



University of
Salford
MANCHESTER

Archaeological Desk-Based Assessment

Jersey Wharf,
Ancoats,
Manchester

Client:

Manchester Life
Development Company
3 Limited

Technical Report:

Natalie Poundall

Report No:

2021/81



Site Location: The development area is located within the Ancoats area of Manchester and is bounded by Jersey Street to the north, grassland to the east, Rochdale Canal to the south, and Flint Glass Wharf/Works to the west

NGR: Centred at NGR SJ 85266 98767

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Author: Natalie Poundall
Position: Archaeologist
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Checked By: Ashley Brogan
Position: Project Officer
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Signed:



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Contact: Salford Archaeology, Centre for Applied Archaeology, Peel Building, University of Salford, Salford, M5 4WT

Email: A.A.Brogan@salford.ac.uk

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Summary

Manchester Life Development Company 3 Limited are devising proposals for the development of residential and commercial units off Jersey Street. The development area is situated within Ancoats, Manchester (centred on NGR SJ 85266 98767). In order to facilitate the planning process, Salford Archaeology were commissioned to carry out an archaeological desk-based assessment of the proposed development site. This was intended to establish, as far as possible, the nature and significance of the sub-surface archaeological resource in order to enable informed recommendations to be made for the future treatment of any surviving remains.

From the late-eighteenth century Ancoats rapidly transformed into an industrial centre. The development area likely remained largely agricultural until the early nineteenth century, when an arm of the Rochdale Canal was constructed within the centre of the site. By 1825 a cotton mill had been established in the western part of the development area. The mill was then converted into the Jersey Street dwellings in 1892 in order to provide cheap and clean housing to the lower classes.

From the mid-nineteenth century a coal wharf was situated in the eastern section of the site. During the 1860s the wharf was removed and a screw bolt works, stone masons yard and a row of terraced houses were constructed in the proposed development area. All the buildings within the site were later demolished and a warehouse, built by 1969, is situated over the footprint of part of the Jersey Street Dwellings.

Archaeological remains of early-nineteenth-century houses may survive *in-situ* within the footprint of the proposed development area. However, these possible remains have limited potential to address any of the research agendas listed in the North West region's archaeological framework and no further archaeological investigation of them is required.

Remains of an early cotton mill that was converted into housing may survive *in-situ* within the footprint of the proposed development site. Any remains associated with this would be historically and archaeologically significant. Further, remains associated with nineteenth-century industry in Ancoats in the form of the Rochdale Canal arm and works to the east may be of local significance. Any ground-breaking works associated with the proposed development have the potential to remove any buried archaeological remains. Therefore, it may be anticipated that archaeological investigation via a programme of archaeological evaluation trenching, may be required to establish the presence or absence of buried archaeological remains and, if present, their extent and significance.

Should significant archaeological remains be encountered during the archaeological evaluation, further excavation may be required to offset the harm of the development to the buried archaeological resource, in line with the guidance provided by the National Planning Policy Framework. The scope and extent of any such further investigation will be determined by the Greater Manchester Archaeological Advisory Service (GMAAS), in their capacity as archaeological advisor to Manchester City Council.

1. Introduction

1.1 Planning Background

In October 2021, Manchester Life Development Company 3 Ltd commissioned Salford Archaeology to carry out an archaeological desk-based assessment to support a planning application for the redevelopment of land at Jersey Wharf within the Ancoats area of Manchester (centred on NGR SJ 85266 98767; referred to herein as 'the Site'). The desk-based study aimed to identify as far as possible the nature, extent and significance of the sub-surface archaeological resource within the Site so as to enable informed recommendations to be made for the future treatment of any surviving remains.

1.2 Government and Local Planning Policies

1.2.1 National Planning Policy Framework (NPPF)

The significance of the archaeological resource identified within this report has been assessed as recommended in the revised *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, revised July 2021). The NPPF sets out the Government's planning policies and outlines the presumption in favour of sustainable development, which is defined by three principles: economic, social and environmental. Of the core planning principles underpinning decision making, conserving heritage assets 'in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations' is one. Section 16 deals specifically with this historic environment (paragraphs 189-208), and states that local planning authorities should consider:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.

Paragraph 194 states that local planning authorities, when determining applications, should require the applicant to describe the significance of any affected heritage assets, including any contribution made by their setting. 'The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation'.

Paragraph 203 states that the effect of a proposal on non-designated heritage assets (designated assets are covered in paragraphs 199-202) should be taken into account in determining a planning application.

Paragraph 205 states that local planning authorities should require developers to record and advance understanding of any heritage assets to be lost, in a manner appropriate to their importance and impact, and to make this evidence publicly accessible.

1.2.2 Local Development Framework

The NPPF outlines the need for local planning policies to create local plans and frameworks to implement the NPPF at a local level. Manchester City Council adopted a Core Strategy in 2012, which is scheduled until 2027. The heritage strategy is outlined in *Objective 6: Environment* and summarises the approach the local authority will take in determining planning applications which may affect the historic environment.

Policy EN3 states:

‘Throughout the City, the Council will encourage development that complements and takes advantage of the distinct historic and heritage features of its districts and neighbourhoods, including those of the City Centre.

New developments must be designed so as to support the Council in preserving or, where possible, enhancing the historic environment, the character, setting and accessibility of areas and buildings of acknowledged importance, including scheduled ancient monuments, listed buildings, registered parks and gardens, conservation areas and archaeological remains. Proposals which enable the re-use of heritage assets will be encourage where they are considered consistent with the significance of the heritage asset.’

Manchester City Council is advised on archaeological matters by the Greater Manchester Archaeological Advisory Service (GMAAS).

2. Methodology

The assessment considers the potential impact of the proposed development upon any buried archaeological remains within the Site, and comprises a desk-based study. The production of the assessment followed the Chartered Institute for Archaeologists (CIfA) standard and guidance for undertaking archaeological desk-based assessments (*Standard and Guidance for Historic Environment Desk-based Assessment*, 2017).

2.1 Research Sources

The desk-based assessment made use of the following sources:

- Published and unpublished cartographic, documentary and photographic sources;
- The Greater Manchester Historic Environment Record, maintained by the Greater Manchester Archaeological Advisory Service;
- The National Heritage List for England;
- The North West England Regional Research Framework

The aim of the research was to provide the relevant historical and archaeological background relating to the development of the Site. The available sequence of historical mapping was the principal source of information, as this provides evidence for the development of the Site since the late-eighteenth century. The results of the historical and archaeological research are analysed against the current framework for the region, *The North West England Regional Research Framework*, in order to identify whether there is potential for Site to contribute to the current initiatives and research questions listed within the agenda.

2.2 The Document

The following presents the historical and archaeological evidence for the Site. A gazetteer (Chapter 5) is presented of heritage assets and sites of potential archaeological interest identified within the Site and this information, along with a map regression (Figs 2-12), is used to assess the significance of the remains (Chapter 6) and impact of the proposed development (Chapter 7). A mitigation strategy is outlined in Chapter 8, based on the assessment presented in the previous chapters.

3. The Setting

3.1 Location

The Site (centred on NGR SJ 85266 98767) is situated in the Ancoats area of Manchester (Plate 1; Fig 1). The Site is bounded by Jersey Street to the north, a grassland area to the east, the Rochdale Canal to the south, and the Flint Glass Works and Flint Glass Wharf (now converted for office and residential use) to the west. The eastern part of the Site is currently vacant and comprises hardstanding and open grassland. The western area of the Site is occupied by a low-rise warehouse and associated parking spaces. There is also a small amount of shrubbery and trees within the Site boundary. The Site lies at a height of approximately 49.7m above Ordnance Datum (aOD).



Plate 1: Recent aerial view looking north across the Site

Topographically, the Manchester conurbation as a region lies within an undulating lowland basin, which is bounded by the Pennine uplands to the east and to the north. The region as a whole comprises the Mersey river valley, whilst the rivers Irwell, Medlock, and Irk represent the principal watercourses in Manchester (Countryside Commission 1998, 125).

3.2 Geology

The Site is located on a band of solid geology comprising the mudstone of the Manchester Marls formation, consisting, in an area previously dominated by lakes and lagoons, and which is overlain by superficial deposits of Devensian Till. Just outside the eastern boundary of the Site the solid geology comprises of the Collyhurst Sandstone Formation (British Geology Society).

3.3 Designations

The Site does not contain any statutory designated sites such as Listed Buildings, Scheduled Monuments, or any Registered Parks and Gardens, however, the Site is located within the Ancoats Conservation Area which is a local designation.

Ancoats Conservation Area Description:

"The streets of Ancoats were laid out during the latter part of the 18th century, with little development taking place other than small houses and shops along Great Ancoats Street and Oldham Road. Survey work for the Rochdale Canal was carried out by James Brindley in 1765. The knowledge that its construction would make the transport of raw materials and finished goods more convenient gave industrialists the confidence to build their cotton mills. The first mills were built in Ancoats as early as 1790. From the opening of the Rochdale Canal in 1804 through to 1912, the development of mills continued on a much larger scale, and enough of these buildings remain to enable the progress of mill design to be appreciated today.

The first single-class housing area in the country was built in 1889 to provide homes for mill workers in Ancoats. This block, called Victoria Square, was the first example of municipal housing in Manchester, which was followed shortly by the development of model housing in adjacent Anita Street (originally known as Sanitary Street).

The substantial economic activity generated by such a concentration of mills was halted by the slump in the cotton industry in the 1930's. Thereafter, the prosperity of the mills declined steadily, and the only new industry to establish itself in Ancoats was newspaper printing. In 1939, the Daily Express newspaper company opened new premises, which were built in the "functional" style, using new curtainwall technology identical to that of the company's buildings in London and Glasgow."

Ancoats and its buildings today

"Ancoats, with its concentration of mill buildings, is an important landmark in the history of the Industrial Revolution. Old Mill, which is probably the oldest surviving in Manchester, was built in two phases in 1798 and 1801. It is one of the group of Murray's Mills and was constructed around a courtyard, with a canal basin and tunnel under one of the mills and Redhill Street, connecting it with the Rochdale Canal.

The firm of McConnel and Kennedy, whose group of mills was the largest cotton employer with 1500 workers, claimed to be the first to run spinning mules by steam power. Sedgwick Mill, dating from 1818-1820, is the oldest of the group still standing, and it is believed to be the oldest surviving iron-framed, fireproof factory in Greater Manchester.

Beehive Mill, completed in 1824, has internal timber construction with rare cast-iron roof trusses, whilst the warehouse part has stone flag floors supported on cast-iron T-beams. The roof is a very early castiron spaceframe structure, unique in the area. These three groups of buildings, together with Brownsfield Mill on the other side of Great Ancoats Street, represent the chronological development of cotton mill architecture from 1800 to the 1920's. Together they constitute the first industrial estate in the world.

Although the area is dominated by the massive mill buildings, it also contains other listed buildings of differing character. The Victoria Square housing, noted earlier, is a five-storey block of flats dating from 1889. Built in red brick with a pitched slate roof and in the form of an enclosed courtyard, it may fairly claim to be one of the most successful local authority housing schemes in Manchester, due in part to its enclosure of shared inner space.

Modern printing technology has meant that the original Daily Express building is not now used for that purpose, although it is still in commercial use. Printing now takes place in new premises to the rear of the original building.

The Crown and Kettle public house on the corner of Oldham Road and Great Ancoats Street, is a late 19th Century buff brick, Gothic-style building with stone traceried windows.

These latter buildings, together with the older non-listed buildings in the area, provide a contrast of architectural styles with the with the surviving massive mill buildings. The character of the area remains largely industrial, therefore any new development must ensure retention of that character through detailing and the use of compatible materials. The maintenance of road surfaces, kerbstones and street lighting, together with vacant site enclosures and "hard and soft" landscaped areas will also be essential."

There are also 12 statutory listed buildings within a 300m radius of the Site (Table 1). The scheme will not have a physical impact on these designated heritage assets and they are therefore not considered further in this report.

List Entry No.	Description	Grade	NGR
1247550	Union Street Bridge	II	SJ 85162 98639
1220282	Former Warehouse and Offices of Old Mill, Decker Mill, and New Mill	II	SJ 85033 98601
1270855	Doubling Mill Fireproof Mill	II*	SJ 85106 98622
1247473	Decker Mill Old Mill	II*	SJ 85072 98584
1291735	Beehive Mill	II*	SJ 85097 98719
1219048	Paragon Mill	II*	SJ 84961 98591
1246277	Victoria Square	II	SJ 84966 98803
1270860	Rochdale Canal Retaining Wall on South Side of Redhill Street, West of Union Street Bridge	II	SJ 85047 98546
1282961	Little Mill	II	SJ 85095 98667
1197806	Former Church of St Peter	II	SJ 84956 98678
1270856	Sedgwick Mill (To West of Junction with Murray Street)	II	SJ 85012 98540
1200821	New Mill	II*	SJ 85032 98642

Table 1: Summary of listed buildings within a 300m radius of the Site

4. Historical Background

The following section provides a framework to the present study, working chronologically through the periods listed below (Table 2). Key sites are summarised in the Gazetteer of Sites (Section 5, below).

Period		Date Range
Prehistoric	Palaeolithic	Pre-10,000 BC
	Mesolithic	10,000 – 3500 BC
	Neolithic	3500 – 2300 BC
	Bronze Age	2300 BC – 700 BC
	Iron Age	700 BC – AD 43
Romano-British		AD 43 – AD 410
Early Medieval		AD 410 – AD 1066
Late Medieval		AD 1066 – AD 1540
Post-medieval		AD 1540 – c 1750
Industrial Period		c AD1750 – 1914
Modern		Post-1914

Table 2: Summary of British archaeological periods and date ranges

4.1 Prehistoric Period

4.1.1 Archaeological Evidence

The current understanding of any human activity in the Manchester region during the prehistoric period is poor, although it is reasonable to suggest that several areas in the centre of the city, such as Castlefield and Ardwick, may have been conducive for late prehistoric settlement on account of the natural topography and the abundance of natural water sources (i.e. rivers) (Gregory 2007).

Physical indications of human activity in the Manchester area are provided by a small number of residual finds. A Neolithic stone hammer and arrow head, for instance, were unearthed in the Castlefield area of Manchester in 1845 (HER 119.1.0), whilst excavations at 77-83 Liverpool Road (HER 13944.1.0) produced two Mesolithic flints, one Neolithic/Bronze Age waste flake and a single sherd of late Bronze Age/Iron Age pottery. These finds complement a growing regional body of finds representing prehistoric activity, known to be concentrated on well-drained sand and gravel sites in proximity to watercourses and moss lands.

4.1.2 Archaeological Potential

There is no known evidence of prehistoric activity within the boundary of the Site and no prehistoric remains have been found within the local area. The likelihood for prehistoric remains is considered as low, especially given the later development of the Site.

4.2 *Romano-British Period*

4.2.1 *Archaeological Evidence*

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* (Bruton 1909), situated c 2.3 km south-west of the Site. The fort underwent several phases of development subsequently, the earlier defences being deconstructed and improved. The military complex evolved in response to the on-going military campaigns, from a purely defensive site to an established supply depot, essential to the expansion and consolidation of control in the region. The maturation of the military complex can be seen in the growing body of evidence for a military annexe, occupying an area to the north and east of the fort (Arrowsmith 2016, 9-12). Evidence pertaining to this annexe is relatively scant and thus the exact nature of early settlement is unclear.

As this military complex developed, a grid of roads was laid out and a substantial extramural settlement, or *vicus*, grew up. This settlement was made up of civilians, attracted by the security and commercial benefits of the nearby fort. Based on archaeological excavations and the distribution of Roman finds, the limits of this civilian settlement appear to have extended south-eastwards along Chester Road, terminating somewhere in the vicinity of Great Jackson Street, northwards from the fort to approximately Quay Street, westwards along Liverpool Road for c 100m from the north-west corner of the fort, and eastwards across Deansgate to the area now occupied by Beetham Tower. Roads from the fort linked Manchester with Buxton to the south-east, Chester to the south, Wigan to the north-west, Ribchester to the north, and Castleshaw and York to the north-east. The settlement was well-connected in terms of trade and consequently lasted until the late third century AD.

4.2.2 *Archaeological Potential*

There is no known evidence for Romano-British activity within the boundary of the Site, and the potential for any such remains to survive from this period is considered to be low.

4.3 *Medieval Period*

4.3.1 *Historical and Archaeological Evidence*

There is very little archaeological evidence in the region as a whole that represents the period between the end of the Roman occupation and the Norman Conquest of 1066. The area around Manchester came under the control of several kingdoms during this period. In AD 620, Edwin occupied Manchester, and it may have been at this time that settlement in the town was established around the cathedral (Farrer and Brownbill 1908).

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, which had become a focus for settlement by the late-eleventh century. The site occupied presently by Chetham's School is thought to have been the site of a castle founded by Manchester's Norman barons and is situated approximately 1.2km north-west of the Site.

Following the Norman Conquest, William I assigned most of the land between the Ribble and Mersey rivers to Roger of Poitou, who retained the manor of Salford demesne (Tupling 1962, 116), but divided his other newly acquired land into several fiefdoms (Kidd 1996, 13). The largest of these was the landholding centred on Manchester, created by the grant of extensive lands in the hundreds of Salford, Leyland and West Derby to Albert Grelley (Tupling 1962, 116).

By the thirteenth century, the Grelley family had established a manor house at the confluence of the rivers Irwell and Irk and the medieval town grew up around it (Hartwell *et al* 2004, 256). It was from this hall that they governed both the manor and the extensive barony. In 1222 Manchester was granted an annual fair, and in 1301 Thomas Grelley was granted the Great Charter of Manchester by Edward I, and thus it became a free borough (*ibid*).

The Site is situated within the Ancoats area of Manchester. The name Ancoats is believed to originate from *Elnecot*, and the Old English *ana cots*, meaning 'lonely cottage' (Cooper 2002, 13). The area likely remained rural during the medieval period and is first mentioned in land grants dating back to the thirteenth century. In 1908 Swindells described it as 'an almost idyllic rural backwater' (Swindell 1908, 19-26). In 1320 Ancoats was recorded in a survey as forming eight hamlets in the township of Manchester, within the Salford hundred (Harland 1861). It is believed that these dwellings, formed mainly of cottages and farmhouses, may have been along Ancoats Lane (now Great Ancoats Street), Newton Lane (now Oldham Road) and Butler Lane (Miller, Wild and Little, 2007, 25).

4.3.2 Archaeological Potential

Given the later development of the Site and the lack of evidence of medieval settlement within the immediate area, the potential for medieval remains to survive with the Site is considered to be low.

4.4 Post-medieval and Industrial Period

4.4.1 Historical Setting

Ancoats likely remained largely rural during the post-medieval period, with the most significant building in the area being Ancoats Hall. The manor of Ancoats was held by the Byrons of Clayton family for over four hundred years until it was sold to Oswald Mosely, who built the timber-framed Ancoats Hall on the land in 1596. Ancoats Hall overlooked the river Medlock on the eastern fringe of the area (Miller, Wild and Little, 2007, 25) and was described by Bruton as 'beautifully situated above the Medlock with lovely views over the green wooded country'.

The Mosleys, lords of the manor of Manchester, would hold the land for the next two centuries until it was bought by mill owner George Murray who altered it into a Victorian brick-built mansion (Rose *et al*, 2011, 5).

During the eighteenth century, south-east Lancashire as a whole was predominantly an agricultural area of isolated settlements and market towns, with the burgeoning town of Manchester at its heart (Williams with Farnie 1992, 3). By the 1780s, the national demand for textiles and concomitant mill building transformed Manchester into a centre of the factory-based cotton-manufacturing industry (Baines 1835).

The expansion of the population and trade of Manchester at an unprecedented rate, resulted in the transformation of Ancoats into a key industrial suburb (Miller and Wild 2007). This transformation began in the 1770s, when land owned by the Leigh family was sold to Thomas Bound, a builder, who then sold it on to others for development (Little 2002, 31). William Green's *Map of Manchester and Salford*, surveyed between 1787 and 1794, shows the focus for initial development to have been at the corner of Great Ancoats Street and Oldham Road, and depicts the main elements of the existing street plan laid out on former fields of the area. Building speculation then drove further expansion, with plots of land within a grid-iron pattern of streets being sold for development. The principle driving force of development was the national demand for textiles, particularly cotton, and the introduction of steam-powered spinning mills (Williams and Farnie 1992, 3).

