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Archaeological Evaluation Report

Plots H & J,
Greengate,
Salford

Client:

AQ Investments Ltd

Technical Report:

Andrew Radford and
Ian Miller

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Location: The study area is bounded by Gravel Lane, Greengate, Queen Street and Collier Street in Salford city centre

NGR: Centred at NGR SJ 83531 98948

Project: Plots H & J, Greengate (Phase 2)

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Author: Andrew Radford
Position: Supervising Archaeologist
Date: July 2020

Approved by: Ian Miller
Position: Assistant Director
Date: July 2020

Signed: 

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Contact: Salford Archaeology, Centre for Applied Archaeology, LG 19 – 26 Peel Building, University of Salford, the Crescent, Salford, M5 4WT.

Telephone: 0161 295 4467
Email: i.f.miller@salford.ac.uk

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Summary

AQ Investments Ltd is finalising proposals for the redevelopment of land off Greengate within the historic core of Salford, Greater Manchester (centred on NGR SJ 83531 98948). Forming a key element of the major Greengate Regeneration Area, the proposed scheme allows for the construction of two residential blocks ranging from 20 (Plot J) to 50 (Plot H) storeys tall to create a total of 597 apartments, with two levels of basement car park under the designated blocks. The delivery of the proposals will necessitate earth-moving works that will remove any surviving buried remains of archaeological interest.

An archaeological desk-based assessment that was carried out to support the planning application for the development concluded that the site had potential to contain the below-ground remains of archaeological interest. The potential remains of archaeological interest included medieval and post-medieval features, 18th- and 19th-century workers' housing, and an early 19th-century industrial works.

In the light of the conclusions drawn from the desk-based assessment, and following consultation with the Greater Manchester Archaeological Advisory Service, Salford City Council advised that a scheme of intrusive archaeological investigation would need to be carried out in advance of construction work. It was recommended that this should comprise the excavation of nine evaluation trenches across the site, which should aim to establish the presence or absence of any archaeological remains and, if present, characterise their significance. The trenches targeted the footprint of an early 19th-century screw and bolt works, various blocks of 18th- and 19th-century workers' housing, including back-to-back houses along Ashton Street and Hunt's Court, together with areas that had been used as yards, gardens, and roads, where there was an increased potential for the survival of medieval and post-medieval remains.

No features or artefacts dating to the medieval and post-medieval periods were identified, seemingly as a result of 18th-century landscaping works. The remains of the 18th- and 19th-century buildings, moreover, had been largely removed during the mid-20th-century, when a large rubber works with deep basements and substantial concrete stanchions, was erected across much of the site. Nevertheless, some fragmentary remains of 19th-century buildings were uncovered, together with the well-preserved foundations for a boiler housing that appears to have served a late 19th-century warehouse. This was subject to full excavation as part of the archaeological investigation.

In the light of the results obtained from the archaeological evaluation, it is considered unlikely that further intrusive investigation will yield any significant additional date. It is therefore not envisaged that any further archaeological investigation will be required in advance of, or during, the impending construction work.

1. Introduction

1.1 Planning Background

In July 2020, Salford Archaeology was commissioned by AQ Investments Ltd to undertake an archaeological evaluation as part of a residential development on Greengate in Salford city centre (planning ref: 20/75219/DISCON). Forming a key element of the major Greengate Regeneration Area, the proposed scheme allows for the construction of two residential blocks ranging from 20 (Plot J) to 50 (Plot H) storeys tall to create a total of 597 apartments, with two levels of basement car park under the designated blocks. The delivery of the proposals will necessitate earth-moving works that have potential to impact on any surviving buried remains of archaeological interest.

At an early stage in the design process, AQ Investments Ltd commissioned an archaeological desk-based assessment of the study area. This concluded that the site had been developed initially between the mid-17th century and the 1740s, although this did not preclude a possibility for remains of medieval date to survive, given the site's location to the rear of Greengate, one of the main thoroughfares in the medieval town. The site had been developed almost entirely by the early 19th century, with shops/workshop dwellings along the street frontages and a high density of workers' housing around enclosed courtyards to the rear. The study area was cleared progressively after the 1930s, and was occupied subsequently by an extension to the Greengate Rubber Works (Miller 2017).

