



Tariff Street, Piccadilly, Manchester

Archaeological Desk- based Assessment



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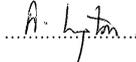
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SUMMARY

Town Centre Securities PLC is devising proposals for the redevelopment of land bounded by Tariff Street, Jackson's Warehouse and the Rochdale Canal in the Piccadilly area of Manchester (centred on NGR 384840 398315). The proposals concern the erection of an 11-storey residential development, the construction of which will inevitably necessitate considerable earth-moving works with the potential to damage or destroy any buried remains of archaeological interest.

The proposed development area was undeveloped land on the fringe of Manchester until the late eighteenth century, when the Rochdale Canal was constructed. This took a route across the southern part of the study area on its approach to the canal terminus at Piccadilly Basin, where several canal warehouses were erected. Within a few years, the Ashton Canal connected with the Rochdale Canal in this location, and Piccadilly emerged as an important trans-shipment area, characterised by numerous wharves and warehouses. One of the last examples, Jackson's Warehouse, was erected immediately adjacent to the present study area in 1838; this building survives extant, and is afforded statutory designation as a Grade II* listed building. The first building within the boundary of the Site Area, however, was not erected until the 1840s. This comprised an L-shaped, two-storey structure, which was probably a small warehouse and associated storehouse. A large element of this building was demolished during the second quarter of the twentieth century and, based on the results obtained from recent geo-technical site investigations, any buried foundations may have been further damaged or destroyed during landscaping works carried out in 2002. The surviving elements of the warehouse were finally demolished in 1991.

In order to secure archaeological interests and inform the planning application for the proposed redevelopment of the site, Town Centre Securities PLC commissioned Oxford Archaeology North to undertake an assessment of the development area. This was intended to establish the merits of carrying out further archaeological investigation of the site, and enable an appropriate scheme of investigative works to be formulated. The assessment identified a total of 54 heritage assets within a 200m radius of the proposed development area, which included 23 listed buildings. Of this total, however, only four lie within the boundary of the proposed development, and none of these are afforded statutory designation, and are thus not considered to be of national importance that would require preservation *in-situ*. These heritage assets represent the site's use as a canal wharf and warehouse, and are considered to be of either low or negligible archaeological value, pending the extent of previous disturbance. The scale of impact on the heritage assets within the Site Area has been determined as either minor or neutral. Where this impact is considered to be minor, it may be appropriate to mitigate the impact of development through preservation by record.

The requirement for a programme of archaeological recording to mitigate the impact of development, and the scope and extent of any such recording, would be devised in consultation with the Greater Manchester Archaeological Advisory Service. However, it is anticipated that a limited programme of archaeological evaluation of the former warehouse building may be appropriate, coupled with a watching brief during development works, which would be targeted on the former wall of the canal.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank James Bruce of Civic Engineers for commissioning and supporting the project on behalf of Town Centre Securities PLC. Thanks are also due to Kate Dickson of Creative Heritage for considerable assistance with the data collection, and for sharing the results of her research and knowledge of the area. Thanks are also due to Norman Redhead, the Heritage Management Director with the Greater Manchester Archaeological Advisory Service (GMAAS) for his support and advice. OA North is also grateful to the staff of Manchester Central Library and the Lancashire County Record Office for their assistance with the historical research.

The desk-based research and report was compiled by Ian Miller, and the illustrations were produced by Mark Tidmarsh. The report was edited by Alan Lupton.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Town Centre Securities PLC is devising proposals for the redevelopment of land bounded by Tariff Street, Jackson's Warehouse and the Rochdale Canal in the Piccadilly area of Manchester (referred to hereafter as the Site Area). The proposals concern the erection of an 11-storey residential development, the construction of which will inevitably necessitate considerable earth-moving works with the potential to damage or destroy any buried remains of archaeological interest.
- 1.1.2 In order to inform and support the planning application for the proposed development, Town Centre Securities PLC commissioned Oxford Archaeology North (OA North) to undertake an archaeological desk-based assessment of the Site Area. The desk-based assessment has aimed to establish, as far as possible, the nature and significance of the sub-surface archaeological resource within the area, and assess the impact of any future development upon this resource. The data generated from the assessment is intended to provide an informed basis regarding the significance of any archaeological heritage assets within the Site Area, and thereby enable an appropriate scheme of archaeological works to be devised.
- 1.1.3 The archaeological assessment has not attempted to consider the impact of the proposed development on the historic built environment. This aspect has been subject to a detailed assessment in a separate report, which considers the potential impact to the setting of designated buildings and conservation area within a 200m radius (Creative Heritage Consultants Ltd 2014)

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The Site Area (centred on NGR 384840 398315) lies in the Piccadilly area of Manchester, on the north-eastern fringe of the city centre (Fig 1). It is bounded to the north and west by Tariff Street, and the Rochdale Canal to the south (Plate 1). Jackson's Warehouse, a six-storey canal warehouse that is afforded statutory designation as a Grade II* listed building, lies immediately to the north-west (Plate 2).



Plate 1: Recent aerial view of the Site Area and its environs

- 1.2.2 The site comprises an irregular-shaped plot, which is currently a well-maintained landscaped open-space that is flanked by immature trees and shrubs (Plate 3). Elements of hard surfacing cross the area, mainly comprising gravel and modern concrete flagstones for footpaths, together with stone setts that probably represent the nineteenth-century access road to the canal wharf from Tariff Street (Plate 4).
- 1.2.3 The site is encompassed by medium-height buildings, and lies several metres below the level of Tariff Street (Plate 4). In broad terms, the Site Area is fairly level, although incorporates a low mound in the centre, which presumably represents modern landscaping (Plate 2).
- 1.2.4 **Geology:** the solid geology of the area comprises Carboniferous sedimentary material and a series of Permo-Triassic rocks, consisting mainly of New Red Sandstone. The overlying drift incorporates Pleistocene boulder clays of glacial origin, and sands, gravels, and clays of fluvial/lacustrine origin (Hall *et al* 1995, 8).
- 1.2.5 **Topography:** topographically, the Manchester Conurbation as a region lies within an undulating lowland basin, which is bounded by the Pennine uplands to the east and to the north. The region as a whole comprises the Mersey river valley, whilst the rivers Irwell, Medlock, and Irk represent the principal watercourses in Manchester (Countryside Commission 1998, 125).



Plate 2: View looking north across the Site Area, with Jackson's Warehouse to the rear

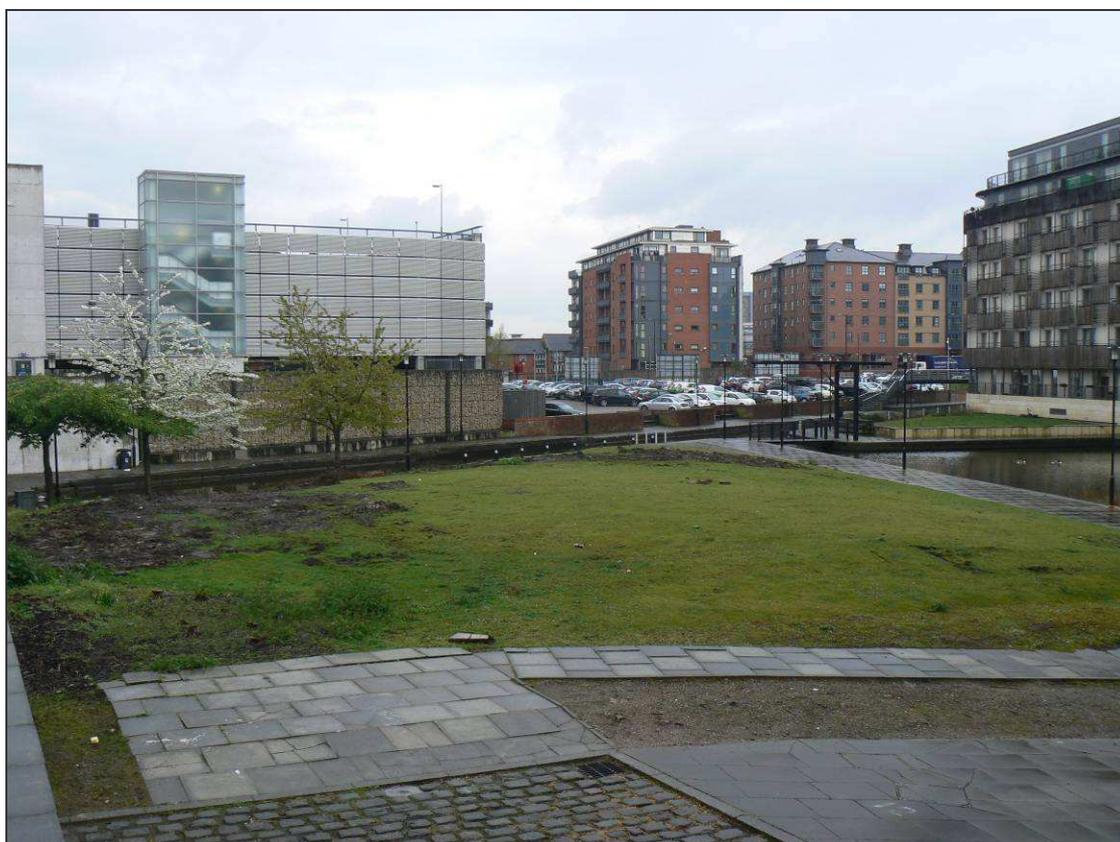


Plate 3: View looking south across the Site Area

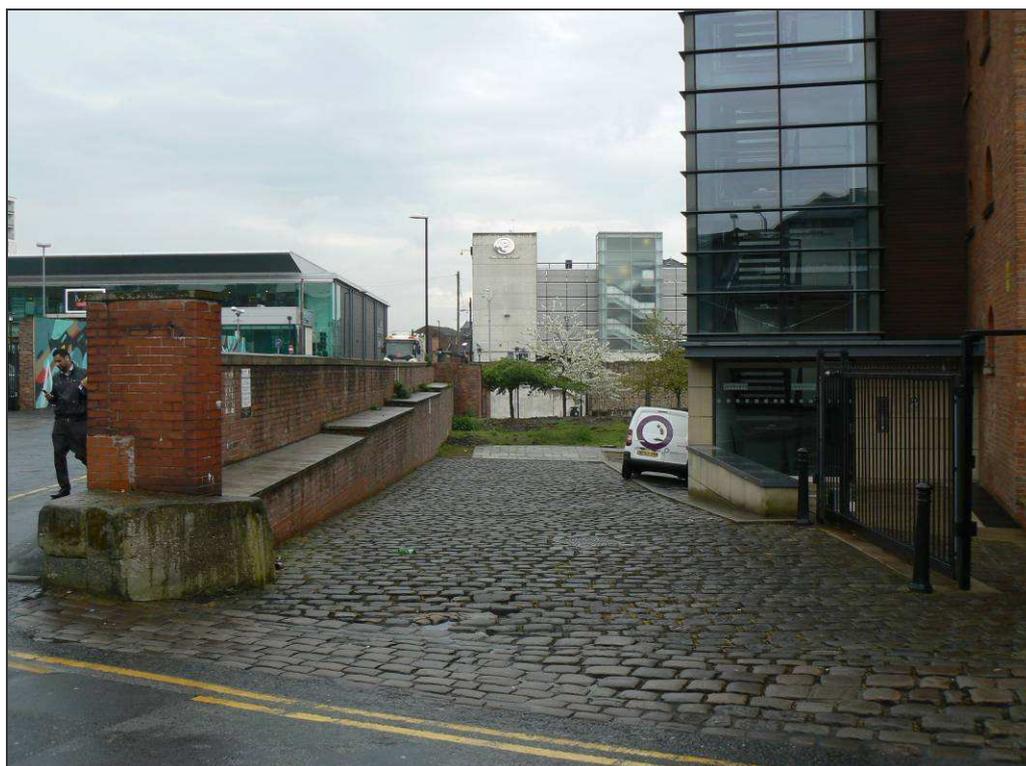


Plate 4: Historic surfacing providing access to the Site Area from Tariff Street

1.3 STATUTORY SITES

- 1.3.1 The Site Area does not contain any heritage assets that are afforded statutory protection, such as Scheduled Monuments, Listed Buildings, or any Registered Parks and Gardens, although the south-western boundary of the Ancoats Conservation Area, and the Stevenson Square Conservation Area, lie within a radius of 200m of the Site Area.
- 1.3.2 Jackson's Warehouse, a Grade II* listed building, lies immediately to the north-west of the Site Area. This six-storey canal warehouse was built for the Rochdale Canal Company in 1836, occupying a site at the head of a reinstated canal arm of the Rochdale Canal. It features 'shipping holes' at canal level on its main elevation, which enabled canal boats to have direct access into the building. It was converted into residential apartments in 2003, with commercial / leisure uses on the ground floor.
- 1.3.3 In addition to Jackson's Warehouse, there are 22 buildings or structures of special architectural interest within a 200m radius of the Site Area (Table 1). These are all afforded statutory designation as Grade II or Grade II* Listed Buildings. Development will not have any direct impacts on these designated buildings, and a detailed assessment of the indirect impacts on these heritage assets has been considered independently (Creative Heritage Consultants Ltd 2014).

