

Blocks 3 and 4, Potato Wharf, Castlefield, Manchester

Archaeological Desk-based Assessment

Oxford Archaeology North

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Lend Lease

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SUMMARY

Lend Lease is devising proposals for a residential development on Potato Wharf in the Castlefield area of Manchester city centre (centred on NGR 382880 397600). The proposals allow for the erection of two residential blocks and associated infrastructure, which have potential to damage or destroy buried remains of archaeological interest, together with the demolition of a former small warehouse building.

In order to secure archaeological interests and inform the development process, Lend Lease commissioned Oxford Archaeology North (OA North) to undertake an archaeological assessment of the proposed development site. This 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; this report focuses on the below-ground archaeological resource, and has not afforded any consideration of the above-ground historic environment, and the impact on the setting of the Castlefield Conservation Area and designated buildings.

In total, 60 heritage assets have been identified within a radius of 250m, of which only six lie within the boundary of the present Site Area. Two of these sites, the Manchester South Junction and Altrincham Railway Viaduct and the Cheshire Lines Railway Viaduct, are both afforded statutory designation as Grade II listed buildings. It is not anticipated, however, that the proposed development will have any direct impact on these designated heritage assets. Of the non-designated sites of buried archaeological interest, it is likely that only one has any potential to survive *in-situ*. This comprises an infilled basin for the Bridgewater Canal, which appears to have been built in the second quarter of the nineteenth century, and is considered to be of Regional/County interest. Any buried remains of this historic feature would merit archaeological investigation, where it will be directly affected by development. In addition, a small warehouse considered to be of Local/Borough importance would merit an archaeological record compiling in advance of its demolition. An English Heritage Level II-type survey would be an appropriate level of recording.

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 is envisaged in the first instance that any earth-moving works within the footprint of the infilled canal basin will require archaeological monitoring, although more detailed investigation may be anticipated if significant archaeological remains are encountered.

The other sites identified during the assessment are likely to have been damaged or destroyed entirely during their demolition in the twentieth century, and do not merit any further consideration. There is similarly little or no potential for buried remains from any earlier periods to survive as buried remains.

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The desk-based research and report was compiled by Dr Rachel Street, and the illustrations were produced by Mark Tidmarsh. The report was edited by Ian Miller, who was also responsible for project management.

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1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 Lend Lease is devising proposals for the next phase of the Potato Wharf Development in the Castlefield area of Manchester city centre. The development proposals allow for the erection of two apartment towers, referred to as Blocks 3 and 4, coupled with associated infrastructure and landscaping works.

1.1.2 In order to secure archaeological interests and inform the development process, Lend Lease commissioned Oxford Archaeology North (OA North) to undertake an archaeological assessment of the proposed development site (referred to hereafter as the Site Area). This 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; this report focuses on the below-ground archaeological resource, and has not afforded any consideration of the above-ground historic environment and the impact on the setting of the Castlefield Conservation Area and designated buildings in the locale.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 The Site Area (centred on NGR 382880 397600) is situated in the Castlefield area of Manchester, occupying the south-western fringe of the city centre (Fig 1). The site lies between Potato Wharf and the Bridgewater Canal and its associated canal basins. The site comprises a level area of tarmac and hard standing, together with linear canal basins (Plate 1), lying at *c* 26m above Ordnance Datum (aOD).

1.2.2 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).

1.2.3 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 fluviatile/lacustrine origin (Hall *et al* 1995, 8). Prior to the construction of the Bridgewater Canal in the eighteenth century, however, the Site Area lay adjacent to the western bank of the River Medlock at the base of a sandstone promontory, situated at the southern end of Deansgate.

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Plate 1: Recent aerial view looking east across Castlefield, marking the Site Area

1.3 STATUTORY SITES

1.3.1 The Site Area does not contain any Scheduled Monuments or Registered Parks and Gardens, although it does lie within the Castlefield Conservation Area. The Manchester South Junction and Altrincham Railway Viaduct and the Cheshire Lines Railway Viaduct pass above the southern edge of the Site Area, and are afforded statutory designation as a Grade II listed buildings. There are 16 other buildings or structures of special architectural interest within 250m radius of the Site Area (Fig 11). Most of these are afforded statutory designation as Grade II listed buildings, although also includes a Grade I and a Grade II* listed building (Table 1). The impact on the setting of these designated buildings has not been considered during the present assessment.

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HER ref.	Description	Grade	NGR
99.1.0	Remains of Terminus, Liverpool Road Railway Station and Stationmaster's House	I	SJ 8295 9786
8332.1.0	Church of St George	II*	SJ 8289 9729
8332.2.0	Churchyard Walls, Gate Piers and Gates of St George's Church	II	SJ 8283 9730
8385.1.0	Castlefield Railway Viaduct	II	SJ 8287 9755
8647.1.0	Railway viaduct linking bridge over River Irwell to Liverpool Road Station	II	SJ 8289 9790
12078.1.0	Pair of culvert arches over River Medlock and associated overflow channel	II	SJ 8294 9771
15483.1.0	Bridgewater Canal Basin at Potato Wharf	II	SJ 8290 9762
12399.1.0	Worsley Mill, Castlefield	II	SJ 8286 9745
12089.10.0	Rochdale Canal Lock No. 92	II	SJ 8312 9756
12068.1.0	123 Liverpool Road	II	SJ 8299 9782
12069.1.0	Commercial Hotel, Liverpool Road	II	SJ 8297 9783
12070.1.0	Colonnaded Railway Viaduct at former Liverpool Road Goods Depot	II	SJ 8297 9787
2013.1.0	Merchant's Warehouse	II	SJ 8309 9752
2087.1.0	Giant’s Basin Weir	II	SJ 8297 9767
11681.1.0	Manchester South Junction and Altrincham Railway Viaduct (Northern Brick Viaduct)	II	SJ 8382 9770
8329.1.0	Middle Warehouse at Former Castlefield Goods Yard	II	SJ 8310 9741
11750.1.0	Hulme Junction Locks	II	SJ 8277 9746

Table 1: Summary of listed buildings within 250m of the Site Area

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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 Chartered Institute for Archaeologists 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)).

2.1.2 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 Greater Manchester, as well as a collection of secondary sources about the city and its suburbs;
- ***Manchester Archives:*** the catalogue of the Manchester Archives within Manchester Central Library was searched for information relating to the study area;
- ***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.

2.1.3 All archaeological sites in the Site Area and within a radius of 250m are depicted on Figures 11 and 12.

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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, II* and II Listed Buildings	To be avoided
Regional/County	Conservation Areas, Registered Parks and Gardens (Statutory Designated Sites) 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

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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.

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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, *ie* 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 it 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*).

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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*).

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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 (*Section 4*), and are mapped on Figure 9.

Period	Date Range
Mesolithic	10,000 – 3,500 BC
Neolithic	3,500 – 2,200 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 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 (Gregory 2007a, 181). During the course of this work, two Mesolithic flints, one Neolithic/Bronze Age waste flake, and a single fragment of late Bronze Age/Iron Age pottery were recovered, although none was found in securely stratified deposits (UMAU 2002). There is no known evidence for prehistoric activity within the boundary of the Site Area, although fragments of worked flint that has been dated to the Neolithic Period have been discovered within the wider study 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 a short distance to the north-east of the present Site 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, and York to the north-east, Wigan to the north-west, Chester to the south, and Buxton to the south-east.

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3.1.4 Based on recent archaeological excavation and the distribution of Roman finds, the limits of this settlement appear to have extended northwards from the fort to approximately Quay Street, westwards along Liverpool Road for *c* 100m from the north-west corner of the fort, eastwards across Deansgate to the area now occupied by the Beetham Tower, and south-eastwards along Chester Road, terminating somewhere in the vicinity of Great Jackson Street (Plate 2).

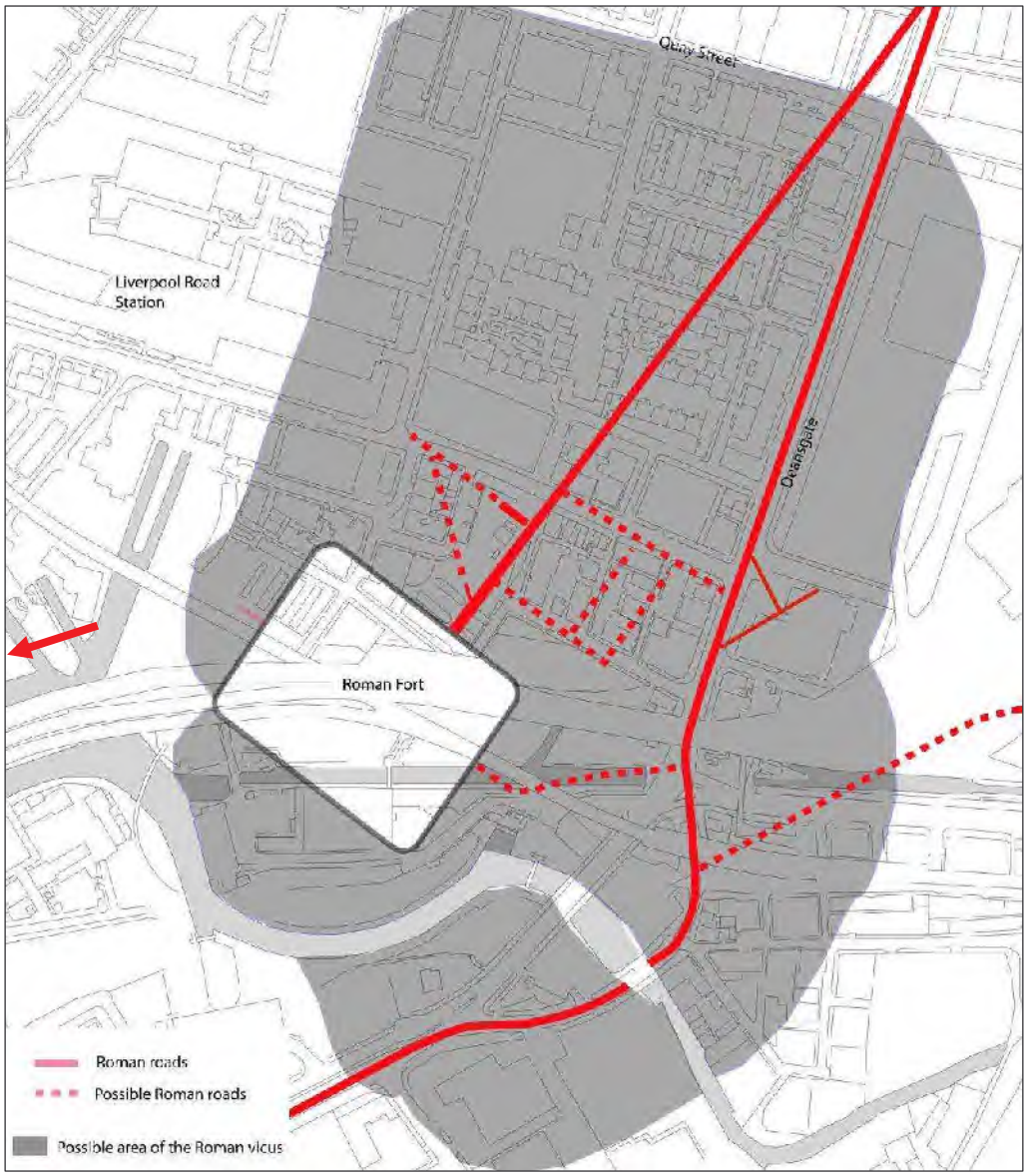


Plate 2: The extent of Manchester's Roman settlement (from Gregory forthcoming), with arrow marking the position of the present Site Area

3.1.5 The Site Area lies beyond the western edge of the suspected limits of the settlement core, although six Roman coins, at least five of which dated to the second century, are reported to have been found 'in 1876 while foundations were being dug for a bridge over the Irwell, near Quay Street' (Conway *et al* 1909, 84-5). These finds may suggest that the eastern bank of the Irwell witnessed more ephemeral activity on the fringe of the Roman settlement, although recent excavations immediately adjacent to the Site Area have concluded that this part of Castlefield has no potential for Roman remains (Gregory 2007b).