Following consultation with the Greater Manchester Archaeological Advisory Service (GMAAS), in their role as advisors to Salford City Council, it was recommended that it would be appropriate to undertake a programme of intrusive archaeological investigation in advance of development. It was further recommended that the investigation should comprise the excavation of a series of evaluation trenches, targeted on the footprint of former buildings of potential interest, to establish the presence or absence of buried archaeological remains. It was agreed that the evaluation would comprise the excavation of nine trenches of various lengths.

Condition 10 of the decision notice regarding the development at Greengate (planning ref: 20/75219/DISCON) considered the archaeological works:

'Prior to the commencement of each phase (as defined in Condition 6) of development, with the exception of any enabling works that have first been agreed in writing or works to the public park, a Written Scheme of Investigation (WSI) to secure the implementation of a programme of archaeological works shall be submitted to, and approved in writing by, the Local Planning Authority in consultation with the Greater Manchester Archaeological Advisory Service (GMAAS) as relevant to that phase.

The WSI shall cover the following:

1. A phased programme and methodology of investigation and recording to include: - more detailed historical research - an evaluation of below-ground archaeological remains - informed by the evaluation, targeted archaeological excavation (subject of a separate WSI);

2. A programme for post investigation assessment to include: - analysis of the site investigation records and finds - production of a final report on the significance of the archaeological and historical interest represented;
3. Deposition of the final report with the Greater Manchester Historic Environment Record;
4. A scheme to disseminate the results of the archaeological investigations for the benefit of the local and wider community;
5. Provision for archive deposition of the report and records of the site investigation;
6. Nomination of a competent person or persons/organisation to undertake the works set out within the approved WSI.

Reason: To record and advance understanding of the significance of any heritage assets to be lost and to make this evidence publicly accessible, in accordance with Policy CH5 of the City of Salford Unitary Development Plan and National Planning Policy Framework Section 16, Paragraph 199. Reason for pre-commencement condition: Any works on site could impact upon or even destroy previously unknown below-ground archaeological remains, hence the scheme of archaeological investigation needs to be agreed and excavation works undertaken before development works commence.'

1.2 Academic Aims

The principal aims of the project were to establish the presence or absence of buried archaeological remains on the site and, if present, characterise the level of preservation and significance, and provide a good understanding of their potential. This was achieved by the excavation of nine evaluation trenches, targeted on the footprint of buildings of potential archaeological interest. This approach to devising proposals to mitigate the impact of development on the archaeological resource of the development area is in accordance with national guidelines set out in the National Planning Policy Framework: Section 16 – Conserving and enhancing the historic environment.

1.3 Objectives

The principal objectives of the archaeological investigation were:

- to record, as far as is reasonably possible, the location, extent, condition, significance and quality of any surviving archaeological remains observed;
- to provide sufficient information to enable an informed decision to be made about the need for any additional archaeological mitigation; and
- to make available the results of the work.

It was anticipated that the archaeological investigation would address several of the initiatives for archaeological research of the industrial and modern periods stated in the current Archaeological Research Framework for North West England. In particular, it is suggested that there are many aspects of 19th-century urban life which are insufficiently covered within the documentary record, and archaeological research is needed to shed light on the urban working classes in general within the region (Newman and McNeil 2007).

- *Initiative 7.6:* ‘A study of the development of workers’ housing in Greater Manchester and East Lancashire should be undertaken to examine the development of different housing types...’ (McNeil and Newman 2007, 139);
- *Initiative 7.7:* ‘Study the material culture of industrial workers’ households...’ (*ibid*);
- *Initiative 7.25:* ‘Where threatened with possible redevelopment excavations are required of now undeveloped and cleared former working class areas regarded as slums’ (*op cit*, 147);
- *Initiative 7.41:* ‘The retention of later period artefacts and their routine analysis as part of all archaeological excavation projects’ (*op cit*, 156).

The aims and objectives of the project were achieved via the following stages:

- *Archaeological Evaluation:* the excavation of nine evaluation trenches, with several of the trenches being expanded subsequently to maximise the results and understanding of the archaeological resource (Figure 2);
- *Post-excavation and Report Production:* the site records, finds and any samples from the fieldwork have been ordered into a site archive as outlined in the Historic England’s guideline document Management of Research Projects in the Historic Environment (MoRPHE 2015);

1.3 Location

The site lies within the Queen Street Industrial Area, located on the fringe of Salford’s historic core (centred on NGR SJ 83531 98948). The site is broadly square in shape, and comprises 1.65ha that is bounded to the north by Greengate, to the east by Gravel Lane, to the south by Queen Street, and to the west by Collier Street (Figure 1). The site lies immediately to the south of the Abito Building, where a previous archaeological excavation yielded important evidence for the occupation of the area from the 13th century onwards.