The earliest textile factories in the area included several water-powered mills erected along Shooter's Brook, to the south of Union (now Redhill) Street. There is some evidence to suggest, for instance, that New Islington Mill and Salvin's Factory originated in the late 1780s as water-powered textile mills situated on the bank of Shooter's Brook (Miller and Wild 2007). New Islington Mill was situated 85m south of the Site. However, Shooter's Brook was a small watercourse, and in seeking a solution to the inadequate power supplied to their waterwheels from the brook, some manufacturers experimented with steam power. Notably, John Kennedy is reputed to have first applied steam power to one of his spinning mules whilst renting space at Salvin's Factory in 1793 (Lee 1972, 9).

It was on the basis of a breakthrough in the application of steam power, and the demand for textiles that created the explosion of factory building in Ancoats (Little 2002, 31). This was fuelled by the potential of cheap and reliable transport for goods and materials offered by the construction of the Rochdale and Ashton under Lyne canals, and led to the creation of a new breed of mill building in Ancoats (Miller and Wild 2007). These were built on an unprecedented scale, many depending upon the developing network of short branch canals for transport and a source of water for their steam-power plants.

Numerous trades ancillary to textile manufacturing were also established in Ancoats during the nineteenth century, and large areas were developed for workers' housing. In an age when walking was the only viable means of travelling to work, these were built with little regulation around the industrial units. The net result was the creation of the world's first true industrial suburb: an edge-of-town industrial estate with associated housing, community facilities (churches, pubs and charitable refuges) and related businesses.

A key component of this new industrial townscape was the canal network, and particularly for the Ashton Canal and the Rochdale Canal, which formed a transport artery through Ancoats and also provided a source of water for the steam engines in the new textile factories. The Ashton Canal was proposed in 1791, and was intended to provide link between Manchester and the collieries in the Ashton and Oldham area. The canal was authorised by an Act of Parliament in 1792, and construction commenced immediately under the direction of Edward Banks (Hadfield and Biddle 1970).

The canal had been completed between Manchester and Ashton by early 1797, although the terminus basin at Piccadilly had yet to be constructed. It seems that James Meadows, the canal company agent, had been overseeing the construction of the canal up to that point but, in June 1798, Benjamin Outram was appointed by the canal company as engineer (Hadfield and Biddle 1970). In August 1798, the company appointed F. Bellhouse to erect a warehouse at Ducie Street, and Outram was instructed to arrange for one or more cranes to be erected on the public wharves at the canal terminal. In the same year, Samuel Oldknow, chairman of the Peak Forest Canal Company, entered negotiations with the Ashton Canal Company with a view to purchasing land at the canal terminus. This was coupled with the intention of linking the Peak Forest Canal with the Ashton Canal in Ashton, thereby providing a direct link to Manchester from the limestone quarries in Derbyshire. The Ashton Canal was finally completed in 1799, and several warehouses were established at the terminus in Piccadilly Basin (Hadfield and Biddle 1970). Ashton Canal acted as catalyst for development in Ancoats, and the canal corridor heading north-eastwards out of Ancoats towards Bradford and Clayton became lined with textile mills.

4.4.2 Overview of Manchester's Textile Industry

By the 1780s, the national demand for textiles, particularly cotton, had begun to rise, resulting in a dramatic increase in mill building that transformed Manchester into a centre of the factory-based cotton manufacturing industry of international repute (Baines 1835). The ebb and flow of business confidence powerfully influenced development, which was concentrated into short and intense bursts of investment (Williams with Farnie 1992, 19). The high price of land influenced the location of fresh industrial ventures, and thus the new steam-powered mule mills were built on the outskirts of the established nucleus of Manchester. The first of these was established in Ancoats during the 1780s. A commercial boom in 1800-02 saw the number of cotton-spinning firms in the township of Manchester double from 51 in 1799 to 111 in 1802, setting Manchester on its path to becoming the most highly concentrated centre of cotton spinning in the world (Williams with Farnie 1992, 19).

In broad terms, fluctuations in the cotton market during the 1820s brought 'boom and bust' conditions for Manchester's manufacturers, although a report in the *Manchester Mercury* in 1827 claimed that 'the market for manufactured goods was the briskest which there has been for a very long time'. This favourable economic situation persisted until 1836, and led to numerous new textile mills being established around the fringes of the Manchester. However, a serious depression of trade in 1837 resulted in the loss of inefficient firms. Boom conditions reigned between 1848 and 1853, and the number of cotton mills in Manchester reached a peak of 108 at the close of 1853 (Williams with Farnie 1992, 21). It was at this time that Manchester gained its popular designation as 'Cottonopolis' in recognition that the city represented the nucleus of the whole cotton industry, harbouring representatives of all its component branches and ancillary trades.

The number of mills in Manchester declined gradually during the second half of the nineteenth century, and was surpassed by Bolton as the leading centre for cotton spinning in the 1850s. This reflected the continuing inflation of land values in Manchester in the face of increased competition for development plots, which presented significant issues to individual mill owners that needed to expand their

factory premises. Some old, established firms in the city centre relocated their business to the suburbs for the same reason, a notable example being Henry Houldsworth, who moved from his large mill complex on Newton Street in Manchester to Reddish, where he established a 'state of the art' spinning mill in 1865.

By the early 1880s, the number of cotton spindles operating in the city was in the process of absolute decline, exacerbated by the 'Great Depression' of 1873–96. This had a significant impact on many cotton-spinning firms. Some of Manchester's largest firms, such as McConnel & Kennedy and A & G Murray in Ancoats, specialised in the spinning of ultra-fine yarn, a branch of the industry that sustained less impact from the trade depression, whilst other firms were afforded some protection through diversification into the weaving and finishing branches.

4.4.3 The Rochdale Canal

The Rochdale Canal is situated along the southern boundary of the Site and nineteenth and -twentieth century mapping shows that an arm of the canal had been constructed within the boundary of the Site. The canal was authorised by an Act of Parliament in 1794 and was linked to the Ashton Canal at Piccadilly in 1800. The canal linked Manchester with the ports of the East Coast via the rivers Aire and Trent and also to Liverpool via the Ashton to Bridgewater Canal. The canals were not only vital to power steam engines in factories but these links made Piccadilly Basin a focus for trans-shipment goods and a key location in the canal network (Miller 2007, 16).

The first design for the Rochdale Canal Basin was proposed in 1796, and revised in 1804, although neither of these proposed schemes were carried out. The Rochdale Canal Company's first warehouse was eventually constructed in 1806, at the end of one of the canal arms to the east of Dale Street and survives today as Dale Warehouse. Dale Street effectively divided the basin into two with a smaller, western section bounded by Lees Street, London Road (later Piccadilly) and Ducie Street. The eastern section was bounded by Back China Lane, Upper Stanley Street, Leech Street and Ducie Street. A plan drawn up in 1810 closely resembles the final layout, and proposed 23 wharf plots, with two general wharves and the four buildings that had been completed by that stage (Maw *et al* 2009, 22; Plates 2 and 3).

After the development of the Dale Warehouse, the company's offices were constructed immediately to the south-east in 1807, with two sheds located between the two arms. This range of buildings formed one of the two general wharfs for the Rochdale Canal Company, and was completed by 1810. However, development of the rest of the basin was slow, only being progressed during periods of prosperity. The next major development was not until 1817, when existing warehouses were expanded. Other improvements included new surfacing of the wharfs and installing cranes for loading and unloading goods (*op cit*, 22-3).

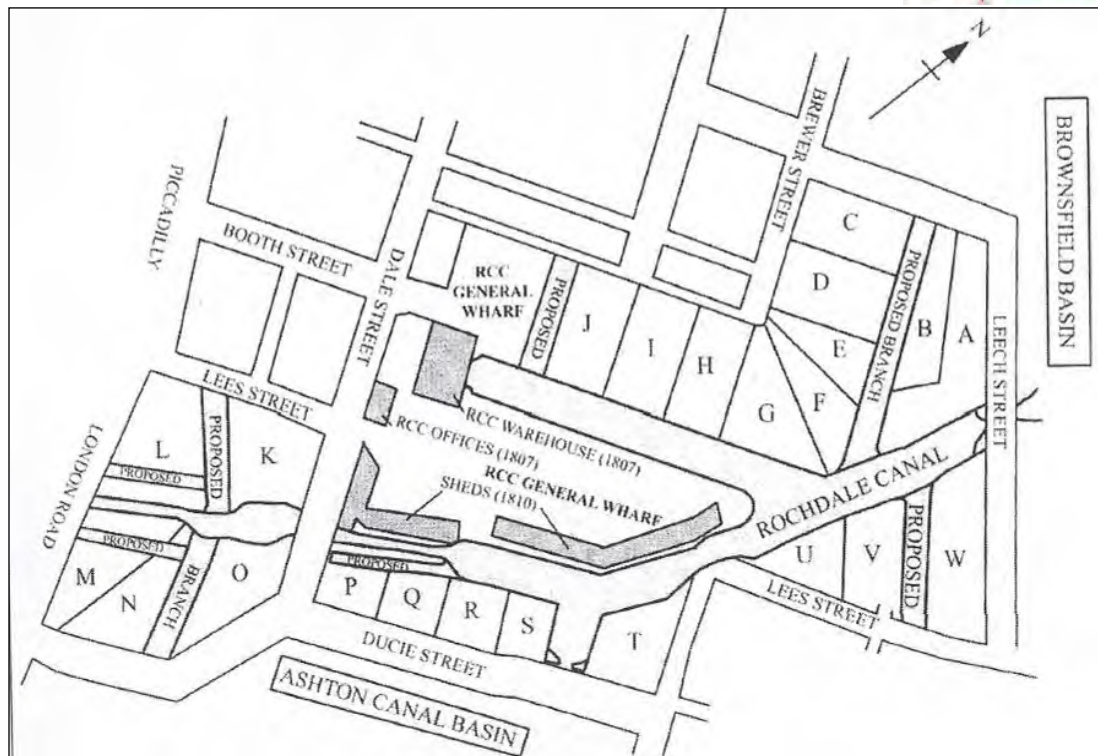


Plate 2: Plan of the Rochdale Canal Basin drawn in 1810

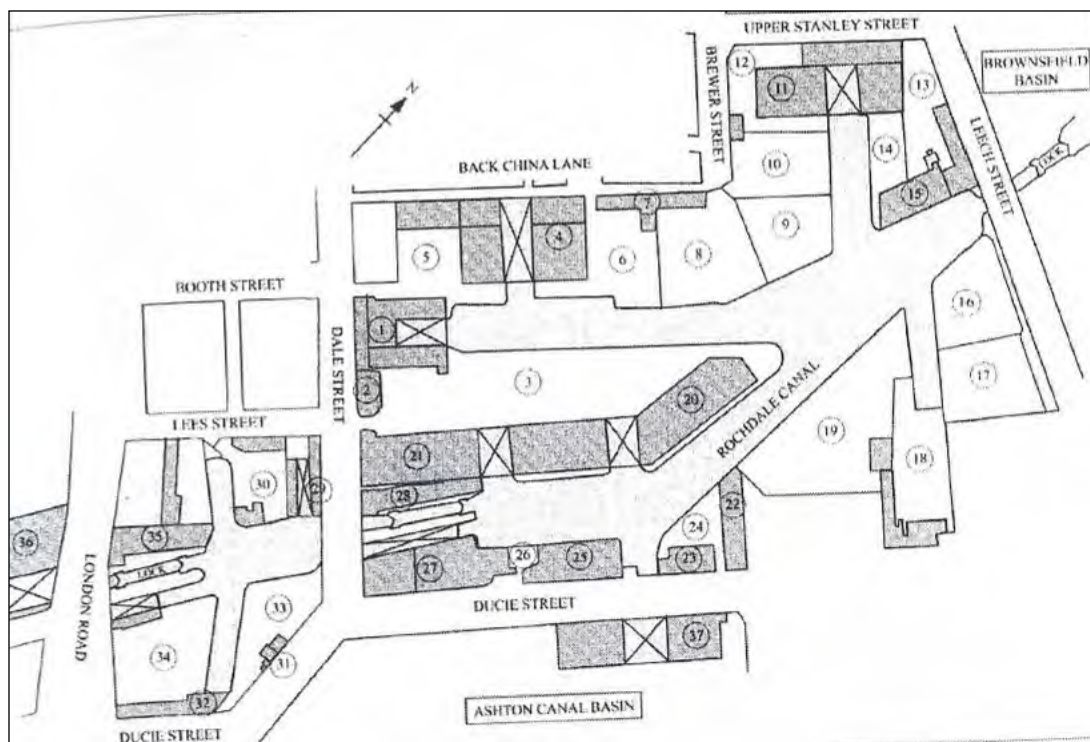


Plate 3: Plan of the Rochdale Canal Basin drawn in 1855. Select Key: 1 – Dale Warehouse (1807); 4 – Merchant's Warehouse (1825); 11 – Jackson's Warehouse; 18 – Stone Wharf; 19 – Stone Wharf & Sand Shed; 22 – Stables; 23 – Stables; 24 – Stable Yard

New warehousing was built in 1822, replacing the western warehouse of 1810, and was one of the first to employ iron in its structure. Over the next few years, the Rochdale Canal Company made several minor improvements, including renovating warehouse space as well as constructing the Lees Street Branch of the basin on the western edge. As part of traffic regulation, the Rochdale Canal Company ordered the construction of a stone gateway between the offices and the 'new' warehouse, which still stands today (*op cit*, 23).

Expansion into the north-eastern part of the basin was carried out in 1825, with the cutting of the Upper Stanley Street canal arm, as well as one further west, near Dale Warehouse, towards Back China Street. Growth stagnated in 1826 and, in 1829, the Merchant's Warehouse was destroyed by fire, leading the Rochdale Canal Company to implement new safety regulations. Trade picked up again during the 1830s, and warehousing was added at the south-west corner of Ducie and Dale Street, as well as around Upper Stanley Street. Jackson's Warehouse was completed in 1836, named after a carrier company that operated between Liverpool and Hull (*op cit*, 23-5).

Railway Competition: the introduction of a viable railway in the 1820s brought an alternative, and faster, means of transporting bulk goods. The advantages of this new form of transportation were recognised instantly, leading to the rapid expansion of the railway network. The Ashton Canal was purchased by the Manchester, Sheffield & Lincolnshire Railway in 1842, and was operated as a single concern together with the Peak Forest and Macclesfield canals. The Rochdale Canal Company resisted take-over bids from various railway companies initially but, in 1855, it leased the canal to a consortium of railway companies. The canal remained profitable into the twentieth century, but was in sharp decline by the end of the First World War. The final boat journey across the Pennines on the Rochdale Canal was made in 1937 and, in 1952, the canal was closed to navigation, apart from the short section between Castlefield and the Ashton Canal junction at Piccadilly (Hadfield and Biddle 1970).

4.4.4. Housing in Manchester

Attempts were made by the Manchester Police Commissioners to apply a rudimentary form of building regulations as early as 1792. However, with no way to enforce these regulations, they were largely ignored (Hylton 2003, 152). By the 1820s and 1830s, housing conditions deteriorated further, with poor sanitation, no form of water supply and poor-quality bricks and mortar (Nevell 2008, 136; Pearlman 1956, 3). At best, an open drain from an ashpit privy might have been installed down the middle of the street or court (Parkinson-Bailey 2000, 35). Eighteenth-century houses were compromised during this period by the infilling of areas between these dwellings with back-to-back and blind-back housing, and by the increasing use of these buildings, originally designed for occupation by one family, as tenements, that were occupied by two or more families. As a result, houses became increasingly overcrowded and cellars were used as separate dwellings (Nevell 2008, 152; Marr 1904, 34 and 60).

A description of the housing conditions during the early nineteenth-century was given by Dr J Ferriar in the proceedings of the Board of Health in 1805:

"The number of damp and very ill-ventilated cellars inhabited in many parts of the town is a most extensive and prominent evil. It may be necessary to explain to gentlemen who have not visited such places, that they each consist of two rooms underground,

the front apartment of which is used as a kitchen, and though frequently noxious by its dampness, and closeness, is greatly preferable to the back-room: the latter has only one small window, which, though on a level with the outer ground, is near the roof of the cellar, it is often patched with boards or paper, and in its best state, is so much covered with mud, as to admit very little either of air or light. In this cell, the beds of the whole family, sometimes consisting of seven or eight, are placed. The floor of this room is often unpaved: the beds are fixed on the damp earth. But the floor, even when paved, is always damp. In such places, where a candle is required, even at noon-day, to examine a patient, I have seen the sick without bedsteads, lying on rags; they can seldom afford straw. This deplorable state of misery becomes frequently the origin, and certainly supports in a great degree the progress, of infectious fevers.” (Board of Health 1805, 12-13).

Further acts were introduced during the nineteenth century in an attempt to improve living conditions in Manchester. The Manchester Police Act of 1844 stated that any new house should be provided with a toilet, with a door and covering, and all existing houses were to have one installed; significantly, this act also banned the building of new back-to-backs (Muthesius 1982, 126; Lloyd-Jones and Lewis 1993). The Public Health Act of 1848 further sought to improve conditions by giving ‘local authorities powers to supply water, to pave and clean streets, to arrange the collection of refuse and the whitewashing and purifying of houses’ (Parkinson-Bailey 2000, 40). Cellar dwellings also became illegal in 1853 through the Manchester New Streets Act, however, this took approximately three decades to take full effect, as many cellar dwellings remained occupied until 1872 (Hylton 2003, 154).

Two significant advances in housing legislation were introduced in the late 1860s. The first was the Manchester Waterworks and Improvement Act of 1867, which led to the appointment of a Medical Officer of Health for the town, the first of which was Dr John Leigh (Parkinson-Bailey 2000, 41). Nationally, this act was the first of its kind that enabled houses unfit for habitation to be closed and demolished. Significantly, the 1867 act also specified the minimum requirements for room sizes and window areas in new dwellings, and also required that every new house had a yard at the rear. This act also required a minimum street width of 30ft (*ibid.*). This local act was then supplemented in 1868 by the passing of a national act. This was the Artisans’ and Labourers’ Dwelling Act, also known as the Torren’s Act after its author, which focused on the improvement, maintenance, or demolition of pre-existing houses and also new-build houses (*ibid.*). To bring houses up to the required standard, landlords might create a through-dwelling by knocking doors through the party wall between a pair of back-to-backs. Pairs of back-to-backs or individual one-up one-downs might be removed altogether to create the space for yards for the remaining property (Roberts 1993, 22-3). In 1875, the Artisans’ and Labourers’ Dwellings Improvement Act was introduced to provide the mechanism of slum clearance, the first act of its kind (Pearlman 1956, 28). However, the Manchester authorities were initially resistant to this act, and it was not until 1890, with the amendment of this Act, that slum clearance and regeneration began in earnest (*op. cit.* 34).

4.5 Development of the Site

The development of the Site may be traced reasonably well from the sequence of available historic mapping. The earliest maps that show the study area are Laurent's 1793 map of Manchester and Salford (Plate 4), and Green's map of 1787-1794 (Plate 5; Fig 3). The maps show the streets in Ancoats laid out in a grid pattern, creating a series of regular plots, with development apparently focused on Great Ancoats Street and Newton Lane (Oldham Road) area. Some of the larger streets were named after the original landowning families (George and Henry Cornwall Legh) (Rose *et al* 2011, 8). The maps indicated that the Site was still rural land in the late eighteenth century. Union Street and New Islington Mill were situated to the south of the Site and houses or businesses were to the north. Jersey Street, which at the time was named Elliot Street, had also already been established.



Plate 4: Laurent's 1793 map of Manchester and Salford showing the location of the Site



Plate 5: Site boundary superimposed onto Green's map of 1787-1794

By 1820 the Prussia Street arm of the Rochdale Canal had been constructed through the centre of the Site, dividing it into two (Plate 6). The arm was built by 1808 and ran northwards towards Oldham Road and split west into the Bengal Street Arm (Arrowsmith 2005).