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3.1.6 ***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).

3.1.7 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.

3.1.8 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 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.

3.1.9 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. There are known remains of medieval date within the present study area.

3.1.10 ***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 significant advance in the local transportation network was focused on the River Irwell when, in 1721, an Act of Parliament allowed the Mersey and the Irwell to be made navigable between Warrington and Manchester (Hadfield and Biddle 1970, 16-18). This allowed waterborne trade to enter Manchester and Salford for the first time, and provided and an efficient link to the expanding port of Liverpool.

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3.1.11 ***The Mersey & Irwell Navigation:*** this was probably completed in 1736 and, by 1740, wharfage facilities for boats of up to 50 tons were provided by a quay established on the Manchester side of the river by Edward Byrom, a wealthy fustian dealer and one of the proprietors of the Mersey & Irwell Navigation Company (*ibid*). In 1735, a quay was built at the bottom of what in that year became Quay Street, strategically located to carry much of the town's trade, with a river frontage of 136 yards (George and Brumhead 2002, 22).

3.1.12 The second half of the eighteenth and early nineteenth centuries were characterised by significant advances in waterborne infrastructure in Manchester, and particularly the expansion of the canal network (George and Brumhead 2002).

3.1.13 ***The Canal Network:*** 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). The Castlefield section of the navigation was constructed in 1764, and its terminus was at Knott Mill to the east of Potato Wharf, with the bend of the River Medlock below the site of Roman fort being adapted as the final length of the canal.

3.1.14 One peculiar feature associated with the construction of this new navigation was a large weir, partially lying in the area later occupied by Potato Wharf, which was designed by the engineer James Brindley as means of regulating water levels in the canal basin. The late eighteenth-century cartographic and documentary evidence for this structure have been drawn together by Sillitoe (Sillitoe 1988), which includes a number of valuable drawings particularly a 1771 plan by Arthur Young (Plate 3), a 1778 plan and sectional drawing of the weir by Johann Ludewig Hogrewe, a 1785 plan by Foulkes and a plan produced during the late 1780s by William Green (Plate 4).

3.1.15 These show that the weir, known as the Giant's Basin Weir, comprised a walled sub-circular basin, some 94m in diameter, which was linked to the Bridgewater Canal and allowed drainage of floodwaters into the River Irwell via the old course of the River Medlock. Beneath this basin Young's plan also denotes a tunnel, which ran from Knot Mill to the old course of the Medlock, acting as the tailrace for a subterranean waterwheel powering a novel hoist system in Castlefield (Sillitoe 1989). The Giant's Basin contained a cloverleaf-shaped weir, which was described by Lowndes in 1765 as 'a large and beautiful weir, composed of six segments of a circle, the whole in circumference 366 yards' (cited in Sillitoe 1988, 11). At the centre of this weir lay a circular well with a *c* 10m diameter, which is still extant and is lined with sandstone masonry and is surrounded by a series of sandstone flags, forming an 'apron' for the weir. A second and opposing tunnel is also marked on Young's plan, which was linked to a plugged well that allowed water from the Medlock to flush out any rubbish or mud that had accumulated in the tunnel, running from the central well of the weir to the old course of the Medlock.

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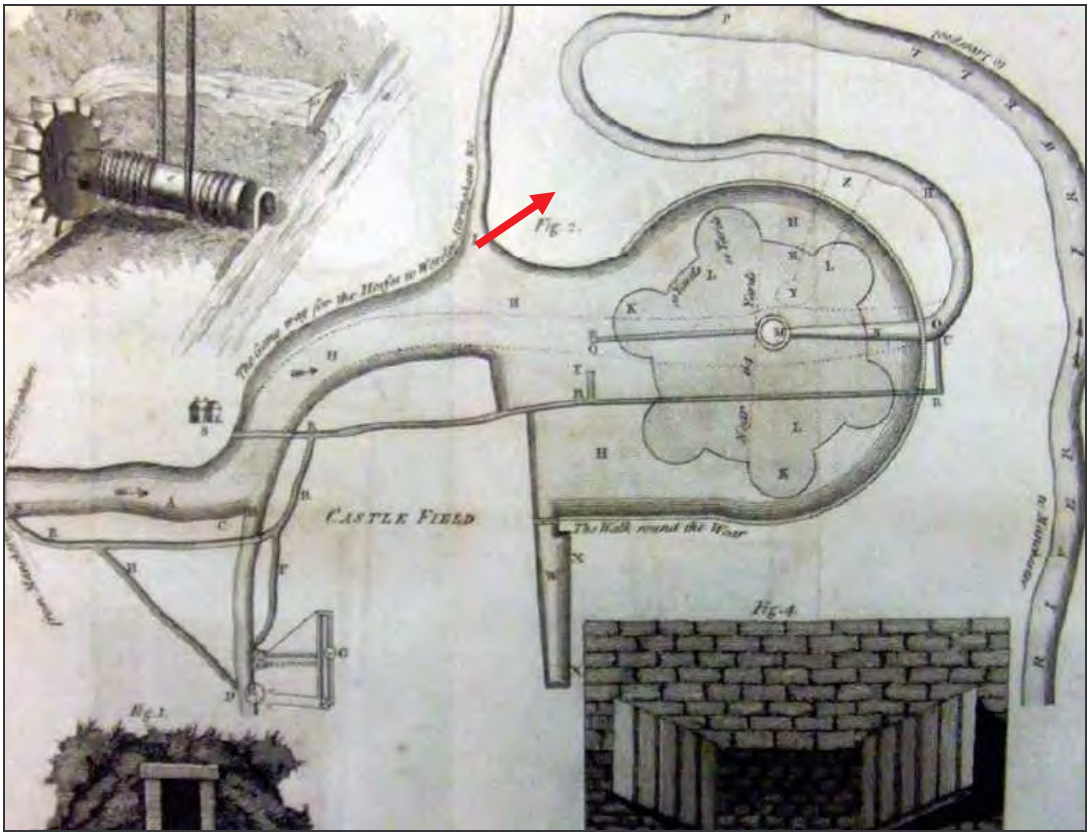


Plate 3: Young's plan of Castlefield Basin, dating to 1771, marking approximate position of Site Area



Plate 4: Extract from William Green's plan of 1787-94, with arrow marking the approximate centre of the present Site Area

3.1.16 The design of the weir, particular its size and the levels of the subterranean tunnels, appears to have failed to cope with the flooding levels of the Irwell and Medlock, occasionally causing water to flow in the opposite direction along the tailrace tunnel, running from the hoist system in Castlefield. In an attempt to rectify these problems, a further well was inserted into the weir and an additional linear weir was placed on the northern side of the basin. These measures appear to have failed, however, as in 1783 Ogden states 'the…curious weir…was much admired at its first construction, but the mud which has been deposited by the floods has greatly disfigured it, although the works seems thereby to have acquired more stability' (cited in GMAU 1992, 2). Due to the apparent failure in the design of the 'curious weir' it was eventually replaced in *c* 1790 by two canal arms positioned either side of the original central well, which continued to drain water into the old course of the Medlock, as captured on Green's plan on 1878-94 (Plate 4). Following its construction, the form of this reconfigured weir was added as a later addition to Foulkes' 1785 plan of Castlefield.

3.1.17 ***The Railway Network:*** the development of the present study area between the mid-nineteenth and twentieth century was dominated by the introduction of railways. The earliest railway in the area dates to 1830, and was constructed by the Liverpool and Manchester Railway (L&MR) Company. This railway linked Liverpool and Manchester, and Liverpool Road Station formed its Manchester terminus, representing the first railway passenger station in the world. The line was originally carried across the River Irwell and Water Street by a skewed masonry bridge, designed by George Stephenson (Fitzgerald 1980, 19), and a brick-built viaduct and brick and cast-iron girder bridge, which were both constructed by Brockbank and Findlay (Thomas 1980, 50).

3.1.18 Following the success of L&MR, other railways into Manchester were soon built. The first line through Castlefield was built by the Manchester South Junction and Altrincham Railway (MSJ&AR), and was carried on a massive brick-built viaduct, designed by David Bellhouse. Referred to as the Northern Brick Viaduct, this was opened in 1849 as an integral component of Manchester's first suburban railway between the city centre and Altrincham. The viaduct was afforded statutory protected as a Grade II listed building (List Entry No 1200837) in 1994. The viaduct forms the southern boundary of the Site Area.

3.1.19 A second viaduct, known as the Southern Iron Viaduct, was opened by the Cheshire Lines Committee in 1877. This was placed immediately to the north of the 1849 viaduct, and again within the present Site Area. In 1880, a third viaduct was erected across Castlefield, running south-west from the former Central Station, then westwards, dividing into two over Castlefield and rejoining west of River Medlock. This impressive viaduct was placed immediately to the north of the 1877 viaduct, and comprised cast-iron drum piers rising to square castellated towers supporting a steel lattice parapet.

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3.2 DEVELOPMENT OF THE SITE AREA

3.2.1 The earliest detailed plans of the Site Area are provided by Charles Laurent's map of 1793, and William Green's map that was produced between 1787-94 (Plate 4). These show the rivers Irwell and Medlock, and the Bridgewater Canal and its associated weir. The Site Area, however, is shown to have been entirely undeveloped land owned by the Duke of Bridgewater (Fig 2).

3.2.2 Several maps of the area were produced in the early 1800s, and whilst most of these were at a small scale that precludes any meaningful analysis of individual buildings, they all show the Site Area as undeveloped. William Johnson's map of 1819 similarly depicts the Site Area as undeveloped (Plate 5; Fig 3), although Swire's map of 1824 shows some new buildings to have been erected immediately to the east (Fig 4). This is annotated on subsequent mapping as forming part of a graving dock, used for the maintenance and repair of canal boats, with the buildings including a smithy.



Plate 5: Extract from William Johnson's map of 1819, with arrow marking the position of the Site Area

3.2.3 The next detailed survey of the area is provided by Bancks & Co's *Map of Manchester and Salford*, which was published in 1831 (Plate 6). This map similarly shows the Site Area to have remained undeveloped, although an expansion of canal wharfage facilities in Castlefield is implied by the addition of new warehouses.

