

NOMA Plot H, Hanover Street, Manchester

Archaeological Deskbased Assessment



Oxford Archaeology North

November 2013

The Co-operative Group

Issue No: 2013-14/1458 OA North Job No: L10680 NGR: 384322 398871 **Document Title:** NOMA PLOT H, HANOVER STREET, MANCHESTER

Document Type: Archaeological Desk-based Assessment

Client: The Co-operative Group

Issue Number: 2013-14/1458 OA Job Number: L10680

National Grid Reference: 384322 398871

Prepared by: Rachel Street

Heritage Consultant Position: Date:

October 2013

Checked by: Ian Miller

Position: Senior Project Manager

Date: October 2013

Signed A Lytin. Approved by: Alan Lupton

Position: Operations Manager Date: October 2013

Oxford Archaeology North

Mill 3 Moor Lane Mills Moor Lane Lancaster LA1 1GF

t: (0044) 01524 541000 f: (0044) 01524 848606

w: www.oxfordarch.co.uk e: info@oxfordarch.co.uk Oxford Archaeology Ltd (2013)

Janus House Osney Mead Oxford OX2 0EA

t: (0044) 01865 263800 f: (0044) 01865 793496

Oxford Archaeological Unit Limited is a Registered Charity No: 285627

Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology Ltd being obtained. Oxford Archaeology Ltd accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees, and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology Ltd or all loss or damage resulting therefrom. Oxford Archaeology Ltd accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

CONTENTS

SUMN	MARY	2
ACKN	NOWLEDGEMENTS	3
1. In	TRODUCTION	4
1.1	Circumstances of Project	4
1.2	Location, Topography and Geology	4
1.3	Statutory Sites	5
2. M	ETHODOLOGY	6
2.1	Desk-Based Assessment	6
2.2	Assessment Methodology	7
2.3	Planning Background and Legislative Framework	9
3. BA	ACKGROUND	11
3.1	Historical Background	11
3.2	Map Regression Analysis	16
3.3	Previous Archaeological Work	20
4. GA	AZETTEER OF SITES	22
5. Sic	GNIFICANCE OF THE REMAINS	35
5.1	Introduction	35
5.2	Criteria	35
5.3	Significance	37
6. Lii	KELY IMPACT OF DEVELOPMENT	38
6.1	Introduction	38
6.2	Impact	38
6.3	Impact Assessment	38
7. R E	ECOMMENDATIONS	40
7.1	Introduction	40
7.2	Recommendations	40
Bibli	IOGRAPHY	41
ILLUS	STRATIONS	44

SUMMARY

The Co-operative Group is presently devising proposals to develop new sports pitches on land situated on the south side of Miller Street in the Shudehill area of Manchester (centred at NGR 384322 398871) as part of the NOMA Regeneration programme. In order to facilitate the planning process, the Co-operative Group commissioned Oxford Archaeology North (OA North) to carry out an archaeological desk-based assessment of the study area. This was intended to establish, as far as possible, the nature and significance of the sub-surface archaeological resource within the area, and to establish the impact of any future development upon this resource.

In total, 37 heritage assets have been identified with a 200m radius of the centre of the study area, which include 12 Listed Buildings. The south-eastern corner of study area also shares a boundary with the Shudehill Conservation Area, although the proposed development is outside the designated area. Of the total heritage assets identified, only six lie within the boundary of the development area. None of these are afforded statutory designation, and are thus not considered to be of national importance that would require preservation *in-situ*.

Most of the heritage assets within the Site Area are considered to be of local archaeological importance, which in some cases reflects the probable extent of previous damage or disturbance. A few sites are considered to be of local, or even borough importance, which may merit preservation by record, should they be damaged of destroyed by future development. In particular, any buried remains of a late eighteenth-century warehouse, nineteenth-century dwellings and elements of a later nineteenth-century factory, could potentially be of archaeological interest. However, the current proposals will have very limited, if any, direct impact on any buried remains of those heritage assets that do survive; the only requirement for ground-breaking works will be associated with the installation of fence posts and floodlighting columns, which will have foundations that are c 700mm deep.

The requirement for any further archaeological investigation of the Site Area in advance, or during, the proposed developed would be based on a recommendation by the Greater Manchester Archaeological Advisory Service, which provides advice on planning applications to Manchester City Council. However, the conclusions drawn from the present assessment suggest that any further investigation of the site is unlikely to be merited.

ACKNOWLEDGEMENTS

Oxford Archaeology North (OA North) would like to thank Katie Wray, Assistant Planning Manager for the Co-operative Group, for commissioning and supporting the project. 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 the Local Studies Unit at Manchester Central Library, the Museum of Science and Industry in Manchester, and the Lancashire County Record Office, for their assistance with the historical research.

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

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

1.1.1 The Co-operative Group is presently devising proposals to develop Plot H of the NOMA Regeneration programme. The proposals allow for the development of new sports pitches on land situated on the south side of Miller Street in the Shudehill area of Manchester (referred to hereafter as the Site Area). In order to facilitate the process, the Co-operative Group commissioned Oxford Archaeology North (OA North) to carry out an archaeological desk-based assessment of the Site Area. This was intended to establish as far as possible, the nature and significance of the sub-surface archaeological resource within the area, and to establish 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.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 The study area (centred on NGR 384322 398871) is situated on the northern fringe of the city centre (Fig 1). The site is bounded by Miller Street, Hanover Street, Riga Street and the former Amber Street, situated immediately to the east of the Co-operative Group's CIS Building (Plate 1).



Plate 1: Aerial view of the Site Area and its environs in c 2005, prior to the development of the Co-operative Group's Headquarters Building and the NOMA Regeneration

- 1.2.2 *Topography:* topographically, the Manchester Conurbation as a region is 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). The study area occupies rising ground on the east side of the valley of the River Irk, at a height of *c* 47m above Ordnance Datum (aOD). The site is relatively level, and is used currently as a car park.
- 1.2.3 *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 fluviatile/lacustrine origin (Hall *et al* 1995, 8).

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. There are 12 Listed Buildings within a 200m radius of the centre of the Site Area, although the proposed development will not have a direct impact. It is also important to consider the setting of these designated assets, and whilst this has not been assessed in detail during the present study, the impact on the historic setting of the Listed Buildings is unlikely to be greater than negligible.
- 1.3.2 The Site Area does share a boundary with the Shudehill Conservation Area, and lies in close proximity to the Smithfield Conservation Area and the Cathedral Conservation Area. The streetscape of the western part of the Shudehill Conservation Area is dominated by large twentieth-century buildings, whilst the character of the eastern part, in the immediate vicinity of the Site Area, is drawn from the older, smaller-scale buildings. Many of the older buildings in the area, however, have been demolished due to low levels of occupancy, neglect and lack of investment, whilst others have been affected by the construction of the Metrolink system.

2. METHODOLOGY

2.1 DESK-BASED ASSESSMENT

- 2.1.1 The archaeological assessment has focused on the Site Area, 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 copies 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, although the library is presently closed to the public and could not therefore be visited:
 - Local Studies Unit at Manchester Central Library: the local studies unit was consulted for information pertinent 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 10).

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 1 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	To be avoided		
Regional/County Conservation Areas, Registered Parks and Garden (Statutory Designated Sites), Grade II Lister Buildings		Avoidance recommended	
	Sites and Monuments Record/Historic Environment Record		
Local/Borough	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		
Low Local	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		
Negligible	Sites or features with no significant archaeological value or interest		

Table 1: 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 2.

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 2: Criteria used to determine Scale of Impact

2.2.5 The interaction of the scale of impact (Table 2) and the importance of the archaeological site (Table 1) produce the impact significance. This may be calculated by using the matrix shown in Table 3:

Resource Value	Scale of Impact Upon Archaeological Site			
(Importance)	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 3: 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 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 4: 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 insitu 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*).
- 2.3.5 **Setting:** the historic setting of a site also needs to be taken into account when considering any development proposals, and whether the character of that setting will sustain any impact as a result of development. However, given that the development proposals concern the creation of level sports pitches across an area that is used currently as a car park, it is considered unlikely that the impact on the historic setting will be anything more than negligible.

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 5 below. Key sites are summarised in the Gazetteer of Sites with numbers given in brackets (*Section 4*), and are mapped on Figure 10.

Period	Date Range
Palaeolithic	30,000 – 10,000 BC
Mesolithic	10,000 – 3,500 BC
Neolithic	3,500 – 2,200 BC
Bronze Age	2,200 – 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 5: Summary of British archaeological periods and date ranges

- 3.1.2 *Prehistoric period:* the current understanding of any human activity in the Manchester region during the prehistoric period is poor, although it is reasonable to suggest that the Castlefield area in the centre of the city may have been conducive for late prehistoric settlement on account of the natural topography and its riverside location. Similarly, the area around Manchester Cathedral, close to the confluence of the rivers Irwell and Irk, provides a location which would have been favourable for early activity. However, the only known physical evidence for prehistoric activity in the vicinity of the Site Area is provided by a Bronze Age axe-hammer, reported to have been discovered at the junction of Todd Street and Corporation Street.
- 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). 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 (Gregory 2007), and Buxton to the south-east. However, evidence for Roman activity in the vicinity of the Site Area is limited. Roman coins were discovered along the River Irk in 1899-1901, when the river between Ducie Bridge and Scotland Bridge was diverted for the railway, and a coin of Constantine I (AD 306-33) was discovered in Angel Street, together with a circular quernstone, believed to be Roman, in St Michael's Square, in 1904.

- 3.1.4 *Early medieval period:* there is scant 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 1911). An urn dating to the late sixth century was discovered at Red Bank to the north of the Site Area in the nineteenth century, providing rare physical evidence for human activity during this period.
- 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. This early settlement at the confluence of the Irwell and Irk seems to have been bounded on the landward side by Hanging Ditch, whose curving line ran between the two rivers, taking a line that was followed subsequently by Toad Lane, the forerunner of Todd Street and Corporation Street.
- 3.1.6 *Medieval and Post-medieval periods:* the present Site Area lay on the northeastern fringe of the medieval settlement. The principal thoroughfare in this part of the medieval town was Long Millgate, which extended along the south side of the River Irk to Manchester's manorial corn mill. Millgate is documented from the early fourteenth century, but the mill is referred to in documents dating to the first half of the twelfth century. Long Millgate also led to Scotland Bridge over the River Irk, one of the principal routes into Manchester, and to Ashley Lane, another main route into the town from the north-east. Long Millgate was superseded in the 1850s when Corporation Street was extended from Withy Grove to Ducie Bridge.
- 3.1.7 Long Millgate is shown on the earliest known map of Manchester, dating to *c* 1650, which shows a continuous line of properties along both sides of the street (Plate 2). This map also shows several properties along Miller's Lane, the forerunner of Miller Street, and Shudehill. Miller's Lane is documented from the 1580s, and may have originated as a convenient link between the manorial corn mill and the eastern approach to the town via Shudehill and what is now Swan Street.
- 3.1.8 In 1621, Edward Mayes of Manchester bequeathed money for the purchase of land to be used for the benefit of the poor of the town. His trustees bought four acres on the south side of Miller's Lane in 1635, which were rented out and the profits distributed to the poor. The charity also owned a row of cottages on the north side of this land in which they housed 20 poor families. These almshouses are likely to be shown on the map of *c* 1650, and also on a later map that was produced by Casson and Berry in 1741 (Plate 3). However, the Site Area appears to have been fields.

