5 looking east showing concrete pipe housing 025 in pipe trench [021]



Plate 6. Trench 1, Section 6 looking north



Plate 7. Trench 1,
Section 7 looking
west



Plate 8. Brick floor
031 on watching brief
on footings looking
south



Plate 9. Footings
watching brief Section
8 looking south



Plate 10. View of footings on watching brief looking west



Plate 11. Footings watching brief Section 10 looking south



Plate 12. Large stone blocks from factory demolition removed during excavation of footings



Plate 13. Walls [034], [035], [036] and brick floor [037] in rainwater tank pit looking north



Plate 14. Rainwater tank pit, prior to insertion of shoring frame, showing Section 11, looking east



Plate 15. Rainwater tank pit dug to full depth showing deposit 040

Appendix 1: LAND OFF MANDELA CLOSE, NORWICH, NORFOLK

SPECIFICATION FOR ARCHAEOLOGICAL EXCAVATION AND WATCHING BRIEF

PREPARED FOR DRAPER AND NICHOLS LTD

BY ARCHAEOLOGICAL PROJECT SERVICES

Institute of Field Archaeologists

Registered Archaeological Organisation No. 21

OCTOBER 2010

1 SUMMARY

- 1.1 *This document comprises a specification for archaeological investigations in the form of Excavation and Watching Brief on land at Mandela Close, Norwich, Norfolk.*
- 1.2 *The development proposal lies within the Area of Main Archaeological Interest as defined by the Norwich Local Plan (adopted November 2004).*
- 1.3 *Work started on the development ahead of the archaeological requirement (Evaluation). A subsequent requirement for Excavation aims to assess archaeological features, deposits and structure that may have been damaged or destroyed by development. A Watching Brief will also be conducted on subsequent groundworks.*
- 1.4 *Trial trenching undertaken to the east of the site, at the junction of Mandela Close and Oak street, revealed pits, postholes and an occupation layer of 10/11th century date onwards. The trench nearest to the current development contained some suggestion of horn working in the vicinity.*
- 1.5 *On completion of the fieldwork a report will be prepared detailing the findings of the investigation. This will consist of text describing the nature of the archaeological deposits located and will be supported by illustrations and photographs.*

2 INTRODUCTION

- 2.1 This document comprises a specification for the Excavation and Watching Brief on a site at Mandela Close, Norwich, Norfolk.

3 SITE LOCATION

- 3.1 Mandela Close is located some 700m northwest of the city centre of Norwich in the Coslany area of the City. It is situated at the west end of Mandela Close adjacent to the river Wensum at Grid Reference TG2262 0912. The development covers 550m².

4 PLANNING BACKGROUND

- 4.1 A Planning Application (08/00830/F) has been submitted to and approved by Norfolk County Council for development of the land and the construction of Flats. A brief for Archaeological Evaluation had been prepared but development on the site commenced ahead of the Evaluation. Subsequently, a second Brief prepared by Norfolk Landscape Archaeology outlined the necessary works required to determine whether archaeological deposits within the site will be preserved by the piling scheme already deployed and to mitigate the impact of the rest of the development. The programme of archaeological works comprises excavation of two 3 x 3m trenches, one of which is on the site of the rainwater harvesting tank, Watching Brief on additional groundworks, subsequent analysis of the findings and report preparation.

5 SOILS AND TOPOGRAPHY

- 5.1 The development is located in the city of Norwich at the west end of Mandela Close near to the eastern bank of the river Wensum. Located approximately 700m northwest of the city centre and centred on Grid Reference TG 2262 0912 the area of development encompasses c.550 square meters. The area slopes gently to the west towards the river, although the ground surface is built up

locally with deposits of medieval and later dates.

- 5.2 As an urban area, soils have not been mapped. Previous investigations in the vicinity have established that natural deposits consisting of sands and gravels occurred some 2m below the current ground surface. The site lies at approximately 3m OD.

6 ARCHAEOLOGICAL OVERVIEW

- 6.1 The development lies within the Area of main Archaeological Interest as defined in the Norwich Local Plan.
- 6.2 The area lies in the Coslany area of Norwich. The place-name Coslany is Old English in origin and means 'Cost's long island'. It was first recorded in 1146-9 but probably has pre-850 origins. It has been suggested that Oak Street, c.100m to the east of the site, is the northern continuation of Ber Street, a Roman road. Part of this is based on the discovery of an Early Saxon cemetery at Eade Road in the city.
- 6.3 Immediately to the south of the development an archaeological evaluation in 2001 revealed an old channel of the river Wensum overlain by 18th and 19th century demolition layers. Nearby, remains of a tannery, dating to the 13th and 14th centuries was found. To the east, evaluation at the Mandela Close-Oak Street junction yielded evidence of Saxo-Norman occupation, including pits and an occupation layer. In the trench nearest to the present development was evidence of occupation from the Saxo-Norman to post-medieval periods. The possibility of an ecclesiastical complex and horn working in the vicinity was also suggested.