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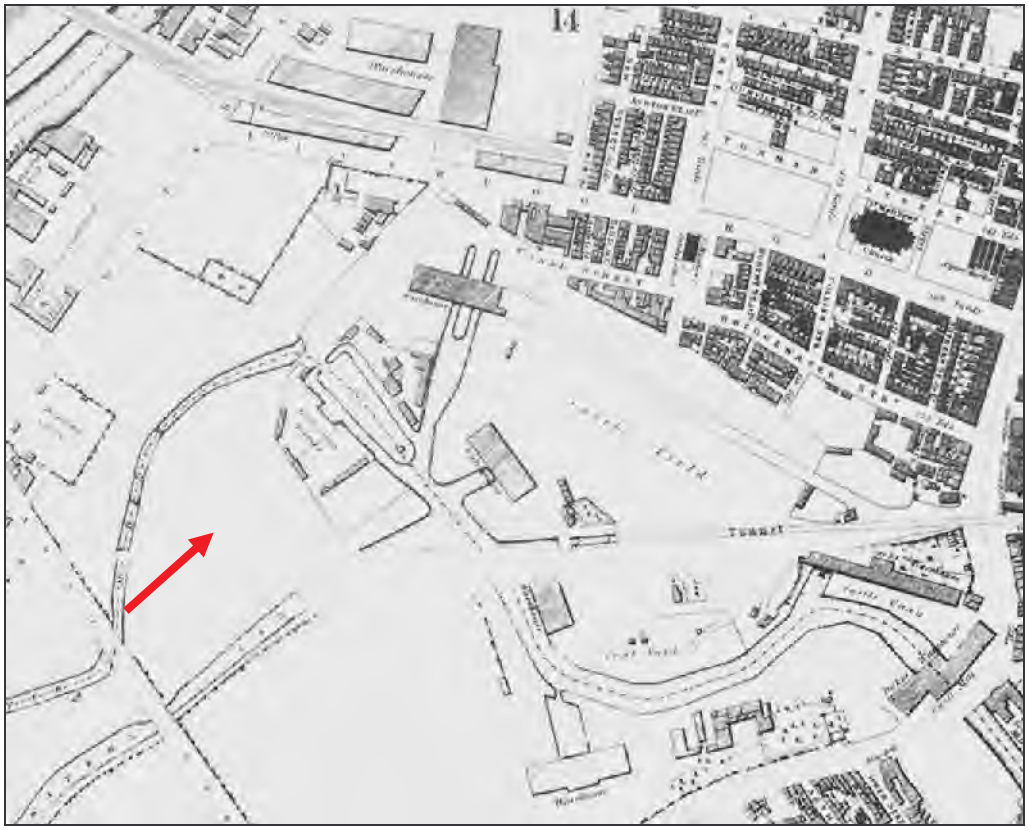


Plate 6: Extract from Bancks & Co's map of 1831, with arrow marking the position of the Site Area

3.2.4 The following years were characterised by considerable development of the transport infrastructure in the area, with the construction of two new canal basins and the erection of a large viaduct for the Manchester South Junction and Altrincham Railway (MSJ&AR), as shown on the Ordnance Survey map of 1851 (Fig 5). The two new canal basins branched off the northern side of the Bridgewater Canal and lay parallel to each other, serving potato wharves. The eastern of these two basins lies immediately to the east of the Site Area, and is afforded statutory protection as a Grade II listed building (HER No 15483.1.0; Historic England List Entry No 1246959). The site of the infilled second basin (Site **01**), however, lies within the Site Area. Linear structures (Site **02**) are shown to have lined each side of the canal basins, presumably representing warehousing/canopies over the unloading areas.

3.2.5 An Act for the MSJ&AR received Royal Assent in July 1845, and construction commenced shortly afterwards. The line opened in 1849, which included the impressive viaduct (Site **03**) that lies along the south-eastern boundary of the Site Area, as shown on the Ordnance Survey map of 1851 (Fig 5). The Ordnance Survey also shows a small rectangular building (Site **04**) in the northern part of the Site Area, fronting onto the thoroughfare that became known as Potato Wharf.

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3.2.6 The next available plans of the Site Area are provided by Goad's insurance plan of 1889, the Ordnance Survey 1:500 map of 1891 (Plate 7) and the 25": 1 mile edition of 1896 (Fig 6). These plans, particularly those produced by Goad and the Ordnance Survey at a scale of 1:500, provide considerable detail of the buildings in the Site Area. Goad's plan indicates that the linear wharf structures (Site **02**) flanking the canal basin (Site **01**) were open-sided and of timber construction. The plan also shows that these structures were in use as coal sheds, and the western part of the Site Area was in use as a coal wharf; the covered wharf structure on the western side of the basin had been removed by this date. Several other small structures are shown against the wharf buildings, with a concentration at the northern end of the basin, although these were all similarly of timber construction and, for the most part, of single-storey height. The small building in the northern part of the Site Area (Site **04**), shown on earlier mapping, is also depicted as a single-storey timber structure, and seemingly formed part of a wheelwright and smiths workshop. The Ordnance Survey map of 1891 also shows that the thoroughfare along the northern end of the canal basins had become known officially as Potato Wharf.

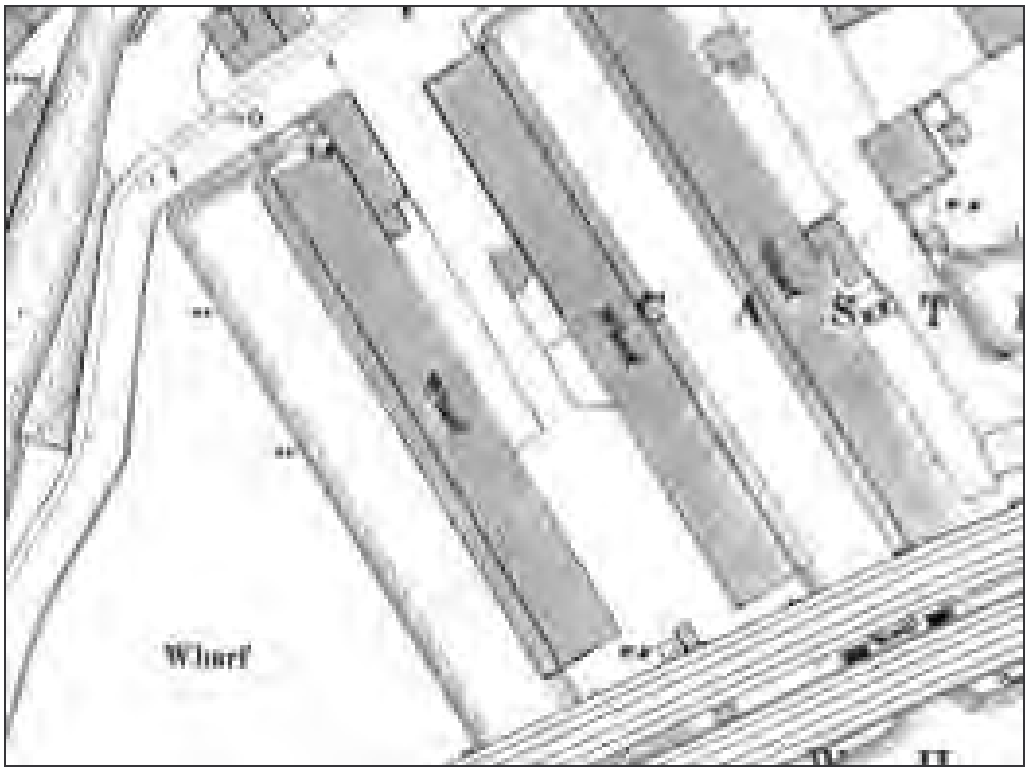


Plate 7: Extract from the Ordnance Survey 1:500 map of 1891, showing the Site Area

3.2.7 The Ordnance Survey map of 1891 shows an additional railway viaduct to have been erected immediately to the north of the MSJ&AR's original viaduct, and again crossing the southern part of the Site Area. Referred to as the Southern Iron Viaduct, this was built by the Cheshire Lines Committee in 1877. The Ordnance Survey map of 1896, together with Goad's insurance plan, however, show that a third viaduct (Site **05**) had been placed parallel and immediately to the north of the second viaduct (Fig 6). This impressive viaduct was built in 1880 by Heenan & Froude Ltd of the Newton Heath Ironworks for the Cheshire Lines Committee.

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3.2.8 The subsequent edition of Ordnance Survey mapping, published in 1908 (Fig 7), shows only minor changes to the layout of buildings in Site Area. These principally included an apparent remodelling of the wheelwrights shop (Site **04**) on the northern side of Potato Wharf.

3.2.9 The next edition of Ordnance Survey mapping, published in 1922 (Fig 8), again shows very little change to the Site Area, although a rectangular building that may have been a small warehouse (Site **06**) had evidently been erected on the eastern side of the canal basin (Site **01**). The same layout is depicted on the Ordnance Survey map of 1932 (Fig 9), which annotates the buildings flanking the canal basin beyond the eastern boundary of the Site Area as acid warehouses.

3.2.10 The area is captured on an aerial view of *c* 1930, which shows the three parallel railway viaducts crossing the southern edge of the Site Area, with the two canal basins and their associated covered wharves. The entrances to the basins from the main line of the Bridgewater Canal can be seen passing beneath the railway viaducts. Potato Wharf can also be seen clearly, with the wheelwright's shop (Site **04**) between the road and the River Medlock, and the small warehouse (Site **06**) situated between the two canal basins.

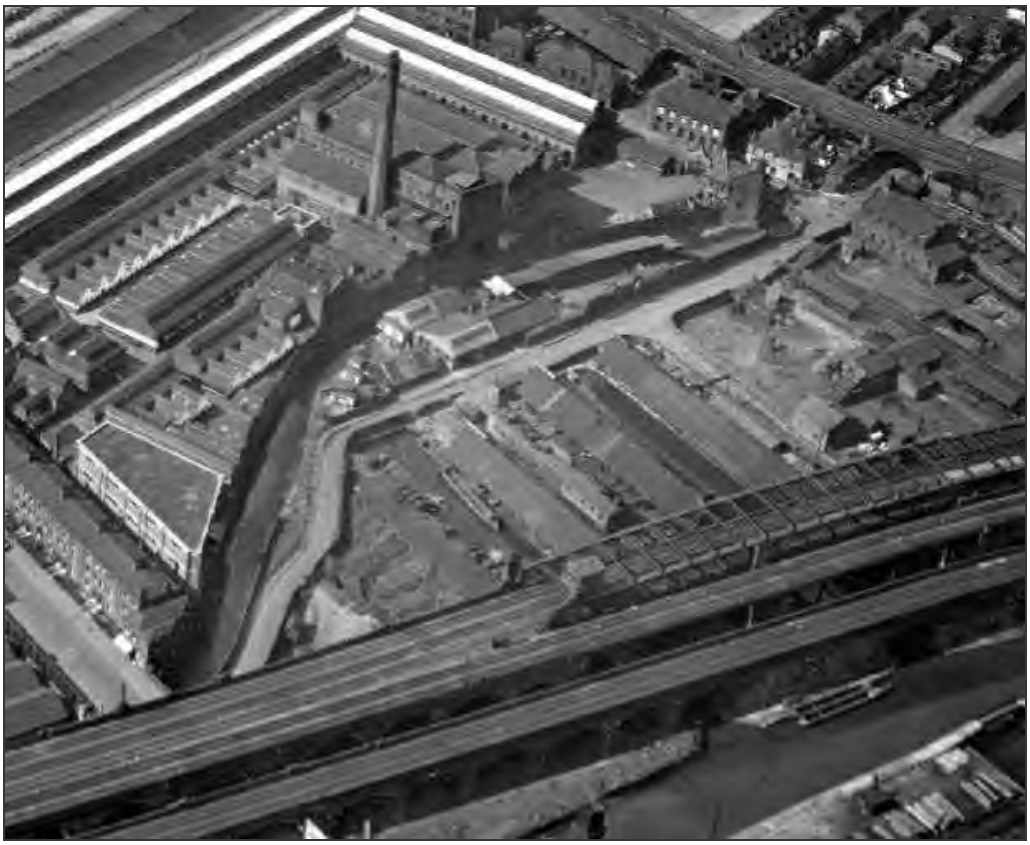


Plate 8: Aerial view across the Site Area in c 1930

3.2.11 Similar annotation is provided on the Ordnance Survey map of 1948 (Plate 9), which also shows the timber covered wharf structure (Site **02**) on the eastern side of the canal basin in the Site Area to have been demolished. The warehouse (Site **06**) to the east of the basin also appears to have been remodelled slightly, creating an L-shaped plan.