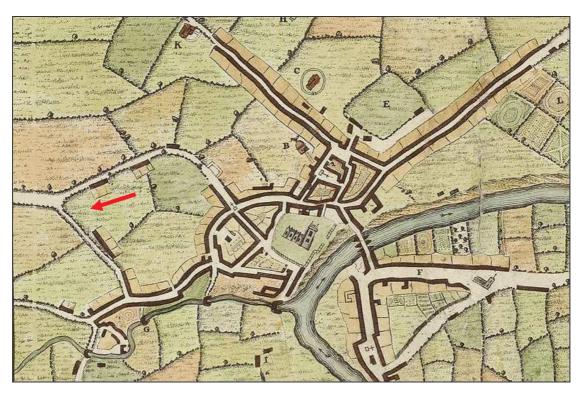


Plate 2: Plan of Manchester dating to c 1650, with arrow marking approximate location of the present Site Area

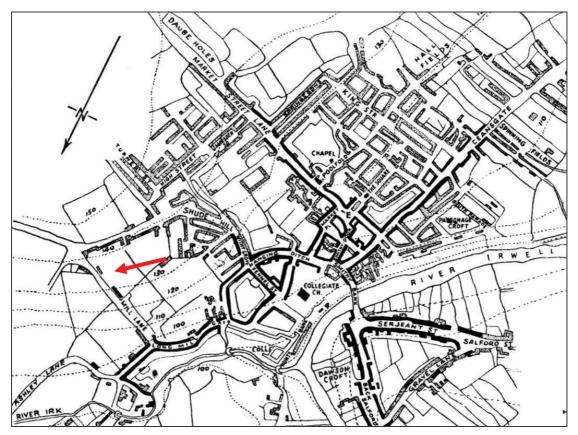


Plate 3: Copy of Casson and Berry's map of 1741, with arrow marking approximate location of the present Site Area

- 3.1.9 In 1731, it was proposed to establish a new workhouse in Manchester, and a bill to advance the scheme was submitted to Parliament, but was aborted due to disagreements among the townspeople. However, the lord of the manor had proceeded to erect part of the workhouse on Miller's Lane, which was earliest building of this type in Manchester. The original plan was for a set of buildings arranged around a quadrangle, but only one was actually completed. This measured 34 yards (31m) long, 6 yards (5.5m) wide inside, and was four storeys high. The ground floor was intended to contain broad looms, the first floor was to have a dining hall, a parlour for the governor, kitchens and other offices, the second floor lodging rooms, and the third floor housed Dutch looms for weaving smallwares. However, it seems that the workhouse was a short-lived venture, and William Green's detailed map of 1794 annotates the building as more almshouses (Fig 2). The footprint of this building (Site 01) falls partially within the boundary of the Site Area.
- 3.1.10 *Industrial period:* the onset of the rapid industrialisation centred on Manchester from the late eighteenth century resulted in a massive expansion of the town's population. The development of the Site Area at the end of the eighteenth century is captured on detailed plans produced by William Green in 1787-94 (Plate 4; Fig 2) and Charles Laurent in 1793. These maps show new streets to have been laid out across the area, including Hanover Street, and numerous buildings erected in the vicinity of the Site Area. Hanover Street was named in deference to the coronation of King George III and Queen Charlotte in 1761. It was originally a residential street, although industry had become established by the final decade of the eighteenth century, and Hanover Street was noted as the site of a cotton mill collapse in 1790.
- 3.1.11 The Site Area itself extends between Miller Street and Hanover Street, and encompasses part of the Mayes Charity land, where development was prevented until 1794, when the trustees obtained an Act of Parliament allowing them to sell it off on leases of 99 years. On the opposite side of Miller Street to the Mayes Charity land lay Arkwright's cotton mill, Manchester's first large-scale cotton mill, which was erected in 1780-3 on the site of a former brick yard.
- 3.1.12 The cotton mill was built by Richard Arkwright and partners and was one of a number of early cotton factories in England and Scotland built to house Arkwright's patented machinery for carding and spinning. The Manchester mill was five storeys high, 9.1m (30ft) wide and, on the cartographic evidence, approximately 68m long. As such, it was one of the largest of the Arkwright mills, reflecting the importance of Manchester as a centre of textile manufacture. It was probably the first purpose-built mill in Manchester, and the first in the town to employ a steam engine and to have a mill chimney. The original engine was of the atmospheric type and was used to raise water from a lower to an upper reservoir to supply the mill's waterwheel, which was 8ft (2.4m) wide and 30ft (9.1m) in diameter. It has been suggested that the engine was originally planned to power the mill directly, and that the waterwheel was only added when this proved a failure. However, the position of the mill on sloping ground implies that the upper and lower reservoirs were part of the initial design.

- 3.1.13 The Arkwrights' partnership in the mill ended in 1786, when their former partners John and Samuel Simpson took full control. In 1791 Boulton and Watt installed a 6hp in the mill, followed in 1792-3 by a 40hp engine to replace the old atmospheric engine and waterwheel. A third engine, of 30hp, was added in 1799.
- 3.1.14 Subsequent development in the nineteenth century transformed the area into a mixed residential and industrial zone. Among the earliest houses in Shudehill were artisans' dwellings of three storeys and a basement, although the area also included inferior, and generally later, housing in the form of back-to-backs, twin rows of one-up one-down houses sharing a common rear wall. In the course of the first half of the nineteenth century, houses of all types within the area became notorious for their overcrowding and insanitary conditions. Engels famously described the squalid state of Long Millgate and its neighbouring courts, an area containing dwellings from the pre-industrial town as well as more recent workers' houses. The district to the north of Miller Street and east of Rochdale Road, known as Angel Meadow, equally attracted the attention of nineteenth-century commentators. Angus Reach in 1849 described it as 'the lowest, most filthy, most unhealthy, and most wicked locality in Manchester'.
- 3.1.15 In contrast, Miller Street was also the location of the town's first public wash house, which occupied a site on the north side of Miller Street. This was established in response to the recognition amongst the middle classes of the appalling and filthy living conditions of the urban poor, which led to the launch of an appeal in 1845 to finance a baths for the poor. The funds raised were used to convert a three-storey dwelling for use as an experimental bathhouse in Miller Street. This contained 12 bath-tubs for men and six for women, and a wash-house. Whilst it was inadequate for the requirements of the whole city, it was well used and yielded a small profit. The wash house opened for business on 7 September 1846. Water was stored on the upper floor in two tanks, one for cold water, and the other for water heated by steam from a boiler. In addition, as described in a contemporary article in *The Builder*:

'The cellars are devoted to the washing department, and give accommodation to twenty-six washers at one time, and contain two large boilers for boiling the clothes. There is also a drying stove, and all these advantages are afforded for a space of time not exceeding four hours for the sum of one penny...The drying stove contains a number of "horses" which run upon pullies, and are, when filled with clothes, pushed into a chamber containing a great number of steam-pipes'.

3.1.16 The Miller Street establishment was followed in 1849 by a wash house and swimming bath in Miles Platting funded by a private benefactor, and in the following decade by baths and laundries in Salford, Manchester and Hulme built by a private company founded in 1854. The pioneering Miller Street wash house continued in use until about 1876.

3.2 MAP REGRESSION ANALYSIS

3.2.1 The development of the study area may be traced reasonably well from the sequence of available historic mapping. The earliest reliable maps that show the study area at a reasonable scale are Charles Laurent's *Map of Manchester & Salford*, published in 1793, and William Green's survey published in 1794 (Fig 2; Plate 4). These show development along the northern side of Miller Street, on both sides of Shudehill to the east and both sides of Hanover Street to the south. Three two blocks of buildings (Site 03), likely to have been commercial premises, lie along the north side of Hanover Street, within the southern part of the Site Area. The almshouses (Sites 01 and 02) are shown along the south side of Miller Street, beyond the northern boundary of the Site Area. Between these two sets of buildings lies the Mayes Charity Land, which is interesting to note has already been marked out on the map for development. The subsequent roads do not follow the exact pattern marked out, but the intention to develop has nonetheless been recorded.

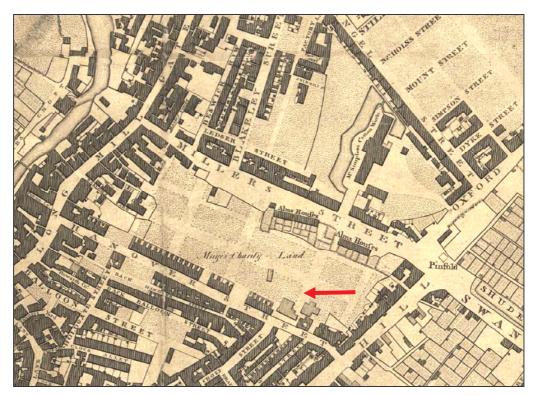


Plate 4: Extract from William Green's map, published in 1794, with arrow marking the centre of the present Site Area

3.2.2 Several maps of the area were produced during the first decade of the nineteenth century. All of these maps were published at a small scale, including that produced by Dean and Pigot in 1809 (Plate 5). Whilst the scale of these maps is too small to elucidate much detail of individual buildings, they nevertheless provide a useful indication of the extent of development across the area. The detail of Dean and Pigot's map seems to indicate that the western block of the almshouses (Site 01) had been replaced by a new block, aligned perpendicular to Miller Street. The map also annotates Mayes Street, which was named in commemoration of Edward Mayes, founder of the Mayes Charity.