7 AIMS AND OBJECTIVES

- 7.1 The aim of the work will be to recover as much information as possible on the origins, date, development, phasing, spatial organisation, character, function, status, significance and nature of social, economic and industrial activities on the site.
- 7.2 The objectives of the work will be to:
- 7.2.1 Establish the type and date range of archaeological activity that may be present within the site.
 - 7.2.2 Determine the likely depth and extent of archaeological activity that may be present within the site.
 - 7.2.3 Determine the spatial arrangement of any archaeological features that may be present within the site.
 - 7.2.4 Determine the extent to which the surrounding archaeological features extend into the application area.
 - 7.2.5 Establish the way in which any archaeological features identified fit into the pattern of occupation and land-use in the surrounding landscape.

8 SITE OPERATIONS

General Considerations

- 8.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the investigation. A Risk Assessment will be prepared prior to the investigation, and updated throughout its duration.
- 8.2 The work will be undertaken according to the relevant codes of practice issued by the Institute for Archaeologists (IfA). Archaeological Project Services is an IFA registered archaeological organisation (no. 21) managed by a Member (MIFA) of the institute.
- 8.3 All work will be carried out in accordance with *Standards for Field Archaeology in the East of England, 2003*.
- 8.4 Any artefacts found during the investigation and thought to be 'treasure', as defined by

the Treasure Act 1996, will be removed from site to a secure store and the discovery promptly reported to the appropriate coroner's office.

Methodology

- 8.5 Excavation will be conducted in an area 3m by 3m within the footprint of the proposed building. A second 3m by 3m trench will be excavated at the location of the Rainwater Harvesting Tank. Because of site access issues the second trench can only be excavated after the building has been completed and ahead of the insertion of the tank.
- 8.6 Surface and Recent deposits will be removed by mechanical excavator with a toothless ditching bucket under archaeological supervision down to a maximum depth of 1.2m.
- 8.7 A record of the sections of the trenches will be made. After 1.2m the trench sides will be shored (using Trench Sheets) and excavation continued down to natural, with continuous sections being maintained. A running stratigraphic matrix will be maintained on site
- 8.8 Excavations within the trench will be recorded on APS pro-forma context record sheets. The system used will be the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn. All context and site numbering used will be compatible with the Norfolk Historic Environment Record.
- 8.9 During construction a Watching Brief, with appropriate recording, will be undertaken on all ground disturbance associated with installation of ground beams, services and attenuation tanks
- 8.10 For both Excavation and Watching Brief plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual features merit it, they will be drawn at more appropriate scales.
- 8.11 Throughout the duration of the investigations a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides will be compiled. The photographic record will consist of:
- the site before the commencement of field operations
 - the site during the investigation to show specific stages of work, and the layout of any archaeology within the area.
 - individual features and, where appropriate, their sections.
 - groups of features where their relationship is important.
 - the site on completion of fieldwork
- 8.12 Should human remains be located they will be left *in situ* and only removed if absolutely necessary. If removal of human remains proves necessary then the appropriate licence will be obtained and the coroner and police informed, as appropriate. Consideration will be given at all times to ensure that no offence is caused to any interested parties.
- 8.13 Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered, ready for later washing and analysis. All finds work will be carried out to accepted professional standards and the Institute for Archaeologists *Guidelines for Finds Work* (1992).
- 8.14 Conservation of artefacts will be carried out by Lincoln City and County Museum. The resources available for conservation is dependent on the quantity and type of artefacts recovered from the site.
- 8.15 The location of any site recording grids will be established by a GPS survey and

accurately related to the Ordnance Survey grid and to suitably mapped local features.

- 8.16 During the investigations, all exposed surfaces, excavation horizons, and spoil, will be regularly and repeatedly metal-detected to ensure optimum recovery of artefacts. Any identified artefacts will be excavated from its parent context in normal stratigraphic sequence.
- 8.17 Prior to commencement of site operations, Archaeological Project Services will liaise with the Norfolk SMR to ensure that the Site Code and Context Numbering system is compatible with the Norfolk HER.