HER No.	Description	Grade	NGR
8636.1.0	Jackson's Warehouse	II*	SJ 8480 9833
2119.1.0	Brownsfield Mill	II*	SJ 8489 9840
8370.1.0	Dale Street Warehouse	II*	SJ 8469 9819
12168.1.0	16-18 Tariff Street	II	SJ 8472 9831
8556.1.0	50-60 Port Street	II	SJ 8471 9837
11637.1.0	45-47 Hilton Street	II	SJ 8470 9835
12061.1.0	32 Laystall Street	II	SJ 8497 9828
8426.1.0	Newton Buildings	II	SJ 8466 9837
12086.1.0	57a Newton Street	II	SJ 8467 9844
12087.1.0	72 to 76 Newton Street	II	SJ 8475 9849
11336.1.0	Junction Lead Mills	II	SJ 8491 9818
11336.2.0	Stable block	II	SJ 8496 9817
11690.1.0	35 Dale Street	II	SJ 8464 9831
11694.1.0	45 Dale Street	II	SJ 8465 9828
11703.1.0	47 Dale Street	II	SJ 8465 9827
8371.1.0	49 and 51 Dale Street	II	SJ 8466 9826
11688.1.0	53 and 55 Dale Street	II	SJ 8467 9824
11692.1.0	57 Dale Street	II	SJ 8468 9823
8370.2.0	Entrance Archway and Lodge	II	SJ 8470 9816
2111.1.0	Rochdale Canal Company Office	II	SJ 8469 9817
6457.1.0	Lock 82, Rochdale Canal	II	SJ 8495 9845
12089.1.0	Lock 83, Rochdale Canal	II	SJ 8487 9835
12089.2.0	Lock 84, Rochdale Canal	II	SJ 8473 9814

Table 1: Listed Buildings within a 200m radius of the Site Area

2. METHODOLOGY

2.1 DESK-BASED ASSESSMENT

2.1.1 The archaeological assessment has focused on the site of the proposed development, although information for the immediate environs has been considered in order to provide an essential contextual background. The assessment was carried out in accordance with the relevant IfA and English Heritage guidelines (IfA 2011, *Standard and Guidance for Archaeological Desk-based Assessments*; IfA 2010 *Code of Conduct*; English Heritage 2006, *Management of Research Projects in the Historic Environment* (MoRPHE)). The principal sources of information consulted were historical and modern maps, although published and unpublished secondary sources were also reviewed. The following repositories were consulted during the data-gathering process:

- **Greater Manchester Historic Environment Record (HER):** the HER holds data on the historic environment for Greater Manchester, including Listed Buildings, all known archaeological sites, along with the location and results of previous archaeological interventions in a linked GIS and database format. The HER was consulted to establish the extent of sites of archaeological and historic interest within the study area;
- **Lancashire County Record Office (LRO), Preston:** holds an extensive series of mapping for the Manchester area, as well as a collection of secondary sources about the city and its suburbs;
- **Greater Manchester Record Office, Manchester (GMRO):** the catalogue of the Greater Manchester Record Office was searched for information relating to the study area, and relevant data was incorporated into the report;
- **Archives and Local Studies, Manchester Central Library (MCL):** the catalogue of the Archives and Local Studies section of Manchester Central Library was searched for information relating to the study area;
- **Museum of Science and Industry, Manchester:** the catalogue of the Museum of Science and Industry archives was searched for information relating to the study area, and relevant data was incorporated into the report;
- **Oxford Archaeology North:** OA North has an extensive archive of secondary sources relevant to the study area, incorporating both published work and unpublished client reports.

2.1.2 All archaeological sites in the Site Area and within a radius of 200m have been included in the Site Gazetteer (*Section 4*; Fig 9).

2.2 ASSESSMENT METHODOLOGY

2.2.1 The results of the assessment have identified the significance of the archaeological resource of the Site Area. In order to assess the potential impact of any future development, consideration has been afforded to:

- assessing in detail any impact and the significance of the effects arising from any future development of the Site Area;
- reviewing the evidence for past impacts that may have affected the archaeological sites of interest identified during the desk-based assessment;
- outlining suitable mitigation measures, where possible at this stage, to avoid, reduce, or remedy adverse impacts.

2.2.2 Such impacts on the identified archaeological sites may be:

- positive or negative;
- short, medium or long term;
- direct or indirect;
- reversible or irreversible.

2.2.3 Key impacts have been identified as those that would potentially lead to a change to the archaeological site. Each potential impact has been determined as the predicted deviation from the baseline conditions, in accordance with current knowledge of the site and the proposed development. Table 2 shows the sensitivity of the site scaled in accordance with its relative importance using the following terms for the cultural heritage and archaeology issues, with guideline recommendations for a mitigation strategy.

Importance	Examples of Site Type	Mitigation
National	Scheduled Monuments (SMs), Grade I and II* Listed Buildings	To be avoided
Regional/County	Conservation Areas, Registered Parks and Gardens (Statutory Designated Sites), Grade II Listed Buildings Sites and Monuments Record/Historic Environment Record	Avoidance recommended
Local/Borough	Sites with a local or borough archaeological value or interest Sites that are so badly damaged that too little remains to justify inclusion into a higher grade	Avoidance not envisaged
Low Local	Sites with a low local archaeological value Sites that are so badly damaged that too little remains to justify inclusion into a higher grade	Avoidance not envisaged
Negligible	Sites or features with no significant archaeological value or interest	Avoidance unnecessary

Table 2: Criteria used to determine Importance of Sites

2.2.4 The impact is assessed in terms of the sensitivity of the site to the magnitude of change or scale of impact during any future redevelopment scheme. The magnitude, or scale of an impact is often difficult to define, but will be termed as substantial, moderate, slight, or negligible, as shown in Table 3.

Scale of Impact	Description
Substantial	Significant change in environmental factors; Complete destruction of the site or feature; Change to the site or feature resulting in a fundamental change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Moderate	Significant change in environmental factors; Change to the site or feature resulting in an appreciable change in ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Slight	Change to the site or feature resulting in a small change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.
Negligible	Negligible change or no material changes to the site or feature. No real change in our ability to understand and appreciate the resource and its cultural heritage or archaeological value/historical context and setting.

Table 3: Criteria used to determine Scale of Impact

2.2.5 The interaction of the scale of impact (Table 3) and the importance of the archaeological site (Table 2) produce the impact significance. This may be calculated by using the matrix shown in Table 4:

Resource Value (Importance)	Scale of Impact Upon Archaeological Site			
	Substantial	Moderate	Slight	Negligible
National	Major	Major	Intermediate/Minor	Neutral
Regional/County	Major	Major/Intermediate	Minor	Neutral
Local/Borough	Intermediate	Intermediate	Minor	Neutral
Local (low)	Intermediate/Minor	Minor	Minor/Neutral	Neutral
Negligible	Neutral	Neutral	Neutral	Neutral

Table 4: Impact Significance Matrix

2.2.6 The impact significance category for each identified archaeological site of interest will also be qualified, and recommended mitigation measures will be provided, where possible at this stage, to impacts that are of moderate significance or above; any measures to reduce any impact will be promoted in the report. It is also normal practice to state that impacts above moderate significance are regarded as significant impacts. It is important that the residual impact assessment takes into consideration the ability of the mitigation to reduce the impact, and its likely success.

- 2.2.7 It is also considered important to attribute a level of confidence by which the predicted impact has been assessed. For the purpose of this assessment, the criteria for these definitions are set out in the table below.

Confidence in Predictions	
Confidence Level	Description
High/Certain	The predicted impact is either certain, <i>ie</i> a direct impact, or believed to be very likely to occur, based on reliable information or previous experience, and may be estimated at 95% chance or higher.
Medium/Probable	The probability can be estimated to be above 50%, but below 95%.
Low/Unlikely	The predicted impact and its levels are best estimates, generally derived from the experience of the assessor. More information may be needed to improve the level of confidence, which can be estimated using the present information at above 5% but less than 50%.
Extremely Unlikely	The probability can be estimated at less than 5%.

Table 5: Impact Prediction Confidence

2.3 PLANNING BACKGROUND AND LEGISLATIVE FRAMEWORK

- 2.3.1 **National Policy Framework:** in considering any planning application for development, local planning authorities are bound by the policy framework set by government guidance. This guidance provides a material consideration that must be taken into account in development management decisions, where relevant. In accordance with central and local government policy, this assessment has been prepared in order to clarify the study site's archaeological potential and to assess the need for any further measures to mitigate the impact of the proposed development.
- 2.3.2 National planning policies on the conservation of the historic environment are set out in National Planning Policy Framework (NPPF), which was published by the Department of Communities and Local Government (DCLG) in March 2012. Sites of archaeological or cultural heritage significance that are valued components of the historic environment and merit consideration in planning decisions are grouped as 'heritage assets'; 'heritage assets are an irreplaceable resource', the conservation of which can bring 'wider social, cultural, economic and environmental benefits...' (DCLG 2012, *Section 12.126*). The policy framework states that the 'significance of any heritage assets affected, including any contribution made by their setting' should be understood in order to assess the potential impact (DCLG 2012, *Section 12.128*). In addition to standing remains, heritage assets of archaeological interest can comprise sub-surface remains and, therefore, assessments should be undertaken for a site that 'includes or has the potential to include heritage assets with archaeological interest' (DCLG 2012, *Section 12.128*).

- 2.3.3 NPPF draws a distinction between designated heritage assets and other remains considered to be of lesser significance; ‘great weight should be given to the asset’s conservation. The more important the asset, the greater the weight should be...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, including scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings and grade I and II* registered parks and gardens and World Heritage Sites, should be wholly exceptional’ (DCLG 2012, *Section 12.132*). Therefore, preservation *in-situ* is the preferred course in relation to such sites unless exception circumstances exist.
- 2.3.4 It is normally accepted that non-designated sites will be preserved by record, in accordance with their significance and the magnitude of the harm to or loss of the site as a result of the proposals, to ‘avoid or minimise conflict between the heritage asset’s conservation and any aspect of the proposals’ (DCLG 2012, *Section 12.129*). Non-designated heritage assets of archaeological interest will also be subject to the policies reserved for designated heritage assets if they are of equivalent significance to scheduled monuments (DCLG 2012; *Section 12.132*).

2.4 SITE INVESTIGATIONS

- 2.4.1 Five trial pits were excavated across the Site Area in April 2014 for geo-technical purposes. These have provided an indication of the sub-surface strata, and the extent to which buried remains of former buildings survive *in-situ*. The results are summarised in *Section 3.3*.

3. BACKGROUND

3.1 HISTORICAL BACKGROUND

3.1.1 The following section provides an historical context to the present study, and is considered by period as detailed in Table 6 below. Key sites are summarised in the Gazetteer of Sites with numbers given in brackets (*Section 4*), and are mapped on Figure 9.