Plate 5: Extract from Dean and Pigot's map of 1809, showing the boundary of the Site Area

- 3.2.3 The next available maps of the study area are those produced by Pigot in 1819 and Johnson in 1820 (Fig 3). Whilst these maps were again produced as a fairly small scale, they confirm that the western block of Almshouses had been rebuilt, and that the Mayes Charity land had clearly been developed, with several new blocks of housing and streets in place.
- 3.2.4 Bancks & Co's map of 1831 shows the buildings and streets in the Site Area in more detail (Fig 4). That along the western edge is named Edward Street, with Riga Street aligned parallel along the south-eastern part of the Site Area, and Mayes Street crossing the centre of the area. The properties fronting Hanover Street (Site 05), along the southern edge of the Site Area, occupy a different footprint to those shown on Green's map (Site 03), suggesting that they were replacements; all appear to be 'double-depth' houses, some having outshuts or separate small properties to their rear. The properties along Mayes Street and a parallel road (named on later maps as Back Mayes Street; Site 06), are of various forms, and presumably function, indicative of the lack of urban planning during this period. A Sunday School is shown on Edward Street, and there appears to be two undeveloped areas: one to the south of Miller Street; and the second to the north of the Hanover Street houses.
- 3.2.5 The Ordnance Survey 60": 1 mile map of 1850 shows a similar layout to Bancks & Co's map, but provides much more detail of the buildings (Fig 5). The building that replaced the eastern block of almshouses (Site **02**) appears to have been entered on its southern side via sets of steps, with the area immediately to the south annotated as a timber yard (Site **07**); entries in trade directories indicate that this was occupied by Thomas Wallis (Pigot and Slater 1841, 93). The mapping does not show this building to have been fitted with cellar lights, suggesting that it did not have a basement. A second timber yard and extra buildings (Site **08**) are shown to have been erected on the land bounded by Edward Street, Mayes Street and Riga Street, within the Site Area.

- 3.2.6 One of the buildings on Mayes Street (Site **06**) is now marked as the Wilton Arms Inn. Steps are shown on properties between Back Mayes and Mayes Street, as well as the group of housing bounded by Edward Street, Hanover Street and Riga Street (Site **05**). Entries in trade directories indicate that the building on the corner of Hanover Street and Riga Street (Site **04**) was occupied by Edwin Butterworth, a rag dealer (Pigot and Slater 1841, 116). Other commercial premises in the Site Area included John Mellor, a cabinet maker on Riga Street. The area to the rear of the properties fronting Hanover Street comprised several enclosed courtyards, which were accessed via covered passages from Hanover Street and Edward Street.
- 3.2.7 Joseph Adshead's map of 1851 adds additional information to that provided by the Ordnance Survey by identifying commercial buildings (Plate 6). Within the Site Area, the timber yard is visible on Mayes Street, and nearby to the west is a C Steadman's sawmill, and Burton and Fullerton's timber yard. There is a small corn mill to the east of Riga Street, together with J Williamson's saw mill. This timber yard also contained buildings which, from the mapping evidence, may have had an industrial function as workshops or a possible commercial role as warehousing. Interestingly, within a very small area of both commercial and residential dwellings, there were seven public houses between Shudehill to the east, and what is now Dantzic Street to the west. These are the Highland Laddie, the Mountain Dew, the Wilton Arms (within the Site Area), the Higher Turks Head, the Nags Head, the Duke of York and the Gammy Goose. The number of public houses indicates how dense the population and housing must have been interspersed between commercial industrial buildings, timber yards and sawmills.

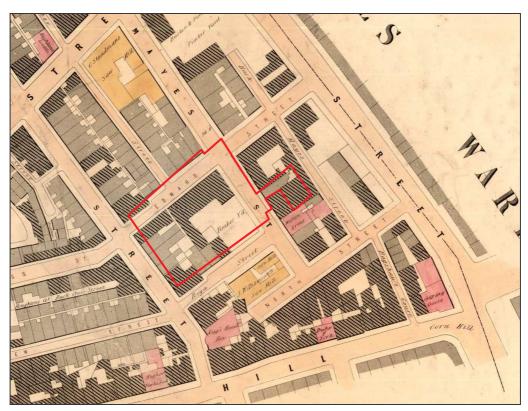


Plate 6: Extract from Joseph Adshead's map of 1851, showing the boundary of the present Site Area

- 3.2.8 The next available edition of Ordnance Survey mapping was surveyed in 1888, and published at a scale of 1:500 in 1891 and at 25":1 mile in 1892 (Fig 6). These show broadly the same layout of properties as shown on the earlier mapping, although some changes can be seen. The main changes to the Site Area shown on the 1892 map are that the blocks of buildings between Miller Street and Back Mayes Street and Mayes Street appear to have been rebuilt as larger properties, and the timber yards have evidently been sold for redevelopment.
- 3.2.9 Considerable detail of the individual buildings in the Site Area during this period is provided by the first edition of Goad's insurance plans, which were compiled in 1888. The plans show that the buildings in the Site Area fronting Hanover Street were of three storeys (Site 05), and included a public house on the corner of Edward Street (here named Amber Street) and a lodging house, whilst the three and a half-storey building on the corner of Riga Street (Site 04) was in use as a cork warehouse. With the exception of the warehouse, none of these buildings had a basement. A three-storey, single-room dwelling is shown as No 2 Amber Street, situated immediately to the rear of the public house on Hanover Street (Site 05). Louis Ellison's cabinet works (Site 09) is shown to have occupied the remainder of the block up to Mayes Street, subsuming the timber yard (Site 08) depicted on earlier mapping. Most of this works was of five storeys, but without any basements, with a two-storey component fronting onto Amber Street. This evidently housed two large stoves, presumably used for steaming timber, which were situated either side of a 45ft high chimney. The block fronting onto Riga Street was used as a saw mill, although entries in a trade directory for 1895 indicate that this part of the cabinet works had been taken over by the Boardman Brothers, engine waste manufacturers (Slater 1895, 335).
- 3.2.10 The block between Mayes Street and Back Mayes Street (Site **06**) had seemingly been redeveloped since the mid-nineteenth century, and whilst the three-storey Wilton Arms public house remained extant, three new buildings to the west spanned the block. These comprised a small cabinet factory, a cotton waste warehouse, and a japanner, forming Nos 8, 10 and 12 Mayes Street respectively.
- 3.2.11 The plot between Back Mayes Street and Miller Street (Site **07**), shown as a timber yard on mid-nineteenth-century mapping, is marked on Goad's plan as a four-storey boot factory and leather warehouse, together with a four-storey grocery and confectionary warehouse, and a smallwares warehouse. The adjacent properties to the east, fronting onto Miller Street, were all of four storeys with basements, with a public house occupying the corner of Miller Street and North Street.
- 3.2.12 Between 1892 and 1908, when the next edition of Ordnance Survey mapping was published (Fig 7), some of the properties appear to have been modified, particularly the block of buildings between Amber Street, Mayes Street and Riga Street. The hotel is renamed as a Public House. The successive editions of Ordnance Survey mapping show progressive demolition of the buildings in the area, although most still remain on the edition published in 1922 (Fig 8).

- 3.2.13 The 1927 edition of Goad's insurance plan shows the footprint of buildings immediately to the north of the Site Area (Site **07**) to have been largely unchanged. The block between Mayes Street and Back Mayes Street, however, had evidently undergone some clearance. The industrial building in the central part of the plot, together with the Wilton Arms, have been demolished, and the site occupied partly by a single-storey timber store. Nos 8, 10 and 12 Mayes Street survived extant. The footprint of the buildings in the southern part of the Site Area is shown as the same as on earlier mapping.
- 3.2.14 Extensive air raids took place across Manchester on the 22 and 23 December 1940. These are thought to be the air raids which destroyed Arkwright's Mill to the north of the Site Area. The fire records for 1939-40 (MCL/MI/37) were checked in order to confirm this, although the reports do not give street by street detail of the damage. The records stated that over the course of the December air raids there were over 700 fires in Manchester, which meant that the fire crews worked constantly for two-three days.
- 3.2.15 The Town and Country Planning Act of 1944 permitted Manchester Town Planning Committee to make compulsory purchases of areas it wished to redevelop. One area comprised '6.61 acres of land bounded by Miller Street, Rochdale Road, Angel Street, and Dantzic Street, of which 4.38 acres have been cleared. In addition, nearly half an acre has been cleared under the Housing Acts and only seven buildings remain on the site. The area has been zoned for general industrial development' (*Manchester Guardian*, 18 September 1946).
- 3.2.16 Despite this apparent aspiration for redeveloping the area in the 1940s, it is evident that this occurred progressively. The Ordnance Survey map of 1951 shows all the buildings in the southern half of the Site Area to remain with small modifications, whereas all those to the north of the Site Area, between Mayes Street and Miller Street, appear to have been demolished. These are likely to have been destroyed during the wartime air raids.

3.3 Previous Archaeological Work

3.3.1 A considerable amount of archaeological work has been undertaken in the immediate locale of the Site Area in recent years. One of the first archaeological investigations was carried out in 2005, when Channel 4's 'Time Team' excavated four evaluation trenches of varying dimensions across the footprint of Arkwright's Mill, on the north side of Miller Street. This uncovered structural remains of the late eighteenth century mill, including the wheelpit, as well as remains of the rebuilding following a devastating fire in 1854 (Wessex Archaeology 2006). The cellar of a late eighteenth-century house on Angel Street was also excavated. This had originally contained two rooms, each equipped with a fireplace. The cellar was sub-divided in the nineteenth century, providing two single-room dwellings which could therefore have been occupied by two families, and thus provided more rent (Wessex Archaeology 2006, 15-18; Nevell 2008, 143-4).

- A large excavation within the vicinity of the present Site Area was undertaken 3.3.2 in 2009, beneath the footprint of the new Headquarters Building for the Cooperative Group (OA North 2011). The remains of approximately 75 structures were identified, almost exclusively relating to domestic dwellings, with the majority dating from the late eighteenth and early nineteenth centuries. Four broad phases of activity were recognised, with the earliest structure appearing to represent the cellar of a mid-eighteenth century town house. Other houses mainly comprised two-up-and-two down-type artisans' dwellings, with top floor loomshops, and two-roomed cellars with independent access, which had probably used as cellar dwellings. Evidence for the decline of the area was also observed, with various buildings being partitioned to facilitate an expansion of the local population, and also perhaps to maximise rent revenue. These larger dwellings were converted subsequently into notorious lodging houses, whilst the cellars continued to provide accommodation for the poorest families, which were frequently of Irish origin.
- 3.3.3 In 2012, further excavation was carried out adjacent and parallel to Angel Street in advance of road-widening works (OA North 2013a). The work complemented the previous large-scale excavation in 2009, with different plan-types for late eighteenth-century buildings identified on the Angel Street frontage, most notably eighteenth century dwellings that included back extensions, a variant of the terraced house that only developed on a large scale in the second half of the following century. The remains of back-to-back cellared dwellings were also observed. Whilst their method of construction was similar to the earlier, higher-status buildings, the size and arrangement of the structures provided a fine example of the conditions that led to Angel Meadow gaining its infamous reputation.
- 3.3.4 Following the completion of the excavation, an archaeological watching brief was maintained during the road-widening works along the south side of Angel Street, and the west side of Rochdale Road (OA North 2013b). Few remains of archaeological interest were exposed during this watching brief, which concluded that the remains of properties along the street frontage had been largely destroyed.