9 POST-EXCAVATION AND REPORT

9.1 Stage 1

- 9.1.1 On completion of site operations, the records and schedules produced during the investigation will be checked and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.
- 9.1.2 Any finds recovered during the investigation will be washed, marked, bagged and labelled according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.
- 9.1.3 Detailed examination of the stratigraphic matrix will take place to enable the determination of the various phases of activity on the site.
- 9.1.4 Finds will be sent to specialists for identification and dating.
- 9.1.5 Only if the results warrant it will a MAP II Style Assessment be carried out. If there are few finds and features then the post excavation process will proceed direct to analysis (below).

9.2 Stage 2

- 9.2.1 On completion of Stage1, a report detailing the findings of the investigation will be prepared. This will consist of:
- A non-technical summary of the findings of the investigation.
 - A description of the archaeological setting of the site.
 - Description of the topography and geology of the area
 - Description of the methodologies used during the investigation and discussion of their effectiveness in the light of the results.
 - Text describing the findings of the excavation.
 - Plans showing any archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
 - Sections of the archaeological features.

- Interpretation of the archaeological features exposed and their context within the surrounding landscape.
- * A copy of the piling layout will be incorporated into the final report along with an assessment of archaeological deposits across the site from examination of the borehole and piling logs, calibrated by the excavated trench.
- Specialist reports on the finds from the site.
- Appropriate photographs of the site and specific or grouped/associated archaeological features.
- A consideration of the significance of any archaeological remains encountered, in local, regional and national terms, as outlined in the appropriate Research Agendas.

10 ARCHIVE

- 10.1 The documentation, finds, photographs and other records and materials generated during the investigation will be sorted and ordered in accordance with the procedures in the Society of Museum Archaeologists' document *Transfer of Archaeological Archives to Museums* (1994), and any additional local requirements, for long-term storage and curation. This work will be undertaken by the Finds Supervisor, an Archaeological Assistant and the Conservator (if relevant). The archive will be deposited with the receiving museum as soon as possible after completion of the project, and within 12 months of completion.
- 10.2 The archive will be microfilmed. The silver master will be transferred to the RCHME and a diazo copy will be deposited with the Norfolk Historic Environment Record.
- 10.3 Prior to the project commencing, Norfolk Museums Service will be contacted to obtain their agreement to receipt of the project archive and to establish their requirements with regards to labelling, ordering, storage, conservation and organisation of the archive.
- 10.4 Upon completion and submission of the investigation report, the landowner will be contacted to arrange legal transfer of title to the archaeological objects retained during the investigation from themselves to the receiving museum. The transfer of title will be effected by a standard letter supplied to the landowner for signature.

11 REPORT DEPOSITION

- 11.1 Copies of the investigation reports will be sent to: the client; Norfolk Landscape Archaeology (3 hard copies, 1 for the local planning authority and 2 for the Norfolk County Historic Environment Record, plus a pdf copy on CD).

12 PUBLICATION

- 12.1 A note of the findings of the investigation will be submitted for inclusion in the journal *Norfolk Archaeology*. If warranted by the archaeology notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Post-medieval Archaeology*, *Medieval Archaeology* and *Journal of the Medieval Settlement Research Group* for medieval and later remains, and *Britannia* for discoveries of Roman date.
- 12.3 Details of the investigation will also be input to the Online Access to the Index of Archaeological Investigations (OASIS).

13 CURATORIAL MONITORING

- 13.1 Curatorial responsibility for the project lies with Norfolk Landscape Archaeology. As much notice as possible will be given in writing to the curator prior to the commencement of the project to enable them to make appropriate monitoring arrangements.

- 13.2 It is envisaged that there will be site monitoring meeting during the fieldwork stage with the curator.
- 13.3 The curator will be notified of any exceptional finds made during the fieldwork and an on-site meeting convened to discuss the extent of any further investigation.