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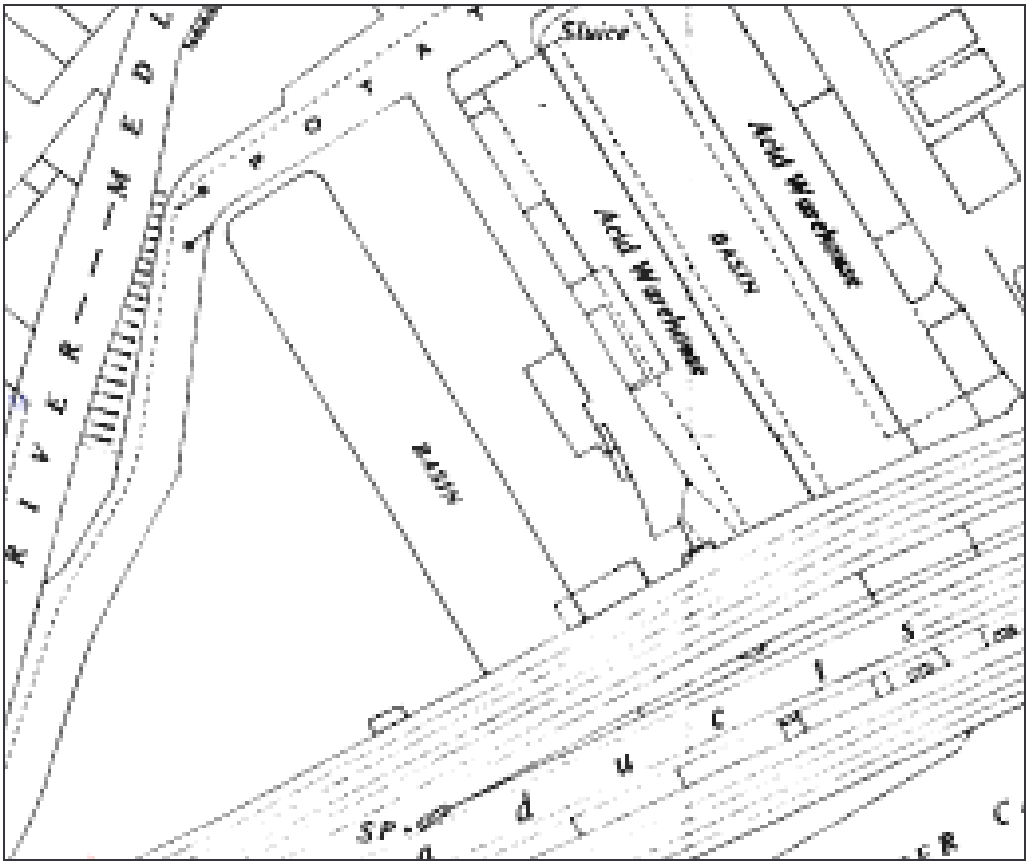


Plate 9: Extract from the Ordnance Survey 1:1250 map of 1948, showing the wharves in the Site Area

3.2.12 The layout of the Site Area is largely unchanged on mapping published in the 1950s and 1960s. Photographs taken during the early 1960s (Plate 10 and 11) show the canal basin (Site **01**) to have remained extant and in water, although the absence of any canal boats and an apparent stop-gate placed across the entrance to the basin suggest that it may have fallen into disuse by this date. The timber-covered wharf structure (Site **02**) on the eastern side of the canal basin also appears to have been partially demolished by the early 1960s, as only a short section is visible in one of the photographs (Plate 11).

3.2.13 The canal basin (Site **01**) was infilled subsequently, and the site levelled to form a depot yard, as shown on the next edition of Ordnance Survey mapping (Fig 10). The former wheelwright's shop (Site **04**) on the northern side of Potato Wharf had also been demolished by this date, although the warehouse (Site **06**) to the east of the infilled canal basin remained extant. The western part of the Site Area was also developed as a cement works during this period.

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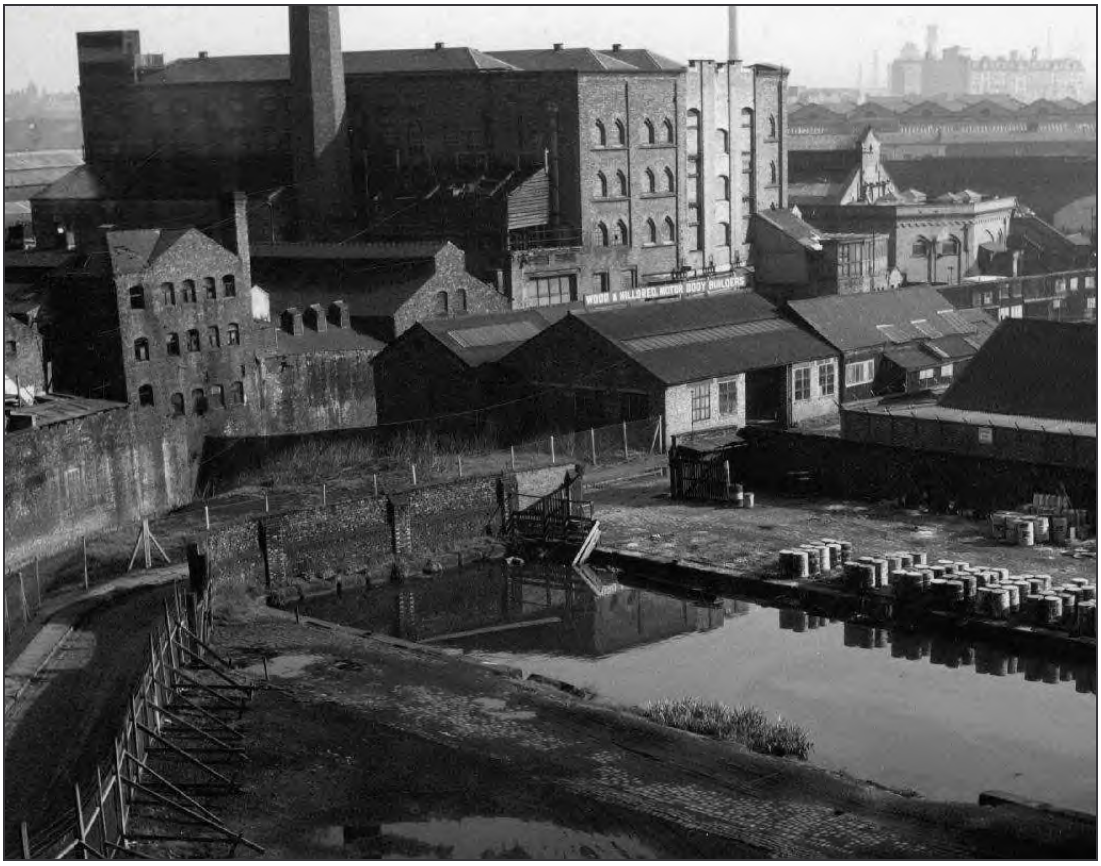


*Plate 10: View across the central part of the Site Area in 1961, showing the canal basin (Site **01**) and the wheelwrights shop (Site **04**)*



*Plate 11: View along the canal basin (Site **01**) in 1961*

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3.3 PREVIOUS ARCHAEOLOGICAL WORKS

3.3.1 Archaeological investigations have been undertaken in the area of the first phase of the Potato Wharf Development, situated immediately to the east of the present Site Area. A desk-based assessment carried out as part of this investigation incorporated geo-technical information that demonstrated a significant deposit (of *c* 4m in depth) to be present, derived from the Rivers Medlock and Irwell, with modern deposits and levelling across the top (Gifford 2006). The natural sandstones were recorded at depths of around 5m below present ground level, sealed beneath sands and gravels.

3.3.2 The report highlighted the possibility of remains associated with the original layout of the Giant's Basin to be present, which was investigated subsequently by the former University of Manchester Archaeological Unit (UMAU). This included an archaeological evaluation in January 2007, followed by more detailed excavation of two areas, one targeting the remains of the Giant's Basin and the other targeting the remains of a brick structure and evidence of burning from industrial processes. The trenches over the Giant's Basin revealed remains between 2 and 5m below the present ground surface, including partial structural elements and silts from the its base. The excavations over the brick structure demonstrated that it formed part of a former boiler house associated with an earlier factory in the area of probable nineteenth-century date with elements of twentieth-century rebuilding. No pre-industrial remains were recorded in the area, and the implication is that the area was subject to periodic flooding from the Medlock during the later prehistoric and Roman periods (Gregory 2007b).

3.4 SITE VISIT

3.4.1 The eastern boundary of the Site Area is formed by a brick wall, *c* 2.5m high (Plate 12), which runs from Potato Wharf to the railway viaduct of 1880 (Site **05**). A derelict, two-storey, brick-built building with a pitched roof (Site **06**) lies to the west of the boundary wall. This occupies the former wharf area on the eastern side of the infilled canal basin (Site **01**), and is partially surfaced with stone setts (Plate 13).

3.4.2 The western edge of the infilled canal basin (Site **01**) is marked by a modern security fence, which forms the eastern boundary of Hanson's cement and concrete works. This disused works occupies the western part of the Site Area, and includes several concrete structures and modern surfacing (Plate 14); the site of the infilled canal basin (Site **01**) is sealed beneath concrete surfacing (Plate 15). Two large steel hoppers are situated immediately in front of the railway viaduct in the south-western corner of the Site Area (Plate 16), with a modern single-storey office building along the north-western boundary (Plate 17).