4. GAZETTEER OF SITES

Site Number 01

Site Name Almshouses, Miller Street (site of)

Period Seventeenth century **NGR** 384320 398920

Source HER; Green's map 1794; OS 1848

Description Row of almshouses built or remodelled in 1680 by the trustees of

the Mayes Charity. Demolished in 1807-8. Its eastern half was built over by Edward Street, and a block of buildings on the street's west side. The remainder of the site was developed by a large commercial building in the late nineteenth century. These later buildings were

probably destroyed during wartime air raids in 1940.

Assessment It is likely that any buried remains of the heritage asset will have

been destroyed by nineteenth- and twentieth-century development. The footprint of the building lies beyond the Site Area, and will not

be directly affected by the development.

Site Number 02

Site Name Workhouse, Miller Street (site of)

Period Eighteenth century **NGR** 384367 398895

Source HER; Green's map 1794; OS 1848

Description Rectangular range erected as part of a proposed workhouse in the

1730s, but annotated as almshouses on William Green's map of 1794. Intended originally as just one side of a quadrangular structure, the rest was never built. Its imminent demolition was reported in 1818, but a building with the same footprint is shown on mapping of 1848-50. In the late nineteenth century, the footprint of the northern part of the building was built over by a range of commercial buildings, most incorporating cellars, and development also took place over its western and eastern ends. These later buildings were probably destroyed during wartime air raids in 1940.

Assessment It is likely that any buried remains of the heritage asset will have

been destroyed by nineteenth- and twentieth-century development. The footprint of the building lies beyond the Site Area, and will not

be directly affected by the development.

Site Name Buildings, Hanover Street (site of)

PeriodEighteenth centuryNGR384304 398837SourceGreen's map 1794

Description Two large, irregularly-shaped buildings across the southern part of

the Site Area, shown on Green's map of 1794. These had been

replaced by double-depth houses by 1831.

Assessment The footprint of the two building lies within the boundary of the Site

Area, although it is likely that any buried remains will have been

destroyed by nineteenth- and twentieth-century development.

Site Number 04

Site Name Industrial Building, Hanover Street/Riga Street (site of)

Period Late eighteenth century

NGR 384316 398831 **Source** Green 1794

Description A broadly square-shaped block depicted on Green's map at the

corner of what became Hanover Street and Riga Street. Persists with some alteration on the full sequence of nineteenth-century mapping. Listed as a rag dealer in 1841, and Hargreave & Co, bedding manufacturers by 1895. Building shown on the 1908 and 1922 edition mapping, and annotated on Goad's insurance plans as a cork

warehouse.

Assessment The footprint of the building lies within the boundary of the Site

Area, and buried remains of the basement may survive in-situ.

Site Number 05

Site Name Housing, Hanover Street/Edward Street (site of)

Period Nineteenth century NGR 384307 398834

Source Bancks & Co 1831, OS 1850, OS 1890

Description A row of three houses in south-western corner of the Site Area, with

covered passageways to rear yard, replacing Site **03**, first shown in 1831 (although depicted as four properties), but continues onto the 1890 map. Edwards Court annotated to the rear on latter map, which depicts a short row of three small structures, probably representing privies. Goad's insurance plan of 1888 marks the three buildings as commercial properties, with an apparent three-storey, single-roomed dwelling to the rear. The 1908 map shows that the western two properties had been remodelled or replaced by a public house, whilst

the eastern house remained extant.

Assessment The footprint of the buildings lies within the boundary of the Site

Area, and buried remains may survive *in-situ*. However, the original buildings did not incorporate a cellar, so any buried remains that do survive will be limited to the foundation courses of the buildings.

Site Name Commercial / Residential Buildings, Mayes Street/Back Mayes

Street (site of)

Period Nineteenth century NGR 384343 398882

Source Bancks & Co 1831, OS 1850, OS 1890

Description A block of commercial properties first shown in 1831, and probably

included the Wilton Arms Hotel. The western part of the block is annotated as commercial properties on Adshead's map of 1851, encompassing a single dwelling. The buildings to the west of the

hotel had been redeveloped as commercial properties by 1890.

Assessment The footprint of the buildings lies within the boundary of the Site

Area, and buried remains may survive *in-situ*. However, the former buildings did not incorporate cellars, so any buried remains that do survive will be limited to the foundation courses of the buildings.

Site Number 07

Site Name Timber Yard (site of)
Period Nineteenth century
NGR 384365 398897
Source OS 1850

Description Timber yard in northern part of site, occupying former workhouse

(Site **02**), first shown on the Ordnance Survey map of 1850. By 1890, the site had been redeveloped again by a row of double-depth houses, with a pub on the corner of Miller Street and North Street. Most of these properties were or four storeys, with basements. All

buildings had been cleared by the mid-twentieth century.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 08

Site Name Timber Yard (site of)
Period Nineteenth century
NGR 384325 398850
Source OS 1850

Description Timber yard on Edward Street, first shown on the Ordnance Survey

map of 1850. By 1890, the site had been redeveloped for industrial

purposes (Site 09).

Assessment The footprint of the timber yard lies within the boundary of the Site

Area, although it is likely that any buried remains will have been

destroyed by nineteenth- and twentieth-century development.

Site Name Industrial Building (site of)

Period Nineteenth century **NGR** 384312 398857 OS 1890

Source

Description Industrial premises developed on Site 08, as shown on the Ordnance

> Survey 1:500 map of 1890, which depicts a complex of buildings with a chimney in the centre. Trade directories indicate this to have comprised two factories. That fronting Edward Street was occupied by Louis Ellison, a cabinet manufacturer (Slater 1895, 156), whilst that fronting Riga Street was Boardman Brothers, engine waste

manufacturers (Slater 1895, 335).

Assessment The footprint of the building lies within the boundary of the Site

Area, and buried remains may survive *in-situ*.

Site Number

Site Name Arkwright's Mill (Site of)

Period Eighteenth century **NGR** 384390 398980

Source Green's Map 1794; OS 1848

Description Five-storey cotton mill built 1780-3 by Richard Arkwright and

partners. It was one of Arkwright's larger cotton mills, erected shortly before his patent expired. Mapping from the 1790s onwards shows it as a substantial range, aligned roughly north/south, with a central projection on the west elevation. Powered solely by steam from 1792-3, previously having used an atmospheric engine to raise water from a lower to an upper reservoir to supply a waterwheel. Laurent's map of 1793 shows the waterwheel on the east side of the mill, where its location within the mill body has been proved by archaeological trial trenching. The engine house and boilers were also situated on this side of the mill. They are shown individually on a survey of c 1822, but from other mapping were located in an extension to the building. A detached square-section chimney stood further to the east. The mill was badly damaged by fire in 1854, and was rebuilt subsequently. This is thought to have involved widening the building on the west, and increasing its length to the north, although this was not confirmed during evaluation trenching carried out in 2005. The building was

destroyed during the 1940 blitz.

The heritage asset lies beyond the Site Area, and will not be directly **Assessment**

Site Name Manchester Foundry (Site of)

HER Number

Site TypeIndustrial BuildingPeriodNineteenth centuryNGR384420 398960

Source OS 1848; Adshead 1850

Description Large iron works dating originally from 1838 to 1841, based on the

evidence of the trade directories. It was occupied in the 1840s by John and Henry Rowcroft, iron founders. The north end of the foundry seems to have incorporated the chimney of Arkwright's Mill. The foundry was rebuilt in the late nineteenth century, when it was occupied by Baxendale & Co. Elements of these large works were

probably destroyed in the 1940 blitz.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 12

Site Name Manchester Bath and Wash House (Site of)

Period Nineteenth century NGR 384370 398920

Source OS 1848; Adshead 1850

Description Public wash house established in 1846 in a converted late eighteenth-

century house on Miller Street, comprising a basement laundry, with bath tubs on the ground and first floors and hot and cold water tanks on the second. It continued in use until about 1876. The five-storey Victoria Buildings were erected subsequently on the site, although these were probably destroyed in the 1940 blitz. As a result of road widening, the site lies partly under Miller Street. However, ground investigation works carried out in 2013 exposed buried remains that

appeared to represent surviving element of the wash house.

Assessment The heritage asset lies within the boundary of the Site Area, and may

be affected by earth-moving works.

Site Number 13

Site Name Mottershead's Mill (Site of)

Period Eighteenth century NGR 384330 398950 Source Green's map 1794

Description Five-storey cotton mill aligned alongside Miller Street with, to the

rear, a centrally placed engine house and a detached boiler house. Probably late eighteenth century. By 1848 the eastern half of the building was used as a warehouse, while the western half seems to have been rebuilt as other premises. This was probably destroyed in the 1940 blitz and the site was redeveloped again by the early 1960s. As result of road widening, the site lies largely under Miller Street.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

Site Name 35 Angel Street (Site of)

HER Number 13736.1.0

Site TypeWorkers' HousingPeriodEighteenth centuryNGR384453 398986

Source HER

Description An eighteenth-/nineteenth-century cellar dwelling, a typical example

of workers' housing in the area. The cellar was excavated in 2005.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 15

Site Name Clay Pits (Site of)

HER Number 9906.1.0 **Site Type** Quarry

Period Post-medieval NGR 384500 398830

Source HER

Description Daub for building infill mined from "the dawbehole by the Pinfolde".