14 VARIATIONS TO THE PROPOSED SCHEME OF WORKS

- 14.1 Variations to the scheme of works will only be made following written confirmation of acceptability from the archaeological curator.
- 14.2 Should the archaeological curator require any additional investigation beyond the scope of the strip, map and sample, or this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

15 STAFF TO BE USED DURING THE PROJECT

- 15.1 The work overall will be directed by Tom Lane MIFA, Senior Archaeologist, Archaeological Project Services. The on-site works will be conducted and supervised by an Archaeological Supervisor with knowledge of archaeological investigations of this type. Archaeological excavation will be carried out by Archaeological Technicians, experienced in projects of this type.
- 15.2 The following organisations/persons will, in principal and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

<u>Task</u>	<u>Body to be undertaking the work</u>
Conservation	Conservation Laboratory, City and County Museum, Lincoln.
Pottery Analysis	Prehistoric: Dr D Knight, Trent and Peak Archaeological Unit Roman: Alex Beeby, APS Roman pottery specialist Anglo-Saxon and later: Dr Anne Boyle, APS medieval pottery specialist
Other Artefacts	J Cowgill or V. Fryer, independent specialists, or Gary Taylor, APS internal specialist
Lithics	Barry Bishop, independent specialist
Human Remains Analysis	R Gowland, independent specialist
Animal Remains Analysis	Matti Holmes, independent specialist
Environmental Analysis	Environmental Archaeology Consultancy, or Val Fryer
Soil Assessment	Dr Charly French, independent specialist
Radiocarbon dating	Beta Analytic Inc., Florida, USA
Dendrochronology dating	University of Sheffield Dendrochronology Laboratory

16 PROGRAMME OF WORKS

- 16.1 The duration of the site works is likely to be 7 days. Post-excavation work is dependent on the quantity and complexity of archaeological remains encountered.

17 INSURANCES

- 17.1 Archaeological Project Services, as part of the Heritage Trust of Lincolnshire, maintains Employers Liability insurance to £10,000,000. Additionally, the company maintains Public and Products Liability insurances, each with indemnity of £5,000,000. Copies of insurance documentation can be supplied on request.

18 COPYRIGHT

- 18.1 Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.
- 18.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.
- 18.3 In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the *Copyright, Designs and Patents Act 1988* for the client to pass any report, partial report, or copy of same, to any third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be removed from said Planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the *Copyright, Designs and Patents Act 1988* and may result in legal action.
- 18.4 The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication with the agreement of the client.

19 BIBLIOGRAPHY

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Gurney, D, 2003 *Standards for Field Archaeology in the East of England*, ALGAOEE

Specification version 1

Appendix 2

CONTEXT DESCRIPTIONS

No.	Trench	Description	Interpretation	Date
001	1, WB	Compacted light yellowish grey gravel and sand, 0.15m thick	Contractor's surface	2010
002	1	Firm mid brown clayey sand with frequent pebbles and occasional brick frags, 0.1m thick	Remnant of 'Silkfields' garden	1980s
003	1, WB	Compact light yellowish brown clayey sand with frequent gravel, 0.4m thick	Levelling layer of 'Silkfields' development	1980s
004	1	Firm mid brown silty sand with occasional brick frags, 0.18m thick	Former ground surface	Modern
005	1	Compact dark grey cinders, 0.25m thick	Dumped deposit	Modern
006	1	Very hard black crushed cinders, 0.2m thick	Possible factory yard surface	Modern
007	1	Loose light yellowish brown sand with occasional rounded pebbles, 1.93m thick	Fill of [009]	Modern
008	1	Very hard laminated layers less than 5mm thick, alternating between dark grey and black silty sand with moderate brick frags and angular pebbles, up to 0.68m thick	Probable levelling layer laid as base for factory over soft ground by river	Modern
009	1	Irregular sided cut, with undercutting near top, at least 4m long, 1.2m wide and 1.93m deep	Cut of large feature of unknown purpose	Modern
010	1	Hard mid brown 70% brick rubble, 30% silty sand, 0.2m thick	Fill of [014]	Modern
011	1	Brick structure aligned NW-SE, 3 courses high, 3 skins thick, English bond, white mortar, at least 2m long, 0.31m wide, 0.22m deep. Second course up blue brick, keyed into [015]	Brick wall	Modern
012	1	White concrete wall base 1m wide, 0.15m thick	Footing for walls [011] and [015]	Modern
013	1	Hard light brown mix of concrete and sand with occasional brick rubble, 0.2m thick	Fill of [014]	Modern
014	1	Cut for concrete footing, 1m wide, 0.22m deep	Wall construction cut	Modern
015	1	Brick structure aligned SW-NE, 3 courses high, 3 skins thick, English bond, white mortar, at least 0.4m long, 0.31m wide, 0.22m thick, mostly unfrogged, machine made red brick, one yellow	Brick wall	Modern
016	1	Loose black cinders with occasional sub-angular gravel and brick frags, 0.33m thick	Top fill of [021]	Modern
017	1	Soft mid brown sandy silt with frequent brick and mortar frags, 0.35m thick	Fill of [021]	Modern
018	1	Soft dark grey sandy silt with frequent brick frags, 0.65m thick	Fill of [021]	Modern
019	1	Compact dark grey 70% rounded pebbles, 30% sandy silt, 0.05m thick	Fill of [021]	Modern
020	1	Soft dark grey silt at least 0.05m thick	Fill of [021]	Modern
021	1	NE-SW aligned linear cut at least 2.8m long, 1.8m wide, at least 0.9m deep, vertical becoming convex	Cut of pipe trench for [025]	Modern
022	1	Soft mid grey sandy silt with frequent brick and mortar frags, 0.4m thick	Dumped deposit	
023	1	Soft dark grey sandy silt with moderate brick frags, 0.6m thick	Dumped deposit	
024	1	Soft dark grey slightly humic sandy silt with occasional large frags of brick, at least 0.6m thick	Dumped deposit, fill of a river channel?	