Period	Date Range
Neolithic	3500 – 2300 BC
Bronze Age	2300 BC – 700 BC
Iron Age	700 BC – AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – c 1750
Industrial Period	c AD1750 – 1914
Modern	Post-1914

Table 6: Summary of British archaeological periods and date ranges

- 3.1.2 **Prehistoric Period:** the current understanding of any activity in Manchester during the prehistoric period is very poor, although it is reasonable to suggest that the Castlefield area, c 1.8km to the south-west of the Site Area, may have been conducive for late prehistoric settlement on account of the natural topography and its riverside location. However, physical indications for any such settlement are, at best, fragmentary and arguably the best evidence was yielded from an archaeological excavation that was targeted on a plot of land adjacent to Liverpool Road in Castlefield (UMAU 2002). However, there is no known evidence for prehistoric activity within the boundary of the Site Area.
- 3.1.3 **Roman period:** the first military occupation of Manchester was established during the governorship of Agricola (AD 77-84), and commenced with a five-acre wooden fort, known as *Mamucium* (Brunton 1909). The site of this encampment is marked today by Camp Street in Castlefield, situated c 1.75km to the south-west of the present study area. During the second century, the fort was developed in association with a substantial extramural settlement, or *vicus*, which expanded in both a northerly direction, and along the line of Chester Road to the south (Grealey 1974, 11). Roads from the fort linked Manchester with Ribchester to the north, Castleshaw, Slack and York to the north-east, Wigan to the north-west, Northwich and Chester to the south, and Buxton to the south-east. Store Street is potentially the continuation of the Roman road from Manchester to Castleshaw. However, this awaits confirmation, and there is as yet very little physical evidence for any Roman activity in the vicinity of the Site Area. The only indication is a coin of Claudius Gothicus that is reported to have been found in the basement of a warehouse in Piccadilly in 1882, although the precise location of this discovery is uncertain.

- 3.1.4 **Medieval Period:** there is very little archaeological evidence in the region as a whole that represents the period between the end of the Roman occupation and the Norman Conquest. The area around Manchester came under the control of several kingdoms during this period. In AD 620, Edwin conquered and occupied Manchester, and it may have been at this time that settlement in the town was established around the cathedral (Farrer and Brownbill 1908).
- 3.1.5 In AD 919, the Anglo-Saxon king Edward the Elder established a fortified base, or burh, at Manchester, which was then part of Viking Northumbria. It has been suggested that the burh lay within the area around the cathedral, but recent research favours it being at the Roman fort in Castlefield. However, the area of the cathedral had become a new focus for settlement by the late eleventh century, and the site occupied presently by Chetham's School is thought to have been the site of a castle founded by Manchester's Norman barons.
- 3.1.6 Following the Norman Conquest of 1066, William I assigned most of the land between the Ribble and Mersey rivers to Roger of Poitou, who retained the manor of Salford demesne (Tupling 1962, 116), but divided his other newly-acquired land into several fiefdoms (Kidd 1996, 13). The largest of these was the landholding centred on Manchester, created by the grant of extensive lands in the hundreds of Salford, Leyland and West Derby to Albert Grelley (Tupling 1962, 116). By the thirteenth century, the Grelley family had established a manor house at the confluence of the rivers Irwell and Irk, located over 1km to the north-west of the study area, and the medieval town grew up around it (Hartwell *et al* 2004, 256). It was from this hall that they governed both the manor and the extensive barony.
- 3.1.7 In 1222 Manchester was granted an annual fair, and in 1301 Thomas Grelley was granted the Great Charter of Manchester by Edward I, and thus it became a free borough (*ibid*). The distance of the study area from the medieval centre means that is likely to have remained entirely undeveloped until at least the eighteenth century, and there are no known remains of medieval date within the present Site Area.
- 3.1.8 **Post-medieval and Industrial Period:** during the eighteenth century, south-east Lancashire as a whole was predominantly an agricultural area of isolated settlements and market towns, with the growing town of Manchester at its centre (Williams with Farnie 1992, 3). By the 1780s, the national demand for textiles, particularly cotton, began to rise, resulting in a dramatic increase in mill building that transformed Manchester into a centre of the factory-based cotton manufacturing industry of international repute (Baines 1835). This process of industrial development was facilitated greatly by the introduction of canals, which provided the first efficient means of transporting bulk loads of goods. The first true industrial canal in Britain was that built by the Duke of Bridgewater, which was completed from his mines at Worsley to Manchester in 1764, the terminus of which was at Castlefield (Hadfield and Biddle 1970). This economic climate was linked to a rapid growth in the town's population; in 1773, an estimated 22,481 people lived in Manchester, but this figure had more than tripled to 75,281 by 1801 (Lloyd-Jones and Lewis 1993).

- 3.1.9 *The Ashton Canal:* Piccadilly area became a local focus of the canal network, and particularly for the Ashton Canal and the Rochdale Canal. The Ashton Canal was proposed in 1791, and was intended to provide link between Manchester and the collieries in the Ashton and Oldham area. The canal was authorised by an Act of Parliament in 1792, and construction commenced immediately under the direction of Edward Banks. The canal was built to narrow-beam dimensions, suitable for the navigation of craft built to maximum dimensions of 70ft by 7ft, in contrast to the wide-beam dimensions of the Rochdale Canal.
- 3.1.10 The canal had been completed between Manchester and Ashton by early 1797, although the terminus basin at Piccadilly had yet to be constructed. It seems that James Meadows, the canal company agent, had been overseeing the construction of the canal up to that point but, in June 1798, Benjamin Outram was appointed by the canal company as engineer (Keaveny and Brown 1974, 14). In August 1798, the company appointed F Bellhouse to erect a warehouse at Ducie Street, and Outram was instructed to arrange for one or more cranes to be erected on the public wharves at the canal terminal. In the same year, Samuel Oldknow, chairman of the Peak Forest Canal Company, entered negotiations with the Ashton Canal Company with a view to purchasing land at the canal terminus. This was coupled with the intention of linking the Peak Forest Canal with the Ashton Canal in Ashton, thereby providing a direct link to Manchester from the limestone quarries in Derbyshire. The Ashton Canal was finally completed in 1799, and several warehouses were established at the terminus in Piccadilly Basin (Hadfield and Biddle 1970).
- 3.1.11 *The Rochdale Canal:* the Rochdale Canal was authorised by an Act of Parliament in 1794, with the intention of providing a trans-Pennine route that would essentially link Manchester with the ports of the East Coast via the rivers Aire and Trent. The Rochdale Canal was linked to the Ashton Canal at Piccadilly in 1800. This enabled a link from Ashton to the Bridgewater Canal at Castlefield, and thus provided a direct route to the burgeoning port of Liverpool. These essential links made Piccadilly Basin a key location in the local canal network, and a focus for the trans-shipment of goods.
- 3.1.12 *Railway Competition:* the introduction of a viable railway in the 1820s brought an alternative, and faster, means of transporting bulk goods. The advantages of this new form of transportation were recognised instantly, leading to the rapid expansion of the railway network. The Ashton Canal was purchased by the Manchester, Sheffield & Lincolnshire Railway in 1842, and operated it as a single concern together with the Peak Forest and Macclesfield canals. With the development of the railways in the 1830s and 40s, the canals experienced competition for goods haulage. The Rochdale Canal Company resisted take-over bids from various railway companies initially but, in 1855, it leased the canal to a consortium of railway companies. The canal remained profitable into the twentieth century, but was in sharp decline by the end of the First World War it. The final boat journey across the Pennines on the Rochdale Canal was made in 1937 and, in 1952, the canal was closed apart from the short section between Castlefield and the Ashton Canal junction at Piccadilly.

3.2 DEVELOPMENT OF THE SITE AREA

3.2.1 The known development of the study area commenced in the eighteenth century. The earliest detailed surveys of the Site Area is provided by Charles Laurent's *Map of Manchester and Salford* of 1793 (Plate 5), and William Green's plan of 1987-94 (Fig 2). These maps show the Site Area to have been undeveloped land encompassed by newly laid-out street and buildings. Green's map shows the line of several proposed new streets, one of which crosses the southern edge of the present Site Area as a continuation of Booth Street, and identifies Mr D Leech as the landowner. Green also marks the proposed continuation of Stanley Street, which was eventually built as Upper Stanley Street (and re-named subsequently as Tariff Street).

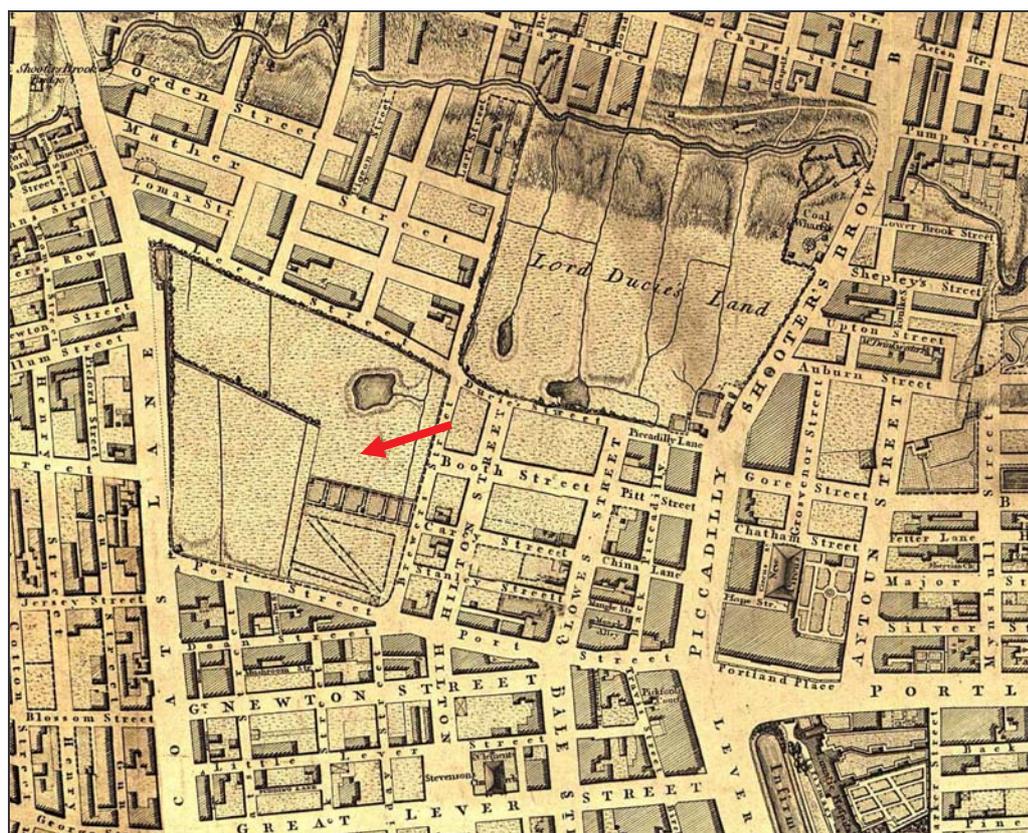


Plate 5: Extract from Laurent's map of 1793, marking the location of the Site Area

- 3.2.2 Laurent and Green also show Shooters Brook as an open watercourse taking a route to the south of the Site Area, and annotate the proposed terminal of the Ashton Canal as 'Bason'. From that point, the proposed route of the canal continued south and then east, to skirt the northern edge of the valley of Shooters Brook.
- 3.2.3 Swire's map of 1824 shows the completed course of the Rochdale Canal, taking a route across the southern part of the Site Area (Fig 3), and the southern part of Leech Street (re-named subsequently as Tariff Street) to have been laid out. A similar layout is shown on Bancks & Co's map of 1828, although the full length of Tariff Street is shown to have been laid out (Plate 6). No other development is shown in the Site Area on either of these maps.



Plate 6: Extract from Bancks & Co's map of 1828, marking the location of the Site Area

- 3.2.4 The next available detailed map of the Site Area is that produced by Bancks & Co's map in 1831 (Fig 4). This shows the short canal arm to have been constructed along the western boundary of the Site Area. Whilst Jackson's Warehouse had not been erected at that date, a building is shown at the northern end of the canal arm.
- 3.2.5 Detailed surveys of the area were published by Joseph Adshead (Fig 5) and the Ordnance Survey (Fig 6) in 1851. Adshead's map depicts Tariff Street along its present line, and identifies the north-west/south-east-aligned section along the eastern side of the Site Area as Leech Street, and the east/west-aligned section as Upper Stanley Street. Jackson's Warehouse is shown clearly, with lines indicating where the canal arm enters the building. Adshead's map also shows the L-shaped building (Sites **01** and **02**) to have been built across the Site Area. The larger component of this building (Site **01**) comprised a range parallel to the main line of the Rochdale Canal on its approach to the canal basin. A narrower element (Site **02**) was situated at a right angle, parallel and adjacent to Leech Street.
- 3.2.6 The Ordnance Survey 60": 1 mile map of 1851 provides some additional detail (Fig 6). This shows that the larger building (Site **01**) was not completely rectangular in shape, and incorporated a small structure on its north-facing elevation, which potentially represented a hoist mechanism. The southern elevation of the building was evidently placed on top of the northern wall of the canal channel (Site **04**). The positions of several cranes on the canal wharf are also marked, including one that lies within the boundary of the Site Area (Site **03**). The Ordnance Survey map also shows that Jackson's Warehouse incorporated two shipping holes, together with a covered entrance on its northern elevation.