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*Plate 12: View looking south across the eastern part of the Site Area, showing Site **06***



*Plate 13: The west-facing elevation of Site **06**, with the residential blocks forming the first phase of the Potato Wharf Development to the rear*

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*Plate 14: View across the infilled canal basin (Site **01**) in the central part of the Site Area, showing the railway viaduct to the rear (Site **05**) and components of the cement works*



*Plate 15: View looking south-east across the infilled canal basin (Site **01**) in the central part of the Site Area, showing the 1849 Northern Brick Viaduct to the rear and components of the cement works*

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Plate 16: The cement works in the western part of the Site Area



Plate 17: Office block for the cement works occupying the north-western boundary of the Site Area

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4. GAZETTEER OF SITES

All known heritage assets within a 250m radius of the Site Area are shown on Figure 11. The following gazetteer entries summarise the site of archaeological interest that lie within the boundary of the Site Area (Fig 12).

Site Number **01**
Site Name Potato Wharf Canal Basin
HER Number -
Designation Conservation Area
Site Type Canal Basin (site of)
Period Nineteenth century
NGR 382869 397593
Source Ordnance Survey 1851
Description One of two canal basins serving the potato wharves, first shown on the Ordnance Survey map of 1851, but absent from Bancks & Co's map of 1831. Infilled during the second half of the twentieth century, and its site used subsequently as a yard area for Hanson's cement works. The second canal basin, situated immediately beyond the eastern boundary of the Site Area, survives extant, and is afforded statutory designation as a Grade II listed building. The infilled basin is not afforded formal statutory designation, although it is considered to be of significance due to its association with the surviving Grade II listed basin.
Assessment The footprint of the infilled canal basin within the boundary of the Site Area, and elements of the canal walls are likely to survive *in-situ* as buried remains.

Site Number **02**
Site Name Potato Wharf Canal Basin
HER Number -
Designation Conservation Area
Site Type Canal Wharf (site of)
Period Nineteenth century
NGR 382869 397595
Source Ordnance Survey 1851; Goad's Insurance Plan 1889
Description Open-sided, timber-built rectangular structures flanking both sides of the canal basin (Site **01**). These were probably used initially for the temporary storage of potatoes unloaded from canal boats, but were in use for the storage of coal by the end of the nineteenth century. By that date, however, the structure along the western side of the canal basin had been demolished, and its site used as an open coal wharf.
Assessment The footprint of the wharf structures lie within the boundary of the Site Area, although any buried remains are likely to have been destroyed during demolition and subsequent redevelopment of the site as a cement works.

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Site Number	**03**
Site Name	Manchester South Junction and Altrincham Railway Viaduct
HER Number	11681.1.0
Designation	Grade II listed building; Conservation Area
Site Type	Railway Viaduct
Period	Mid-nineteenth century (1849)
NGR	382882 397542
Source	Ordnance Survey 1851
Description	A brick-built railway viaduct erected by the Manchester South Junction and Altrincham Railway Viaduct, and opened in 1849.
Assessment	The viaduct survives extant, and lies along the southern boundary of the Site Area. It is not envisaged that the proposed development will have any direct impact on the viaduct, although consideration will need to be afforded to any impact on the setting of the designated structure.

Site Number	**04**
Site Name	Potato Wharf Wheelwright's Shop
HER Number	-
Designation	Conservation Area
Site Type	Industrial Building (site of)
Period	Mid-nineteenth century
NGR	382854 397650
Source	Ordnance Survey 1851; Ordnance Survey 1896
Description	A rectangular structure situated on the northern side of Potato Wharf shown on the Ordnance Survey map of 1851. Annotated as a timber structure on Goad's insurance plan of 1889. Remodelled in the later nineteenth century, and finally demolished in the second half of the twentieth century.
Assessment	The footprint of the buildings lies within the boundary of the Site Area, although it is likely that any buried remains will have been destroyed during demolition.

Site Number	**05**
Site Name	Cheshire Lines Railway Viaduct
HER Number	8385.1.0
Designation	Grade II listed building; Conservation Area
Site Type	Railway Viaduct
Period	Late nineteenth century (1880)
NGR	382873 397562
Source	Ordnance Survey 1896
Description	A cast-iron and steel railway viaduct manufactured in 1880 by Heenan & Froude Ltd of the Newton Heath Ironworks for the Cheshire Lines Committee (Plate 18).
Assessment	The viaduct survives extant, and lies along the southern boundary of the Site Area. The proposed development will have any direct impact on the viaduct, although consideration will need to be afforded to any impact on the setting of the designated structure.

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*Plate 18: Advertisement showing the Cheshire Lines Committee Viaduct (Site **05**)*

Site Number	**06**
Site Name	Potato Wharf Cottage and Warehouse
HER Number	12373.1.0
Designation	Conservation Area
Site Type	Industrial Building
Period	Twentieth century
NGR	382883 397605
Source	Ordnance Survey 1922
Description	Recorded in the Greater Manchester HER as a 'two-storey stretcher bond brick cottage and small warehouse on the western arm of Potato Wharf. Now used by HJ Hambley Ltd, hauliers.' The HER entry dates the building to the eighteenth century, although it is first shown in its current format on the Ordnance Survey map of 1922. As such, it may represent a late phase in the evolution of the Castlefield canal terminus and its warehousing facilities.
Assessment	The building lies within the Site Area and survives extant, although is in a derelict condition.

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5. SIGNIFICANCE OF THE REMAINS

5.1 INTRODUCTION

5.1.1 The assessment has identified a total of 60 sites of archaeological interest within a 250m radius of the Site Area (Fig 11). Of this total number of heritage assets, 17 are listed buildings, although only two of these (the Manchester South Junction and Altrincham Railway Viaduct and the Cheshire Lines Railway Viaduct; Sites **03** and **05**) lie within the boundary of the Site Area. The development proposals will not impact directly on the listed buildings, although a detailed assessment of the impact of development on the setting of these buildings has not been considered as part of this assessment, which has focused on the potential for below-ground archaeological remains. There were no other designated sites (*eg* Scheduled Monuments or Historic Parks and Gardens) within the Site Area, although it does lie within the Castlefield Conservation Area. Again, an assessment of any impact on the setting of the Conservation Area has not been considered. Of the total number of heritage assets identified, only six sites of archaeological interest have been identified within the Site Area (Sites **01**-**06**).

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**-**06**) have been considered using the criteria, with the results below.

5.2.2 ***Period:*** until the early nineteenth century, the study area comprised undeveloped land on the fringe of Manchester, with the earliest development being associated with wharfage facilities associated with the Bridgewater Canal and the early development of the regional railway network. The earliest structure in the Site Area was probably the canal basin (Site **01**), with associated covered wharf area (Site **02**), which are first shown on the Ordnance Survey map of 1851, but absent from Bancks & Co's map of 1831. The Ordnance Survey map also shows the Manchester South Junction and Altrincham Railway Viaduct (Site **03**) to have been built along the southern boundary of the Site Area (currently afforded statutory designation as a Grade II listed building), and a workshop annotated on subsequent maps as a wheelwright's workshop (Site **04**). Another railway viaduct (also a Grade II listed building; Site **05**) was also built across the southern boundary of the Site Area in 1880. The final site of archaeological interest is a small warehouse (Site **06**) that appears to have been erected in the early twentieth century and survives extant. There is little or no potential for buried remains of any earlier periods to survive in the Site Area.

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5.2.3 ***Rarity:*** the impressive railway viaducts (Sites **03** and **05**), crossing the southern boundary of the Site Area, are of National Importance, reflected in their statutory designation as Grade II listed buildings. The infilled canal basin (Site **01**) is also considered to have a rarity value as an important component of the Bridgewater Canal. The small warehouse in the Site Area (Site **06**) is considered to have a rarity value as an example of a late addition to the warehousing facilities associated with the Bridgewater Canal.

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

5.2.5 ***Group Value:*** many of the sites of archaeological interest within the Site Area represent different elements of the nineteenth-century canal and railway systems, and thus have a high group value. The infilled canal basin (Site **01**) also has a group value with the Grade II listed basin that lies immediately beyond the Site Area boundary.

5.2.6 ***Survival/Condition:*** it is probable that any buried remains of the nineteenth-century wharf structures (Site **02**) and the wheelwright's shop (Site **04**) will have been damaged or destroyed entirely during demolition in the twentieth century, given that they appear to have been largely of timber construction Conversely, there is good potential for buried remains of the infilled canal basin (Site **01**) to survive *in-situ*.

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.

5.2.8 ***Diversity:*** the remains relate to the nineteenth-century development of the area as of hub of the local and regional historic transportation network. 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. Notwithstanding the location of the Site Area on the western fringe of the Roman settlement, the potential for Roman remains to survive *in-situ* is considered to be low, reflecting the results obtained from recent archaeological work carried out in the locale (Gregory 2007b). There are no known remains from the post-Roman period through to the mid-nineteenth century, and the potential for remains from these periods is considered to be low.

5.2.10 The greatest potential lies in the nineteenth-century remains, and particularly those associated with the infilled canal basin (Site **01**).

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5.3 SIGNIFICANCE

5.3.1 Using the above criteria, and particularly rarity, group value and survival/condition, the infilled canal basin (Site **01**) is considered to be of Regional/County importance, and the extant warehouse (Site **06**) to be of Local/Borough Importance. The railway viaducts are considered to be of National Importance on account of their statutory designation as Grade II listed buildings. The other sites that have been identified have been subject to redevelopment that will have damaged or destroyed any buried remains, thereby reducing their significance to negligible (Sites **02** and **04**).

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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 ***Below-ground remains:*** 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.

6.2.2 The extent of any previous disturbance to buried archaeological levels is an important factor is assessing the potential impact. This assessment has concluded that the demolition of the wharf structures (Site **02**) and the former wheelwright's shop (Site **04**) will have caused their complete destruction, reflecting their timber construction. Conversely, buried remains of the infilled canal basin (Site **01**) are likely to survive intact. Any such remains would merit archaeological recording should the footprint of the canal basin be subject to any earth-moving works as part of the proposed development.

6.2.3 ***Standing remains:*** the development proposals allow for the demolition of the existing building within the boundary of the Site Area (Site **06**). It is not anticipated, however, that demolition will have any impact on the railway viaducts (Sites **03** and **05**), which are afforded statutory protection as Grade II listed buildings.

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 considered to be of Regional/County Importance (Site **01**) and Local/Borough (Site **06**) has been determined as moderate to substantial, based on an assumption that there will be significant ground-breaking works and demolition associated with the proposed development. The impact on the other identified sites (Sites **02** and **04**) is considered to be negligible. The significance of the impact is summarised in Table 7.

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Site Number	Site Name	Importance	Impact	Significance of Impact
01	Potato Wharf Canal Basin	Regional/County	Moderate	Intermediate
02	Canal Wharf Structures	Low Local	Negligible	Neutral
03	Railway Viaduct	National	Negligible	Neutral
04	Wheelwright's Works	Low Local	Negligible	Neutral
05	Railway Viaduct	National	Negligible	Neutral
06	Warehouse	Local/Borough	Substantial	Intermediate

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

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7. RECOMMENDATIONS

7.1 INTRODUCTION

7.1.1 The *National Planning Policy Framework* instructs that in the case of heritage assets that 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, and NPPF encourages developments which change the setting of a heritage asset so as to better reveal it significance.