025	1	NE—SW aligned concrete structure with rounded top and vertical sides, at least 2.8m long, 0.7m wide, at least 0.6m deep	Housing for a sewer, storm drain or other pipe	Modern
026	1	Firm mid brown 50% silty sand, 50% brick frags and mortar, 0.64m thick	Brick rubble dump	
027	1	Soft mid greyish brown silty sand with occasional brick frags, 0.1m thick	Dumped deposit	
028	WB	Fairly compacted reddish crushed brick/mortar rubble up to 0.35m thick	Factory demolition layer	Modern
029	WB	Brick wall aligned SW-NE, at least 0.7m long, at least 0.2m wide, 0.2m high. Individual bricks 0.23m x 0.105m x 0.06m	Internal factory wall footing	Late 19 th C
030	WB	SW-NE aligned cut at least 0.7m long and 0.2m wide with vertical side and a flat base	Construction cut for wall 029	Late 19 th C
031	WB	Irregular shaped remnant of red brick surface roughly 2.2m x 1.9m. Individual bricks 0.23m x 0.105m	Part of crape factory floor	Late 19 th C
032	WB	Loose reddish grey sand/gravel/small brick and concrete fragments, not bottomed	Layer of finely crushed rubble	Modern
033	WB	Friable mid brown sandy silt with common gravel and small brick fragments, up to 0.17m thick	Former building site surface	Modern
034	WB-tank	Bick wall aligned E-W, 1.4m long, 0.25m wide	Factory wall footing	Late 19 th C
035	WB-tank	Brick wall aligned SE-NW, at least 2.75m long,, 0.24m wide	Factory wall footing	Late 19 th C
036	WB-tank	Brick wall slightly curving S-N, at least 1.2m long, 0.25m wide	Factory wall footing	Late 19 th C
037	WB-tank	Red brick floor, roughly 1m x 1m, coated in soot	Remnant of factory floor	Late 19 th C
038	WB-tank	Friable mid reddish brown silty sand with common gravel, 0.7m thick	Levelling layer of 'Silkfields' development	Modern
039	WB-tank	Friable mid brownish grey sandy silt with frequent small stones and brick frags, 0.78m thick	Levelling layer	
040	WB-tank	Soft dark grey, with white flecks, slightly gritty clayey silt with occasional pebbles, at least 1.4m deep	Former river channel silt	

Appendix 3

THE FINDS**POTTERY AND CERAMIC BUILDING MATERIAL***By Anne Boyle***Introduction**

All the material was recorded at archive level in accordance with the guidelines laid out by the ACBMG (2001).

Methodology

The material was laid out and viewed in context order. Sherds were counted and weighed by individual vessel within each context. The pottery was examined visually and using x20 magnification. This data was then added to an Access database. An archive list of the pottery is included in Table 1. The pottery ranges in date from the late 18th to mid 19th century.

Results*Table 1, Pottery and CBM Archive*

Cxt	Fabric	Form	NoS	W (g)	Decoration	Comment	Date
008	Pearlware		1	1g			late 18th to mid 19th
	CBM frags						undateable
018	Pearlware		2	10g			late 18th to mid 19th
	gault brick	central frog					18th to 19th
	brick frag						18th to 19th
	land drain?						19th to 20th century
023	roofing tile	flat	5				18th to 19th century
024	brick	handmade	2				18th to 19th century

Provenance

The material comes from levelling and demolition layers across the site.

Range

A limited range of 18th-19th century ceramic building material and pottery was recovered.

Potential

The small assemblage has limited potential except in providing some evidence for the chronology of 18th -19th century land use, construction and demolition at the site.