1598 it was forbidden to take any daub between the pinfold and Shudehill. In 1794, Green shows Shudehill Pits ran alongside the north side of Swan Street. The Pinfold is at the top of Shudehill and the corner of Swan Street. Area now built over. Shudehill Pits was partially filled in 1809 and a chapel built on site, later utilised for shops and dwelling houses. Marl pits in Shudehill acted as reservoirs for water from River Tib and for water pumped along stone pipes from reservoirs in Holt Town. This water fed pond at Piccadilly Infirmary and during 1776-1823 (Gorton Reservoir) acted as chief

water supply to Manchester.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 16

Site Name Buildings, Shudehill (Site of)

HER Number 15555.1.0
Site Type Public House
Period Nineteenth century
NGR 384424 398814

Source HER

Description This area underwent wholesale redevelopment around 1820, roughly

contemporary with the establishment of Smithfield Market on adjacent land and involving construction of new housing-cumcommercial premises. In the early and mid-twentieth century it underwent further development replacing earlier buildings with new

covered market areas and office building to the north.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

Site Name Warehouse (Site of)

HER Number 11241.1.0 **Site Type** Warehouse

Period Nineteenth century NGR 384290 398810

Source HER

Description The site of a former warehouse.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 18

Site Name Buildings (Site of)

HER Number 11293.1.0

Site Type Workers' Housing Period Nineteenth century NGR 384240 398820

Source HER

Description Three blocks of buildings shown on Bancks & Co's 1831 map to the

1908 Lancs 1:2500 sheet 104.6. One block bounded by Balloon Street, Back Balloon Street and Cross Street. Second block bounded by Back Balloon Street, Back Hanover Street and Cross Street. Third block bounded by Hanover Street, Back Hanover Street, and Cross

Street. Located within area was Houghton's Court.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 19

Site Name 29, Dantzic Street (Co-operative Society Building)

HER Number 11706.1.0

Site Type Commercial building Period Twentieth century NGR 384200 398860

Source HER

Description Offices. 1937-42. By WA Johnson, Chief Architect to CWS. Buff and

blue/purple brick with stone dressings and flat roof. Seven storeys. Continuous window range to Dantzic Street of metal-framed casements in a slightly projecting front for five storeys, the front, including windows, curving at the corners. Fifth floor has decorative cornice band and sixth floor is recessed and has vertical bands. Above is a small services bock. Ground floor has entrance and windows

separated by piers.

Assessment Designated listed building. The heritage asset lies beyond the Site

Site Name Co-operative Society Building

HER Number 11705.1.0

Site Type Commercial Building Period Twentieth century NGR 384220 398920

Source HER

Description Five-storey offices, built in 1937 by WA Johnson. Buff brick with flat

roof. Curving glazed entrance to Redfern Street. Dantzic Street front steps forward with curving corners and has, to left, a tall stair/lift tower with entrance and slit windows to left and vertical articulation to the windows and brickwork above. Small services block on roof.

Assessment Designated listed building. The heritage asset lies beyond the Site

Area, and will not be directly affected by the development.

Site Number 21

Site Name 104-106 High Street

HER Number 11679.1.0 **Site Type** Warehouse

Period Nineteenth century NGR 384400 398690

Source HER

Description Small warehouse, now shops, c 1860-70, altered. Red brick with

sandstone dressings and slate roof. Rectangular plan on corner site. Italian palazzo style. Four storeys and four bays with pilastered ground floor, sill-bands to both upper floors, prominent moulded cornice and brick parapet with moulded coping; ground floor has two

twentieth-century shop windows. Small corner chimneys.

Assessment Designated listed building. The heritage asset lies beyond the Site

Area, and will not be directly affected by the development.

Site Number 22

Site Name New Century House

HER Number 15571.1.0

Site Type Commercial Building Period Twentieth century NGR 384210 398960

Source HER

Description Office and conference hall. 1962. Sir John Burnet, Tait and Partners

with GS Hay. Steel frame, glass curtain walling with black vitreous enamel panels at floor levels. Fourteen storey rectangular tower and adjacent double-height single storey conference hall of seven bays. Central entrance to Corporation Street, with abstract stone relief wall

to left by John McCarthy.

Assessment Designated listed building. The heritage asset lies beyond the Site

Site Name 10-20 Thomas Street

HER Number 12139.1.0 **Site Type** Warehouse

Period Nineteenth century NGR 384320 398680

Source HER

Description Probably a wholesale garment warehouse c.1870-1880, altered at

ground floor. Iron frame, with cladding of sandstone ashlar and dressings of polished granite (roof concealed). Rectangular plan.

Venetian Gothic style. Four storeys and attic.

Assessment Designated listed building. The heritage asset lies beyond the Site

Area, and will not be directly affected by the development.

Site Number 24

Site Name 46 Shudehill (Hare and Hounds)

HER Number 13629.1.0
Site Type Public House
Period Nineteenth century
NGR 384314 398731

Source HER

Description Public house, c 1800, with late nineteenth-century alterations, the

public house interior remodelled c 1925 Painted brick with glazed tile. A city centre public house with early nineteenth-century origins, remodelled to a high standard c 1925, and retaining the contemporary plan form , and almost all of the interior detail of that remodelling, including bar counters, back bar and bar superstructures, door joinery and glazing. Such a complete survival of this period is rare nationally

and all the more so in a city centre location.

Assessment Designated listed building. The heritage asset lies beyond the Site

Area, and will not be directly affected by the development.

Site Number 25

Site Name 39-45 Swan Street

HER Number 8631.1.0 **Site Type** Workshop

Period Nineteenth century NGR 384510 398780

Source HER

Description Built in 1858. Coursed freestone. Two storeys. Main facade to

Goadsby Street at rear. Three slightly projecting bars, central with pilasters having Corinthianesque capitals incorporating goats heads. 3 semi-circular windows with cast iron grilles (one removed) in rusticated surrounds with keyblocks, having carved bulls heads. Blind arched recesses between bays with oblong windows above having

grilles pierced with circular openings.

Assessment Designated listed building. The heritage asset lies beyond the Site

Site Name Co-operative Insurance Society

HER Number 15569.1.0

Site Type Commercial Building Period Twentieth century NGR 384270 398900

Source HER

Description Office building. 1962. Sir John Bumet, Tait and Partners with GS

Hay. Steel frame; glass curtain walling with black vitreous enamel panels at floor levels. Concrete service shaft with vitreous mosaic

cladding in grey.

Assessment Designated listed building. The heritage asset lies beyond the Site

Area, and will not be directly affected by the development.

Site Number 27

Site Name Co-operative Wholesale Society

HER Number 15570.1.0

Site Type Commercial Building Period Twentieth century NGR 384140 398930

Source HER

Description Warehouse and office block. 1928, by WA Johnson. Sandstone ashlar

(roof concealed). Rectangular plan. Classical style. Five unequal storeys plus double attic storey; channelled rustication to ground and first floors, giant pilastrade to second-fourth floors, modillioned

cornice; parapet to first attic storey, mansard roof with dormers.

Assessment Designated listed building. The heritage asset lies beyond the Site

Area, and will not be directly affected by the development.

Site Number 28

Site Name Fish Market **HER Number** 8424.1.0

Site TypePublic BuildingPeriodNineteenth centuryNGR384360 398710

Source HER

Description Three-storey office block frontage to Thomas Street Fish Market

Hall.

Assessment Designated listed building. The heritage asset lies beyond the Site

Site Name Co-operative Union Ltd

HER Number 8418.1.0

Site Type Commercial Building Period Twentieth century NGR 384200 398890

Source HER

Description Built in 1911. Matt glazed faience, in blue to ground floor &

basement, cream to upper. Neo-Baroque manner. Three storeys, with

attic and basement.

Assessment Designated listed building. The heritage asset lies beyond the Site

Area, and will not be directly affected by the development.

Site Number 30

Site Name Co-operative Wholesale Society

HER Number 8348.1.0

Site Type Commercial Building Period Twentieth century NGR 384130 398880

Source HER

Description Built in 1907. Red brick, sandstone dressings. Grey granite to

basement and surrounding central large round-headed entrance.

Assessment Designated listed building. The heritage asset lies beyond the Site

Area, and will not be directly affected by the development.

Site Number 31

Site Name Warehouse on Newgate Street (Site of)

HER Number 11282.1.0

Site Type Commercial Building Period Nineteenth century NGR 384270 398780

Source HER

Description Four-storey warehouse. Built probably during the 1880s using

machine-made bricks. Has an external floor to ceiling hoist. On the Bradshaw Street side there are shadows of two smaller buildings, now

demolished, with chimneys.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

Site Name Buildings (Site of)

HER Number 11292.1.0 **Site Type** Buildings

PeriodNineteenth century**NGR**384290 398780

Source HER

Description Two blocks of buildings marked on Bancks & Co's map of 1831. **Assessment** The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 33

Site Name 9-11 Bradshaw Street

HER Number 11753.1.0

Site Type Domestic Buildings Period Nineteenth century NGR 384250 398770

Source HER

Description Pair of cottages. Early nineteenth century with later alterations.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 34

Site Name Bradshaw Hall (Site of)

HER Number 9897.1.0

Site Type Timber-framed Building

Period Sixteenth century NGR 384260 398750

Source HER

Description Home of the Bradshaw family, whose descendents could be traced

back to 1573 in the Manchester Parish Register. The hall was built of timber and stone and the street alongside the hall was named after the gardens, hence 'Garden Street'. From the early nineteenth century the hall was unoccupied and was converted subsequently into business premises. It is not known exactly when the hall was demolished

although it still existed in 1910.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

Site Name Fly-maker (Site of)

HER Number 11296.1.0 **Site Type** Building

Period Nineteenth century NGR 384190 398740

Source HER

Description The trade directory for 1850 records that this was the site of Richard

Shore, fly-maker and rod-repairer at 16 Charter Street.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 36

Site Name Print Cutter (Site of)

HER Number 11297.1.0 **Site Type** Building

Period Eighteenth century NGR 384190 398800

Source HER

Description The trade directory of 1797 records that 26 Balloon Street was the

shop of John Brettargh, a print cutter.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

affected by the development.

Site Number 37

Site Name Coach Yard (Site of)

HER Number 11289.1.0 **Site Type** Yard

Period Nineteenth century NGR 384170 398810

Source HER

Description A yard marked on Bancks & Co's map of 1831.

Assessment The heritage asset lies beyond the Site Area, and will not be directly

5. SIGNIFICANCE OF THE REMAINS

5.1 Introduction

5.1.1 In total, 37 sites of archaeological interest have been identified within the study area, of which six (Sites 03-06, 08-09) lie within the boundary of the proposed Site Area (Fig 10). The earliest sites in the immediate vicinity of the Site Area developed as almshouses and a workhouse in the seventeenth and eighteenth centuries, although most of the heritage assets within the Site Area developed as a direct result of the early industrial development and expansion of Manchester (Table 7), and span the period between the late eighteenth and twentieth centuries. None of the heritage assets within the proposed Site Area have legal designations, although 12 buildings within a 200m radius are afforded statutory designation as Listed Buildings.