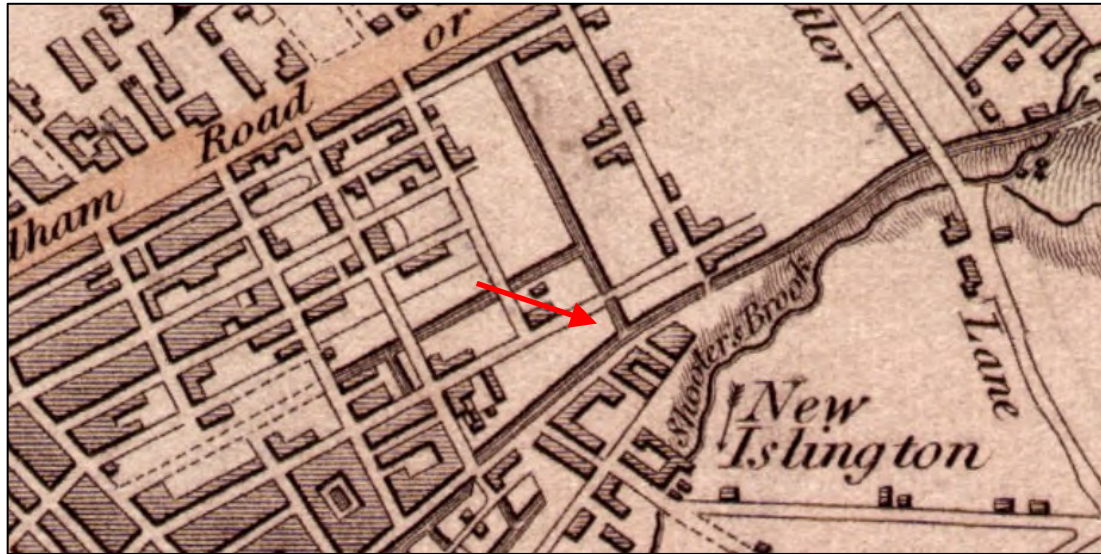


Plate 6: Johnson's map of 1820 showing an arm of the Rochdale Canal at the Site

Swire's map shows that by 1824 Elliot Street had been renamed Jersey Street (Plate 7; Fig 4). A rectangular building had been built along the northern boundary of the Site, to the west of the canal arm and the eastern section remained rural. By 1831 the rectangular building had been replaced by Beavers Cotton Mill (Plate 7; Fig 5). The 1831 map also showed the canal arm passing north of the Site, with a narrow bridge crossing it at Jersey Street.

Beavers Cotton Mill was opened on Jersey Street by Hugh Beaver as a 'principal mill' by 1825 and it is therefore possible that the rectangular building on the 1824 map was an early depiction of the construction of the mill. By 1829 a 'small mill' had also been added to the complex. The 1831 map showed the largest building at the mill fronting Jersey Street and its eastern end had a short narrow extension along the canal arm. Later mapping showed that this section was seven-storeys high (Plate 18, p. 31). It is possible that the mill's original engine and boiler house were situated at the eastern end (Arrowsmith 2005). The second area ran along the western boundary of the Site, with a short continuation along the canal and was labelled in later mapping as three-storeys. Adjoining this section, running towards the south-west end of the main mill range, was another smaller rectangular building that was five-storeys high. It is possible that this was the 'small mill' added in 1829 (HER 13698.1.0; Arrowsmith 2005).

Beavers Cotton Mill was constructed at a time when the market was favourable and numerous new textile mills being established around the fringes of Manchester. It was built amongst a concentration of mill buildings around Jersey Street that contributed to Ancoats' place as an important landmark in the industrial revolution. Murray's Mill complex was built 214m west of the Site from the late-eighteenth century (Historic England 2021a; HER 2043.1.1) and Sedgwick Mill was also established by 1820 308m west of the Site (HER 2130.1.0; Historic England 2021b). Further, Beehive Mill was completed by 1824 140m north-west (HER 2121.1.0; Historic England 2021c).

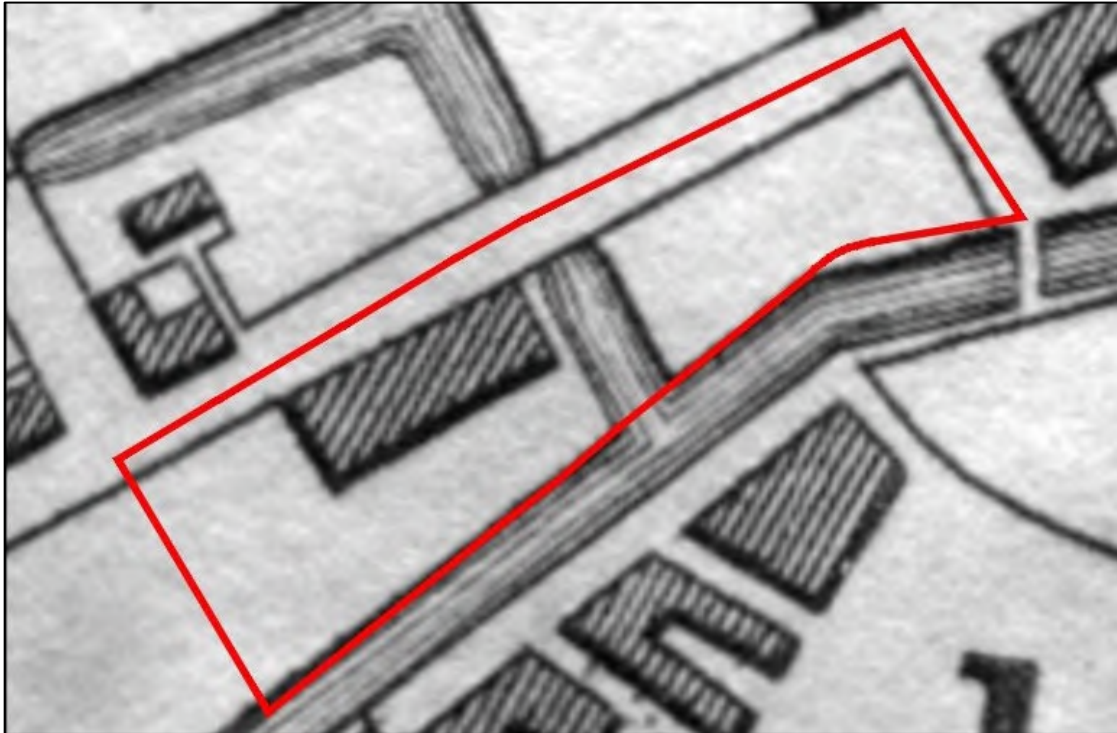


Plate 7: Site boundary superimposed onto Swire's map of 1824

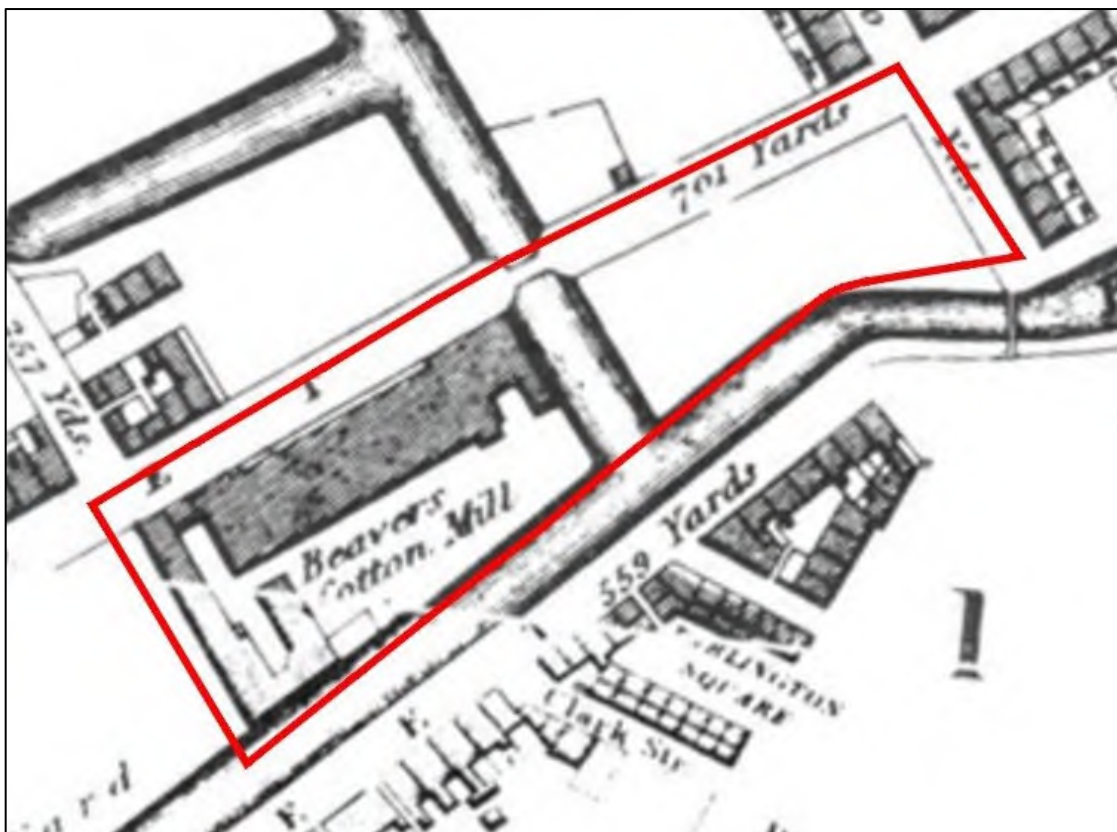


Plate 8: Site boundary superimposed onto Bancks & Co.'s map of 1831

In 1826 it was reported that the cotton mill was damaged as part of the power loom riots. The riots had taken place around various mill towns in Lancashire in protest against the introduction of the more efficient power looms to mills. The introduction of power looms had left many hand weavers out of work. The mill was described as containing 'a considerable number of power looms' and that the rioters:

'immediately began to demolish the windows of the counting-house, and of the lower story of the factory, through which pieces of burning cotton were thrown. The counting-house and the first story were immediately set in flames, which had communicated to the room where the grey goods were kept, before the arrival of the engines.'

The damage inflicted at the mill was estimated at a worth of three to four thousand pounds (*Edinburgh Annual Register* 1826). Another article also stated that the building adjoining the mill was in use as a store-room and housed around two thousand pieces of calico cloth that were also burnt. It claimed that it was only due to the fact that the mill was fireproof that the whole buildings were not damaged (*Yorkshire Gazette* 6 May 1826). Bancks & Co.'s 1831 map also showed a smaller square building, fronting Jersey Street, that connected the main range of the mill and the store. It is possible that this building was in use as a counting house or an office. The damage caused was not enough to close the mill and in 1829 Hugh Beaver was listed in a directory as a spinner and manufacturer 'by power' at New Cannon Street and Jersey Street (Pigot 1829).

It is likely that Hugh Beaver retained ownership of the mill until at least the mid-nineteenth century, when he remained listed as a cotton spinner at 64 Jersey Street (Slater 1850). Detailed maps of the area were produced in the mid-nineteenth century, including the Ordnance Survey town plan of 1851 and Joseph Adshead's map of 1851. The Ordnance town plan showed Beavers Cotton Mill labelled as 'Jersey Street Mills' (Plate 9; Fig 6). A circle was depicted in the south-west of the mill on the map, indicating a possible stair tower. Another building had been constructed at the rear of the mill, adjoining the canal and the stores, and was labelled with an engine house to the south-east. The extension was described as a weaving shed in a later newspaper and had been constructed as early as 1832 (*Manchester Times* 15 February 1890; HER 13698.1.0; Arrowsmith 2005).

The 1851 map also showed that the south-east area of the main original range of the mill had been extended and labelled with another engine house and boiler at the south-east, which had been added in 1845 (HER 13698.1.0). A chimney was also depicted in the northern section of the building. Within the eastern boundary of the Site a coal wharf associated with Prussia Street had been constructed, where the coal brought to Manchester via the canals was unloaded. Two potential warehouses or stores were also depicted in the wharf. An iron drawbridge was labelled carrying Jersey Street over the canal arm. Adshead's map showed the same layout as the Ordnance survey but identified the mill as 'Hugh Beaver's Cotton Mill' and the extensions to the mill could be seen more clearly (Plate 10).

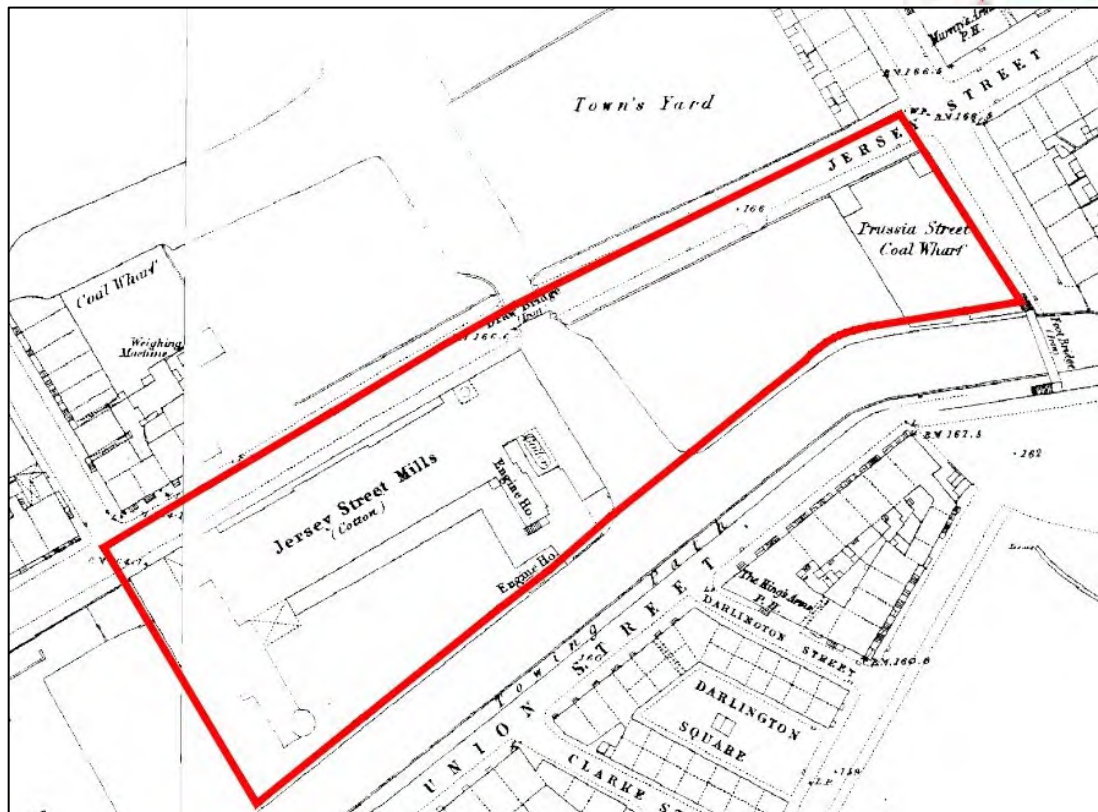


Plate 9: Site boundary superimposed onto the Ordnance Survey Town Plan of 1851



Plate 10: Adshead's map showing the Site, 1851

In the 1860s Thomas Percival & Co. cotton spinners were listed as occupants of the mill on Jersey Street (Arrowsmith 2005). The company were still registered at the mill, under the new name of Percival and Patteson in 1873 (Seyd & Co 1873). It is possible that this was a relative of the Percival that was involved in the neighbouring flint glass works. The Flint Glass Works situated adjacent to the Site boundary has been established by Thomas Percival and William Yates in 1844. They were joined in 1851 by Thomas Vickers and Percival, Vickers & Co Ltd would operate the neighbouring site as a glass manufactory until 1880 (OA North 2004). However, Thomas Percival

passed away in 1875 and shares for his part of the business were advertised for sale in a newspaper. Those interested were directed to 'Mr Thomas Percival, Jersey-Street Cotton Mill', amongst others (*Manchester Evening News* 30 November 1875). It appears that Thomas Percival, a likely relative or son, took control of the Jersey Street Mill through the 1860s and '70s. The mill then became under multiple occupancy (HER 13698.1.0).

By 1891 the eastern section of the Site had undergone extensive development (Plate 11; Fig 7). A row of double-depth terraced houses had been constructed along the eastern boundary, fronting Prussia Street and occupying the footprint of the former coal wharf. The buildings were labelled in later maps as 90-100 Prussia Street (Plate 21, p. 33). Properties had been built to the north of the Site on Prussia Street as early as 1841 (*Census returns for Prussia Street*, 1841). However, it is likely that 90-100 were built between 1861 and 1871, when they first appear in the census returns listings.

In 1871 those living at the houses on Prussia Street were listed as employed in the textile industry, mechanics, a shoemaker, clerk and tin plate workers (See Table 3). No census returns were listed for the larger irregularly shaped building that would later be labelled as 100 Prussia Street, suggesting that it may have been in use as a store or business. It was irregularly shaped in order to follow the line of the canal. The houses were depicted on the 1891 ordnance survey map with small yards and outbuildings, accessed via a passage from Jersey Street. The properties would see little further development throughout the early twentieth century and remained on the Site until at least 1953 (Fig 11).

Address	Household Name(s)	Number of Residents	Listed Occupations of Residents
90 Prussia Street	Beckett; Royle	7	Mule Spindle Maker; Office Boy; Rough Linen Worker
92 Prussia Street	Stapleton; Teby; Pownall	7	Shoemaker; Scholars; Piecer; Warehouseman
94 Prussia Street	Young	9	Factory Operative; Servant; Warehouseman; Mechanics
96 Prussia Street	Smith	6	Smiths
98 Prussia Street	Beattie; Hancock	9	Tin Plate Worker employing 2 boys and 2 men; Tin Plate Worker; Clerk; Sewing Machinist; Scholars

Table 3: 90-98 Prussia Street, Ancoats, Manchester, Lancashire, England, 1871

By the late nineteenth century the City of Manchester Screw Bolt Works had also been constructed within the Site, shown with a chimney in the north-west (Plate 11). To the east, a stone mason's yard had also been established. The two-storey building fronted Jersey Street with a rear yard that had open-sided sheds on either side and a travelling crane was labelled in the centre (HER 13699.1.0). It is likely that these buildings were constructed between 1865 and 1869 when William Archibald was listed as a screw and bolt maker at Jersey Street, and Clapham & Kirkham were listed as stone masons (Arrowsmith 2005). Archibald was also listed at Jersey Street in 1876 as a screw bolt and rivet maker 'by new and improved machinery' (Slater 1876).

A potential store/building was also constructed in the yard of the south-west section of the Jersey Street Mill between 1851 and 1891. Further, the areas previously labelled as an engine and boiler house were removed. A permanent full width bridge also passed Jersey Street over the canal arm at the north of the Site, and partially fell within the Site boundary. The 1891 map also showed the canal arm with a more narrow and straight alignment than that on the 1851 map. It is possible that the canal arm was modified when the works were constructed in the eastern half of the Site (Arrowsmith 2005).

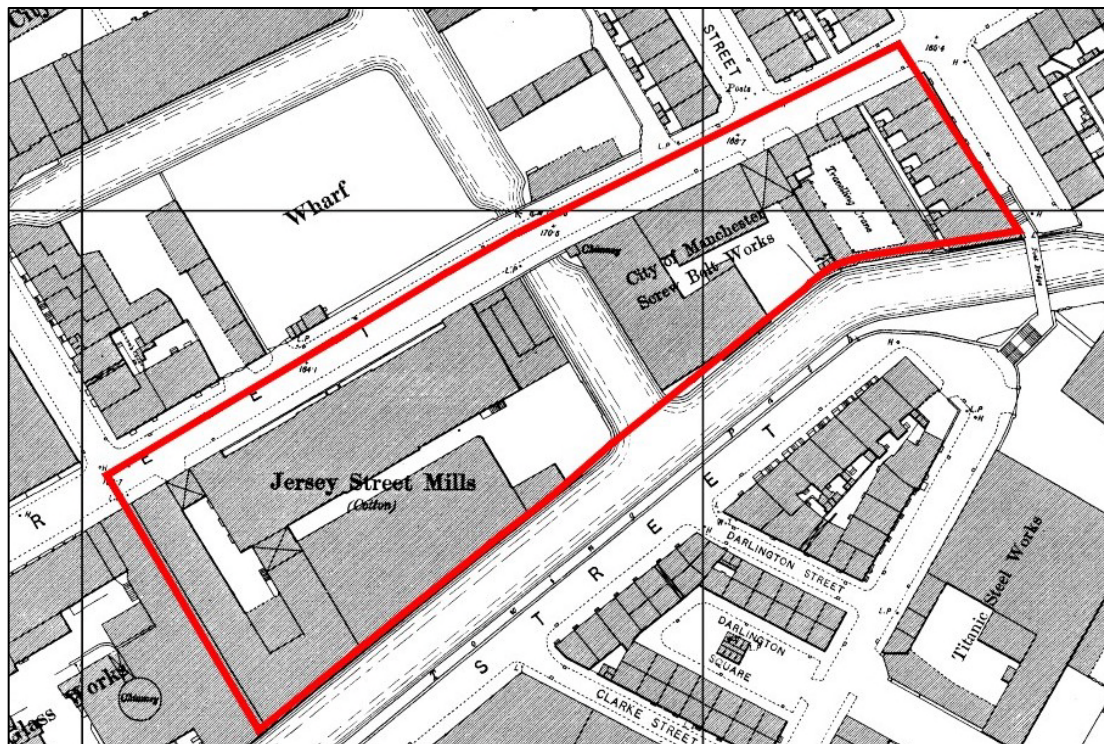


Plate 11: Site boundary superimposed onto the Ordnance Survey Town Plan of 1891

In 1888 the Jersey Street Mills were advertised for a yearly rent of £132.18s (*Manchester Courier and Lancashire General Advertiser* 13 October 1888). By 1890 it was described as an 'old disused Manchester Mill' and plans had already been passed to convert the 'shell' of the seven-storey mill into 'a great block of dwelling houses' (*Manchester Courier and Lancashire General Advertiser* 5 February 1890; *Manchester Times* 15 February 1890).