The underlying solid geology of the site, as mapped by the British Geological Survey at 1:50000, is comprised of Chester Pebble Beds Formation–Sandstone. The overlying drift geology is comprised of Till, Devensian-Diamicton (<http://www.bgs.ac.uk>).

The study area occupies land with a slight rise to the east, the west standing at 32m above Ordnance Datum (aOD) and the east 34m aOD.



Plate 1: Site boundary superimposed onto recent aerial imagery (Google Earth)

2. Historical Background

2.1 Introduction

The following section summarises the historical background to the site, and is intended to provide a context in which to consider the results obtained from the evaluation trenches.

2.1.1 Prehistoric Periods

Firm archaeological evidence for human activity in Salford during the prehistoric periods is lacking, although worked flints have been discovered on the gravel terraces in the vicinity of Ordsall Lane and Albert Park. The main local focus of prehistoric activity, however, seems to have been on the Manchester side of the River Irwell on a high spur of land bounded by the River Irwell and its tributary the River Irk, an area which now contains Manchester Cathedral and Chetham's School (Tupling 1962).

2.1.2 Romano-British Period

Archaeological evidence for Romano-British activity across Salford's historic core is lacking, despite the considerable Roman remains excavated in Manchester, on the opposite side of the River Irwell. These remains formed part of the Roman fort of *Mamucium* which was established on a sandstone bluff within Castlefield (Gregory 2007). Archaeological excavation has shown that in the late 1st century the fort comprised a turf rampart and timber gates, and covered an area of c. 1.2ha, and was of a size compatible with holding a 480-man infantry unit. The fort was rebuilt to similar dimensions in stone c AD 200 (*ibid*).

The only physical evidence for Roman activity in the vicinity of the study area, however, is derived from a single fragment of Roman pottery recovered from an archaeological excavation at the site of One Greengate, although this appeared to be residual, reflecting low-level Roman activity in the wider area rather than in the excavated area (Gregory and Miller 2015).

2.1.3 Early Medieval Period

There is scant archaeological evidence in the region as a whole that represents the period between the end of the Roman occupation and the Norman Conquest, although the area around Salford is known to have come under the control of several kingdoms during this period. In AD 620, Edwin conquered and occupied Manchester, and it may have been at this time that settlement was established around the cathedral (Farrer and Brownbill 1911).

Salford has a place-name of Old English origin, meaning 'the ford by the willow trees', presumably referring to a crossing point on the River Irwell (Mills 1976, 130). This may have been situated immediately upstream of the medieval Salford Bridge (replaced by Victoria Bridge) at the junction of Greengate and Chapel Street. Prior to the Norman Conquest, Salford was a royal manor, held directly by the king, and the administrative centre of the much larger area known as the Salford Hundred. Domesday refers to a royal hall here, possibly on the site of the later Salford Hall that stood on Chapel Street. Although in the late Anglo-Saxon period Salford was the secular capital of its hundred, ecclesiastically it was subordinate to Manchester, which was the location of the parish church of St Mary, later to become Manchester Cathedral (Gregory and Miller 2015).

2.1.4 Later Medieval Period

Whilst the origins of the manor of Salford are uncertain, it is known to have been in existence by the time of the Domesday Survey of 1086, when it formed the principal centre of administration for the region, referred to as the Hundred of Salford (Tupling 1962, 115). In 1399, Salford came to the Crown as part of the Duchy of Lancaster, and the Queen today retains the distinction of being the Lady of the Royal Manor of Salford (Kidd 1996, 13). The manor was extensive, with estimates putting it at over 360 acres, although exactly what the manor consisted of remains largely unknown, including the precise location of the manorial hall, although this is thought to have been situated towards Victoria Bridge and Gravel Lane (Gregory and Miller 2015).