7.1.2 The Manchester South Junction and Altrincham Railway Viaduct and the Cheshire Lines Railway Viaduct (Sites **03** and **05**) lie along the southern boundary of the Site Area, and are both afforded statutory designation as Grade II listed buildings. These impressive structures are thus considered to be of National Importance, and require preservation *in-situ*.

7.1.3 None of the other sites of archaeological interest identified within the Site Area are afforded statutory designation, and are thus not considered to necessarily merit preservation *in-situ*. Two of these non-designated heritage assets (Sites **02** and **04**) have been determined to be of low significance, although two sites are potentially of Regional/County or Local/Borough significance (Sites **01** and **06**). Should well-preserved buried remains of the former canal basin (Site **01**) survive as buried remains, then it may merit preservation by record, where it 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 is envisaged in the first instance that any earth-moving works within the footprint of the infilled canal basin will require archaeological monitoring, although more detailed investigation may be anticipated if significant archaeological remains are encountered. In addition, the former warehouse considered to be of Local/Borough Importance would merit an archaeological record consistent with an English Heritage Level II-type building investigation in advance of its demolition. The other sites identified during the assessment are likely to have been damaged or destroyed entirely during their demolition in the twentieth century, and do not merit any further consideration.

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BIBLIOGRAPHY

PRIMARY AND CARTOGRAPHIC SOURCES

Map of Manchester and Salford, C Laurent, 1793

Map of Manchester and Salford, W Green, 1787-94

Plan of Manchester and Salford, Dean and Pigot, 1809

Map of Manchester and its Environs, W Swire, 1824

A Map of Manchester and Salford, G Bancks & Co, 1831

Ordnance Survey First Edition 60":1 mile, surveyed 1848, published 1851

Ordnance Survey First Edition 25":1 mile, Lancashire, surveyed 1888-9, published 1896

Ordnance Survey 25":1 mile, Lancashire, published 1908

Ordnance Survey 25":1 mile, Lancashire, revised 1915, published 1922

Ordnance Survey 25":1 mile, Lancashire, published 1932

Ordnance Survey 1:1250, published 1948-9

Ordnance Survey 1:2500, published 1965

SECONDARY SOURCES

Baines, E, 1835 *History of Cotton Manufacture in Great Britain*, London

Brennand, M, (ed), 2007 *Research and Archaeology in North West England. An Archaeological Research Framework for North West England: Volume 2. Research Agenda and Strategy*, CBA North West, **9** (19), Manchester

Conway, RS, MacInnes, J, and Brooke, GC, 1909 The Roman coins of Manchester, in FA Bruton (ed) *The Roman Fort at Manchester*, Manchester

Countryside Commission, 1998 *Countryside Character Volume 2: North West*, Cheltenham

English Heritage, 2006 *Management of Research Projects in the Historic Environment*, London

Farrer, J, and Brownbill, W, (eds) 1908 *Victoria County History of Lancashire*, **4**, London

 © OA North May 2015

Fitzgerald, RS, 1980 *Liverpool Road Station, Manchester: an historical and architectural survey*, RCHM Sup Ser, **1**, Manchester

George, D, and Brumhead, D, 2002 The Mersey Irwell Navigation - The Old Quay at Manchester, in R McNeil and D George (eds), 22-4

Gifford, 2006 *Potato Wharf, Castlefield, Manchester: Archaeological Desk-Based Assessment*, unpubl rep

GMAU, 1992 *Giant's Basin, Potato Wharf, Castlefield: An Archaeological Watching Brief*, unpubl rep

Grealey, S (ed), 1974 *Roman Manchester*, Altrincham

Gregory, RA, 2007 *Roman Manchester: the University of Manchester's excavations within the vicus 2001-5*, Oxford

Gregory, RA, forthcoming *Excavating Mamucium*

Gregory, RA, and Bell, S, 2008 *The Pump House, Left Bank. Manchester: an archaeological excavation*, unpubl rep

Hadfield, C and Biddle, G, 1970 *The canals of North West England, Vol 1*, Newton Abbot

Hall, D, Wells, CE, and Huckerby, E, 1995 *The Wetlands of Greater Manchester*, Lancaster Imprints **3**, Lancaster

Hartwell, C, Hyde, M, and Pevsner, N, 2004 *The buildings of England. Lancashire: Manchester and the South-East*, Yale

Institute for Archaeologists, 2010 *Code of Conduct*, Reading

Institute for Archaeologists, 2011 *Standard and Guidance for Historic Environment Desk-based Assessment*, Reading

Sillitoe, P, 1988 The *Castlefield Canal Basin 1763-1805: A Chronology of Development*. unpubl dissertation, The Ironbridge Institute

Thomas, RHG, 1980 *The Liverpool and Manchester Railway*, London

Tupling, GH, 1962 Medieval and Early Modern Manchester, in CF Carter (ed) *Manchester and its Region: A Survey Prepared for The British Association*, Manchester 115-130

UMAU, 2002 *Liverpool Road, Manchester: Archaeological Excavation*, unpubl rep

UMAU, 2007 *Potato Wharf, Castlefield, Manchester: An Archaeological Excavation*, unpubl rep

Williams, M, with Farnie, DA, 1992 *Cotton Mills in Greater Manchester*, Preston

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ILLUSTRATIONS

FIGURES

Figure 1: Site location

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

Figure 3: Site Area superimposed on Johnson's *Plan of the Parish of Manchester*, 1819

Figure 4: Site Area superimposed on Swires' *Map of Manchester and its Environs*, 1824

Figure 5: Site Area superimposed on the Ordnance Survey 5': 1 mile map of 1851

Figure 6: Site Area superimposed on the Ordnance Survey 25": 1 mile map of 1896

Figure 7: Site Area superimposed on the Ordnance Survey 25": 1 mile map of 1908

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 1932

Figure 10: Site Area superimposed on the Ordnance Survey 1: 1,250 map of 1960-80

Figure 11: Location of heritage assets

Figure 12: Plan of gazetteer sites

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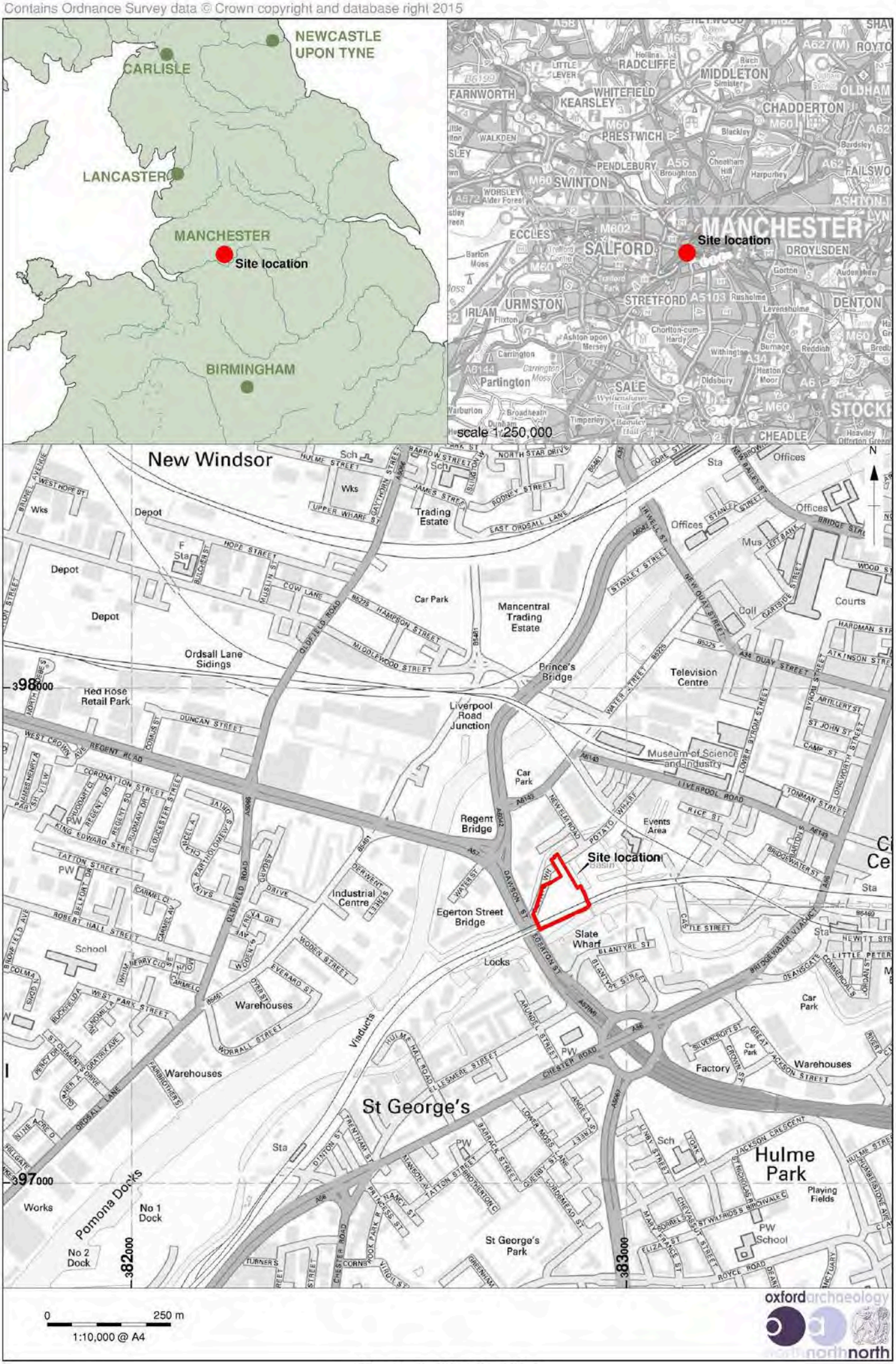


Figure 1: Site location



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



Figure 3 Site area superimposed on Johnson's *Plan of the Parish of Manchester*,1819



Figure 4: Site area superimposed on Swire's map of Manchester and its Environs,1824