There had been significant acts introduced during the nineteenth century to improve living conditions in Manchester. However, by the 1880s a series of medical reports produced by the medical officer at the time, Dr Leigh, had described the slums of Manchester and the still prominent issue of housing and sanitation. In 1890 the Artisans and Labours Dwellings Improvement Act was amended, meaning that the local authority was to take responsibility for the construction of new dwellings, and it was only after this that slum clearance and regeneration began in earnest in Manchester (Pearlman 1956). Soon after, the first municipal housing development, known as Victoria Square, was constructed in Ancoats (Gould 1895; Historic England 2021d; HER 8504.1.0). The block was built to house the mill workers of Ancoats who were moved from the slums and was followed shortly by the development of model housing in adjacent Sanitary Street, now Anita Street.

The architect, C. J. Maycock, visited Manchester and Liverpool to assess the practicality and financial security of the new model housing schemes. He suggested that new buildings should only be constructed in Manchester under exceptional circumstances and believed that the only way to house families of the lower classes comfortably and cheaply was to find a suitable old building that could be remodelled instead into a flat system. This concept would also not need as much ground as it would to construct new cottages. Plans were then prepared by Maycock to convert the then unused Jersey Street Mill into dwellings. Unlike the Victoria Square and Anita Street developments, which were new purpose-built schemes, the conversion of the mill for residential use which was to be the first act of its kind (Gould 1895). Maycock's plan was supported by the Medical Officer of Health and the Corporation, and was described as 'a much needed reform in work-people's dwellings' (*Manchester Courier and Lancashire General Advertiser* 17 March 1891).

The *Manchester Times* newspaper reported on the proposed scheme and claimed that the whole cost of transforming the mill into dwelling houses was estimated to cost £20,000. The article described the state of the buildings before they were converted and some of the changes that were to take place, including that the chimney was to be removed and cleaners and painters would remove the 'sooty tinge' from the brick walls. The windows were also to be fitted with larger panes, making the rooms brighter and the provisions of the Factory Act dictated that the walls be washed with white lime to stop the spread of disease. To further enhance cleanliness, the stone flags on the floors were to be replaced with concrete which was warmer and easier to clean. The weaving shed at the rear of the Site was also to be demolished to make space for a children's playground (*Manchester Times* 15 February 1890).

The *Manchester Times* wrote a follow up article four months later and included a copy of Maycock's plan of the proposed scheme (Plate 12). The plan showed that the dwellings were to be reached via external balconies and four staircases, two at each end of the main mill building and the proposed outdoor children's playground in place of the former weaving shed (*Manchester Times* 14 June 1890). It was also proposed that a Co-operative Provision Store was to occupy part of the premises (*Manchester Courier and Lancashire General Advertiser* 21 January 1891).

By 1891 the Manchester Labourer's Dwellings Company was registered and entered into an agreement to purchase the mill. The company's objective was 'to provide for labourers and others resident in Ancoats and elsewhere healthy and sanitary dwellings at the lowest possible cost', something which Maycock's plan for the Jersey Street Mill would provide (*Manchester Courier and Lancashire General Advertiser* 21 January 1891).

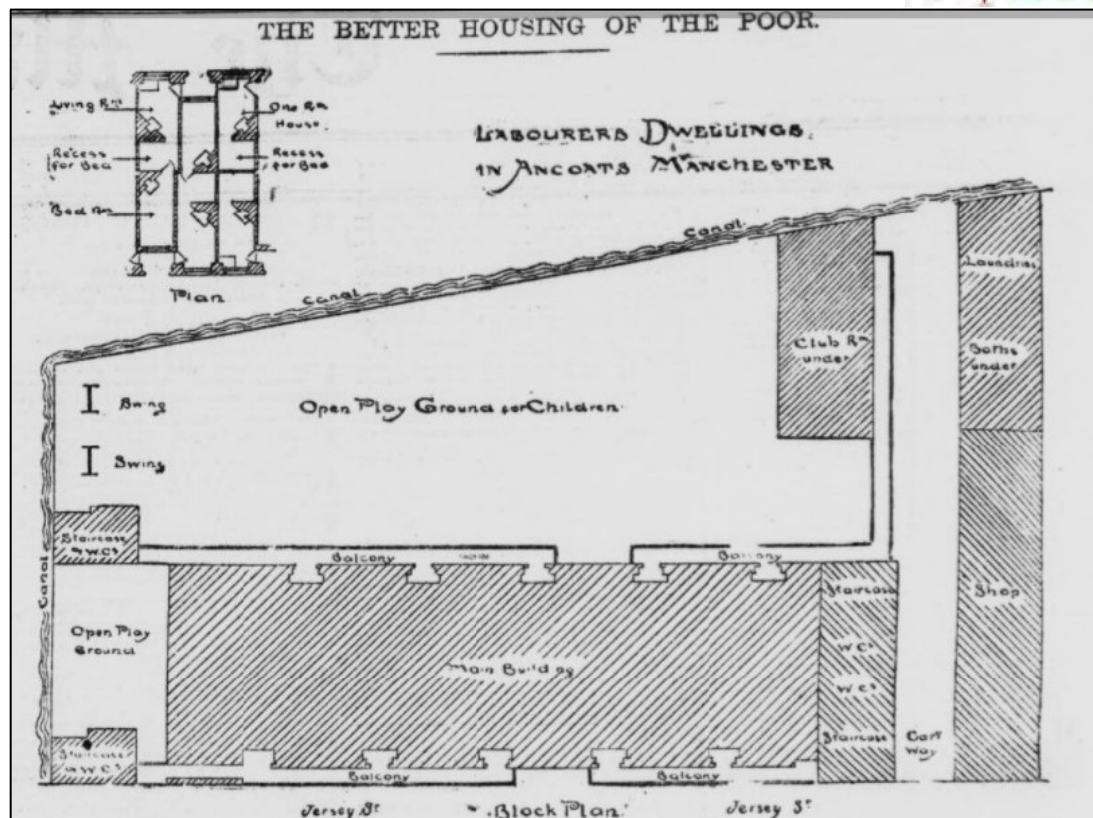


Plate 12: Copy of a plan of the proposed dwellings (Manchester Times 14 June 1890).

The Jersey Street Mill was converted into 149 dwellings and the homes were opened by the Mayoress of Manchester in 1892, by which time 105 of the flats had been let (Coventry Evening Telegraph 31 May 1892). They were 'intended as a first step towards the provision of sufficient healthy accommodation for those of our artisans who are compelled to live in crowded portions of the city' (Empire News & The Umpire 29 May 1892). Writing the year after the mill was repurposed, the architect Thomas Worthington described the 'original undertaking' and provided a useful description of the dwellings. He stated that:

'The several tenements are entered from balconies, which are reached by 4 staircases, one at each angle of the main building. Single-room dwellings are provided on two floors of the main building, and have a recess screened off for the bed. On the remaining floors are provided two and three-roomed dwellings, each having one of two recesses for beds, thus practically adding one or two more compartments to each dwelling. Sinks are provided for each house, with hot and cold water supply; gas being laid on to each tenement, stairs, etc. Each dwelling is provided with a receptacle for coals. The water-closets on each landing are flushed automatically, and dust-shoots extend from landing to landing. Laundries and drying room, with club-rooms for men and women, and a co-operative store are provided' (Worthington 1893, 154-155).

Worthington also included a drawing of the layout of the built flats (Plate 13), which showed two of the four main staircases and toilets with dust-shoots at the back of each and an ash-pit adjacent. These were placed at the end of each balcony and were separated from the main structure by heavy brick walls. There were also no internal corridors or staircases in the buildings and the balconies were separated at the middle.

This meant that tenants at the flats could only access their property via one set of stairs at either side of the rear or the front balcony. Between four to seven families would use the same corridor (Gould 1895). Each tenement had a wedged shaped fireplace that jutted out from the wall with a space at the end that could be used as a bed recess, creating the appearance of two or three rooms (*Manchester Times* 15 February 1890).

In 1895 Gould wrote a report on the houses of working people, within which he provided another plan of the block buildings (Plate 14) and an in-depth description of the converted mill at Jersey Street. He stated that:

'the area of the property is 28,202 square feet, about 44 per cent of which has been covered with buildings. The courtyard is covered with cinders, and there is besides a stone paved walk. The principal building contains seven stories, and the smaller five stories. Brick is the material of construction. The roofing is of slate, and the stairways are of concrete and iron. The floors are concrete laid upon brick vaulting, so that every arrangement has been made to secure fireproof quality. There is a cellar, which is likewise concreted, and in which there has been placed a large boiler for the purpose of supplying hot water' (Gould 1895, 257).

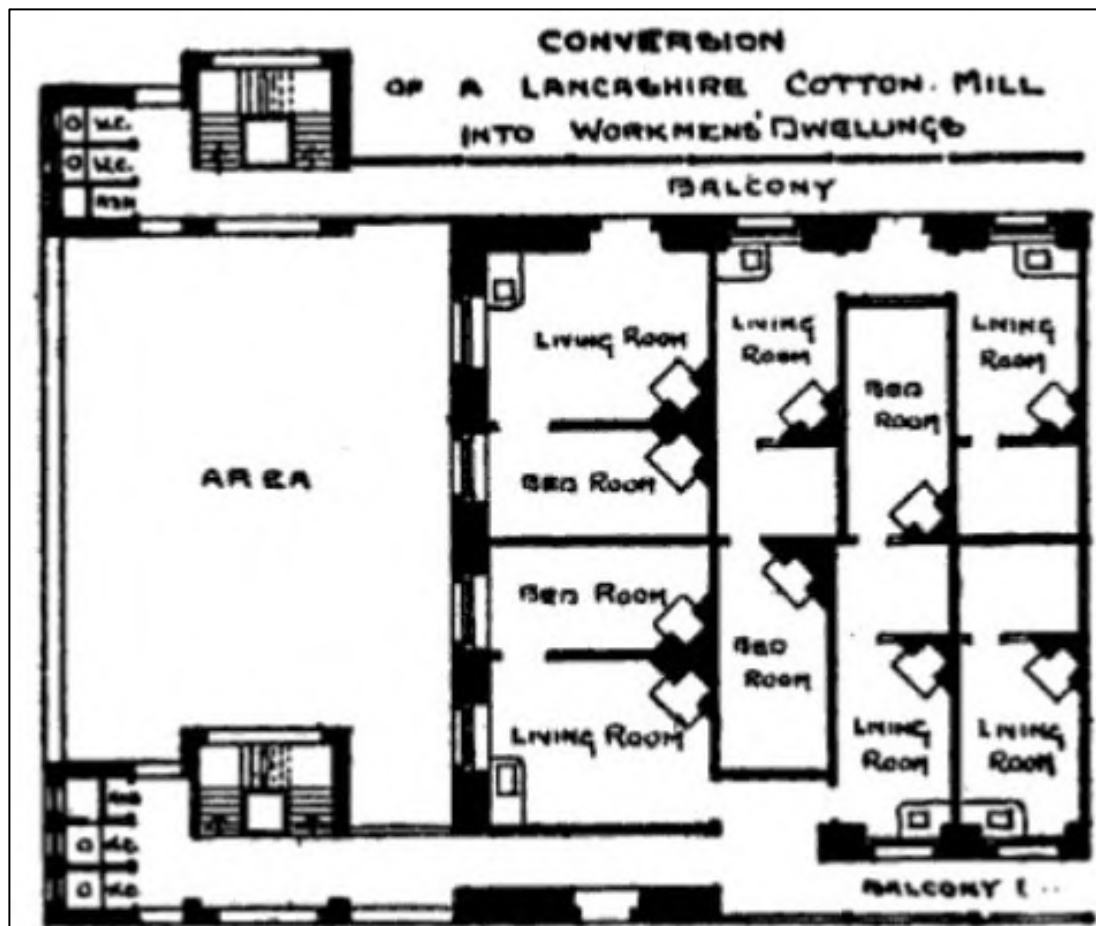
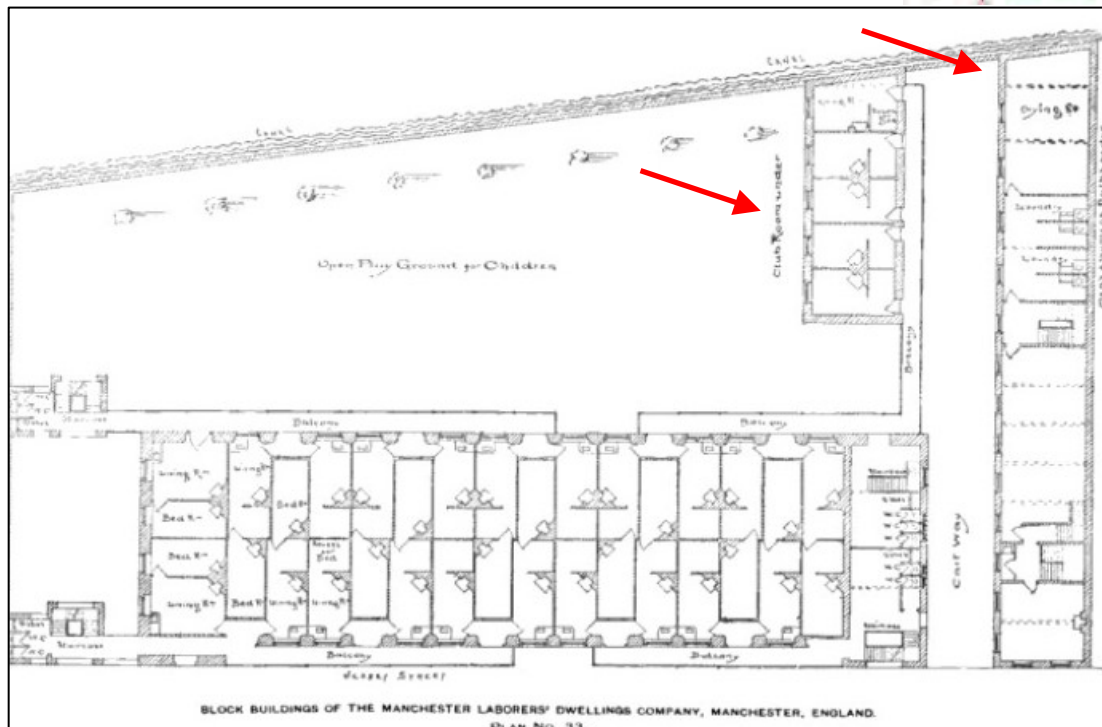


Plate 13: Plan of part of the dwellings (Worthington 1893, 81)



*Plate 14: Plan of the dwellings showing the location of clubrooms, laundry facilities and baths
(Gould 1895, 256)*

Gould also claimed that 'every detail of arrangement has been subjected to the approval of the municipal authorities and the model sanitary conditions have been complied with' (Gould 1895, 258). The mill was converted to provide better and safer housing for those residing in it. The toilets automatically flushed, and the seats were hinged and weighted so that they didn't need to be touched. Hot and cold water was continuously supplied to every kitchen for no charge and sinks were placed under the taps. Gas was turned off at 11pm but was also supplied for free. Residents were also supplied with cooking ranges, kitchen cupboards and a fire grate in each bedroom. The fuel box was filled from the outside through an opening in the wall. Further, the company removed any waste daily (*Ibid*).

The layout of the flats was also designed to ensure that there was good ventilation. The ceilings were 9foot 6inches high and each two-room dwelling was between 3,092-3,677 cubic feet and had ventilation through from the front to back, with windows and doors that opened on to the street and court. One-room dwellings were 1,700 cubic feet and were built back-to-back with ventilators opening to the chimney. It was believed that air would enter through the windows and gratings were placed on the ceilings to remove impure air into flues and carried above the roof. The stairways were also kept partly open to encourage air flow (*Ibid*).

Gould's plan showed the full L-Shaped form of the buildings (Plate 14). 'Club Rooms under' was labelled near to the five-storey tenements adjacent to the canal. A fund was set up by the company to provide social activities at the dwellings and clubrooms for both men and women were included on the premises with entertainment and lectures provided by the company. Newspapers and games were also prominent in these areas. The two buildings were shown as separated by a cartway and drying and laundry rooms were also labelled. Use of the laundry facilities would cost residents 1d. per

hour. Another label stating 'Men and Women's Baths Under' was also present on the plan. As well as laundry facilities, the people of Jersey Street dwellings were able to make use of both hot and cold-water baths which would also cost them a fee of 1d (*Ibid*).

Three photographs were taken outside the Jersey Street dwellings. The first photograph showed children outside of the dwellings in 1893 (Plate 15). The second was taken the same year and showed a children's service being held (Plate 16). It is likely that the images were taken at the rear of the building, in the children's playground. The service is being held by the Manchester and Salford Wesleyan Methodist Mission who were based at Central Hall, built in place of Oldham Street Chapel in 1886. The mission carried out a lot of social work around Manchester and also ran a number of homes and hostels for the lowest sections of society that were in need (https://secure.manchester.gov.uk/info/448/archives_and_local_history/7383/methodist_records). A third photograph was taken in 1900 of another children's service held by the mission, suggesting that it was a re-occurring event at the dwellings (Plate 17). In the background of the images the external balconies running along the converted mill can be seen with residents talking, watching the service, and hanging washing.