Within the manor, the town of Salford became established and was granted market status by Henry III in 1228, and became a free borough by 1231 (Kidd 1996). The free borough status, granted by Ranulph de Blundeville, Earl of Chester, listed all the right and privileges awarded to the burgesses and to the land they owned, known as burgage plots. These were often delimited by boundary ditches or other features, and were probably formally laid out. The nature of a free borough encouraged population migration and a good level of prosperity for Salford. This is reflected in the number of burgages in the town, which was estimated by a survey of 1346 to be in excess of 129 (Higham 2004).

The town plan was an irregular triangle, comprising Greengate (known as Back Salford), Sergeant Street (known subsequently as Chapel Lane), and Gravel Lane. The interior of the triangle is likely to have been occupied by garden plots, orchards or crofts, whilst the frontages of the main streets would have been clustered with buildings. The market was held on a rectangular green on Greengate, near its junction with Gravel Lane, to the east of the present study area. This provided the site for the market cross, the stocks and the town pump, together with the exchange building or courthouse (Arrowsmith 2006).

This street plan persisted into the post-medieval period, and is depicted on the earliest detailed maps of the area. During this period, Salford was connected to Manchester via a wooden bridge across the River Irwell, which was extant by 1226 (Thomson 1966, 37). This was replaced by a stone bridge, the presence of which is mentioned in the will of Thomas del Bothe of Barton in 1368, who bequeathed £30 for the erection of a chantry chapel on it (*op cit*, 52). The bridge lay at the eastern edge of the town, close to the point where Greengate and Chapel Lane converged (Arrowsmith 2006).

Archaeological work centred at the junction of Greengate and Gravel Lane, carried out in advance of the Abito Development immediately to the north of the study area in 2004, uncovered evidence for continuous occupation of the site from the 13th century (Gregory and Miller 2015). The medieval activity appeared to be associated with plots to the rear of buildings that had fronted onto Greengate, and the excavated features included two rubbish pits, one of which yielded a rare leather archer's bracer. Evidence for medieval property boundaries in the form of burgage ditches was also recovered, and a deep layer of garden soil may have represented intense garden activity associated with a building that had fronted onto Gravel Lane (*ibid*).

Excavations undertaken in 2005 on the site of One Greengate, situated a short distance to the east of the site, also produced significant evidence for medieval and post-medieval activity, including one of the most important collections of late medieval/post-medieval pottery sherds to be recovered from an excavation in Greater Manchester (Gregory and Miller 2015).

2.1.5 Post-medieval Period

According to Aston, who was writing in the early 19th century, it was during the reign of James I that Salford became ‘a populous place; Sergeant Street and Greengate being nearly in the state they are now’ (Aston 1816, 15). It was not until after the Reformation, in 1635, that the parish church (Holy Trinity) in Salford was founded. The market area continued to provide a focus for the town, and the market cross is annotated upon the earliest known map of the area, which has been dated to c. 1650 (Plate 2).

This early plan depicts the form of the post-medieval town, showing the main medieval streets and building ranges. The map shows continuous development along the Greengate and Chapel Street (formerly Sergeant Street) frontages, with only occasional buildings lining Gravel Lane. A range of buildings at the junction of Gravel Lane and Greengate may extend slightly into the north-eastern corner of the site, although the c. 1650 map is not sufficiently accurate to determine this confidently. Only the south-eastern part of the study area is included on this map, suggesting that it lay on the fringe of the mid-17th-century town.

In the early 18th century, Salford’s market was described as ‘taking up two streets’ length usually occupied by textile production’ (Fiennes 1995). The limits of the town during this period are shown on two surviving maps. The earliest of these, produced by Hill in 1740 at a scale of c. 1:2000, broadly replicates the detail of the c. 1650 map, and annotates a series of buildings fronting onto Greengate with open land to the rear. Whilst the detail provided is insufficient to elucidate information of individual buildings, a range is shown clearly along the Gravel Lane frontage across the eastern part of the site, seemingly occupying land belonging to Lady Dukenfield (Plate 3).