- 3.2.7 The next available detailed maps of the area are provided the Ordnance Survey 1:500 Town Plan, published in 1891 (Plate 7), and the first edition 25": 1 mile map, which was published in 1893 (Fig 7). These maps depict the same building footprint to that shown on earlier mapping, but also marks internal partitions. The larger building (Site 01) evidently comprised three sections of unequal size, whilst the narrower building (Site 02) incorporated four compartments.

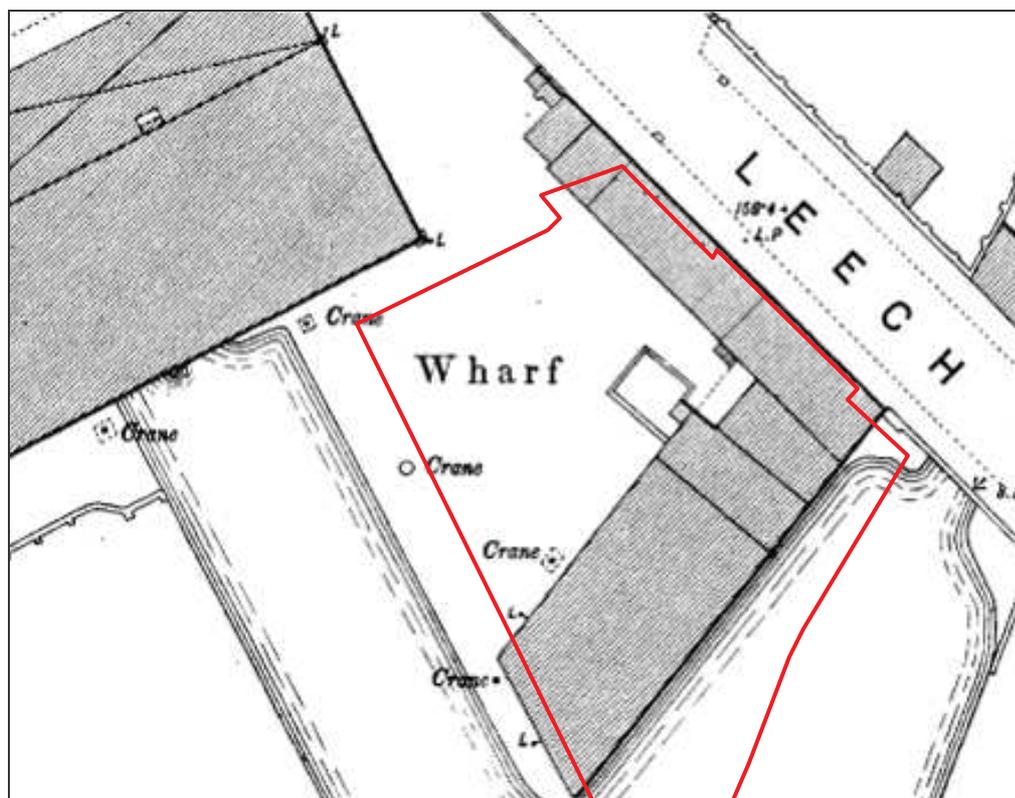


Plate 7: Extract from the Ordnance Survey 1:500 Town Plan of 1891, marking the boundary of the Site Area

- 3.2.8 Further detail of the buildings is provided by Goad's Insurance Plan of 1889. This shows the south-western part of the main building in the Site Area to have been divided into two areas, rather than the single block depicted by the Ordnance Survey. These were of two storeys, with windows or loading doors on the canal side. The two bays at the north-eastern end of the building were similarly of two storeys, although the ground floor was open fronted, apparently to both the canal and the yard to the rear. The narrow range parallel to Leech Street is similarly shown to have been mainly of two storeys, with the ground floor being open fronted. The small block at the north-western end of this range, however, was only a single storey in height.
- 3.2.9 The arrangement of buildings within the Site Area depicted on Goad's Insurance Plan and by the Ordnance Survey in the 1890s is shown as unchanged on subsequent editions of Ordnance Survey mapping, published in 1908 and 1922 (Fig 8). The latter map, however, shows a structure of indeterminate function placed across the short canal arm leading to Jackson's Warehouse.

- 3.2.10 The structure across the canal arm is absent from the next edition of Ordnance Survey mapping, which was published in 1948. By that date, however, the main building in the Site Area had been partially demolished, leaving only the south-western end extant, and the narrower range adjacent to Leech Street had been demolished entirely. This layout is replicated on the Ordnance Survey map of 1950-1 (Fig 9), which also shows the mid-nineteenth-century crane (Site **03**) within the Site Area to have remained in place.
- 3.2.11 Some reconstruction of the building evidently occurred during the next few years, as a small new section is shown to have been added by 1965 (Fig 10), with further elements in place by 1969. In all other respects, however, the layout of the Site Area remained unchanged.
- 3.2.12 The original elements of the building are captured in a photograph taken in 1972, and held by Manchester Libraries, Information & Archives. This confirms that it was a two-storey building with loading doors fronting onto the canal, and of a form consistent with a small canal warehouse. The photograph shows that the building was in poor condition, and it is thus unsurprising that it had been demolished by 1991.
- 3.2.13 The Site Area was subject to public realm works in 2002, which created the exiting grassed area and associated footpaths. The width of the canal at this point was also reduced by infilling the northern part of the canal channel. The former arm to Jackson's Warehouse was also widened during these works.

3.3 SITE INVESTIGATIONS

- 3.3.1 In April, 2014, five trial pits were excavated across the Site Area for geotechnical purposes (Fig 12). The first of these (TP1) was placed within the footprint of the main warehouse (Site **01**). This revealed made ground and demolition material to a depth of at least 1.6m below the modern ground level, and whilst no *in-situ* structural remains were identified, numerous granite setts were identified and may derive from historic surfacing associated with the former warehouse.
- 3.3.2 TP2 was placed across the original canal wall and the southern wall of the main warehouse building. This revealed the well-preserved remains of a sandstone block wall in the northern edge of the excavated trench (Plate 7). This almost certainly represented the original north wall of the canal, with contaminated canal silts present immediately to the south. Similar structural remains were revealed in TP 5, which was placed across the south-western corner of the former warehouse (Plate 8).
- 3.3.3 TP3 was placed across the former wharf, and revealed made ground to a depth of *c* 1.2m. A similar deposit of made ground, which included fragments of modern concrete, were exposed to a depth of 1.7m in TP4, which was placed across the footprint of the narrow building parallel and adjacent to Tariff Street. No *in-situ* structural remains were identified, suggesting that all foundations of the former building may have been destroyed entirely during the landscaping works carried out in 2002.



Plate 7: Structural remains exposed in TP2, presumably representing the original canal wall



Plate 8: Structural remains exposed in TP5

4. GAZETTEER OF SITES

The following gazetteer provides a list of heritage assets within the boundary of the Site Area, which has been compiled from a review of the entries in the Greater Manchester Historic Environment Record (HER), and a study of the sequence of historical mapping. A further 50 heritage assets within a 200m radius of the Site Area are recorded in the HER; these are not included in the gazetteer, but are summarised in *Appendix 1*. The locations of all the heritage assets are shown in Figure 11.

Site Number	01
Site Name	Canal Warehouse (Site of)
HER Number	2113.1.0
Designation	None
Site Type	Warehouse/storehouse
Period	Mid-nineteenth century
NGR	384845 398305
Source	HER; OS 1851; UMAU 2000
Description	A former canal warehouse erected on the northern bank of the Rochdale Canal (original course) in the mid-nineteenth century. Mapping shows that it originally comprised three components internally. It had been reduced in size by 1950, and demolished entirely in 1991. An inspection of the building prior to demolition noted that it was brick-built, with ground and first floors, and incorporated large access doors, and apertures for lifting beams on the western and eastern elevations. It also contained access doors in northern and southern elevations. The building was of a rectangular plan, with eight internal bays (four each side) and a slate roof.
Assessment	The heritage asset lies within the boundary of the Site Area, and may be directly affected by the development. Buried remains may survive <i>in-situ</i> .

Site Number	02
Site Name	Building (Site of)
HER Number	-
Designation	None
Site Type	Warehouse/storehouse/stables
Period	Mid-nineteenth century
NGR	384845 398330
Source	OS 1851; OS 1891
Description	A narrow rectangular range laying parallel to Tariff Street and at a right angle to the main warehouse (Site 01), and probably of a contemporary date. Historical mapping indicates that the building contained at least four internal partitions.
Assessment	The heritage asset lies within the boundary of the Site Area. Results obtained from initial site investigations suggest that any buried remains of the building have been damaged or destroyed.

Site Number	03
Site Name	Crane Bases
HER Number	-
Designation	None
Site Type	Canal cranes
Period	Mid-nineteenth century
NGR	
Source	OS 1851; OS 1891
Description	Detailed nineteenth-century mapping annotate the position of four canal-side cranes associated with the warehouses, one of which lies within the Site Area; the sites of the other three cranes lie immediately beyond the western boundary of the Site Area.
Assessment	The heritage asset lies within the boundary of the Site Area, and may be directly affected by the development. Buried remains may survive <i>in-situ</i> .

Site Number	04
Site Name	Rochdale Canal
HER Number	-
Designation	None
Site Type	Canal Wall
Period	Late eighteenth century
NGR	
Source	OS 1851; OS 1891
Description	The wall forming the original northern bank of the Rochdale Canal.
Assessment	The heritage asset lies within the boundary of the Site Area, and may be directly affected by the development. Buried remains may survive <i>in-situ</i> .

5. SIGNIFICANCE OF THE REMAINS

5.1 INTRODUCTION

5.1.1 The Greater Manchester Historic Environment Record (HER) contains records of 51 heritage assets within a 200m radius of the Site Area (Fig 11). Of this total number of heritage assets, 23 are Listed Buildings, and whilst none lie within the boundary of the Site Area, one (Jackson's Warehouse) lies immediately to the north-west. There were no other designated sites (eg Scheduled Monuments or Historic Parks and Gardens) within the Site Area, although the boundaries of two Conservation Areas lie within the wider study area. Of the 51 heritage assets recorded in the HER, only one non-designated site of archaeological interest lies within the Site Area (Site **01**), although another three sites have been identified from a review of the historical mapping.

5.2 CRITERIA

5.2.1 Where sites do not possess a statutory designation their value as a heritage asset has been determined with reference to the Secretary of State's criteria for assessing the national importance of monuments, as contained in Annexe 1 of the policy statement on scheduled monuments produced by the Department of Culture, Media, and Sport (2010). These criteria relate to period, rarity, documentation, group value, survival/condition, fragility/vulnerability, diversity, and potential. The heritage assets within the Site Area (Sites **01-04**) have been considered using the criteria, with the results below.

5.2.2 **Period:** all of the heritage assets within the boundary of the Site Area date to the mid-nineteenth century. There is little or no potential for buried remains from earlier periods to be present in the Site Area.

5.2.3 **Rarity:** the Site Area lies within an area that was characterised in the early nineteenth century as a focus for canal warehouses. Many of these have since been demolished, and those that survive are of a larger type. The former warehouse in the Site Area is of a smaller type, which has a slightly higher rarity value in the context of central Manchester.

5.2.4 **Documentation:** the historical development of the study area from the late eighteenth century can be traced reasonably well from cartographic sources and from entries in the available commercial trade directories. Further documentary research may furnish additional evidence, including more precise dating of the construction of the relevant buildings, although this is unlikely to alter the outline presented in this assessment.

5.2.5 **Group Value:** the heritage assets within the Site Area represent elements of the nineteenth-century use of the site for canal warehousing and wharfage. In this respect, the heritage assets identified in the Site Area have some group value.