FAUNAL REMAINS*By Paul Cope-Faulkner***Introduction**

A total of 3 (104g) fragments of animal bone were recovered from stratified contexts.

Provenance

The faunal remains were retrieved from the fill of a pipe trench (018) and a dumped deposit (023).

Condition

The overall condition of the remains was good.

Results*Table 2, Fragments Identified to Taxa*

Cxt	Taxon	Element	Side	Number	W (g)	Comments
018	deer	radius		1	25	juvenile
	large mammal	rib		1	35	
023	oyster	shell		1	44	

Summary

As a small assemblage, the faunal remains have little potential and are also all derived from recent or post-medieval deposits. The presence of deer is unusual.

GLASS

By Gary Taylor

Introduction

Four pieces of glass weighing a total of 139g were recovered.

Condition

Although naturally fragile, all of the glass is in good condition. One of the pieces exhibits heavy iridescent decay.

Results*Table 3, Glass Archive*

Cxt	Description	NoF	W (g)	Date
008	Green bottle. Base sherd. Heavy iridescence, 18 th -early 19 th century	1	35	19 th -early 20 th century
	Dark olive green bottle, 19 th -early 20 th century	2	7	
018	Dark green bottle	1	97	Early-mid 19 th century

Provenance

The glass was recovered from the fill of a pipe trench (018) and a dumped deposit (008).

Range

All of the glass was from bottles and is of post-medieval to early modern in date.

Potential

Other than providing dating evidence the glass is of limited potential and could be discarded.

OTHER FINDS

By Gary Taylor

Introduction

Two other finds weighing a total of 297g were recovered.

Condition

The other finds are in good condition.

Results*Table 4, Other Materials*

Cxt	Material	Description	NoF	W (g)	Date
023	Mortar	Off-white mortar, post-medieval	1	59	Post-medieval
	Flint & mortar	Building stone, fractured flint cobble with mortar adhering, post-medieval	1	238	

Provenance

The other finds were recovered from dumped deposit (023).

Range

Both of the other finds are from buildings and include a mortared flint cobble, probably from walling, and a piece of mortar.

Potential

Although they indicate buildings or structures at the site the other finds are of limited potential and could be discarded.

SPOT DATING

The dating in Table 5 is based on the evidence provided by the finds detailed above.

Table 5, Spot dates

Cxt	Date	Comments
008	19 th -early 20 th century	Based on glass; contains older material
018	late 18 th -mid 19 th century	Based on pottery
023	18th to 19th century	Based on building material
024	18th to 19th century	Based on building material

ABBREVIATIONS

ACBMG	Archaeological Ceramic Building Materials Group
BS	Body sherd
CBM	Ceramic Building Material
CXT	Context
LHJ	Lower Handle Join
NoF	Number of Fragments
NoS	Number of sherds
NoV	Number of vessels
PCRG	Prehistoric Ceramic Research Group
TR	Trench
UHJ	Upper Handle Join
W (g)	Weight (grams)

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Appendix 4

GLOSSARY

Anglo-Saxon	Pertaining to the period when Britain was occupied by peoples from northern Germany, Denmark and adjacent areas. The period dates from approximately AD 450-1066.
Bronze Age	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, e.g. [004].
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, etc. Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Domesday Survey	A survey of property ownership in England compiled on the instruction of William I for taxation purposes in 1086 AD.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) that become contained by the 'cut' are referred to as its fill(s).
Iron Age	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
Layer	A layer is a term used to describe an accumulation of soil or other material that is not contained within a cut.
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity
Old English	The language used by the Saxon (q.v.) occupants of Britain.
Post hole	The hole cut to take a timber post, usually in an upright position. The hole may have been dug larger than the post and contain soil or stones to support the post. Alternatively, the posthole may have been formed through the process of driving the post into the ground.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
Saxon	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany

Appendix 5

THE ARCHIVE

The archive consists of:

2	Context record sheets
40	Context sheets
3	Photographic record sheets
1	Section record sheet
1	Plan record sheet
9	Daily record sheets
1	Levels sheet
17	Sheets of scale drawings
1	Box of finds

All primary records are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

Norfolk Museums Service
Union House
Gressenhall
Dereham
Norfolk
NR20 4DR

The archive will be deposited in accordance with the document titled *County Standards for Field Archaeology in Norfolk*, produced by Norfolk Landscape Archaeology.

Norfolk Historic Environment Record Site Code: ENF 125357

Archaeological Project Services Site Code: NOMC 10

OASIS Record No: archaeol1-101765

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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