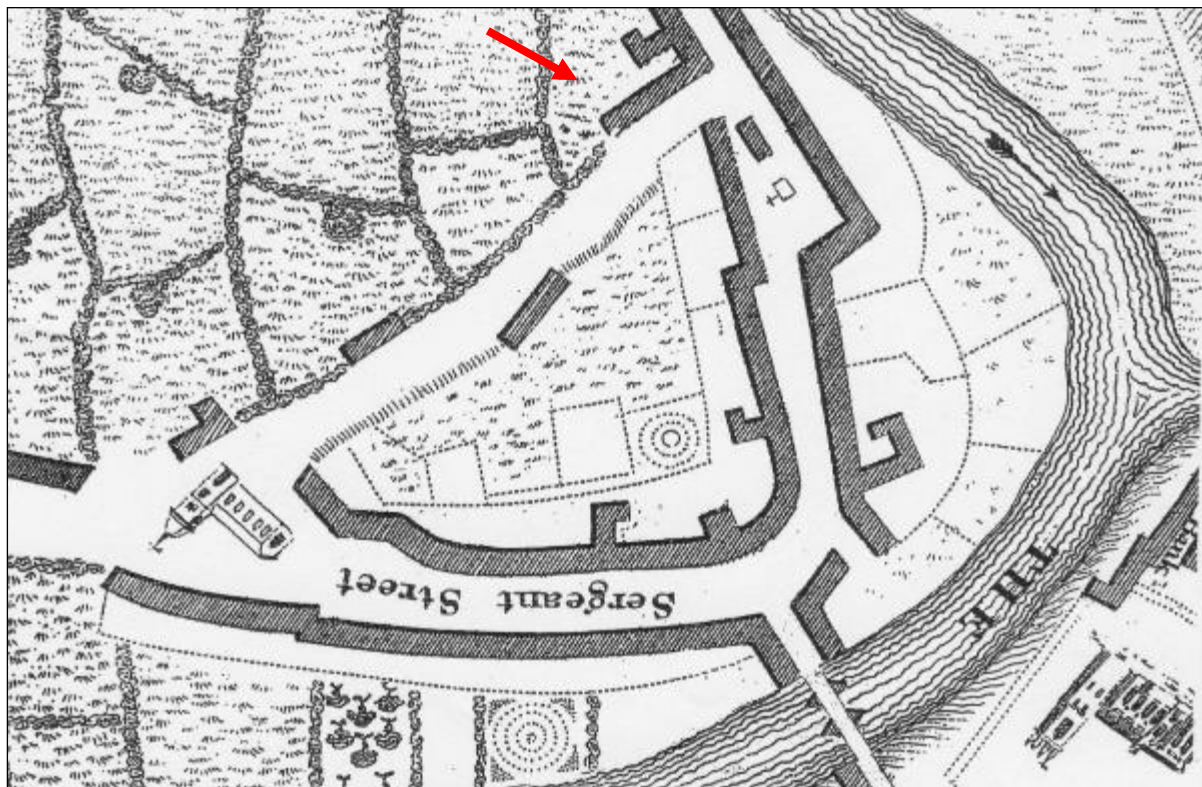


Plate 2: Plan of Salford dating to c. 1650, showing the market area and its cross and the extent of buildings, with arrow marking the position of the study area



Plate 3: Hill's plan of 1740, with arrow marking the position of the study area

This layout of buildings is also shown on a detailed survey published by Casson and Berry in 1741. This again shows the main streets in Salford, clustered with buildings, including several in the study area, which appear to be slightly larger properties than those to the south, hinting that these may have been occupied by the wealthier sector of the townsfolk.

The River Irwell became a major transport route after 1734, when the Mersey Irwell Navigation was completed. This new navigation formed an efficient link to the expanding port of Liverpool and enabled sea-going vessels to sail up the Irwell into Manchester and Salford. Wharfage facilities for boats of up to 50 tons were provided by a quay established on the Manchester side of the river by Edward Byrom, a wealthy fustian dealer and one of the proprietors of the Mersey Irwell Navigation Company (George and Brumhead 2002, 22). In 1755, the Navigation Company opened a quay on the opposite side of the Irwell, with the intention of securing the Salford trade (Nevell 2004, 31).

A survey by Tinker, published in 1772, annotates Quay Street leading from Salford down to the river. Tinker's map also depicts the three main streets in Salford, marking Greengate as 'Back Salford', but provides little detail of individual buildings. However, some development of the land between Greengate and the River Irwell is shown to have occurred relative to the earlier maps, including a large L-shaped structure on the bank of the river, and the Gravel Lane frontage is shown to have been occupied almost completely with buildings.