- 5.2.6 **Survival/Condition:** it is most likely that some of the heritage assets identified in the Site Area are likely to have been damaged or destroyed during public realm works carried out in 2002. In particular, the smaller building (Site **02**) may have been subject to considerable damage, and whilst the possibility that some buried remains survive *in-situ* cannot be discounted, any that do survive are likely to be fragmentary at best. There is more potential for buried remains of the larger part of the former warehouse (Site **01**) to survive *in-situ*, although this awaits confirmation. Conversely, the former canal wall (Site **04**) was revealed during recent site investigations, and was seen to be well preserved.
- 5.2.7 **Fragility/Vulnerability:** any buried archaeological remains, should they be present and survive *in-situ*, are vulnerable to damage or destruction during any earth-moving works across the site. Pending the precise location of any new buildings that are erected in the Site Area, and the depth of their foundations, buried archaeological remains may be adversely affected by the proposed development.
- 5.2.8 **Diversity:** the remains relate entirely to the nineteenth-century use of the area for canal trans-shipment,. None of the sites within the Site Area are considered to be significant due to diversity.
- 5.2.9 **Potential:** there are no prehistoric sites within the study area, and the potential for prehistoric remains is considered to be low. The potential for Roman remains to survive *in-situ* within the Site Area is similarly considered to be low.
- 5.2.10 There are no known remains from the post-Roman period through to the late eighteenth century, and the potential for remains from these periods is considered to be low.
- 5.2.11 The greatest potential for buried archaeological remains lies in the industrial period.

5.3 SIGNIFICANCE

- 5.3.1 Using the above criteria, and particularly rarity and survival/condition, the Site Area possibly contains non-statutory remains of negligible or local significance. The most significant remains are likely to be the main element of the former canal warehouse (Site **01**). The narrower part of the warehouse was almost certainly of a contemporary build, although this is likely to have been subject to redevelopment that will have damaged or destroyed any buried remains, thereby reducing its significance to negligible. The other heritage assets that have been identified in the Site Area are considered to be of low significance.

6. LIKELY IMPACT OF DEVELOPMENT

6.1 INTRODUCTION

6.1.1 Current planning policy guidance for the historic environment, embodied in NPPF (DCLG 2012), advises that archaeological remains are an irreplaceable resource. It has been the intention of this study to identify the archaeological significance and potential of the Site Area, and assess the impact of proposed development, thus allowing the policy stated in NPPF (DCLG 2012) to be enacted upon. The results are summarised in Table 7.

6.2 IMPACT

6.2.1 Groundworks for any future development within the Site Area, including the reduction or other disturbance of ground levels, the digging of foundations and service trenches, have the potential for having a direct impact by damaging or destroying below-ground archaeological remains. For the purposes of this assessment, it is assumed that there will be major earth-moving works required by the development works, which will have a substantial impact on any buried remains.

6.2.2 The extent of any previous disturbance to buried archaeological levels is an important factor in assessing the potential impact, and this assessment has concluded that redevelopment of the site in the twentieth and twenty-first centuries will have caused considerable damage or destruction of the earlier building in the western part of the Site Area (Site **02**). There is some potential for the buried remains of the former warehouse in the southern part of the Site Area (Site **01**), together with the crane base (Site **03**) and original canal wall (Site **04**), and redevelopment may have a negative impact.

6.3 IMPACT ASSESSMENT

6.3.1 Following on from the above considerations, the scale of impact on the heritage assets within the Site Area has been determined as minor (Sites **01**, **03** and **04**) or neutral (Site **02**), as the identified site is considered to be of low or negligible archaeological value due to the probable extent of previous disturbance.

Site Number	Site Name	Importance	Impact	Significance of Impact
01	Warehouse	Local	Substantial	Minor
02	Storehouse/stables	Negligible	Substantial	Neutral
03	Crane bases	Local	Substantial	Minor
04	Canal wall	Local	Substantial	Minor

Table 7: Assessment of the impact significance on each site within the Site Area during development

7. RECOMMENDATIONS

7.1 INTRODUCTION

- 7.1.1 The *National Planning Policy Framework* instructs that in the case of heritage assets which either have designated status or are non-designated but are of a significance demonstrably comparable with a Scheduled Monument, *ie* of national importance, the general assumption should be in favour of conservation. Where the loss of the whole or a part of a heritage asset's significance is justified by a development, the developer should be required first to record that asset and advance understanding of its significance, in a manner proportionate to their importance and the impact (NPPF, p 32 para 141). Development also has the potential for enhancing heritage assets. This might include the consolidation and display of excavated below-ground remains, or the reference to heritage assets within the design. NPPF encourages developments which change the setting of a heritage asset so as to better reveal its significance
- 7.1.2 None of the known heritage assets identified within the Site Area are afforded statutory designation, and are thus not considered to be of national importance that would require preservation *in-situ*. Most of the non-designated heritage assets have been determined to be of local significance, with one exception (Site **02**) that is considered to be of negligible significance. This assessment is based on the results obtained from the initial site investigation, which suggested that buried remains of the building had been damaged or destroyed. Should well-preserved remains of the other heritage assets (Sites **01**, **03-04**) survive as buried remains, however, then they may merit preservation by record, where they will be directly affected by development.

7.2 RECOMMENDATIONS

- 7.2.1 The requirement for any further archaeological recording of buried remains within the Site Area will be decided by the Greater Manchester Archaeological Advisory Service, in their capacity as archaeological advisor to Manchester City Council. However, it may be anticipated that the footprint of the warehouse (Site 01) may attract a requirement for archaeological evaluation, which could also incorporate the site of the former crane base (Site **03**). An appropriate archaeological record of the former canal wall (Site **04**) could be recorded via the archaeological monitoring of earth-moving works in that part of the Site Area.

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APPENDIX 1: HERITAGE ASSETS WITHIN A 200M RADIUS OF THE SITE AREA RECORDED IN THE GREATER MANCHESTER HISTORIC ENVIRONMENT RECORD

Tariff Street, Manchester - HER records within 200m of site boundary

Number of records: 51

The following list provides a summary of all the sites of archaeological and historical interest recorded on the Greater Manchester Historic Environment Record within a 200m radius of the Site Area. Of the total number of these heritage assets, only one lies within the boundary of the Site Area (Ref 2113.1.0).

Building

Ref	Site Name	Monument Types	Administration Areas/Description	NGR
6458.1.0	The Coates School (2 Jersey Street)	Workshop, Plaque, School, Public Building, Shop, School House	Manchester, Greater Manchester	Centred SJ 8488 9852 (10m by 10m)
13896.1.0	57 to 59 Houldsworth Street	Building	Manchester, Greater Manchester	SJ 84821 98487 (point)
13895.1.0	78 Great Ancoats Street	Button Mill, Public House	Manchester, Greater Manchester	SJ 84834 98502 (point)
2022.1.0	Walker's Buildings, Ancoats	House, Settlement	Manchester, Greater Manchester	Centred SJ 8493 9824 (10m by 10m)
15860.1.0	51 Hilton Street	Factory Unit, Hat Factory	Manchester, Greater Manchester	SJ 84709 98338 (point)

Listed Building

Ref	Site Name	Monument Types	Administration Areas/Description	NGR
11694.1.0	45 Dale Street	Warehouse	Manchester, Greater Manchester	Centred SJ 8465 9828 (10m by 10m)
11336.2.0	Stable block to SE of Junction Lead mills	Stable	Manchester, Greater Manchester	Centred SJ 8496 9817 (10m by 10m)
11703.1.0	47 Dale Street	Warehouse	Manchester, Greater Manchester	Centred SJ 8465 9827 (10m by 10m)
12086.1.0	57a Newton Street	Museum, Police Station	Manchester, Greater Manchester	Centred SJ 8467 9844 (10m by 10m)
11692.1.0	57 Dale Street, Industry House	Warehouse, Factory	Manchester, Greater Manchester	Centred SJ 8468 9823 (10m by 10m)
8636.1.0	Jacksons Warehouse (formerly Rochdale Canal Warehouse)	Canal Warehouse, Industrial Site, Warehouse, Hoist	Manchester, Greater Manchester	SJ 8480 9833 (point)
12087.1.0	72 to 76 Newton Street	Office, Warehouse	Manchester, Greater Manchester	SJ 8475 9849 (point)
12089.1.0	Lock No 83, East of Tariff Street	Canal Lock	Manchester, Greater Manchester	SJ 8487 9835 (point)
12089.2.0	Lock No 84 (Dale Street Lock)	Canal Lock	Manchester, Greater Manchester	Centred SJ 8473 9814 (10m by 10m)
12168.1.0	16-18 Tariff Street	Office, Warehouse	Manchester, Greater Manchester	Centred SJ 8472 9831 (10m by 10m)
12061.1.0	32 Laystall Street	Wholesale Warehouse	Manchester, Greater Manchester	Centred SJ 8497 9828 (10m by 10m)
6457.1.0	Canal Lock 82 on Rochdale Canal	Lock, Weir, Bridge, Road, Canal	Manchester, Greater Manchester	SJ 8495 9845 (point)

Ref	Site Name	Monument Types	Administration Areas/Description	NGR
8556.1.0	50 - 62 Port Street	House, Settlement, Shop	Manchester, Greater Manchester	Centred SJ 8471 9837 (10m by 10m)
8426.1.0	Newton Buildings (formerly No. 50 Newton Street)	Commercial, Warehouse	Manchester, Greater Manchester	Centred SJ 8466 9837 (10m by 10m)
8371.1.0	49 & 51 Dale Street	Commercial, Warehouse	Manchester, Greater Manchester	Centred SJ 8466 9826 (10m by 10m)
8370.2.0	Entrance Archway & Lodge to Yard of the Rochdale Canal Company	Lodge, Arch	Manchester, Greater Manchester	Centred SJ 8470 9816 (10m by 10m)
2111.1.0	Rochdale Canal Company Office	Industrial Site, Office	Manchester, Greater Manchester	SJ 8469 9817 (point)
8370.1.0	Dale Warehouse, formerly Warehouse of the Rochdale Canal Company	Water Wheel, Canal Warehouse, Industrial Site, Warehouse	Manchester, Greater Manchester	SJ 8469 9819 (point)
11690.1.0	35 Dale Street	Warehouse	Manchester, Greater Manchester	Centred SJ 8464 9831 (10m by 10m)
11336.1.0	Junction Lead Mills, Paradise Wharf	Lead Works, Smelt Mill	Manchester, Greater Manchester	Centred SJ 8491 9818 (10m by 10m)
11637.1.0	45, 47 and 47a Hilton Street	Town House, Shop	Manchester, Greater Manchester	Centred SJ 8470 9835 (10m by 10m)
11688.1.0	53 and 55 Dale Street, Langley Buildings	Warehouse	Manchester, Greater Manchester	Centred SJ 8467 9824 (10m by 10m)
2119.1.0	Brownsfield Mill	Industrial Site, Textile Mill, Spinning Mill, Engine House, Factory	Manchester, Greater Manchester	SJ 8489 9840 (point)

Monument

Ref	Site Name	Monument Types	Administration Areas/Description	NGR
11315.1.0	Paradise Wharf	Canal Warehouse, Canal, Canal Basin, Canal Wharf	Manchester, Greater Manchester	SJ 84908 98152 (point)
11698.1.0	Former Wire Mill (site of)	Wire Mill, Textile Mill	Manchester, Greater Manchester	SJ 8501 9829 (point)
12404.1.0	Piccadilly Basin Development Phase II, Rochdale Canal	Water Wheel, Canal, Building, Warehouse, Car Park	Manchester, Greater Manchester	Centred SJ 8486 9832 (10m by 10m)
11314.1.0	Jutland Street Bridge	Aqueduct, Bridge	Manchester, Greater Manchester	Centred SJ 8487 9811 (10m by 10m)
1403.1.0	Manchester & Ashton Under Lyne Canal and its branches	Canal, Communications	Manchester, Greater Manchester	Centred SJ 8490 9819 (10m by 10m)
8370.1.1	Dale Warehouse Underground Waterwheel	Water Wheel, Industrial Site	Manchester, Greater Manchester	Centred SJ 8471 9818 (10m by 10m)
6456.1.0	Rochdale Canal Road Bridge (Great Bridge, Ancoats Street)	Plaque, Road, Communications	Manchester, Greater Manchester	Centred SJ 8494 9843 (10m by 10m)
6455.1.0	The Cotton Tree Public House (site of)	Public Building, Inn	Manchester, Greater Manchester	Centred SJ 8491 9849 (10m by 10m)
6454.1.0	87-93 Great Ancoats Street (site of)	Workshop, House	Manchester, Greater Manchester	SJ 8487 9851 (point)
6361.1.0	Ashton Canal	Canal, Communications	Ashton-under-Lyane, Tameside, Greater Manchester,	Centred SJ 8947 9774 (8830m by 1305m)
2115.1.0	1822 Warehouse (site of)	Canal Warehouse, Industrial Site, Warehouse	Manchester, Greater Manchester	Centred SJ 8473 9816 (10m by 10m)