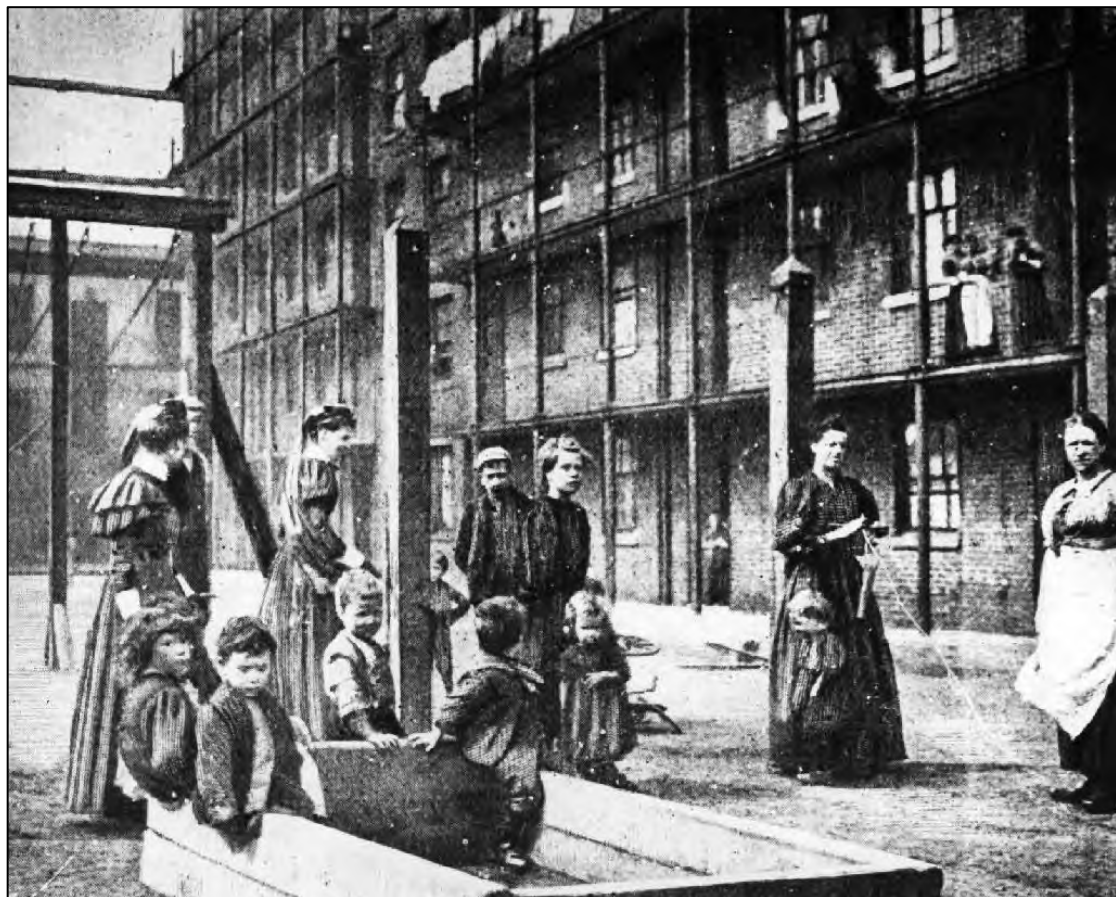


Plate 15: Housing at Jersey Dwellings, Ancoats, 1893
(<https://images.manchester.gov.uk/index.php?session=pass>)



Plate 16: Central Hall, children's service Jersey Dwellings, Ancoats, Manchester, 1893
(<https://images.manchester.gov.uk/index.php?session=pass>)



Plate 17: Photograph of children at Jersey Street, 1900
(<https://minerva.manchester.ac.uk/manchester-art-museum/items/show/140>)

The first census returns for the Jersey Street dwellings appear in 1901, for which numbers 1-148 are listed. Only eight of the dwellings were listed as uninhabited in 1901 and many of the residents were involved in the textile and labour trades, with the majority of residents also being born in Manchester (*Census returns for 1-148 Jersey Street Buildings*, 1901). The census returns for 1901 also listed the Fairbrother family living at 148 Jersey Street Buildings. The head of the family, James Fairbrother was listed as the superintendent of the dwellings. The family were also listed at the property in 1911 but by this time their address was listed as 33A Jersey Street Dwellings (See Tables 4 and 5). James Fairbrother had been working at the Jersey Street Mill as an engineer in 1886 before it was converted into dwellings (*Empire News & the Umpire* 20 June 1886) and the family had moved from Carruthers Street in Ancoats to reside there (*Census returns for the Fairbrother family at Carruthers Street*, 1891).

First name(s)	Last name	Sex	Age	Birth year	Occupation	Birth place
James	Fairbrother	Male	54	1847	Superintendent of artisan dwellings	Stockport, Cheshire
Mary	Fairbrother	Female	55	1846	-	Bollington, Derbyshire
Edith	Fairbrother	Female	20	1881	Winder in cotton mill	Manchester, Lancashire
Alice	Fairbrother	Female	18	1883	Winder in cotton mill	Manchester, Lancashire

Table 4: Fairbrother household at Jersey Street dwellings, Ancoats, Manchester, Lancashire, England, 1901

First name(s)	Last name	Sex	Age	Birth year	Occupation	Birth place
James	Fairbrother	Male	63	1848	Superintendent Jersey St dwellings	Stockport, Cheshire
Mary	Fairbrother	Female	66	1845	House duties	Bollington, Derbyshire
Ellen	Abrahams	Female	36	1875	Cleans at town hall Manchester	Ardwick, Manchester
Hilda	Abrahams	Female	3	1908	School	Ancoats, Manchester

Table 5: Fairbrother household at Jersey Street dwellings, Ancoats, Manchester, Lancashire, England, 1911

The 1908 Ordnance Survey map showed the first depiction of the mill converted into homes (Plate 18; Fig 8). As part of the process the engine house and weaving shed at the south of the Site was removed. Part of the three-storey building at the south-west of the Site had also been demolished, allowing room for the cartway to reach the canal, separating the part of the building occupied by the club rooms/flats and the laundry facilities. Further, the boiler and engine houses in the eastern section of the main seven-storey mill building had been demolished, leaving an open space with two stairways constructed (HER 13698.1.0). Between 1891 and 1908 no further development had taken place at the eastern section of the Site, occupied by houses and the Screw Bolt Works.



Plate 18: Site boundary superimposed onto the Ordnance Survey map of 1908

Little further development took place on the Site in the early-twentieth century (Fig 9). Charles Goad's Insurance map, surveyed in 1928, is particularly useful in documenting the use of each building occupying the Site in this period. The map shows the Site in a similar layout to the 1908 (Plate 18) and 1922 (Fig 9) Ordnance Survey maps. The Jersey Street dwellings occupying the western area of the Site were labelled on Goad's map as 'Tenements' with concrete floors and with concrete gangs along the outside. The section of the building along the western boundary of the Site, that once housed the laundry and drying facilities, was labelled as a shop and a dwelling, a workshop, and a fruit store. This section was shown as three-storeys high. The 1829 section was labelled as five-storeys, lowering to three near to the canal and the main range fronting Jersey Street was seven-storeys high (Plate 19).

Within the eastern section of the Site, the area formerly occupied by the City of Manchester Screw Bolt Works was labelled on Goad's map as 'W. Tennant. Salt Warehouse and Hearth Stone Factory', within which two sunk petrol tanks and a garage were depicted. A tinsmith and a sawmill were also shown at 66 Jersey Street (Plate 20). The footprint of the buildings remained the same throughout the late-nineteenth and early-twentieth centuries. Further buildings had been constructed at 66B Jersey Street, in the area formerly occupied by the stone mason's yard. This was labelled as 'R. P. Allison Drysalter'.

By the 1920s Prussia Street had been renamed Kemp Street. Goad's map also showed the houses of 90-98 Kemp Street, labelled as dwellings. 100 Kemp Street was labelled as 'Dairy Sund' on the first floor and 'Clothes Fac' on the second, accessed by stone stairs.

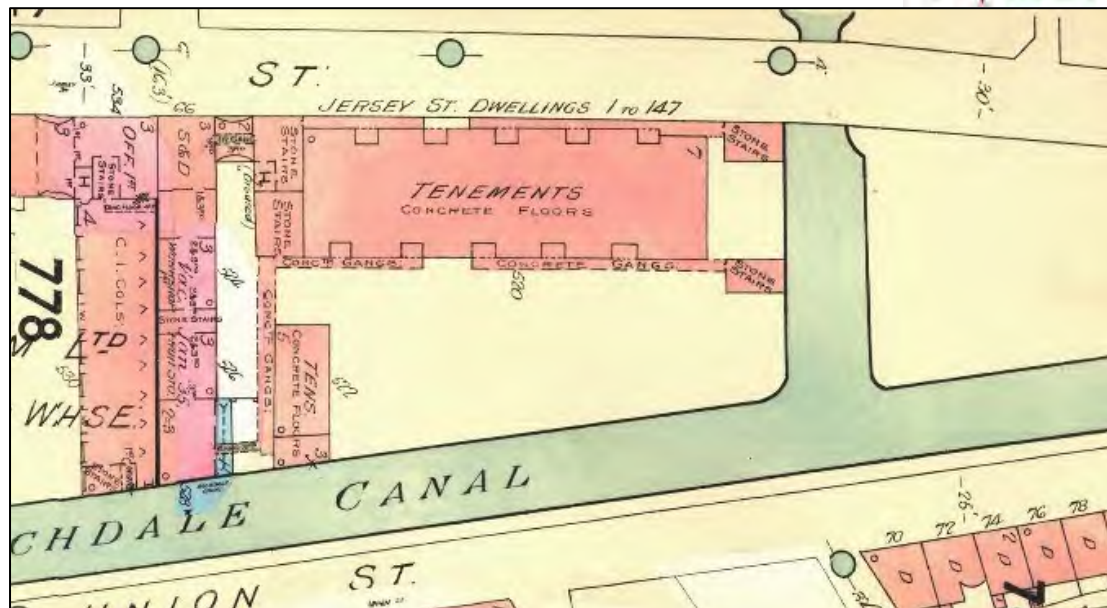


Plate 19: The western section of the Site shown on Goad's Fire Insurance Plans of 1928



Plate 20: The eastern section of the Site shown on Goad's Fire Insurance Plans of 1928

Little further development took place in the eastern section of the Site throughout the early twentieth century. The hearth stone factory and a sheet metal works were labelled on the 1948 Ordnance Survey map (Plate 21; Fig 10). However, the map also showed that by the mid-twentieth century the Jersey Street dwellings had been demolished and the area remained vacant. No further change then took place within the Site (Fig 11) until at least 1969 when a warehouse for an engineering works was established over part of the former site of the Jersey Street dwelling/mill and also occupied the buildings to the east (Plate 22; Fig 12). A chimney that had appeared as part of the Screw Bolt works on the ordnance survey map of 1891 (Plate 11, p. 23) was

also still present in 1969. Between 1953 and 1969 the houses at Kemp Street had been demolished, along with the buildings to the rear at 66B Jersey Street. They were replaced with terraced houses associated with Mozart Close.

The houses have since been demolished, along with the buildings in the eastern section of the Site. The arm of the Rochdale Canal was also filled in sometime after 1969 but the bridge of the Arm of the Rochdale Canal remains extant on Jersey Street and partially falls within the Site boundary (Plate 23). Modern mapping shows that the Site is currently occupied by a warehouse that was associated with the engineering works (Fig 2).

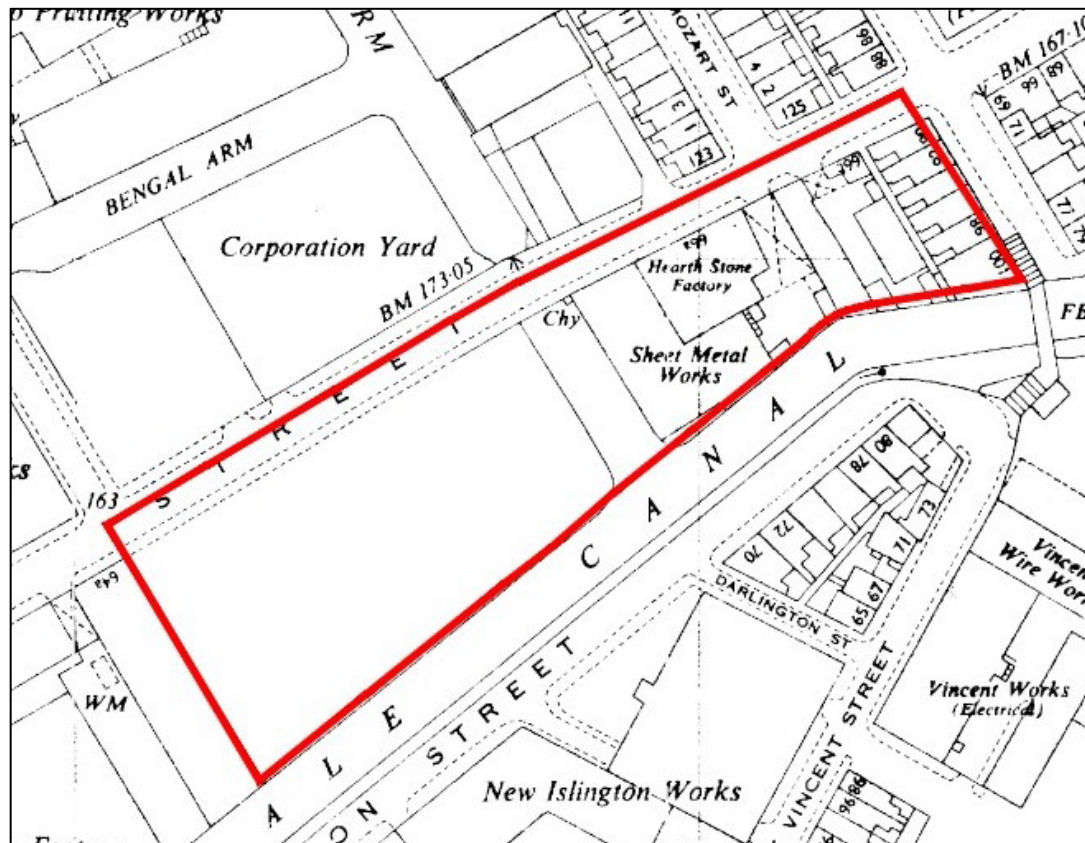


Plate 21: Site boundary superimposed onto the Ordnance Survey map of 1948

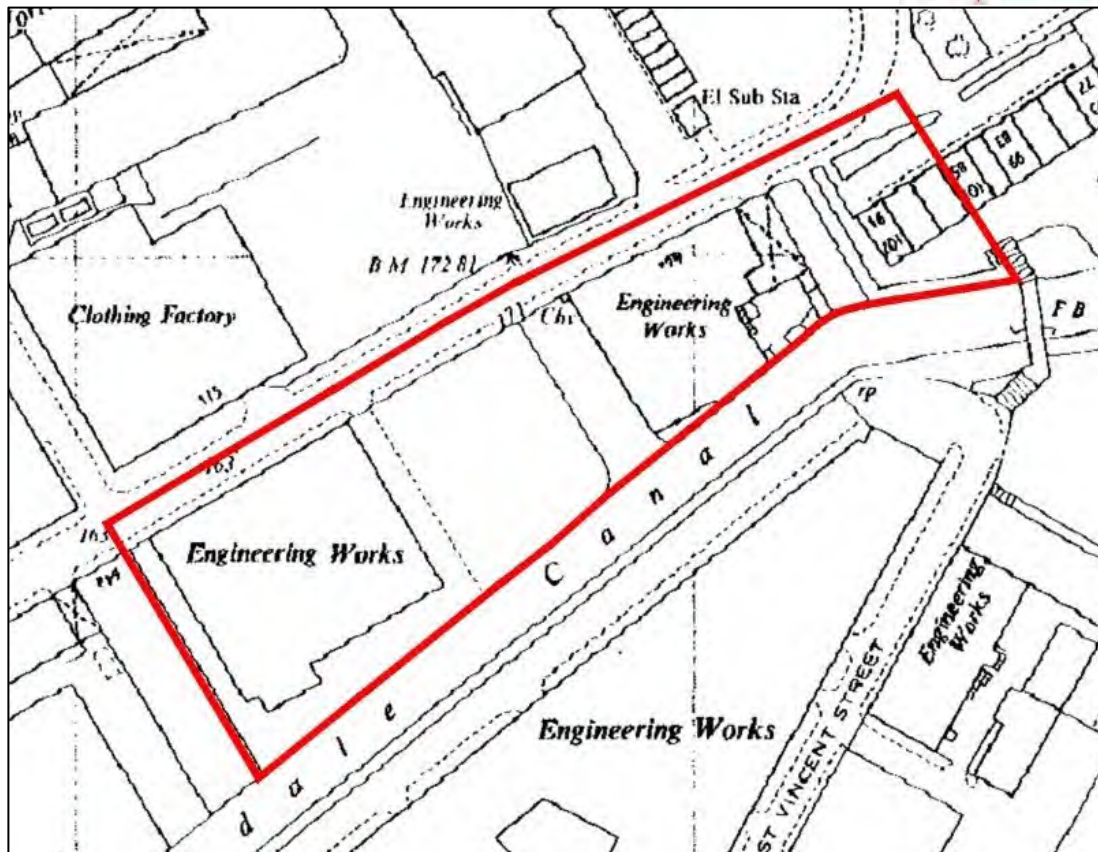


Plate 22: Site boundary superimposed onto the Ordnance Survey map of 1969



Plate 23: Canal bridge within the Site boundary at Jersey Street

4.6 Previous Archaeological Excavations

In 2003 an archaeological excavation was carried out on the site of the former Percival, Vickers & Co Ltd British and Foreign Flint Glass Works. The work was undertaken by Oxford Archaeology North following a previous watching brief and archaeological evaluation which revealed that remains of the glass works were extensive and well-preserved. The excavation was then followed by a further watching brief in 2004. The results were presented in a report titled “Flint Glass Works, Jersey Street, Manchester: Post-Excavation Assessment” (OA North 2004). The aim of the assessment was to investigate the survival and significance of the buried archaeological remains at the site.

The Flint Glass Works were situated adjoining the western boundary of the Site, also bound by Jersey Street and the Rochdale Canal (Plate 24). They were established in 1844 and were part of an important group of glass works that opened in Manchester in the nineteenth century. By 1863, the works were the largest of Manchester’s glass factories. They were sold by 1914 and were taken over by a clothes manufacturer and were also used as a wastepaper warehouse.

The investigation revealed the remains of three furnaces and their flues at the site, two of which were original and the third was a later addition, c.1870, and also the remains of an annealing house and workshops. Further assemblages included 3628 glass fragments off different colours and styles, post-medieval pottery, clay tobacco pipes, metalwork and crucibles. The finds were significant as they provided a comprehensive insight and record of the technological developments of glass works during the period and could highlight important details of the glass manufacturing process.



Plate 24: Ordnance Survey Town Plan of 1891 showing proximity of Flint Glass Works to Jersey Street Mills

5. Gazetteer

The following gazetteer entries summarise the sites of potential archaeological interest within the Site. The identification of these non-designated heritage assets is drawn primarily from the historic map regression analysis. The locations of the gazetteer entries are given on Figure 13 (*Appendix 1*).

Gazetteer Entry 01

Site Name	Arm of the Rochdale Canal (site of)
Designation	No designation
Site Type	Canal
Period	Early nineteenth century
NGR	SJ 85280 98777
Source	Johnson's map, 1820; Swire's map, 1824; Bancks & Co's map, 1831; Adshead's map, 1851; OS mapping; Goad's map, 1928
Description	An arm of the Rochdale Canal was situated within the Site boundary, passing through the centre to the north with a bridge at Jersey Street. The canal was built in the early-nineteenth century and opened in 1808, and the canal arm first appears on Johnson's map of 1820. It is possible that the east side of the canal arm was modified during the mid-nineteenth century. The arm was still present in 1969 and was filled some time after.
Assessment	The footprint of the canal arm lies through the centre of the Site Area, and buried remains of the canal walls may survive intact. Any remains that do survive could be affected by the proposed development.

Gazetteer Entry 02

Site Name	Former Canal Bridge
Designation	No designation
Site Type	Canal bridge
Period	Early nineteenth century
NGR	SJ 85275 98791
Source	OS mapping
Description	Former canal bridge can be seen within the northern boundary of the Site
Assessment	The canal bridge survives as an upstanding remain within the Site and could be affected by the proposed development.

Gazetteer Entry 03

Site Name	Beaver's Cotton Mill (site of)
Designation	No designation
Site Type	Cotton Mill
Period	Early nineteenth century
NGR	SJ 85243 98753
Source	Swire's map, 1824; Bancks & Co's map, 1831; Adshead's map, 1851; OS mapping
Description	A seven, three and five storey cotton mill opened by Hugh Beaver by at least 1826 and later labelled as Jersey Street Mills, with associate stores, shop and workshops. The mill was potentially first shown as a rectangular building on Swire's map of 1824. The mill was extended in 1829, and the complex was shown on Bancks map of 1831. A weaving shed and an

engine house were constructed at the rear in 1832. Another engine house was added by 1851. By 1892 the mill was unused and was converted into flats for lower class families, labelled as 'Jersey Street Dwellings', and including clubrooms, baths and laundry facilities and also with a cellar for a boiler. The weaving shed was demolished when the mill was converted. The buildings were removed by the mid-twentieth century.

Assessment Archaeological remains of the original mill and flat dwellings may survive in-situ within the Site boundary.