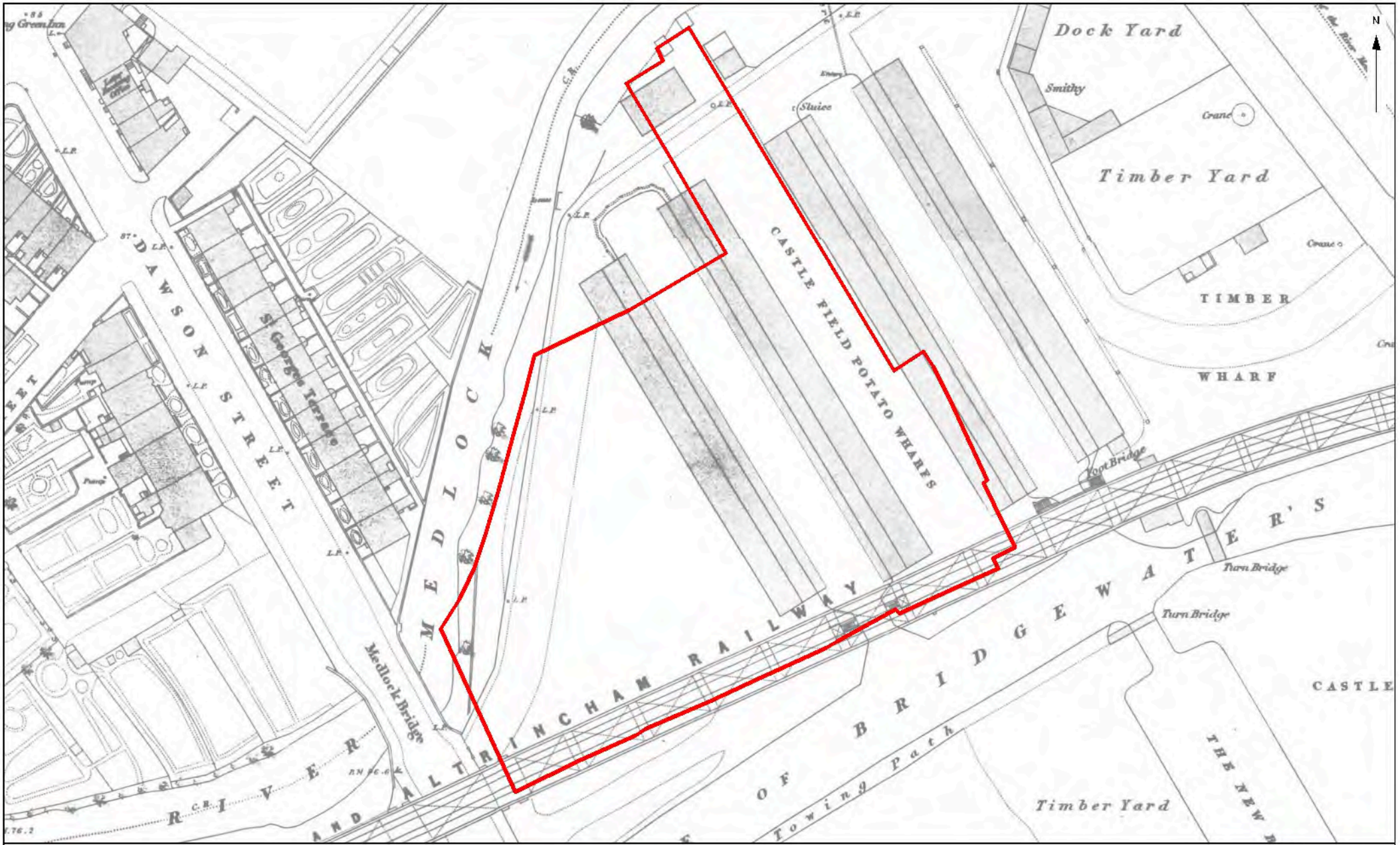


Figure 5: Site area superimposed on the Ordnance Survey 5':1 mile map of 1851

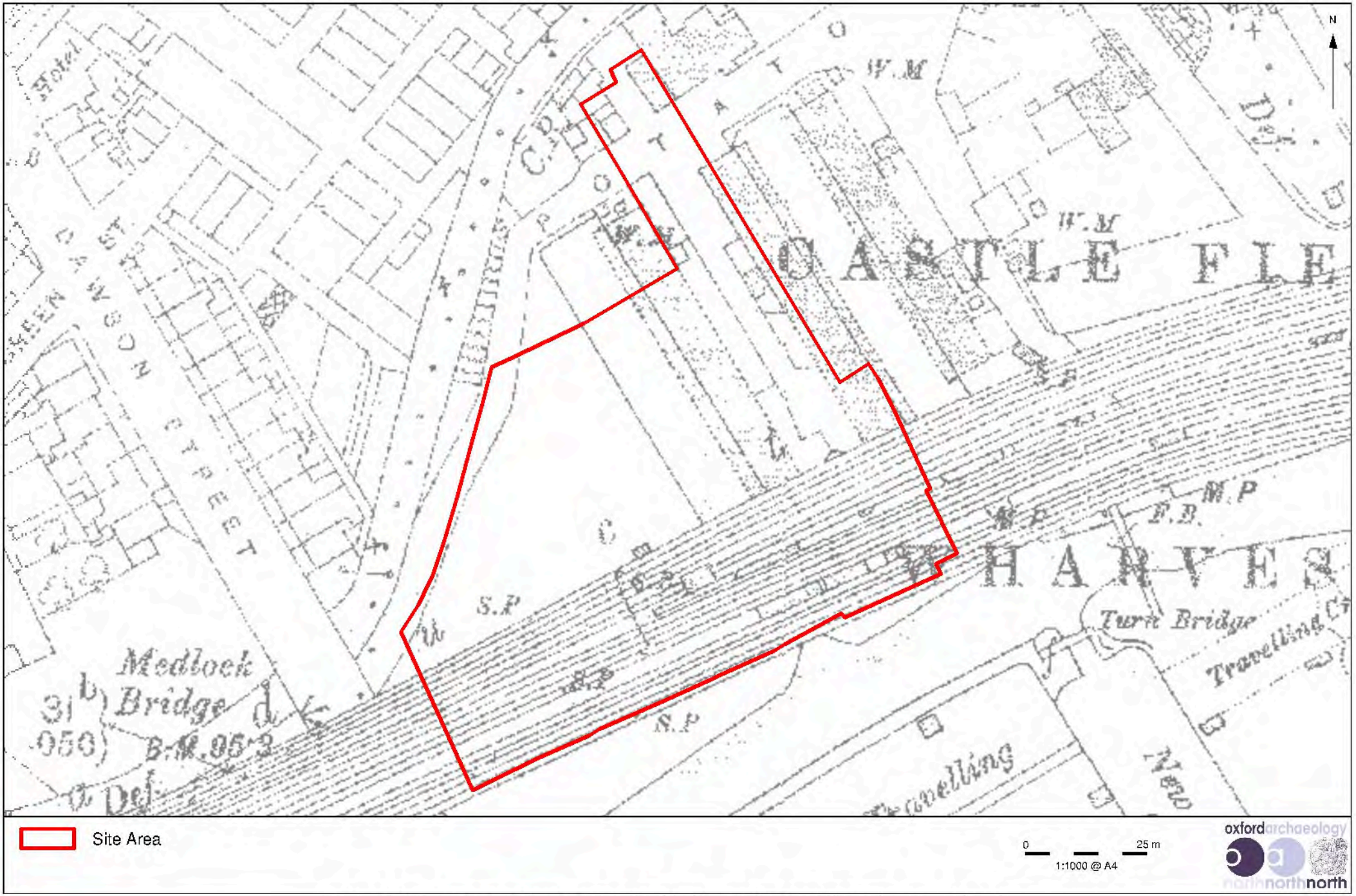


Figure 6: Site area superimposed on the Ordnance Survey 25":1 mile map of 1896



Figure 7: Site area superimposed on the Ordnance Survey 25":1 mile map of 1908



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