Period	No of sites	Sites
Prehistoric	0	-
Roman	0	-
Medieval	0	-
Post-medieval	2	
Industrial	7	03, 04, 05, 06, 08, 09
Unknown	0	-

Table 7: Number of heritage assets within the Site Area by period

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 03-06, 08-09) have been considered using the criteria, with the results below.
- 5.2.2 *Period:* it is likely that any buried archaeological remains that survive across the Site Area will pertain to the Industrial Period, spanning the period of Manchester's rapid development as one of the world's leading manufacturing centres between the late eighteenth and twentieth centuries. Whilst the footprint of two important heritage assets, the Mayes Almshouses (Site 01) and Manchester's first workhouse (Site 02), dating to the seventeenth and eighteenth century respectively, lie immediately adjacent to the northern boundary of the Site Area, it is likely that all structural remains of these buildings were destroyed entirely during subsequent redevelopment of the site, or during aerial bombing in 1940.

- 5.2.3 *Rarity:* the Mayes Almshouses (Site **01**) have a high rarity value as an early example of this building type in Manchester, whilst the adjacent workhouse (Site **02**) was the first example of its kind in Manchester. The buildings that occupied the site in the nineteenth century comprised a range of commercial, industrial and residential properties, none of which have a high rarity value.
- 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 sites within the Site Area represent characteristic elements of the early urban industrial townscape, which played an important role in the development of the city from the late eighteenth century. These include artisans' workshops and some larger industrial premises, packed around a few residential properties which, by the late nineteenth century, included a lodging house. As such, the heritage assets identified in the Site Area have a high group value.
- 5.2.6 *Survival/Condition:* some of the sites identified in the Site Area are likely to have been destroyed during redevelopment in the later nineteenth century, or during aerial bombing raids in 1940. In particular, Sites **03**, **06** and **08** are likely to have been destroyed entirely. The buried remains of other heritage assets may survive *in-situ*, including the basement of the warehouse (Site **04**) at No 12 Hanover Street in the south-eastern corner of the Site Area, together with the cabinet works between Mayes Street and Back Mayes Street (Site **09**). The extent to which buried remains of the properties in the south-western corner of the area (Site **05**) survive is unknown although, at best, little more than foundations courses are likely to remain *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. However, the design proposals allow for very limited ground-breaking works during the development of the football pitches, which will ultimately require a slight raising of the current ground level. It is envisaged that ground-breaking works will comprise localised excavation to install fence posts, each 300mm² and sunk to a depth of 700 mm², and floodlight columns, which will be 600 mm² and 700mm deep.
- 5.2.8 **Diversity:** the remains relate mainly to the industrial expansion of the area, and the associated development of domestic housing and public buildings. 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 Site Area or its environs, and the potential for prehistoric remains is considered to be very low. Similarly, there are no known Roman, medieval or post-medieval sites within the Site Area or its immediate environs, and the potential of remains from these periods is considered to be low.

5.3 SIGNIFICANCE

- 5.3.1 The most significant heritage assets in the Site Area would almost certainly have been the Mayes Almshouses (Site **01**) and the adjacent workhouse, which was converted into more almshouses subsequently (Site **02**). However, notwithstanding the probability that all physical remains of these buildings have been destroyed entirely, thereby reducing their overall significance, the footprint lies beyond the northern boundary of the Site Area.
- 5.3.2 A few heritage assets in the Site Area are considered to be potentially of Local/Borough Importance, pending the extent to which buried remains survive. These include the site of the potential eighteenth-century warehouse at 12 Hanover Street (Site **04**), and the mid- to late nineteenth-century cabinet factory on the south side of Mayes Street (Site **09**), and particularly the footprint of the stoves and chimney along the western boundary of the Site Area. Any surviving remains of the dwellings and associated covered entrances and yard to the rear of the Hanover Street frontage (Site **05**) would also potentially of Local/Borough Importance.
- 5.3.3 The other heritage assets identified in the Site Area are considered to be of Low Local significance, reflecting the extent to which they have been damaged or destroyed during twentieth-century redevelopment. These include the site of buildings shown on Green's map in the southern part of the area (Site 03), the nineteenth-century commercial properties in the centre of the area (Site 06), and the timber yard off Riga Street (Site 08).

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.
- 6.1.2 It should be noted that the present assessment has focused on sub-surface archaeological resource of the Site Area. Indirect impacts on the settings of adjacent standing buildings have not been assessed in detail, although this is unlikely to be greater than negligible given the nature of the proposed development. The results are summarised in Table 8.

6.2 IMPACT

- 6.2.1 The extent of any previous disturbance to buried archaeological levels is an important factor is assessing the potential impact of any proposed scheme of development. In some instances, the identified heritage assets within the Site Area are likely to have been destroyed by previous development. This is likely to be the case with sites along the Miller Street frontage (Sites 01, 02 and 07), together with Site 03 and the timber yard off Riga Street (Site 08). In these cases, ground-breaking works across the Site Area would have a negligible impact.
- 6.2.2 However, the development proposals allow for very limited ground-breaking works during the development of the football pitches, which will ultimately require a slight raising of the current ground level across the area. It is thus unlikely that any buried remains that do survive *in-situ* will sustain any impact from the proposed development.

6.3 IMPACT ASSESSMENT

6.3.1 Following on from the above considerations, the impact on the heritage assets within the Site Area has been largely determined as slight to negligible, based on an assumption that there will be limited earth-moving works associated with the development.

Site Number	Site Name	Importance	Impact	Significance of Impact
03	Hanover Street Building	Low Local	Negligible	Neutral
04	Industrial Building	Local/Borough	Slight	Minor
05	Hanover Street Houses	Local/Borough	Negligible	Neutral
06	Mayes Street Buildings	Local/Borough	Negligible	Neutral
08	Timber Yard	Low Local	Negligible	Neutral
09	Cabinet Manufacturers	Local/Borough	Slight	Minor

Table 8: 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 it 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*. A few heritage assets in the Site Area are potentially of local/borough importance, which may merit preservation by record should they be damaged of destroyed by future development. However, the current proposals will have very limited, if any, direct impact on any buried remains of these heritage assets that do survive.

7.2 RECOMMENDATIONS

7.2.1 The requirement for any further archaeological investigation of the Site Area in advance, or during, the proposed developed would be based on a recommendation by the Greater Manchester Archaeological Advisory Service, which provides advice on planning applications to Manchester City Council. However, the conclusions drawn from the present assessment suggest that any further investigation of the site is unlikely to be merited.

BIBLIOGRAPHY

PRIMARY AND CARTOGRAPHIC SOURCES

Map of Manchester and Salford, drawn from a survey by William Green, begun in 1787 and completed in 1794

Map of Manchester and Salford, C Laurent, 1793

Map of Manchester, Aston, 1804

Plan of Manchester, Dean and Pigot, 1809

Plan of Manchester, Johnson, 1819

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

Plan of the Township of Manchester, Adshead, 1851

Ordnance Survey 6": 1 mile map, Manchester sheet 24, surveyed 1848-49, published 1850

Ordnance Survey 1:2500 First Edition map, Lancashire sheets CIV.6, surveyed 1888-91, published 1892

Ordnance Survey 1:2500 map, Lancashire sheets CIV.6, 1908 Edition, (surveyed 1905)

Ordnance Survey 1:2500 map, Lancashire sheets CIV.6, 1922 Edition, (surveyed 1915)

Ordnance Survey 1:2500 map, Lancashire sheets CIV.6, Revision of 1933

Ordnance Survey 1:2500 map, Plan SJ 8499 and Plan SJ 8599, Revision of 1951

Trade Directories

Pigot, J, and Dean, R, 1822 Manchester and Salford Directory, Manchester

Pigot, and Sons 1829 Manchester and Salford Directory, Manchester

Pigot, and Sons 1834 Manchester and Salford Directory, Manchester

Pigot and Slater, 1841 Directory of Manchester and Salford, Manchester

Slater, I, 1845 General and Classified Directory and Street Register of Manchester and Salford, Manchester

Slater, I, 1861 Manchester and Salford Directory, 1, Manchester

Slater, I, 1895 Manchester and Salford Directory, 1, Manchester

Slater, I, 1903 Manchester and Salford Directory, 1, Manchester

Slater, I, 1909 Manchester and Salford Directory, 1, Manchester

Slater, I, 1911 Manchester and Salford Directory, 1, Manchester

Whellan and Co, 1852 Directory of Manchester and Salford, Manchester

SECONDARY SOURCES

Aspin, C, 1995 The First Industrial Society: Lancashire, 1750-1850, Preston

Brennand, M, (ed), 2006 The Archaeology of North West England. An Archaeological Research Framework for North West England: Volume 1. Resource Assessment, CBA North West, 8 (18), Manchester

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

Brunskill, RW, 1997 Houses and Cottages of Britain, London

Cooper, G, 2002 The Illustrated History of Manchester's Suburbs, Derby

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

Engels, F, 1973, The Condition of the Working Class in England, London

English Heritage, 2006 Management of Research Projects in the Historic Environment (MoRPHE), Swindon

Farrer, J, and Brownbill, W, (eds) 1911 Victoria County History of Lancashire, 4, London

Gifford, 2007 Land off Miller Street, Manchester. An Archaeological Desk-Based Assessment, unpubl rep

Gregory, L, 2006 Where Angels Play. An investigation into the lives and deaths of the inhabitants of Angel Meadow, a Mancunian industrial slum, undergraduate dissertation, University of Manchester

Gregory, RA, 2007 Roman Manchester: The University of Manchester's Excavations within the Vicus 2001-5, Oxford

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

Hylton, S, 2003 A History of Manchester, Chichester

Institute for Archaeologists, 2010 Code of Conduct, Reading

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

Lloyd-Jones, R, and Lewis, MJ, 1993 Housing Factory Works: Ancoats in the Early 19th Century, *Manchester Region Hist Rev*, **7**, 33-6

McNeil, R, and Newman, R, 2007 The Industrial and Modern Period Research Agenda, in M Brennand (ed) *The Archaeology of North West England: An Archaeological Research Framework for North West England: Volume 2*, CBA North West, **9** (19), Manchester, 133-58