Ref	Site Name	Monument Types	Administration Areas/Description	NGR
2113.1.0	Warehouse/Storehouse (site of)	Industrial Site, Warehouse	Manchester, Greater Manchester	Centred SJ 8484 9832 (10m by 10m)
13998.1.0	Former buildings at 51 Hilton Street (site of)	Machine Shop, Building	Manchester, Greater Manchester	SJ 84724 98346 (point)
2110.1.0	Lock Keepers House (site of)	House, Settlement	Manchester, Greater Manchester	SJ 8471 9813 (point)
13897.1.0	36 Dean Street (site of)	Workers Cottage	Manchester, Greater Manchester	SJ 84812 98495 (point)
1386.2.0	Rochdale Canal	Industrial Site, Canal	Manchester, Greater Manchester	SJ 8486 9830 (point)
1386.1.0	Dale Street Basin - Rochdale Canal	Canal Warehouse, Canal, Canal Basin, Communications	Manchester, Greater Manchester	Centred SJ 8480 9820 (10m by 10m)
16126.1.0	Workers' housing (site of)	Back To Back Terrace	Manchester, Greater Manchester	SJ 8488 9852 (point)
13999.1.0	Former buildings at 51 Hilton Street (site of)	Machine Shop, Building, Boiler House, Engine House	Manchester, Greater Manchester	SJ 84718 98351 (point)
11312.1.0	Ashton Canal/ Rochdale Canal Junction	Canal	Manchester, Greater Manchester	Centred SJ 8483 9813 (10m by 10m)
13997.1.0	Buildings at 4-6 Brewer Street (site of)	Workers Cottage, Car Park	Manchester, Greater Manchester	SJ 84727 98353 (point)
13901.1.0	Newton Street	Iron Works, Cotton Mill	Manchester, Greater Manchester	SJ 84687 98409 (point)
2112.1.0	69-71 Dale Street (former)	House, Settlement	Manchester, Greater Manchester	SJ 8468 9818 (point)