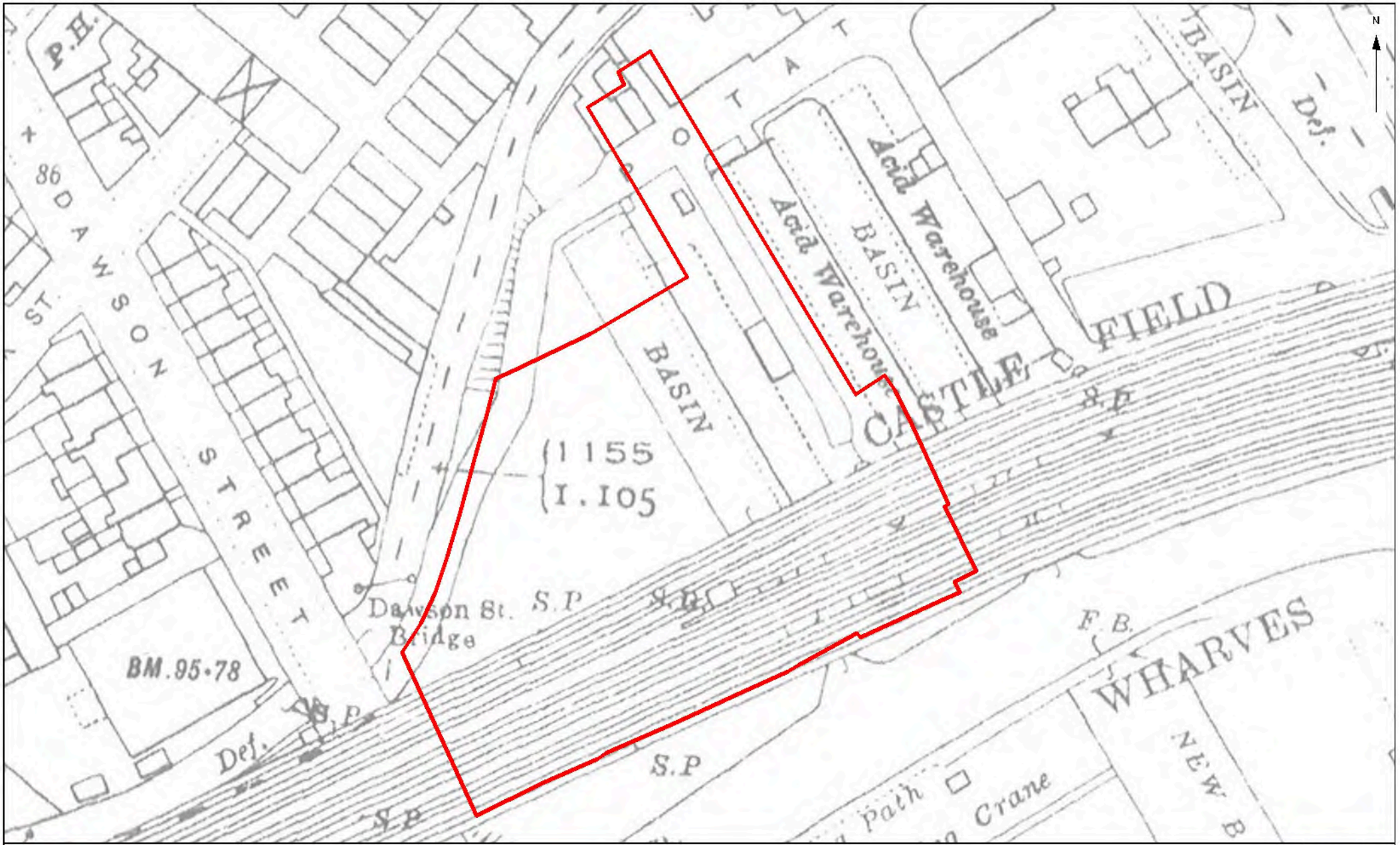


Figure 9: Site area superimposed on the Ordnance Survey 25":1 mile map of 1932

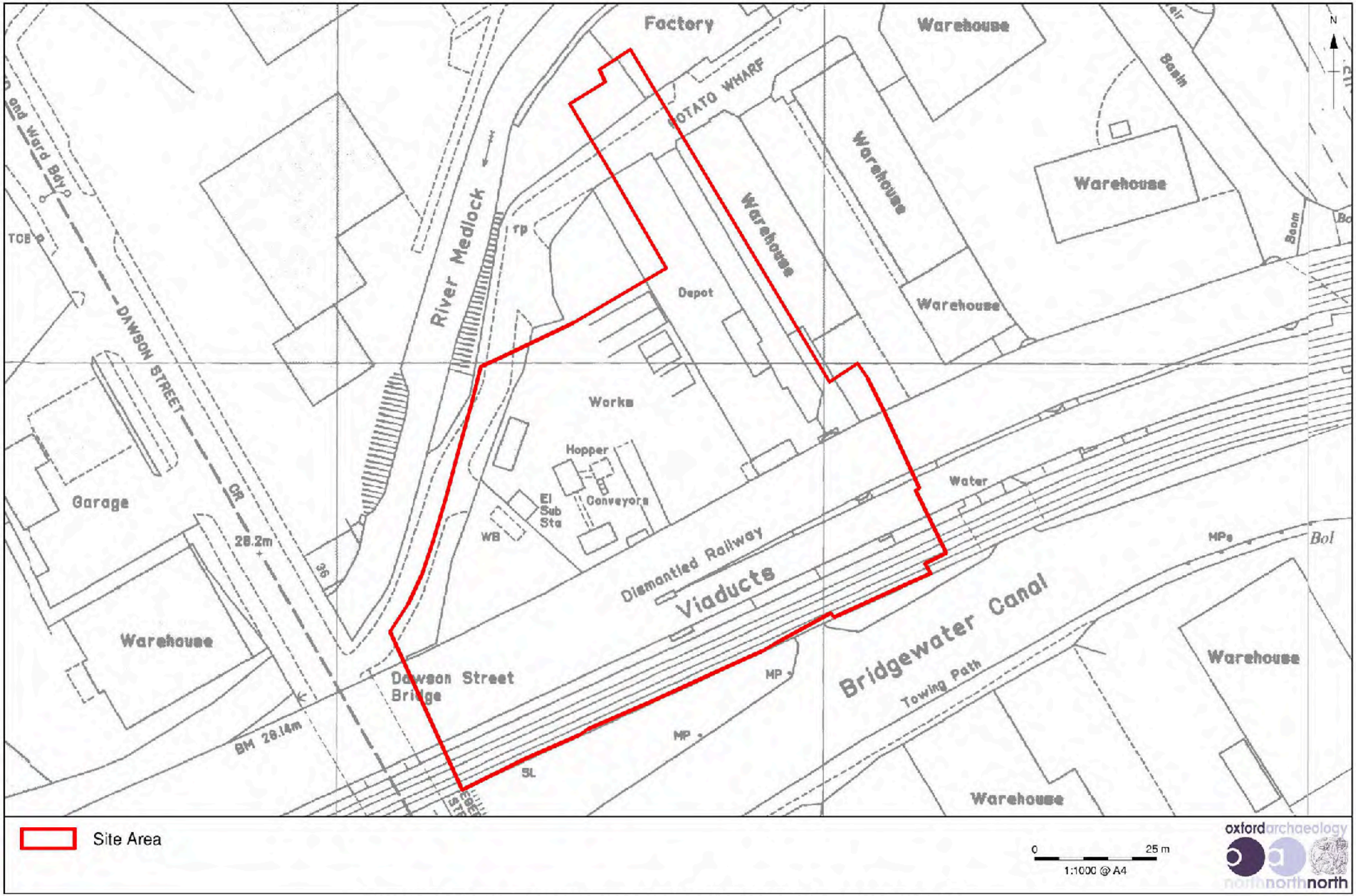


Figure 10: Site area superimposed on the Ordnance Survey map of 1980

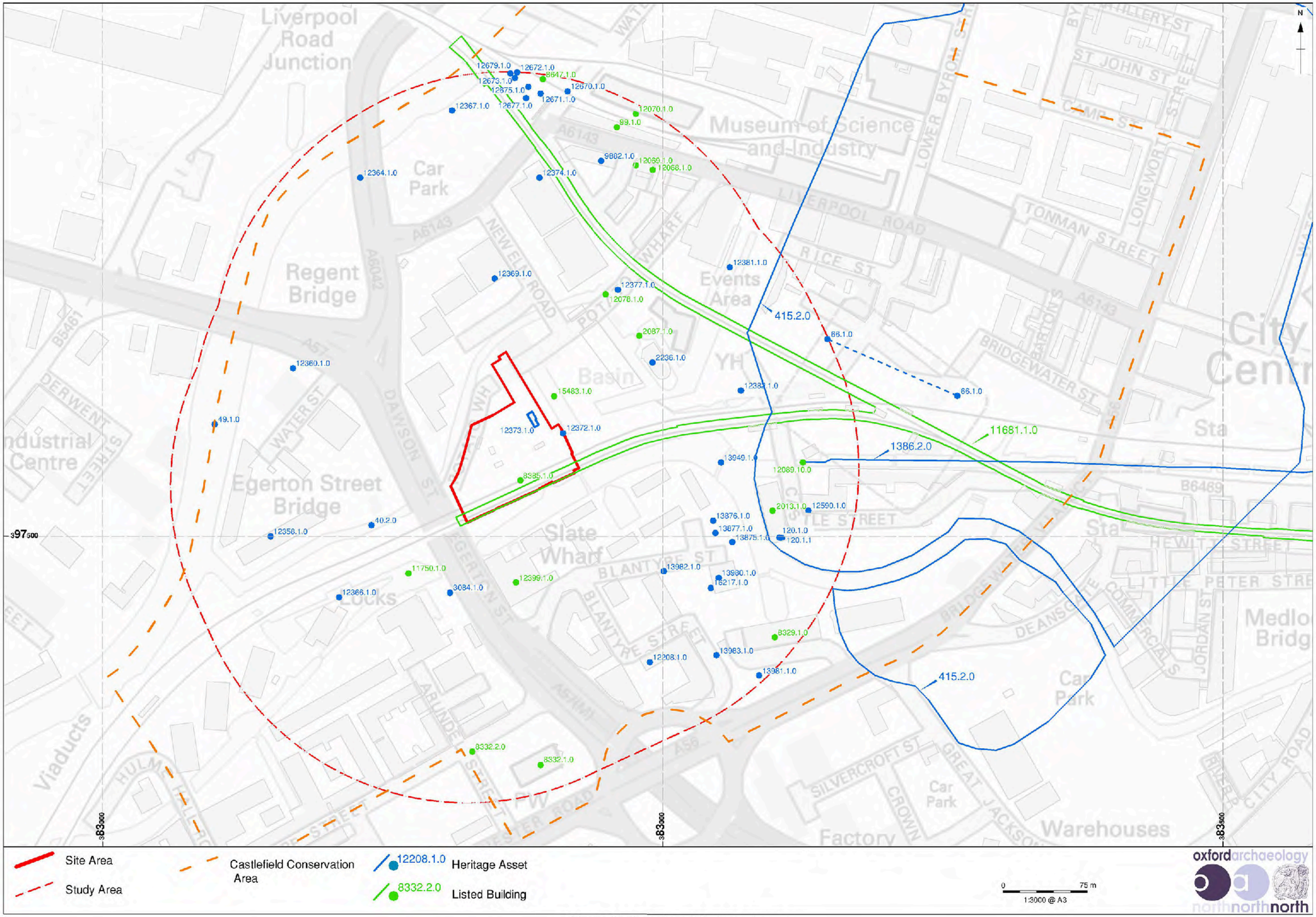


Figure 11: Location of Heritage Assets

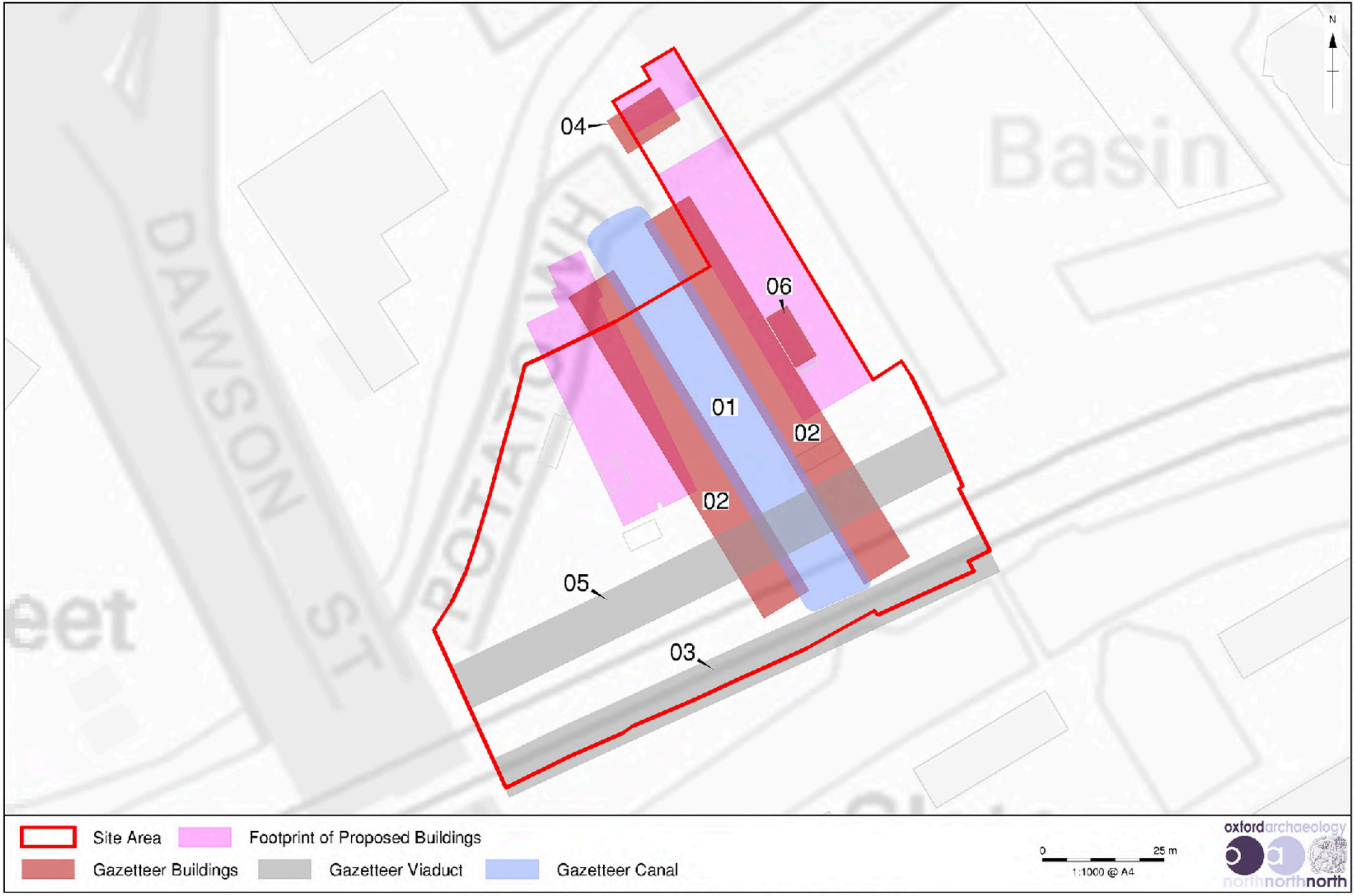


Figure 12: Plan of gazetteer sites within the site area