Marr, TR, 1904 Housing Conditions in Manchester and Salford. A Report produced for the Citizen's Association for the Improvement of the Unwholesome Dwellings and Surroundings of the People, with the aid of the Executive Committee, Manchester

Mercer, Rev JE, 1896-7 The Conditions of Life in Angel Meadow, *Trans Manchester Statistical Society*

Miller, I, and Wild, C, 2007 A & G Murray and the Cotton Mills of Ancoats, Lancaster Imprints, 13, Lancaster

Newman, R, and McNeil, R, 2007 The Post-medieval Period Research Agenda, in M Brennand (ed) *The Archaeology of North West England: An Archaeological Research Framework for North West England: Volume 2*, CBA North West, **9** (19), Manchester, 115-32

Nevell, M 2008 Manchester: The Hidden History, Stroud

OA North, 2011 Co-operative Headquarters, Miller Street, Manchester: Archaeological Excavation, unpubl rep

OA North, 2013a NOMA Regeneration, Miller Street, Manchester: Archaeological Excavation, unpubl rep

OA North, 2013b Angel Street, Manchester: Archaeological Watching Brief, unpubl rep

Parkinson-Bailey, JJ, 2000 Manchester: An Architectural History, Manchester

Pearlman, W, 1956 The Dwellings of Manchester, unpubl RIBA thesis (MCL/MF 352)

Wessex Archaeology, 2006 Arkwright's Mill, NCP Car Park, Miller Street, Manchester. Archaeological Evaluation and Assessment of Results, unpubl rep

ILLUSTRATIONS

FIGURES

Figure 1:	Site location map
Figure 2:	Site Area superimposed on William Green's map of 1794
Figure 3:	Site Area superimposed on Johnson's <i>Plan of the Parish of Manchester</i> of 1820
Figure 4:	Site Area superimposed on Bancks & Co's map of 1831
Figure 5:	Site Area superimposed on the Ordnance Survey map of 1850
Figure 6:	Site Area superimposed on the Ordnance Survey 25": 1 mile map of 1892
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 1:2500 map of 1951
Figure 10:	Plan of gazetteer sites



Figure 1: Site location

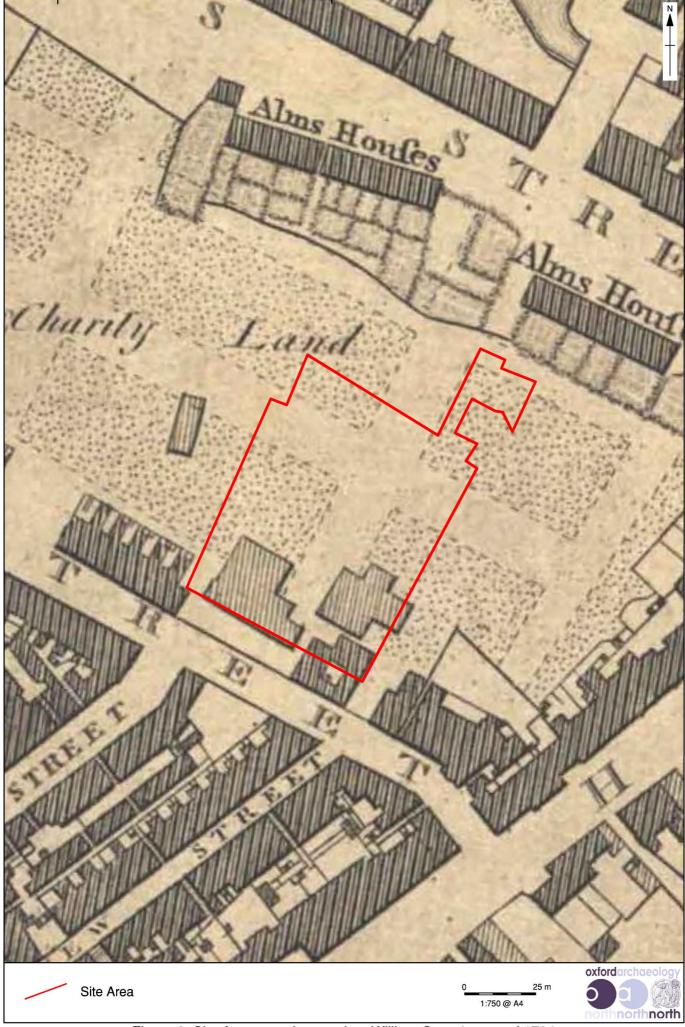


Figure 2: Site Area superimposed on William Green's map of 1794

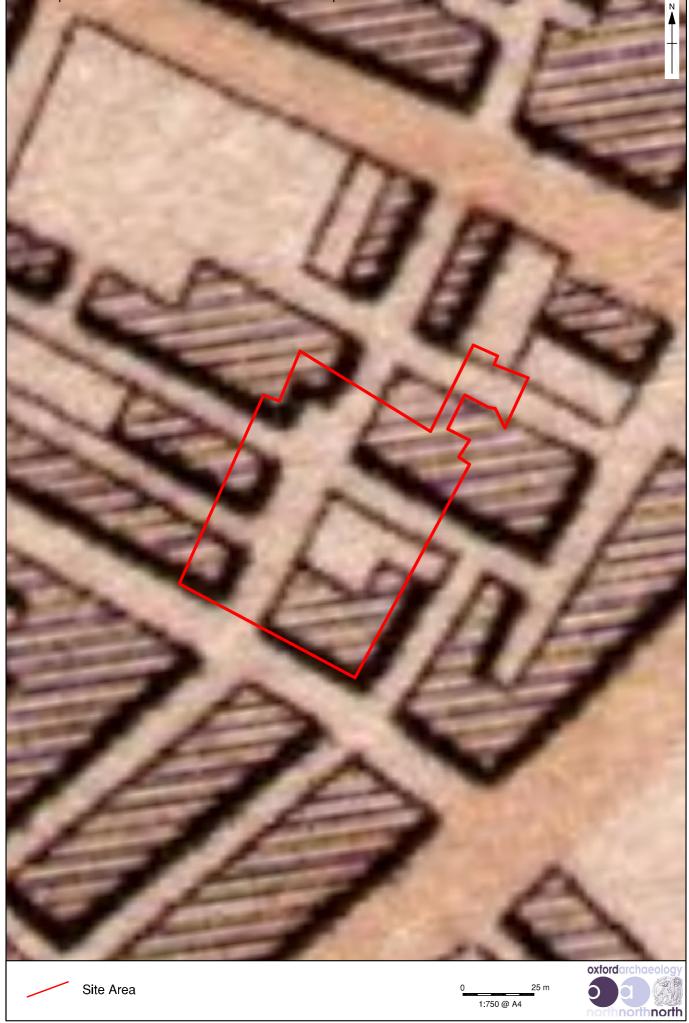


Figure 3: Site Area superimposed on Johnson's Plan of the Parish of Manchester of 1820