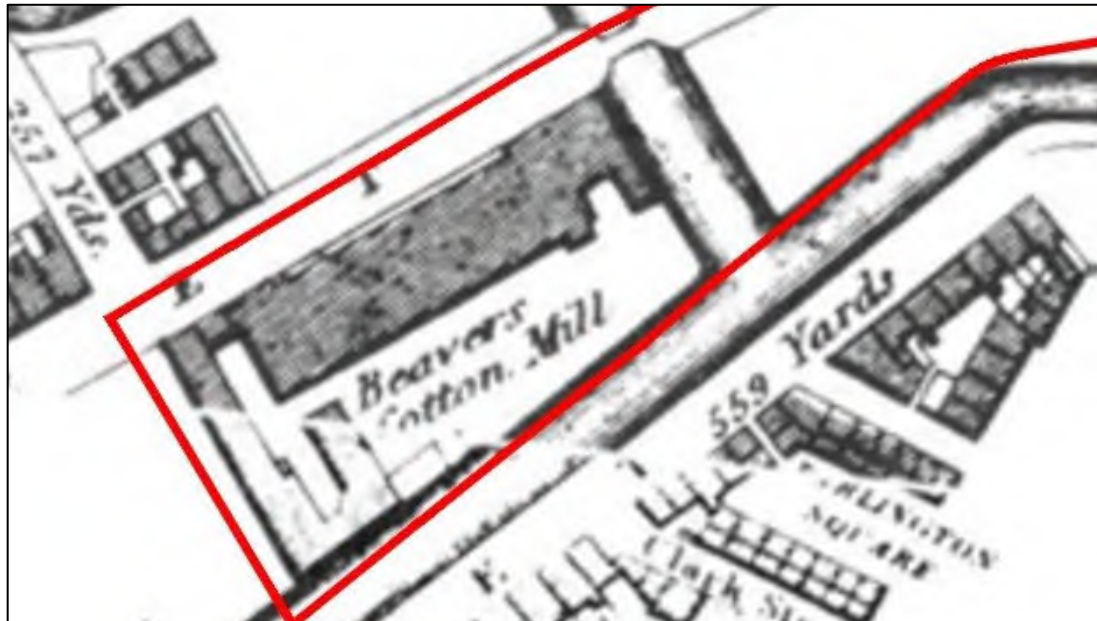


Plate 25: Beavers Cotton Mill shown within the Site boundary on Bancks & Co.'s map of 1831

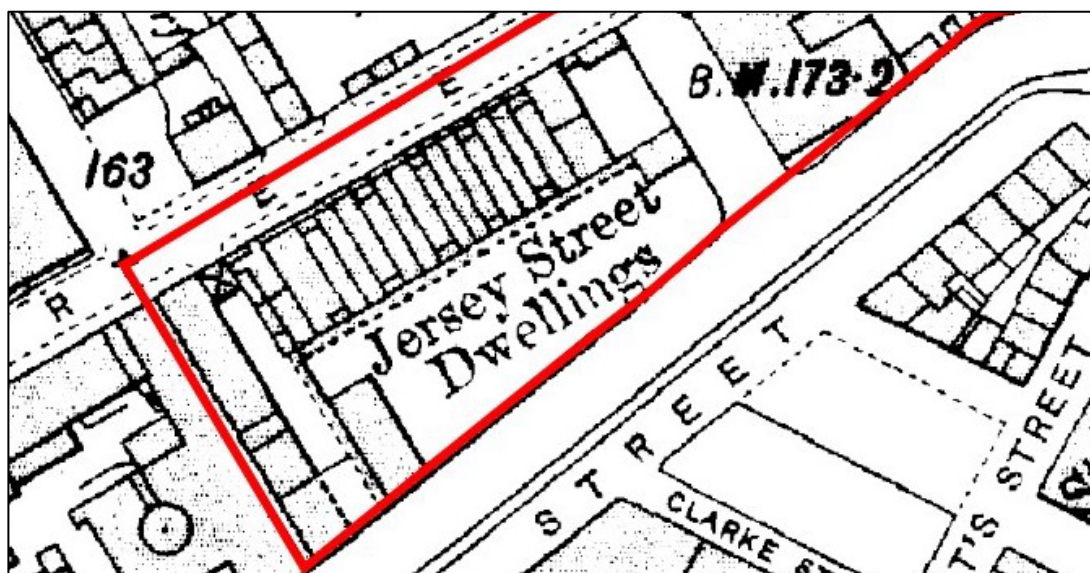


Plate 26: Jersey Street Dwellings shown within the Site boundary on the Ordnance Survey map of 1908

Gazetteer Entry 04

Site Name	Coal Wharf
Designation	No designation
Site Type	Wharf
Period	Mid-nineteenth century
NGR	SJ 85332 98803
Source	OS mapping
Description	The wharf was used for unloading coal brought to Ancoats via the canal and was labelled as 'Prussia Street Coal Wharf' on the ordnance survey town plan of 1851. The wharf was replaced by 1891.
Assessment	Remains of the wharf/yard may survive within the Site boundary but may have been affected by later development on the Site.

Gazetteer Entry 05

Site Name	90-100 Prussia Street (site of)
Designation	No designation
Site Type	Housing
Period	Late nineteenth century
NGR	SJ 85336 98809
Source	OS mapping; Goad's map, 1928
Description	A row of terraced houses labelled as 90-98 Prussia Street and a larger irregular building at 100 Prussia Street (later Kemp Street), situated on the footprint of the former coal wharf. The properties were constructed by 1871 and remained on the Site until sometime between 1948 and 1969 when they were demolished.
Assessment	Remains of the houses likely survive within the Site and could be affected by the proposed development.

Gazetteer Entry 06

Site Name	City of Manchester Screw Bolt Works
Designation	No designation
Site Type	Screw Bolt Works
Period	Late nineteenth century
NGR	SJ 85299 98796
Source	OS mapping; Goad's map, 1928
Description	The City of Manchester's Screw Bolt Works occupied part of the eastern section of the Site, to the rear of the houses. Likely built between 1865 and 1869 and first shown on the OS map of 1891. The buildings were later labelled as 66A Jersey Street and were in use as a salt warehouse and hearth stone factory. In the mid-twentieth century they were also labelled as a Sheet Metal Works. By 1969 the buildings were in use as an engineering works and were later demolished.
Assessment	Remains associated with the works likely survive within the Site and could be affected by the proposed development.

Gazetteer Entry 07

Site Name	Stone Mason's Yard
Designation	No designation
Site Type	Yard
Period	Late-nineteenth century
NGR	SJ 85326 98801
Source	OS mapping; Goad's map, 1928
Description	First shown on the OS map of 1891 and occupied part of the eastern section of the Site between the screw belt works and the rear of the houses. Likely built between 1865 and 1869 and first shown on the OS map of 1891. The buildings were later labelled as 66B Jersey Street and were labelled on Goad's map as a drysalters. In the mid-twentieth century they were also labelled as a Sheet Metal Works. By 1969 the buildings had been removed and replaced by housing.
Assessment	Remains associated with the works likely survive within the Site and could be affected by the proposed development.

Gazetteer Entry 08

Site Name	British and Foreign Flint Glass Works
Designation	No designation
Site Type	Flint Glass Works
Period	Early nineteenth century
NGR	SJ 85214 98725
Source	OS mapping
Description	The Flint Glass Works were constructed adjacent to the western boundary of the Site in 1844 and were one of Manchester's largest glass manufactories.
Assessment	The works were situated adjacent to the Site boundary and some remains associated with them and their use may therefore survive within the Site and may be affected by the proposed development.

6. Significance

6.1 The Policy Context of Heritage Assets

The archaeological resource of an area can encompass a range of assets, including below-ground remains, earthworks, and standing buildings and other structures. Some of these remains may have statutory protection, such as Scheduled Monuments or listed buildings. Others do not, but may nevertheless be of archaeological significance. Under both national and local planning policy, as outlined below, both statutory and non-statutory remains are to be considered within the planning process.

The NPPF sets out the Government's planning policy and framework for England, and how these are expected to be implemented. The NPPF places particular emphasis on assessing the development proposals in line with an up-to-date local plan. Consequently, Manchester's Core Strategy (adopted July 2012) was consulted as the key Development Plan Document in the Local Development Framework (LDF), with particular reference to Policy EN3: Heritage. In determining applications, local planning authorities must be able to understand the significance of any heritage assets affected by a proposed development in order to assess its impact. This enables the conservation of heritage assets in a manner suitable to their significance so that they can be enjoyed for their contribution to the quality of life of this and future generations, or else they can be recorded and advance understanding of the significance of any heritage assets to be lost in a manner proportionate to their importance and the impact, and to make this evidence publicly accessible.

6.2 Assessment Methodology and Significance Criteria for Below-Ground Archaeological Remains

An accepted methodology for assessing archaeological significance is the Secretary of State's criteria for the scheduling of ancient monuments, outlined in Annex 1 of *Scheduled Monuments: identifying, protecting, conserving and investigating nationally important archaeological sites under the Ancient Monuments and Archaeological Areas Act 1979* (DCMS March 2010). These criteria have all been utilised in this assessment and are listed below:

- Period
- Rarity
- Documentation
- Group Value
- Survival/Condition
- Fragility/Vulnerability
- Diversity
- Potential

6.3 Historic and Archaeological Significance

6.3.1 Archaeological Interest

The Site has the potential to contain remains of archaeological interest. These remains may include those associated with an early cotton mill and its conversion into dwellings. The Site also has the potential to contain remains of an arm of the Rochdale Canal which would be of archaeological significance as it may contain finds associated with the early canal. Other areas of archaeological interest in the Site may include surviving remains of mid-nineteenth century industrial works, such as the screw bolt works and stone mason's yard.

6.3.2 Historic Interest

Any remains associated with the Jersey Street Dwellings would be of historical interest and links to private attempts to improve poor living conditions in Ancoats in the late nineteenth century. The dwellings were one of the first examples of a building being converted to housing and remains of the early mill and housing would have the potential to further our understanding of the conversion process. Further, finds associated with the canal arm are linked to the significant development of canals in England.

6.4 Baseline Significance Conditions

6.4.1 Period

No prehistoric, Roman or medieval activity is known to have taken place within the Site, and the potential for such remains is considered to be extremely low due to the intensive development of the Site since the early nineteenth century.

The most likely remains to be encountered within the Site would date to the industrial period, which would include the early-nineteenth-century remains associated with the Rochdale Canal arm (GE01-02), the remains of Beaver's Cotton Mill, and later Jersey Street Dwellings (GE03), late-nineteenth-century properties fronting Kemp Street (GE05) and the industrial activity associated with the coal wharf (GE04), screw bolt works (GE06) and stone mason's yard (GE07). The industrial period was significant to Manchester's history. Therefore, sites reflecting this nineteenth-century industrial heritage may be considered significant due to period.

6.4.2 Rarity

Any surviving eighteenth century remains would be considered significant due to rarity, as these were often disturbed by the later industrial development of the town during the nineteenth and twentieth centuries. Further, the conversion of Beaver's Mill into the Jersey Street Dwellings was the first undertaking of its time in the area, therefore remains associated with the dwellings or early mill and weaving shed may be significant due to rarity.

The late-nineteenth-century terraced properties fronting Kemp Street would not be considered significant due to rarity as these were a common feature of the industrial landscape and many remain standing. The remains of the canal arm and coal wharf and its associated buildings would provide an opportunity to increase an understanding

of the role of the canal and its associated trade in the industrialisation of Manchester but would also not be significant due to rarity.

6.4.3 Documentation

The historical development of the Site from the late eighteenth century can be traced reasonably well from cartographic and other primary sources. Further documentary research would undoubtedly furnish additional evidence, although this is unlikely to alter the outline and conclusions presented in this assessment.

6.4.4 Group Value

The potential archaeological remains within the Site are associated with the industrial and residential development of Ancoats during the nineteenth century and comprise of an arm of the Rochdale Canal and industrial and residential properties. Any nineteenth-century remains within the Site may therefore have some group value. Further, any remains associated with the Jersey Street Mills may have some group association with the adjoining former flint glass works (GE08), as both were at one point connected to the Percival family.

6.4.5 Survival / Condition

The survival, extent and condition of any below-ground archaeological remains within the Site is presently unknown, however, it is possible that some remains survive beneath the hardstanding and warehouse that currently occupies the Site. Most of the Site has seen little further development since the demolition of the buildings and construction of the warehouse. It is therefore likely that remains associated with the mill and dwellings, canal arm, screw bolt works, and part of the stone mason's yard survive within the Site.

By the mid-nineteenth century the houses at Kemp Street were demolished and were replaced with twentieth-century houses which may have damaged some of the remains of them and part of the stone mason's yard. However, it is likely that any cellars within the Site survive *in-situ*.

6.4.6 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 associated with the proposed development.

6.4.7 Diversity

The diversity of the below-ground remains within the Site is presently unknown. However, cartographic sources suggest that any intact remains would most probably relate to the development of Ancoats during the nineteenth century. The possible remains of a mill that was converted into dwellings adds some diversity.

6.4.8 Potential

There are no prehistoric sites within the Site or its environs, and the potential for prehistoric, Romano-British or medieval remains is considered to be very low. The Site was probably used for agricultural purposes during the post-medieval period. There is the potential for a mid-nineteenth century coal wharf (GE04). However, it is likely that

the intensive development of the study area between the late nineteenth and twentieth centuries resulted in the loss of this and therefore the potential for survival is low.

There is also some potential for the remains of terraced properties fronting Kemp Street to survive within the Site boundary, in particular the cellars of these buildings (GE05). The Site also has the potential to contain remains relating to the industrial development of Ancoats during the mid-nineteenth to the early-twentieth century, in particular remains associated with the Rochdale Canal arm (GE01-02) and industrial buildings associated with a screw bolt works and stone works, and later hearth stone factory/sheet metal works (GE06-07).

The technological and social archaeology of canals has been recognised as a legitimate avenue of research. This is articulated in the current *Archaeological Research Framework for North West England* (Newman and McNeil 2007; McNeil and Newman 2007), which identified several initiatives that should be prioritised for archaeological research of the industrial period which would benefit from further investigation, including *Initiative 7.01*:

“Undertake routeway or route corridor studies looking at the technological and social archaeology of roads and canals” (*Initiative 7.1*; Newman and McNeil 2007, 133).

Smaller based industries, such as nail and bolt making, have also been highlighted as an area that would benefit from further research. This is identified in the research initiative:

“Ind7.35: Undertake industry specific studies of those industries that have received little archaeological attention.”

The Site also has the potential to contain remains of the early-nineteenth-century Beavers Mill that was later converted in to flats for residential use. So far little attention has been paid to the social housing estates that were established from the late-nineteenth century to house those moved from the slums. Any remains associated with the dwellings have the potential to contribute to a better understanding of the following initiatives:

“Ind22: How can we take forward our understanding of the impact of industrialisation on the working class and their living conditions?”

“Ind23: What evidence do we have for the improvement of urban public health during this period?”

6.5 *Significance of Below-Ground Archaeological Remains*

It can be concluded from the information gained from the desk-based research that the Site is of archaeological interest and has the potential to contain remains of local significance, including remains associated with the infrastructure of the Rochdale Canal (GE01-02), mid- to late-nineteenth-century industrial works (GE06-07) and associated with the conversion of an early-nineteenth-century cotton mill into residential use (GE03) which is of historic and archaeological significance (Fig 14). If any remains associated with the coal wharf (GE04) remain they are also likely to be of local significance.

The Site also has the potential to contain below ground remains of remains of mid-nineteenth-century properties (GE05). However, these remains would be of little archaeological significance.

7. Impact of Development

7.1 Development Proposals

The design proposals for the Site would deliver new residential units, with ground floor commercial units and associated parking spaces. The delivery of the proposals will involve the demolition of a warehouse currently occupying the western section of the Site and ground-breaking works that have the potential to affect any surviving archaeological remains within the Site.

7.2 Impact of Development on Below-Ground Remains

This assessment has demonstrated that the Site has the potential to retain buried remains of an arm of the Rochdale Canal (GE01-02), remains associated with a former screw belt works (GE06) and stone mason's yard (GE07), and an early-nineteenth century mill that was converted and used for social housing (GE03). Any such remains that do exist within the Site are likely to be of local significance and, without a programme of mitigation, the scheme could damage or destroy these remains.

8. *Further Investigation*

8.1 *Heritage Assets*

The NPPF makes clear that where the loss of the whole or a material part of a non-designated heritage asset's significance is justified by a development, the developer should be required to record that asset and advance understanding of its significance, and to make this evidence publicly accessible.

The assessment has demonstrated that there is potential for buried archaeological remains to exist on the Site, which, pending the extent of their survival and condition, would merit preservation 'by record'.

8.2 *Further Investigation*

The scope and extent of any such further investigation will be determined by the Greater Manchester Archaeological Advisory Service (GMAAS), in their capacity as archaeological advisor to Manchester City Council. It may be anticipated, however, that further archaeological investigation via evaluation trenching may be required to establish the presence or absence of buried archaeological remains and, if present, their extent and significance.

Should significant archaeological remains be encountered during the evaluation, further excavation may be required to offset the harm of the development to the buried archaeological resource, in line with the guidance provided by the National Planning Policy Framework.

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Appendix 1: Figures

- Figure 1: Site location map
- Figure 2: Site boundary superimposed on modern mapping
- Figure 3: Site boundary superimposed on Green's map of 1793
- Figure 4: Site boundary superimposed onto Swire's map of 1824
- Figure 5: Site boundary superimposed onto Bancks & Co.'s map of 1831
- Figure 6: Site boundary superimposed on the Ordnance Survey 1: 1056 Town Plan of 1851
- Figure 7: Site boundary superimposed on the Ordnance Survey 1: 500 Town Plan of 1891
- Figure 8: Site boundary superimposed on the Ordnance Survey 1:2500 map of 1908
- Figure 9: Site boundary superimposed on the Ordnance Survey 1:2500 map of 1922
- Figure 10: Site boundary superimposed on the Ordnance Survey 1:2500 map of 1948
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- Figure 12: Site boundary superimposed on the Ordnance Survey 1:1250 map of 1969
- Figure 13: Location of Gazetteer Entries
- Figure 14: Areas of Archaeological Interest

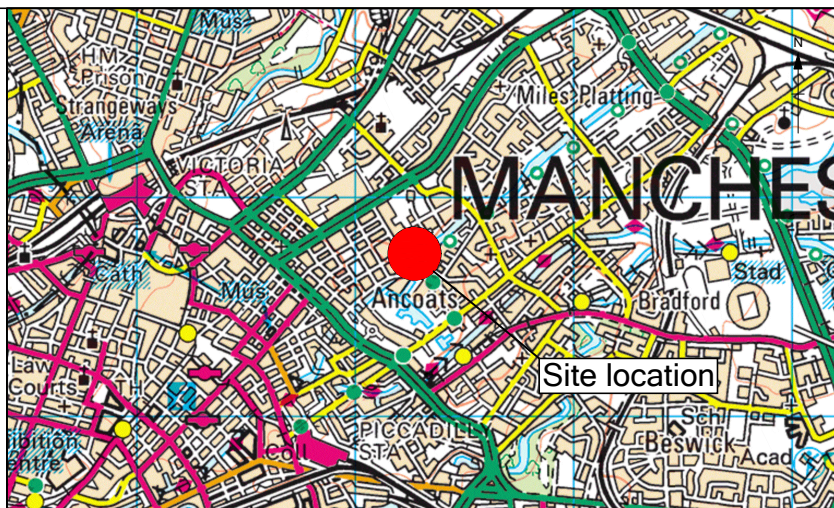


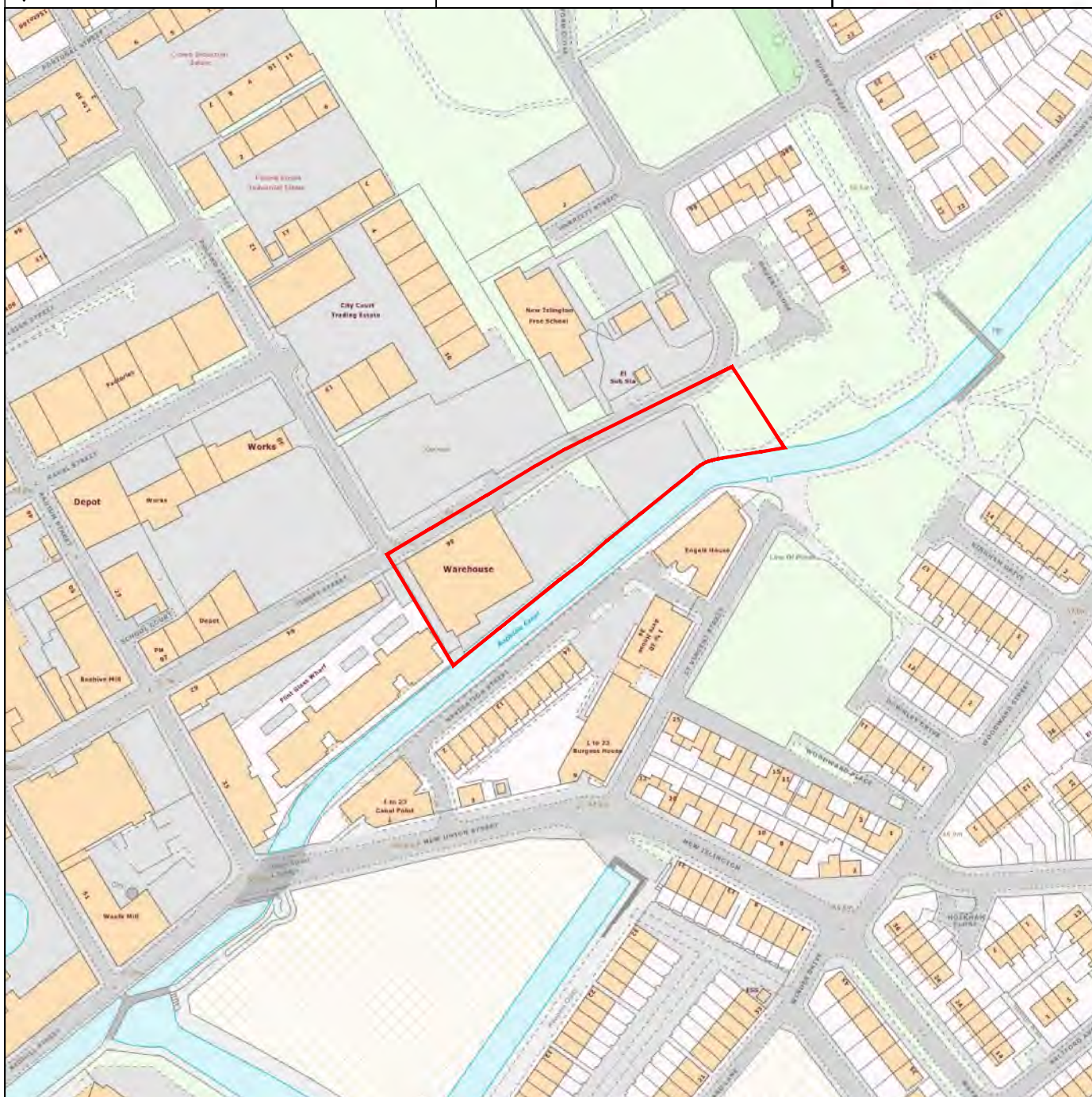
Figure 1:

Site Location

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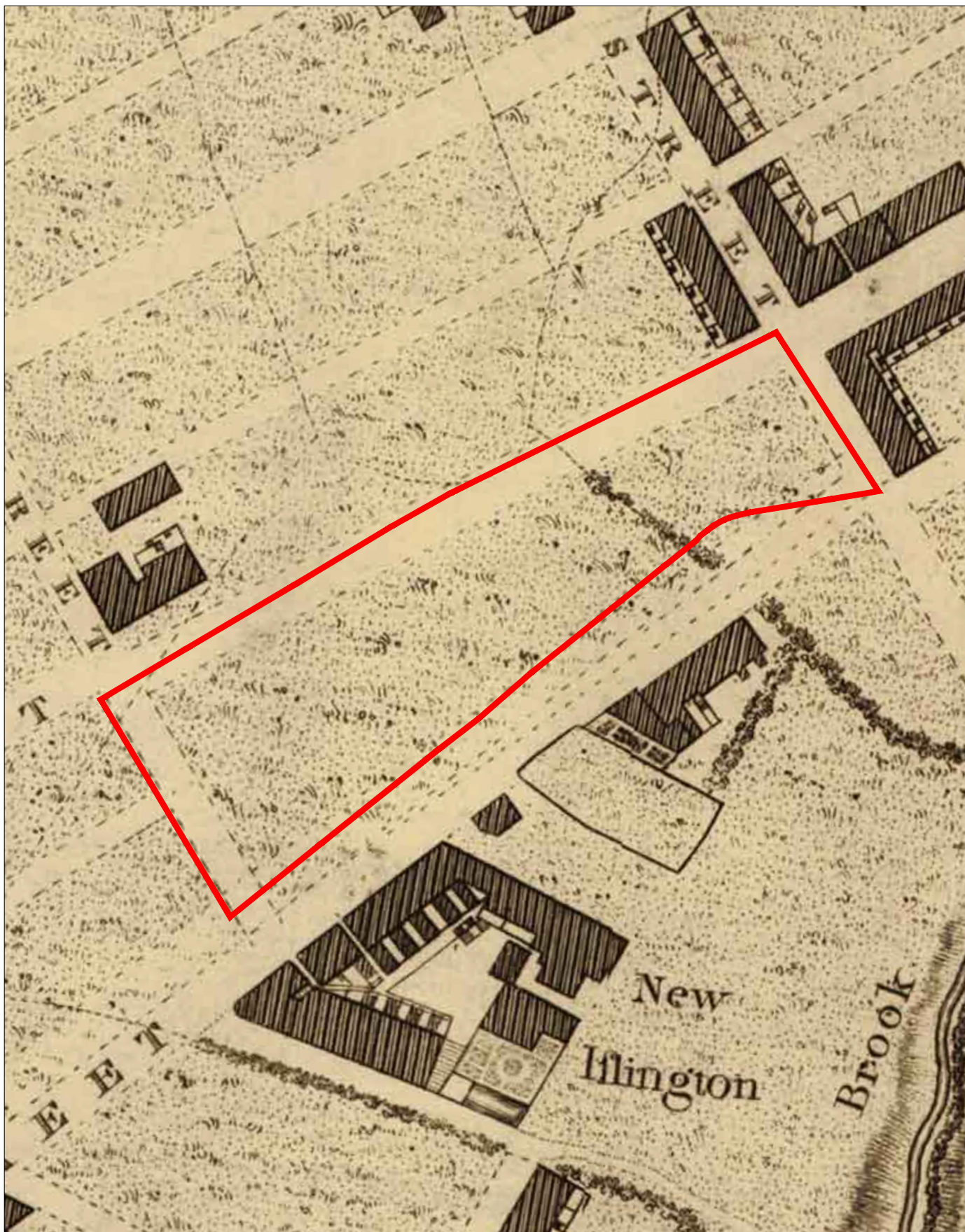


Figure 3:

Site Boundary Superimposed onto Green's Map of Manchester & Salford 1787-94



Key:

— Site Boundary



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0 50 m



Scale at A4 1:1000

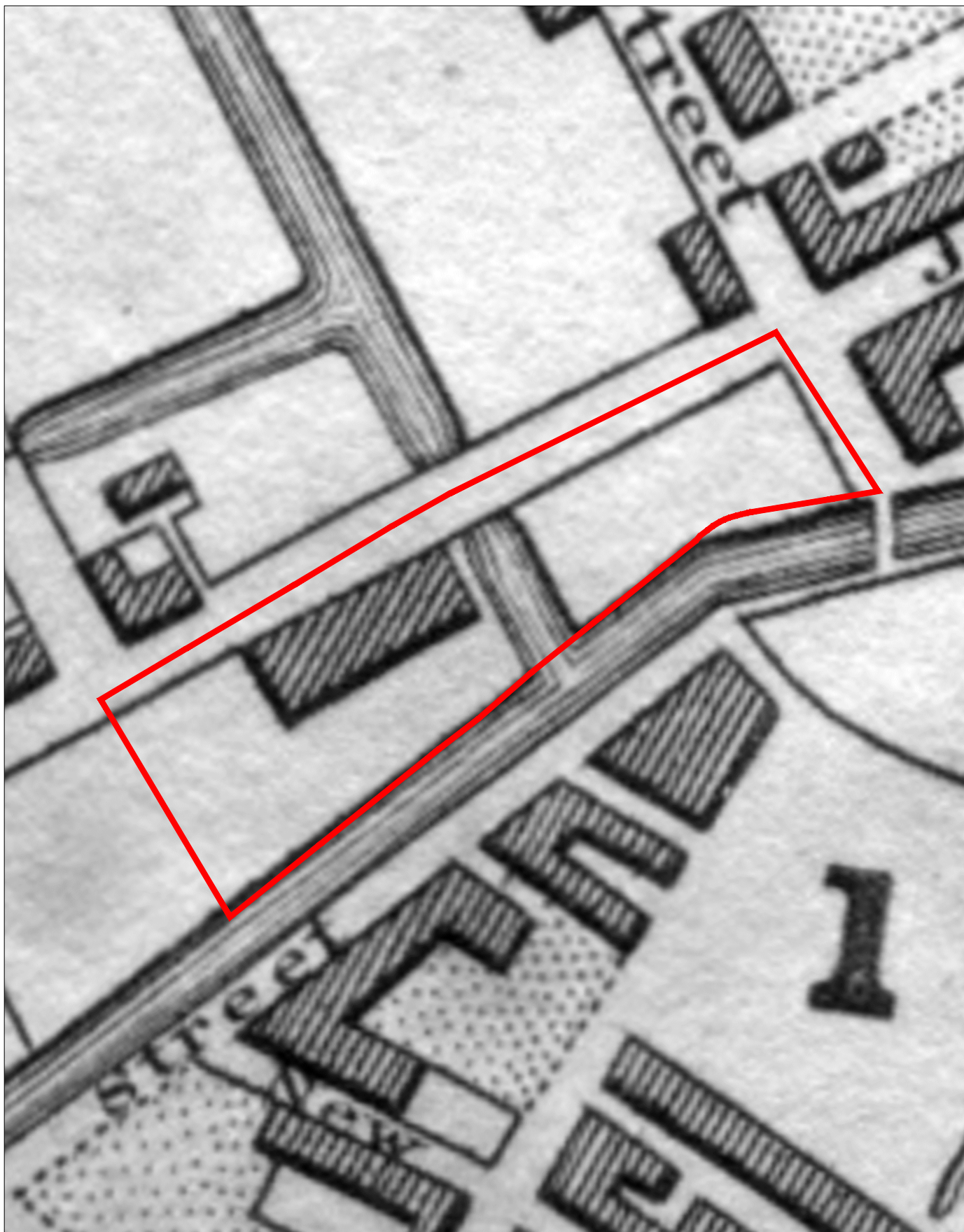


Figure 4:
Site Boundary Superimposed onto Swire's Map of Manchester & the Environs 1824



Key:

— Site Boundary



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0 50 m
Scale at A4 1:1000



Figure 5:

Site Boundary Superimposed onto Bancks & Co's Map of Manchester & Salford 1831



Key:

— Site Boundary



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0 50 m

Scale at A4 1:1000

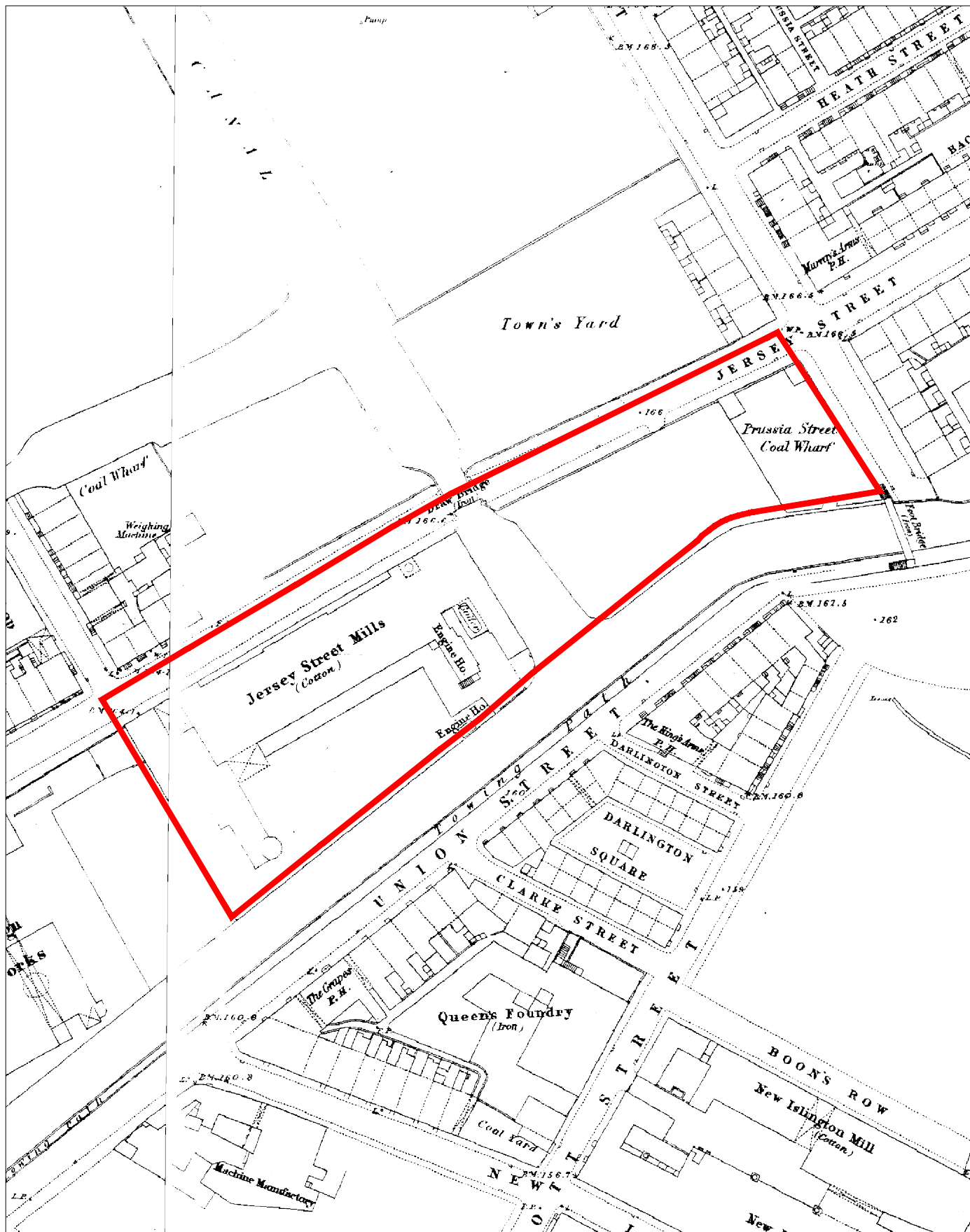


Figure 6:

Site Boundary Superimposed onto the 1:1056 Town Plan of 1851

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Key:

— Site Boundary



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0 50 m



Scale at A4 1:1000

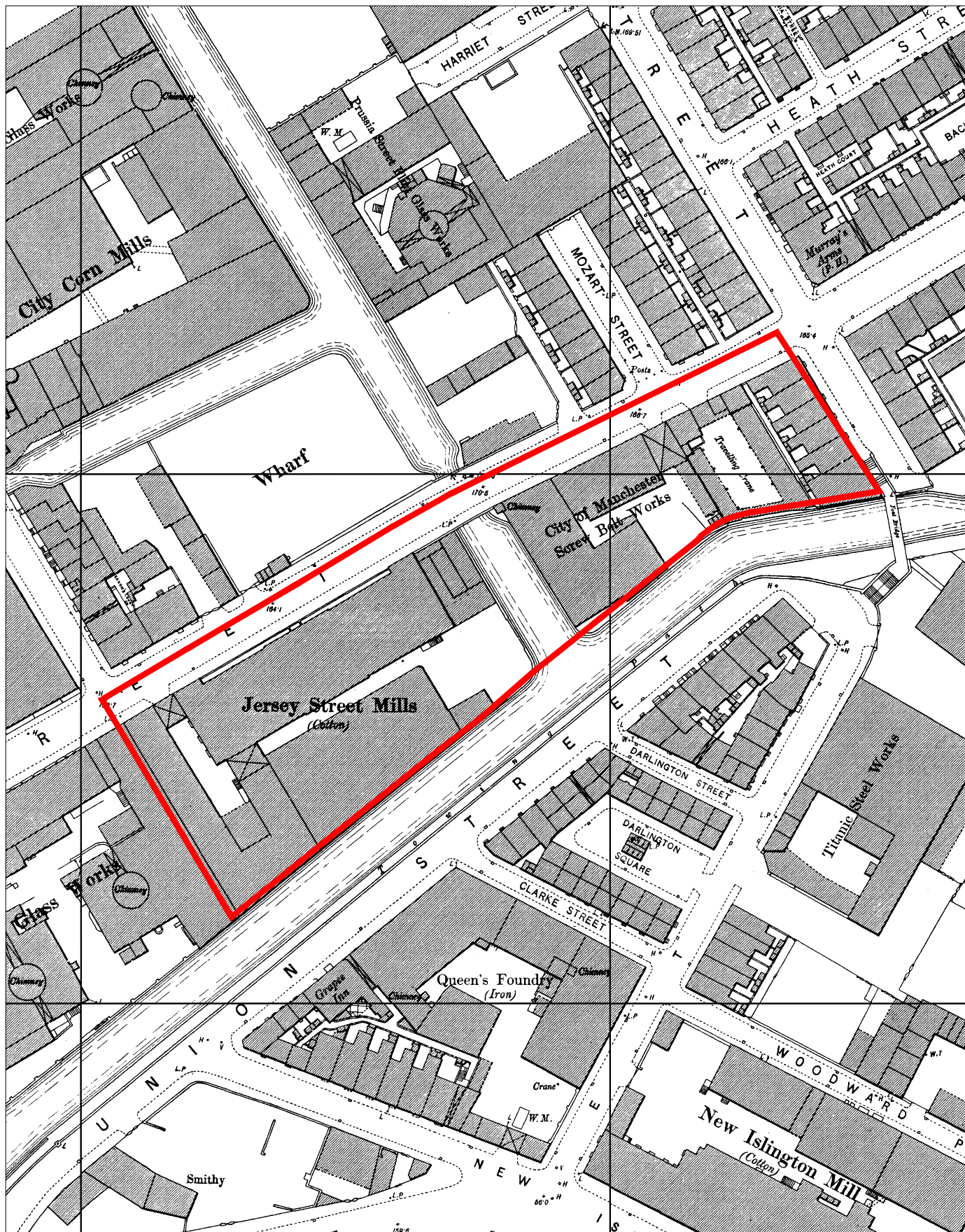


Figure 7:

Site Boundary Superimposed onto the 1:500 Town Plan of 1891

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Key:

— Site Boundary



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0 50 m

Scale at A4 1:1000

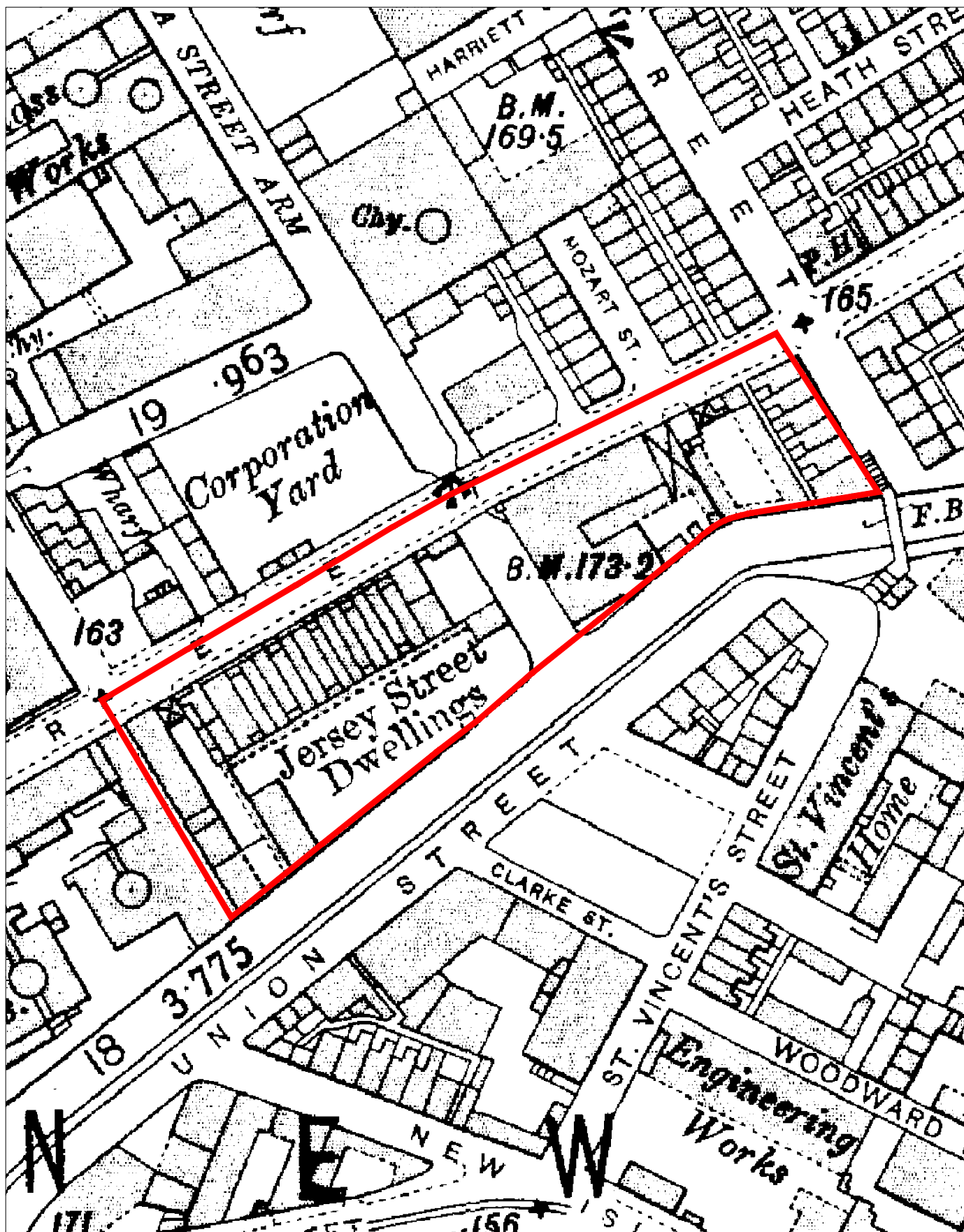


Figure 8:

Site Boundary Superimposed onto the 1:2500 County Series Map of 1908

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Key:

— Site Boundary



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0 50 m

Scale at A4 1:1000

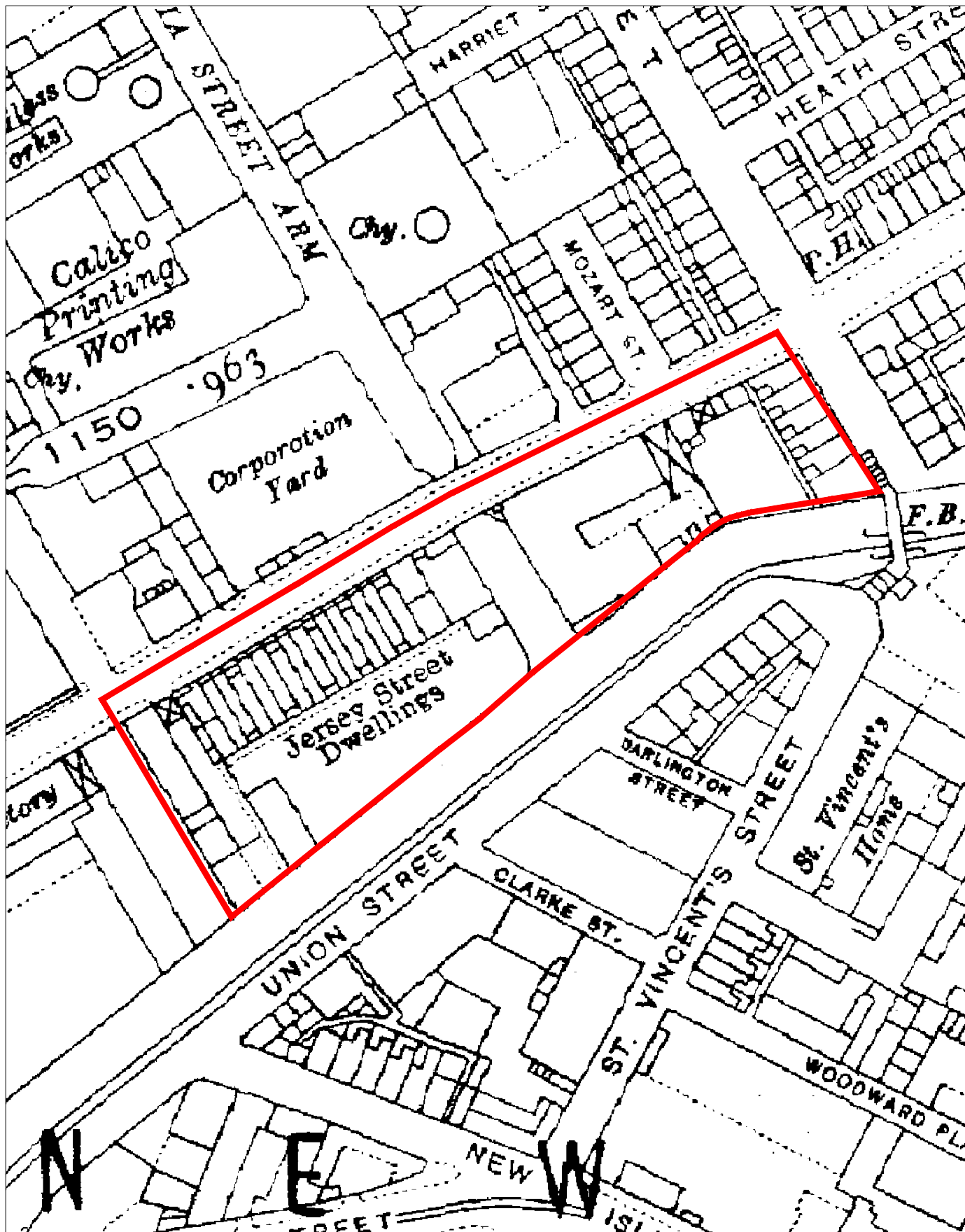


Figure 9:

Site Boundary Superimposed onto the 1:2500 County Series Map of 1922

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Key:

— Site Boundary



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0 50 m



Scale at A4 1:1000

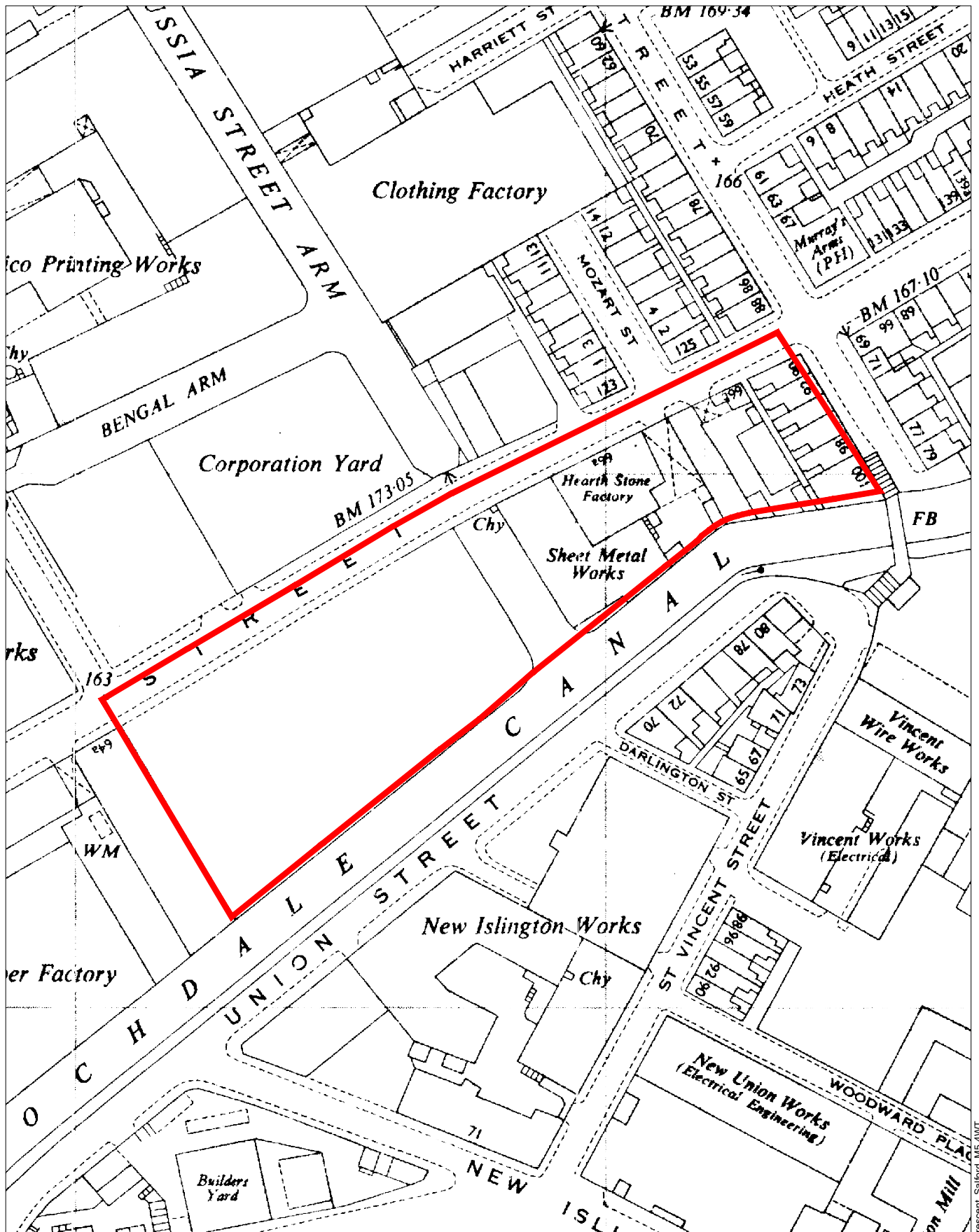


Figure 10:

Site Boundary Superimposed onto the 1:1250 National Grid Map of 1948

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Key:

— Site Boundary



Figure 11:

Site Boundary Superimposed onto the 1:1250 National Grid Map of 1953

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Key:

— Site Boundary



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0 50 m

Scale at A4 1:1000

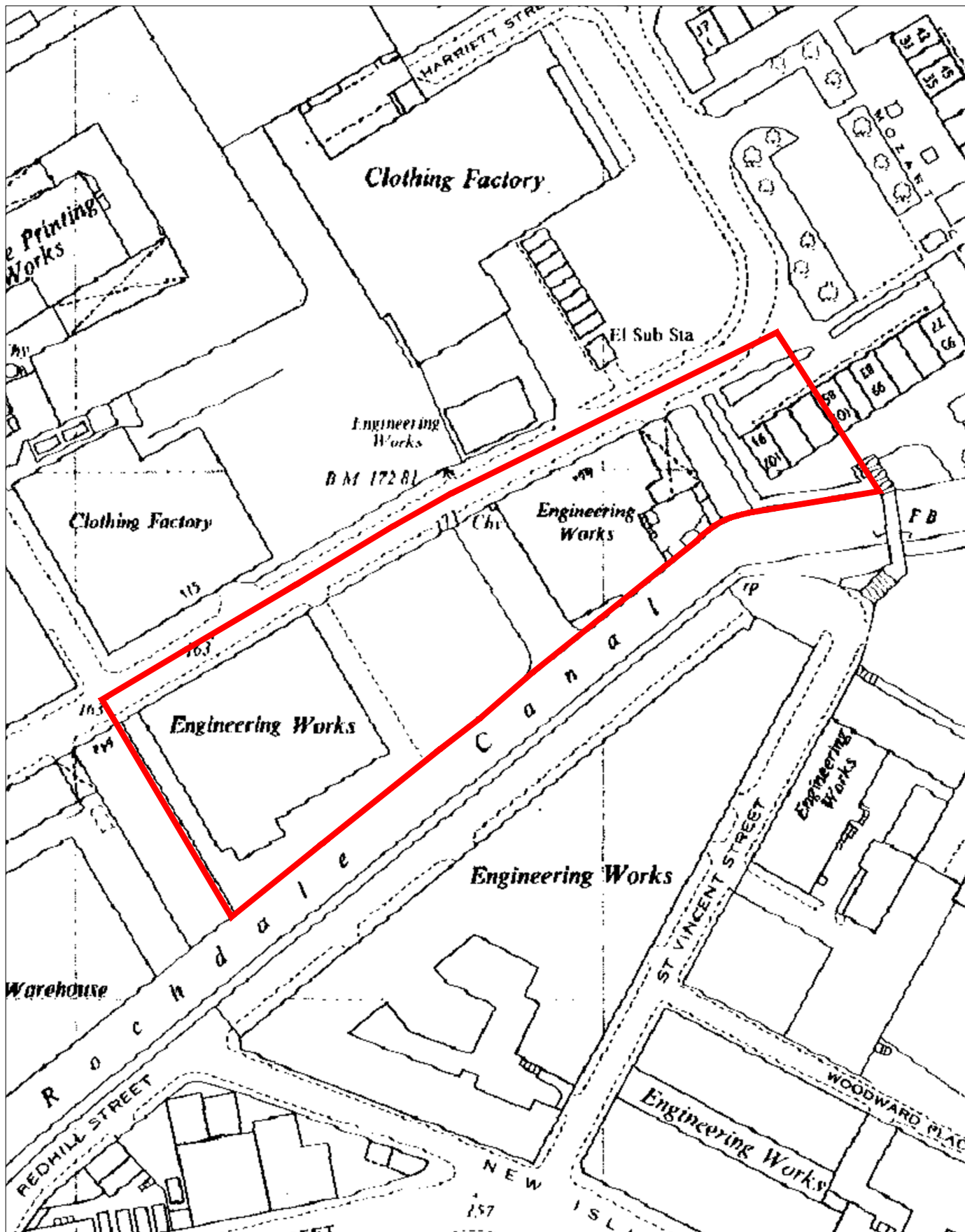


Figure 12:

Site Boundary Superimposed onto the 1:2500 National Grid Map of 1969

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Key:

— Site Boundary



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Scale at A4 1:1000

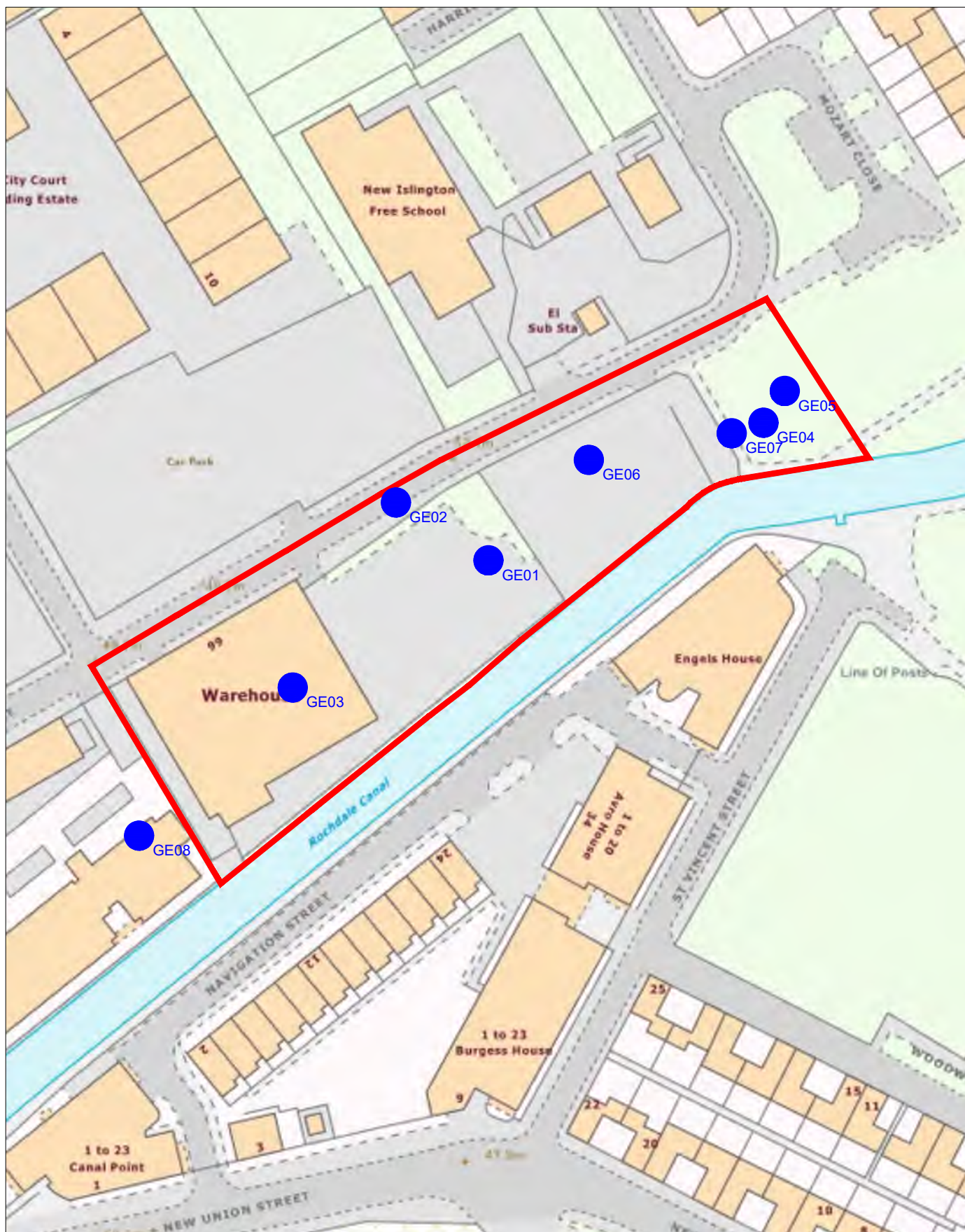


Figure 13:

Location of Gazetteer Entries Superimposed onto Modern Mapping

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Key:

- | | |
|---|---|
| Site Boundary | GE06: City of Manchester Screw Bolt Works |
| GE01: Arm of the Rochdale Canal (site of) | GE07: Stone Mason's Yard |
| GE02: Former canal bridge | GE08: British & Foreign Flint Glass Works |
| GE03: Beaver's Cotton Mill (site of) | |
| GE04: Coal Wharf | |
| GE05: 90-100 Prussia St (site of) | |



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Scale at A4 1:1000



Figure 14:

Areas of Archaeological Interest Superimposed onto Modern Mapping

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Key:

- Site Boundary
- Beaver's Cotton Mill & Jersey St Dwellings
- The Site of Rochdale Canal Arm
- Former Screw Bolt Works
- Former Stone Mason's Yard



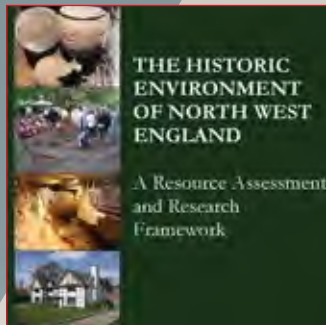
**SALFORD
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Scale at A4 1:1000



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DESK-BASED ASSESSMENTS



WATCHING BRIEF & EVALUATION



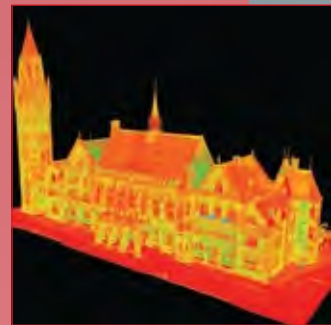
EXCAVATION



BUILDING SURVEY



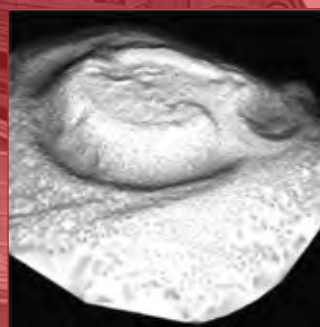
3D LASER SCANNING



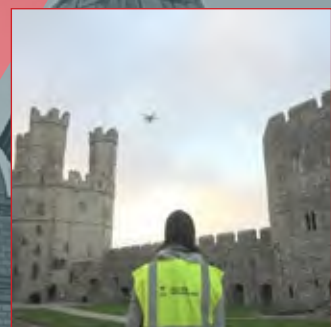
COMMUNITY INVOLVEMENT



LANDSCAPE SURVEYS



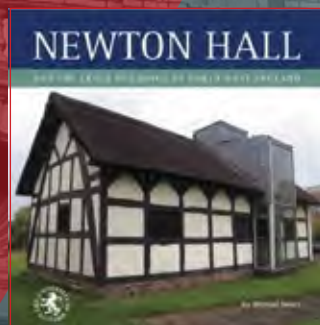
DRONE SURVEYS



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