ILLUSTRATIONS

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Figure 1: Site location

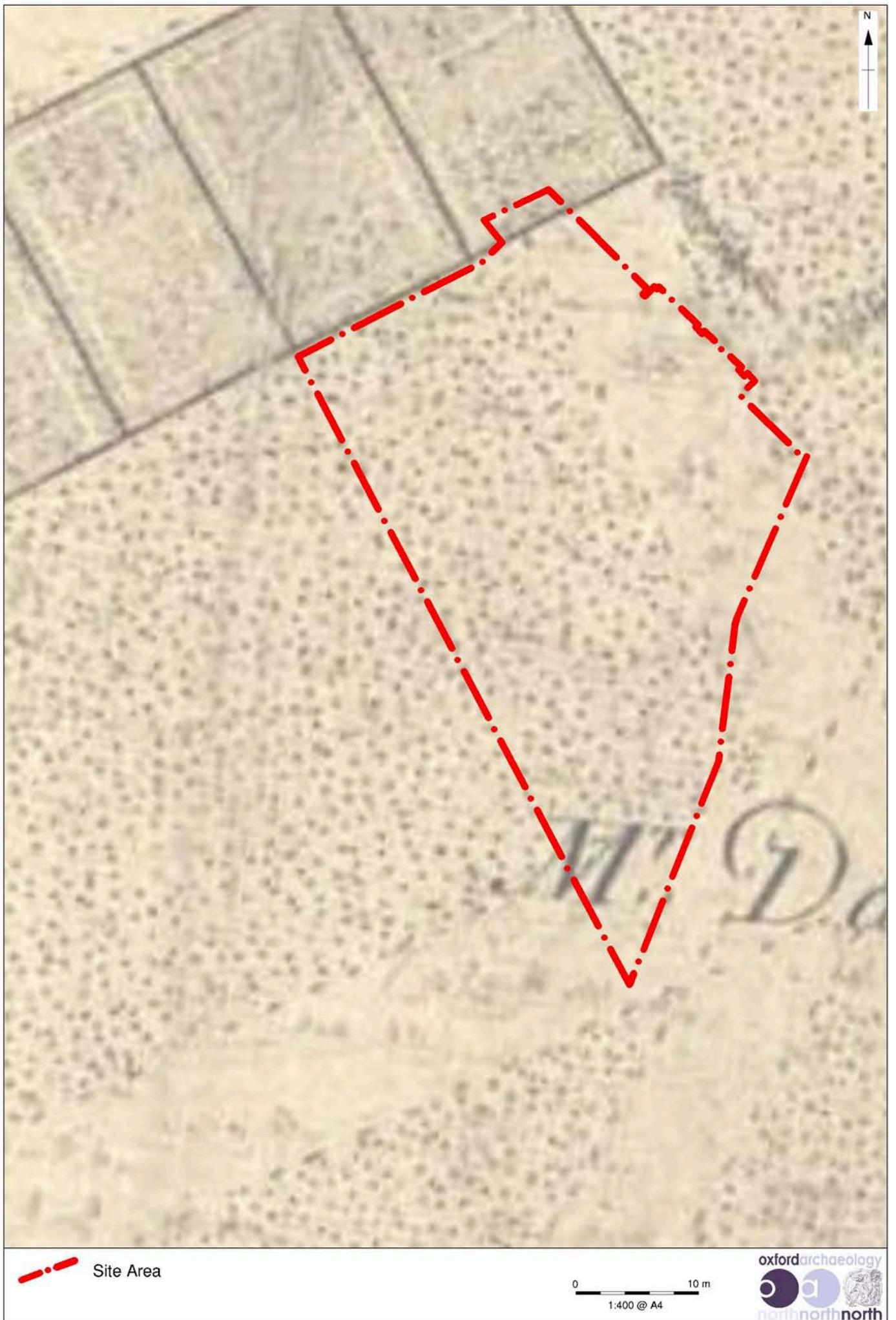


Figure 2: Site Area superimposed on Green's map of 1794



Figure 3: Site Area superimposed on Swire's map of 1824

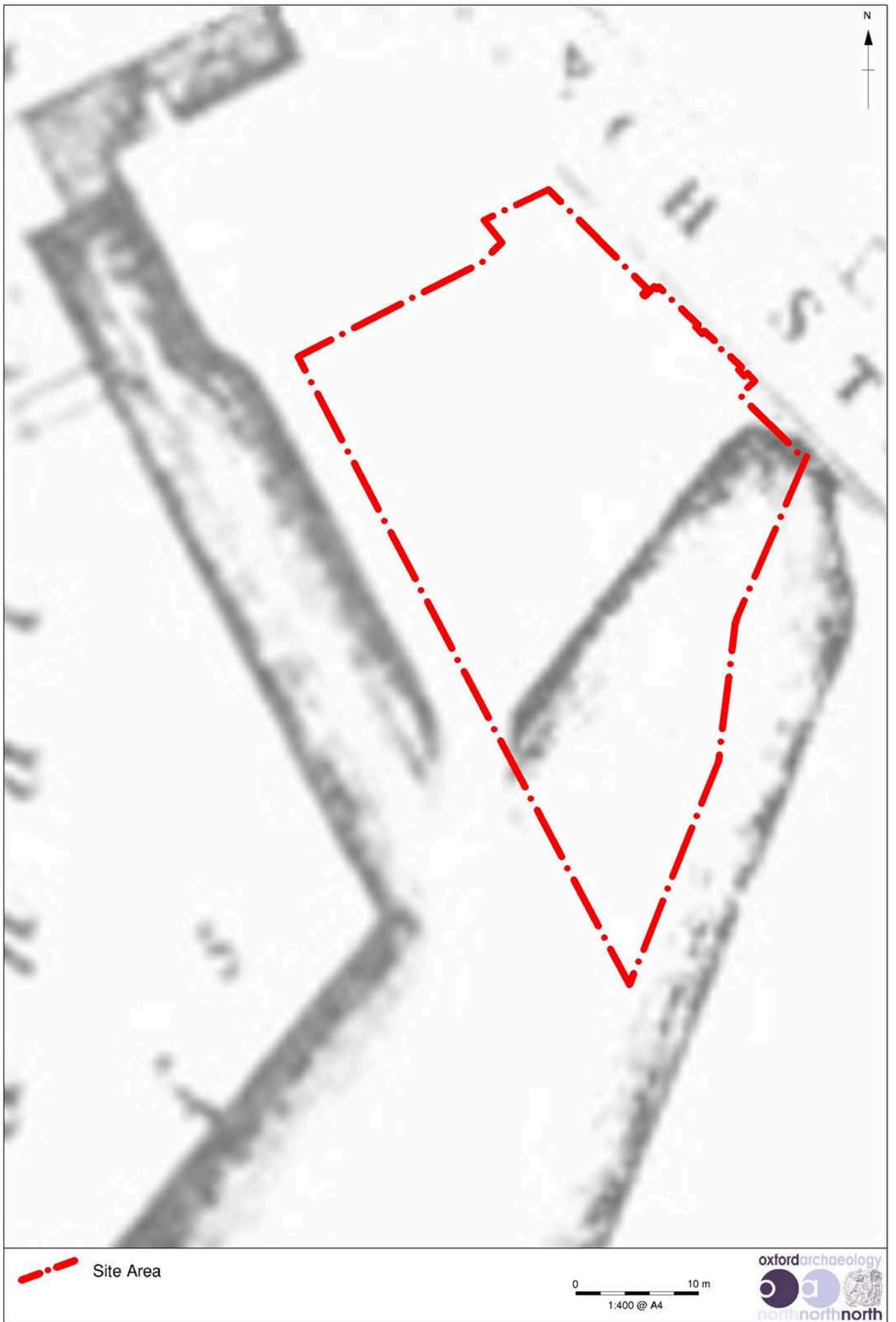


Figure 4: Site Area superimposed on Bancks & Co's plan of 1831

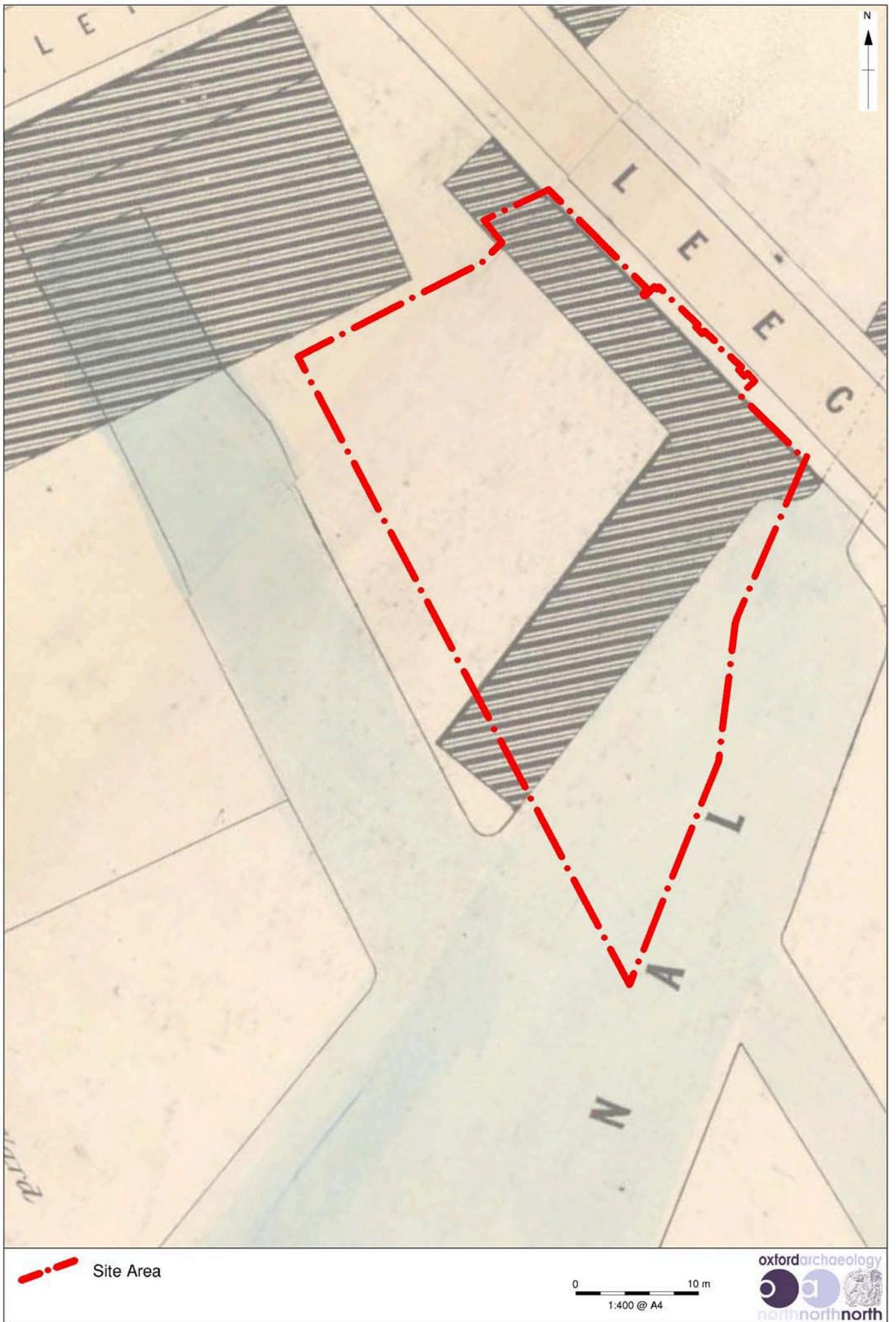


Figure 5: Site Area superimposed on Adshead's map of 1851

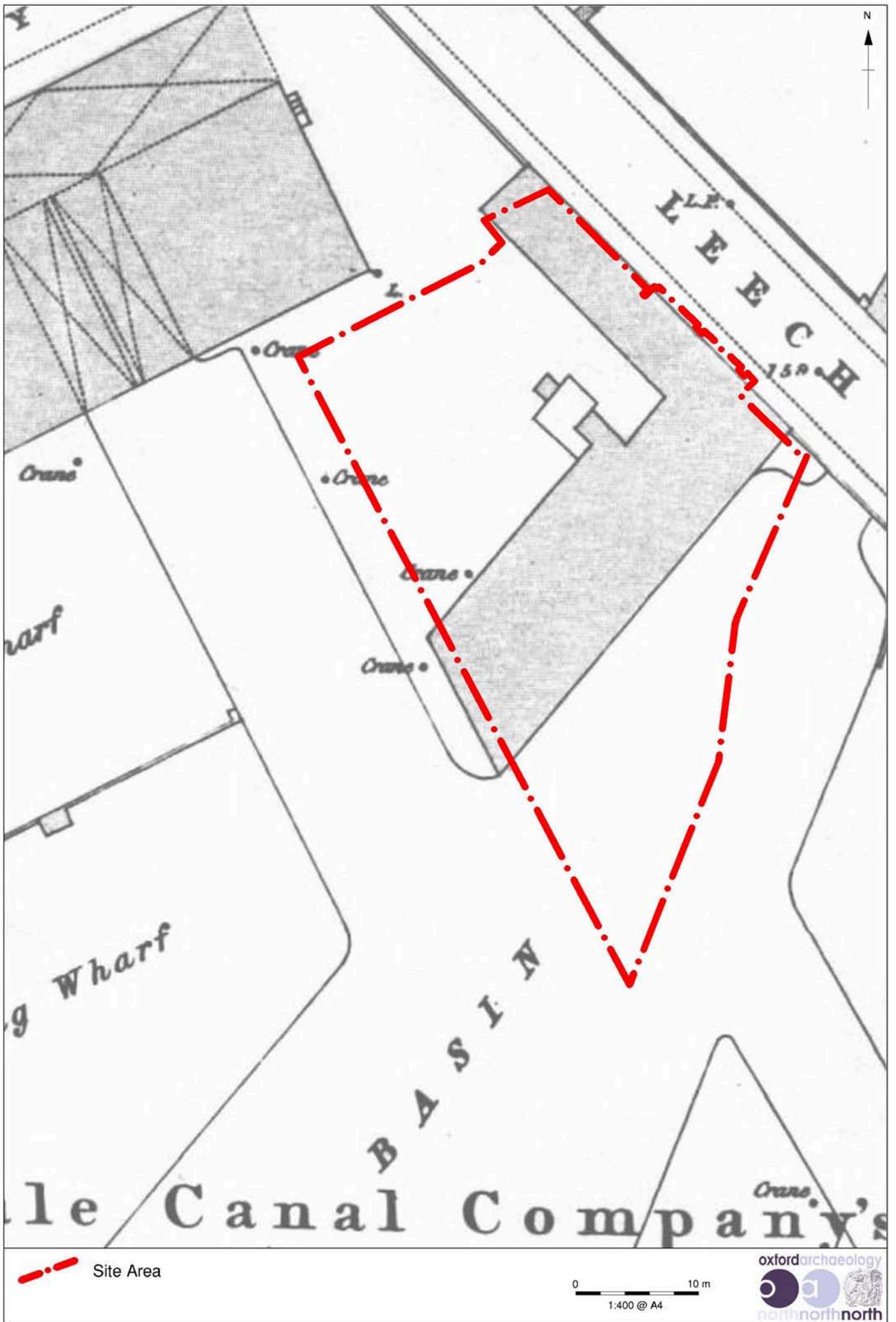


Figure 6: Site Area superimposed on the Ordnance Survey 60":1 mile map of 1851

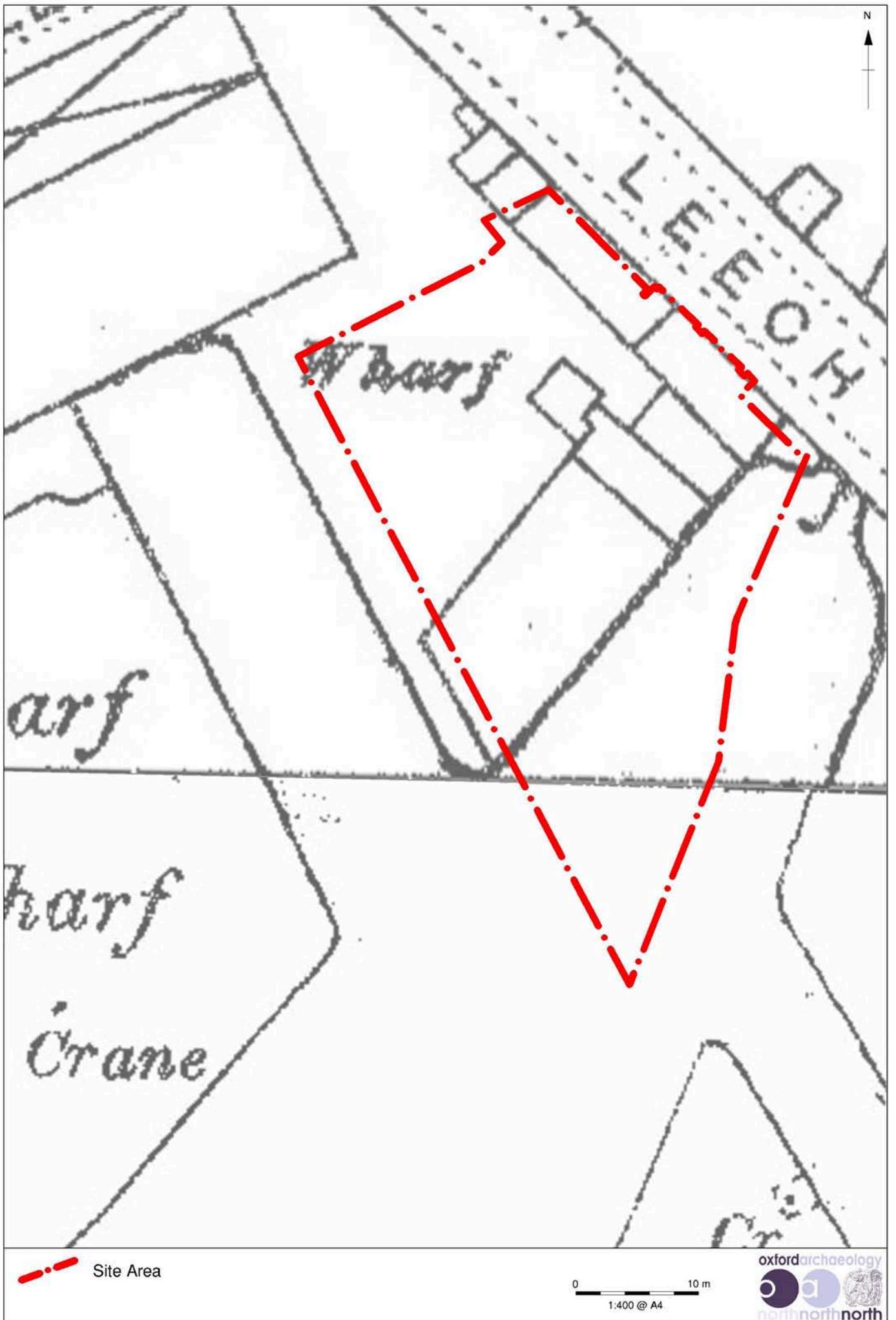