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

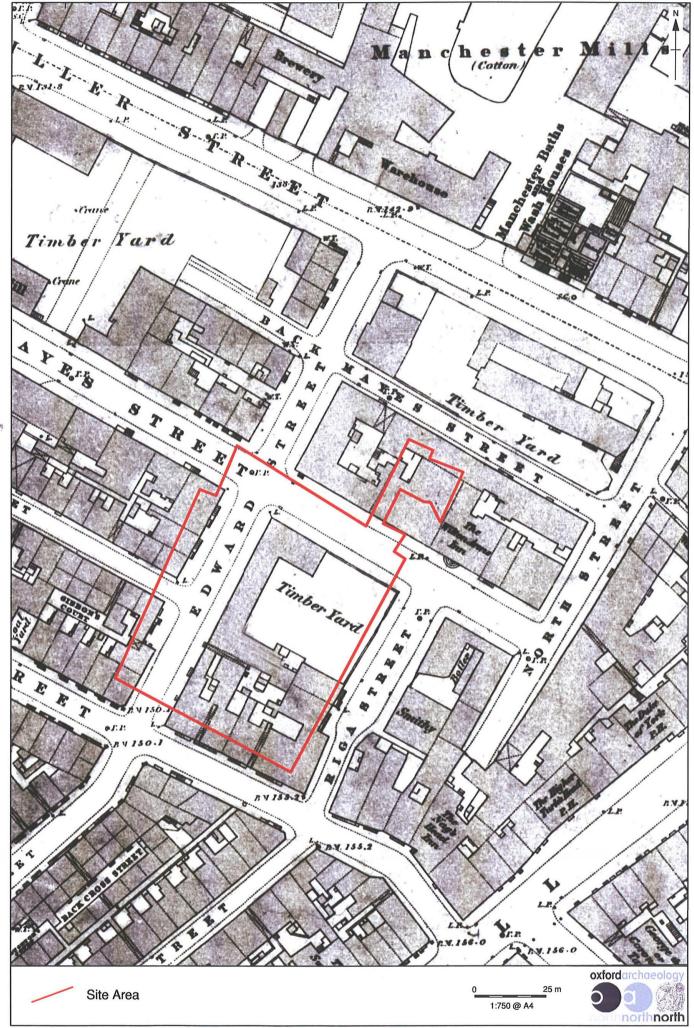


Figure 5: Site Area superimposed on the Ordnance Survey map of 1850

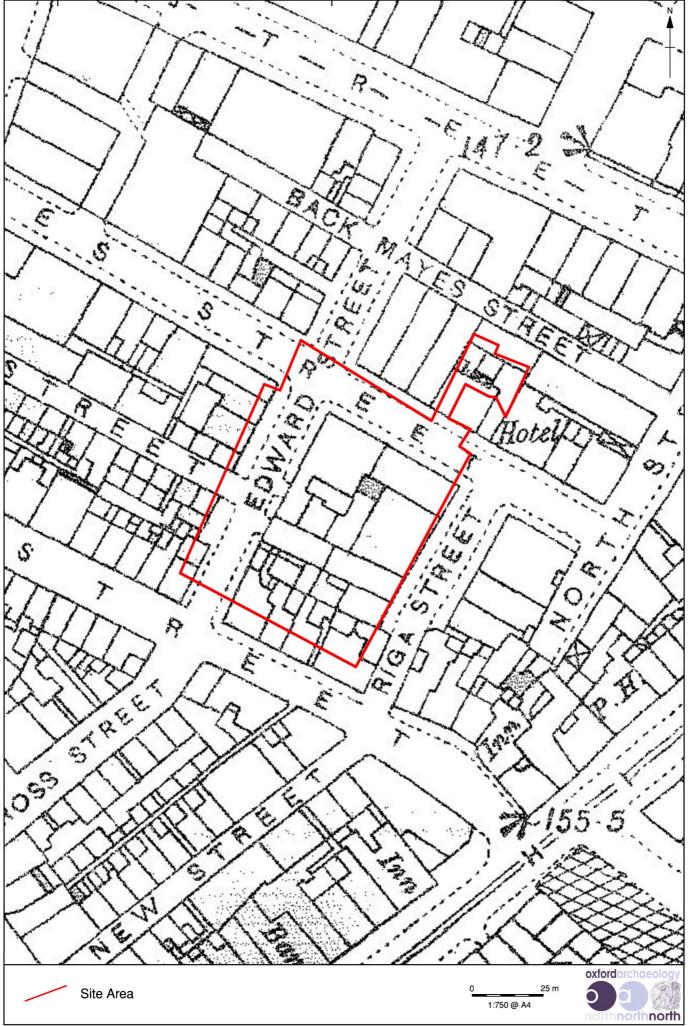


Figure 6: Site Area superimposed on the Ordnance Survey 25":1 mile map of 1892

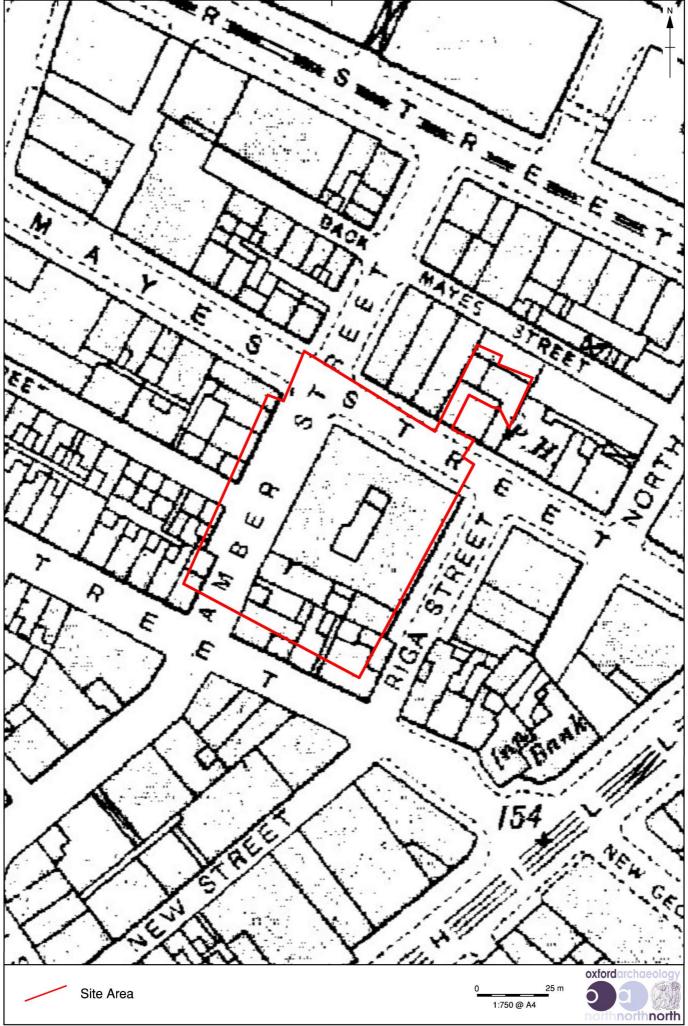


Figure 7: Site Area superimposed on the Ordnance Survey 25":1 mile map of 1908

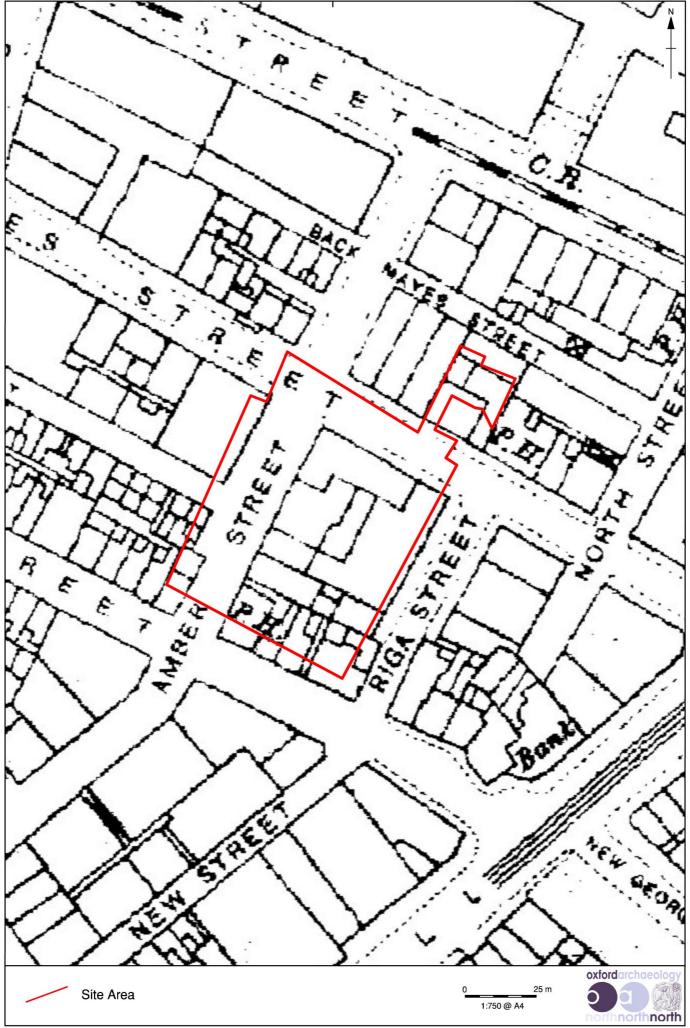


Figure 8: Site Area superimposed on the Ordnance Survey 25":1 mile map of 1922

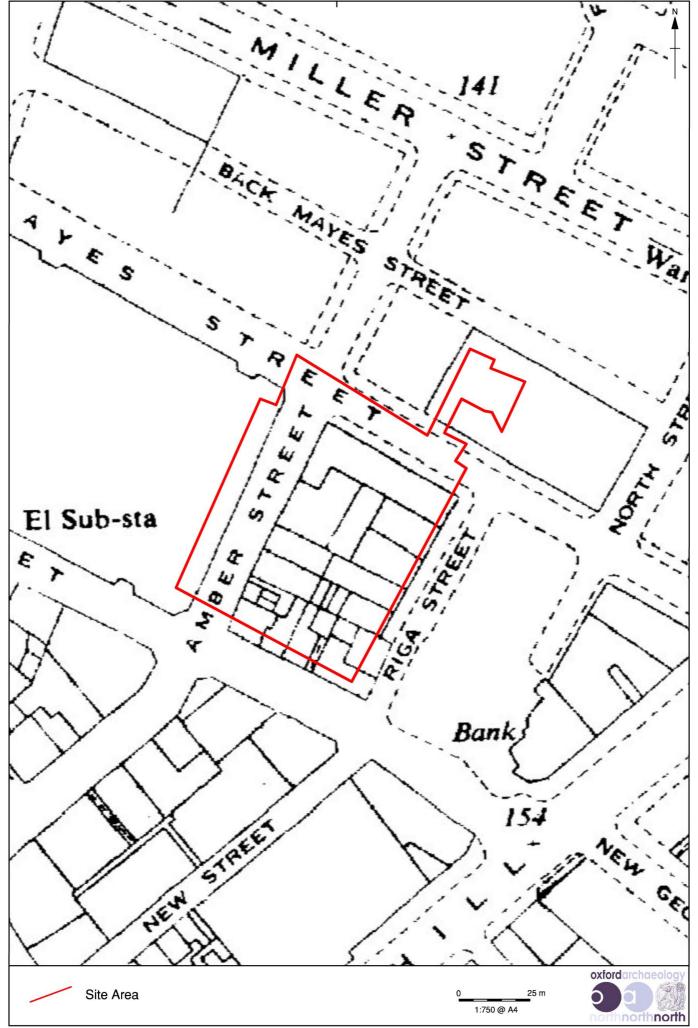


Figure 9: Site Area superimposed on the Ordnance Survey 1:2500 map of 1951

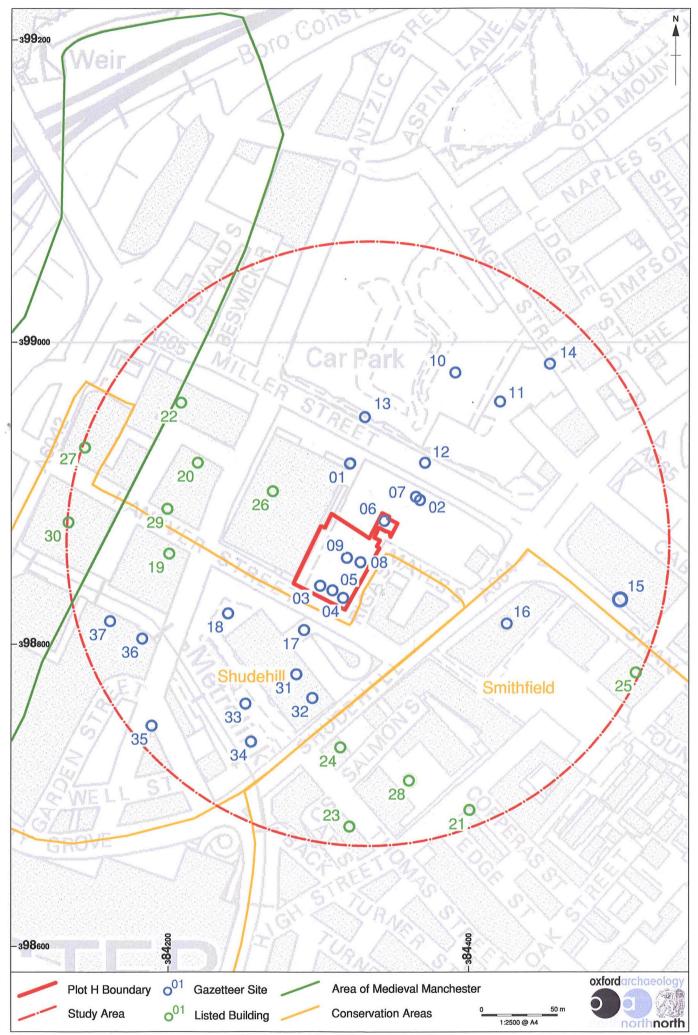


Figure 10: Plan of gazetteer sites