Figure 7: Site Area superimposed on the Ordnance Survey 25":1 mile map of 1893

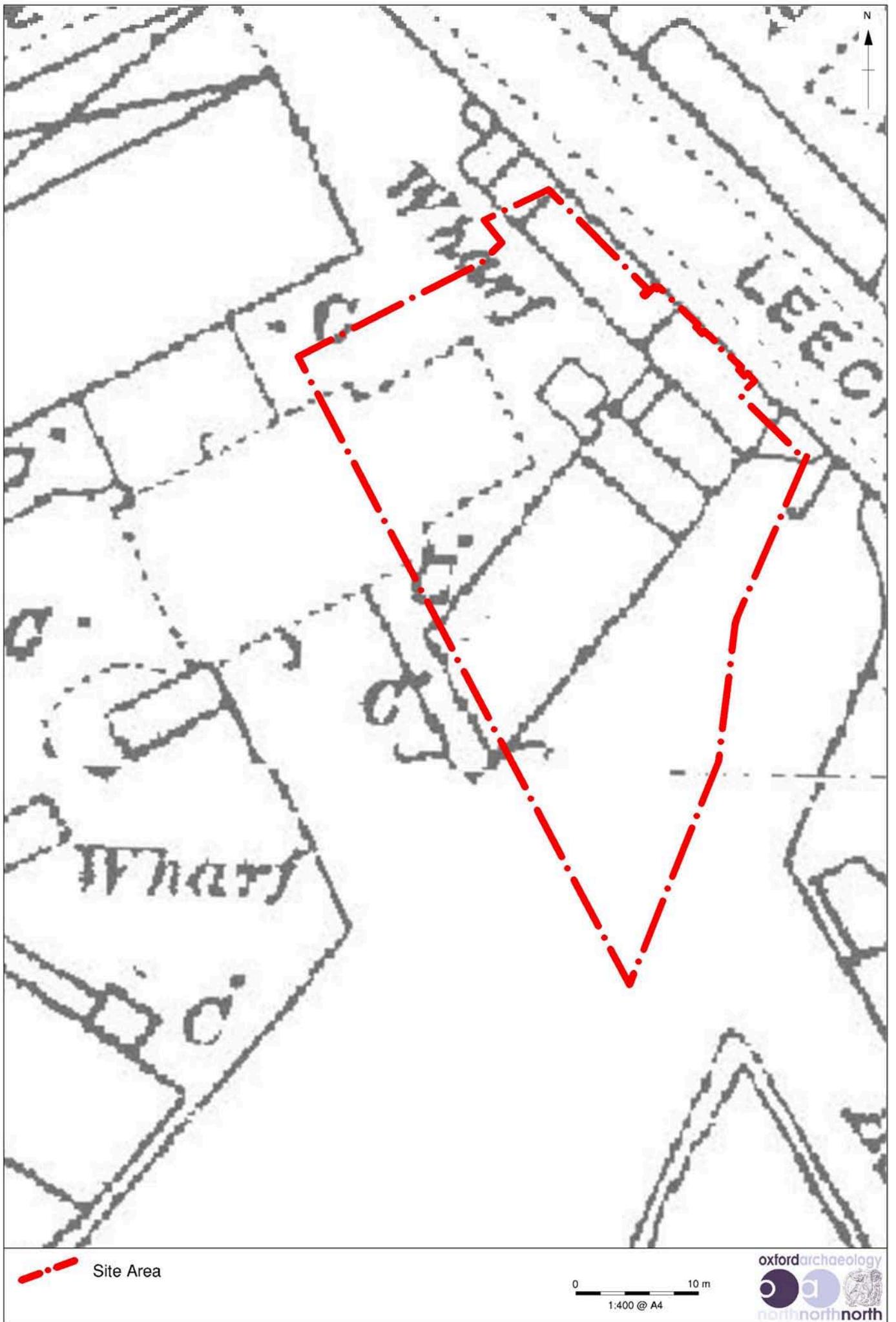


Figure 8: Site Area superimposed on the Ordnance Survey 25":1 mile map of 1922



Figure 9: Site Area superimposed on the Ordnance Survey 25":1 mile map of 1950-1

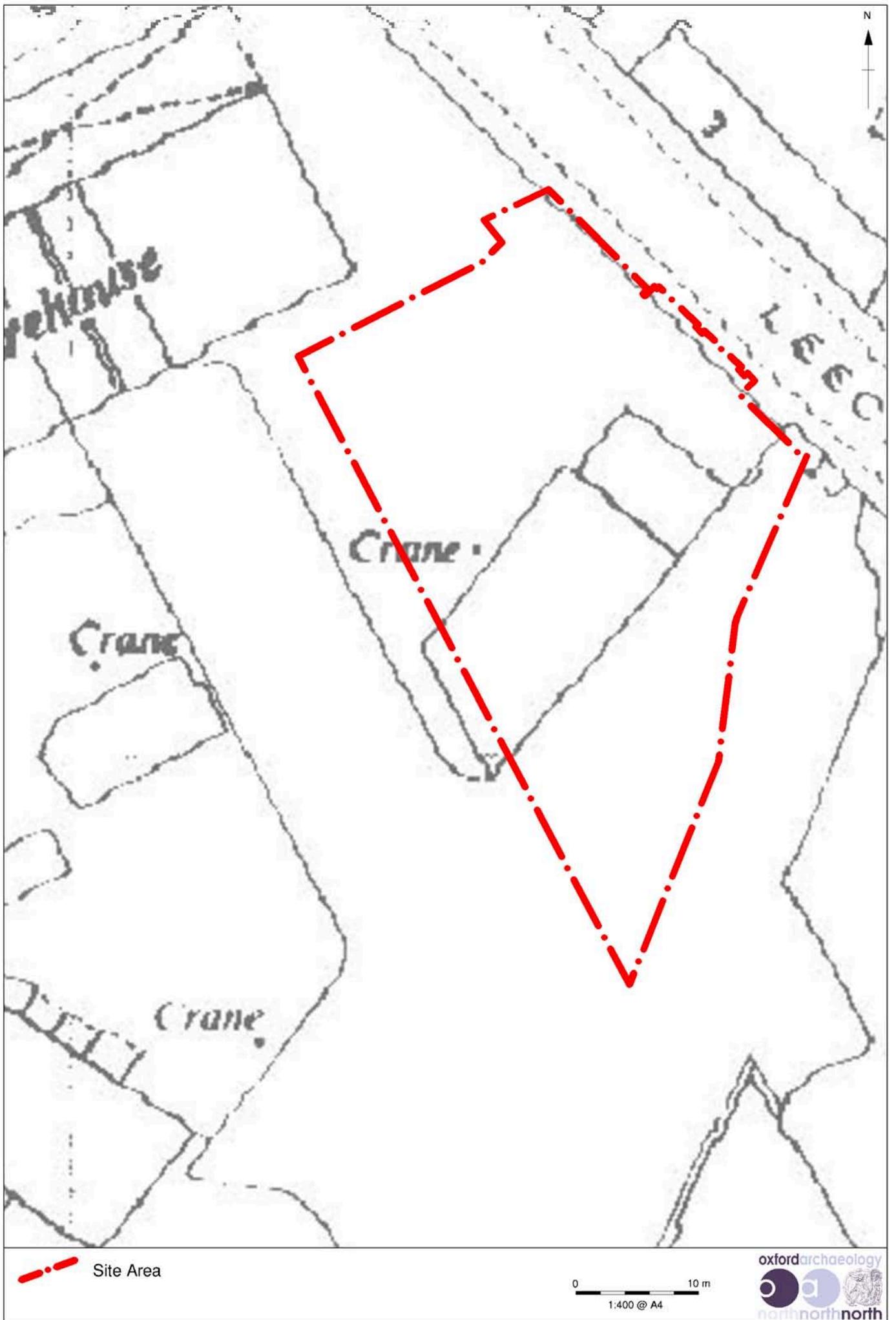


Figure 10: Site Area superimposed on the Ordnance Survey 25":1 mile map of 1965

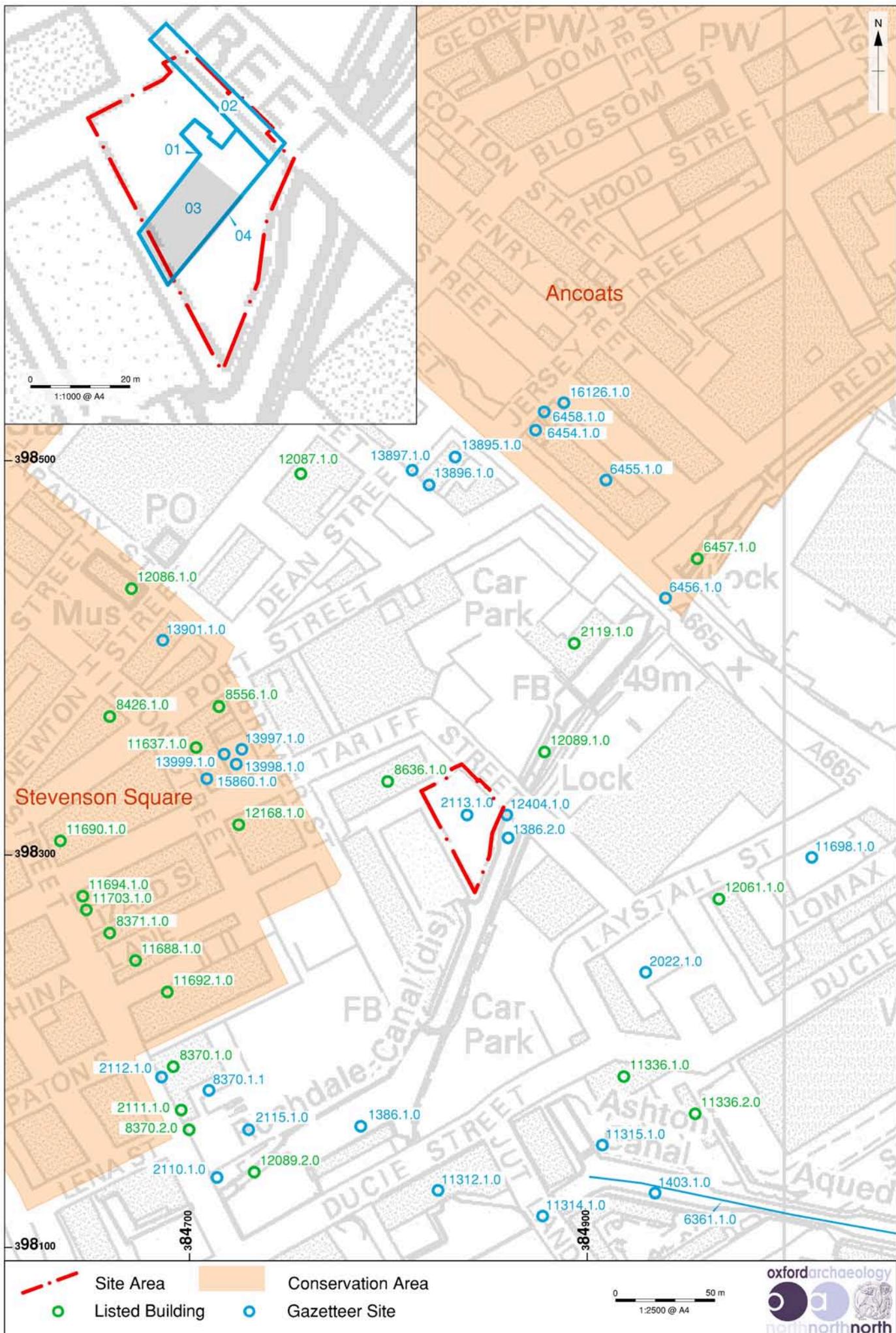


Figure 11: Plan of gazetteer sites

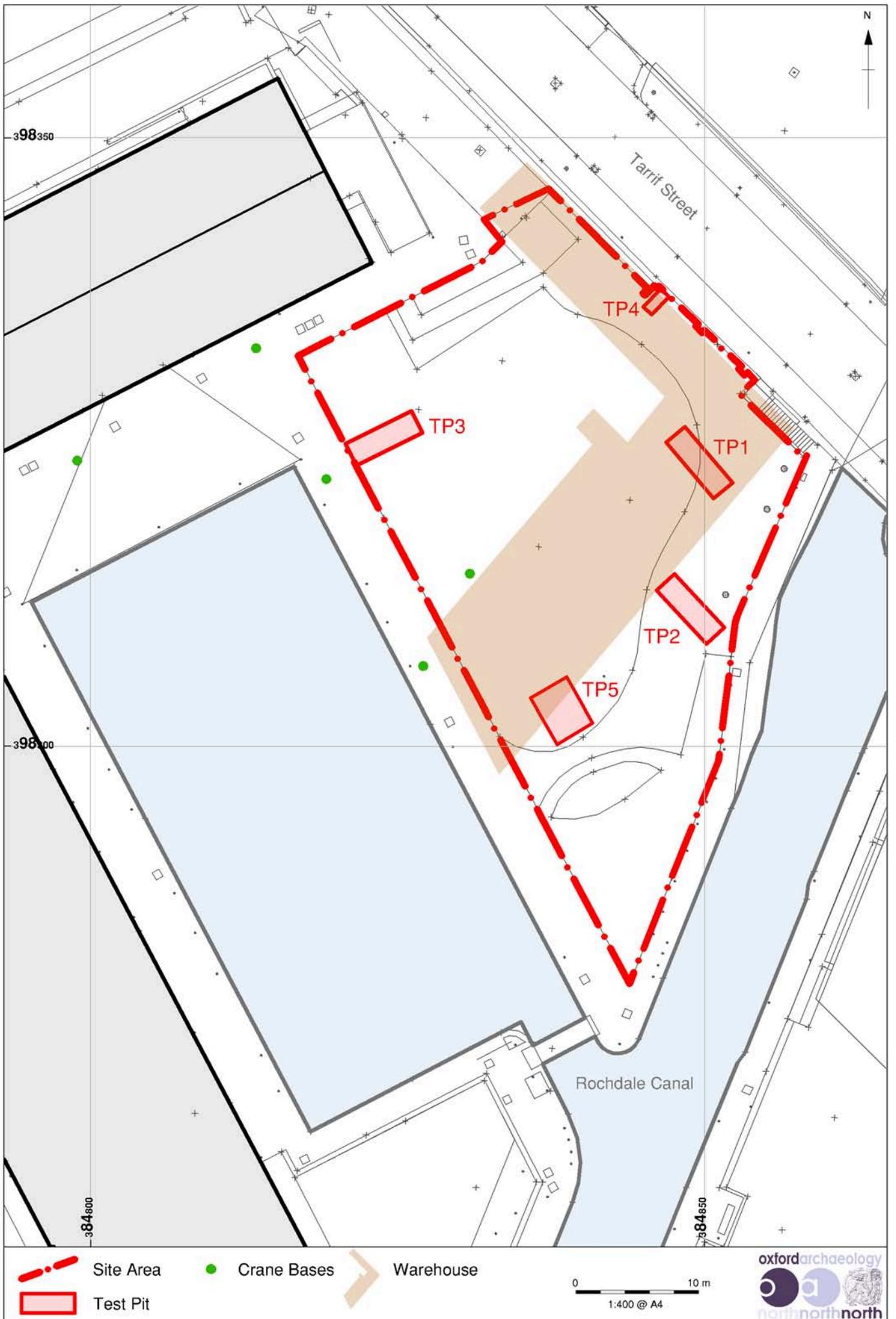


Figure 12: Location of test pits on modern map, showing footprint of buildings depicted on nineteenth-century mapping

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