The prosperity of Salford during the post-medieval period was given a significant boost by the development of the textile industries, both woollen and later cotton. The town's textile tradition was based upon weaving and finishing, using the relatively pure water of the River Irwell for bleaching and dyeing (Williams with Farnie 1992, 22).

2.1.6 Industrial Period

In addition to the benefits of providing an arterial transport route, the River Irwell also had considerable potential to power waterwheels, offering a distinct advantage over Manchester to pioneering factory masters prior to the advent of steam engines. Hence, in 1782, James Ackers, Jonathan Beever and Joseph Ramsbottom established Bank Mill, and William Douglas built a large mill beside the Irwell at Pendleton in Salford, representing two of the earliest water-powered mills in Lancashire (Aspin 2003, 453). By 1795, the latter concern was the largest firm in the Manchester district (Greenwood 1951, 143-6).

An impression of the local importance of the textile and related industries to Salford may be gained by examining the occupations listed in contemporary trade directories. Scholes' directory for 1797, for instance, identifies a cloth hall to have been on Greengate, together with a linen and woollen hall (Scholes 1797). The directory also lists the residences of several cotton manufacturers on Greengate, together with a silk-thrower, a wool dealer, a print-cutter, and a hat manufacturer. Other occupations listed in Scholes' directory for Greengate include an umbrella-maker, a nailor, a brush-maker, a shoe-maker, an attorney, several flour dealers, merchants, and 'gentlemen'. Indeed, in the early 1820s, Butterworth noted that the buildings on Greengate were inhabited by 'persons of utmost respectability' (Butterworth 1823).

Several of the premises along Greengate, such as those referred to as the Bull's Head and The Shearers, located to the east of the study area, on the other side of Gravel Lane, are known to have existed until they were demolished in c. 1938. Two other historic structures were known to have been close to the study area; Town House and the Edinburgh Castle. Town House had originally been a single-storey town house, complete with a burgage plot and orchard to the rear, which was converted into three tenements in the early 1800s, and refurbished at various times subsequently until 1901, when the structure was demolished. The Edinburgh Castle was a 16th-century timber-framed building, which may also have originated as a town house, but was later in use as a beer-house/pub; it was demolished in 1872.

2.2 Site Development

The study area is located to the immediate west of Salford's historic core, as shown on the earliest known plan of the area, dated c. 1650 (Plate 2). The corner of Greengate and Gravel Lane is shown on this plan to have been occupied with buildings, which may have extended into the site, although most of the site remained undeveloped. Hill's map of 1740 (Plate 3) and Casson and Berry's map of 1741 show a range of buildings along Gravel Lane, forming the eastern part of the site. The land to the rear remained undeveloped, although is likely to have been used for domestic or craft-working activity associated with the houses, or horticulture/market gardening.

The first accurate surveys of the area are provided by Charles Laurent's map of 1793, and William Green's survey of 1787-94. These plans capture the area during a period of rapid development, with Green's map showing several buildings additional to those recorded by Laurent. These comprised two blocks along the west side of Gravel Lane, in the eastern part of the site, and a third range to the rear. The remainder of the site was seemingly in use for horticultural/market gardening purposes, with numerous regular plots separated by a grid of paths.

Whilst there are several early 19th-century maps of the area, these were all produced at a scale which precludes close analysis of the built environment, although they help to characterise the wider area. Johnson's map of 1819 and Swire's map of 1824 are the first to show any significant changes to the townscape. Both of these maps show the site to have been almost completely built up, with Queen Street having been established and linked to Greengate via a series of north/south-aligned streets, effectively creating several development plots. These maps also provide a flavour of the rapid pace of development during the early 19th century, with most of the land encompassing the study area having been subject to intensive development

More detail of the character of the buildings in the study area is gained from Bancks & Co's map of 1831. This indicates that the buildings occupying the site had an irregular layout, indicative of *ad hoc* development and consistent with a pre-19th-century construction date. Many of the buildings are shown on historical mapping to have been workers' housing, although several different plan forms can be identified, including double-depth properties, single-depth cottages, blind-back and back-to-back houses. The double-depth properties that occupied the Gravel Lane and Queen Street frontages are likely to have comprised shop/workshop premises on the ground floor with domestic accommodation above. A few of the properties, including the back-to-back houses on Hunt's Court and the single-depth cottages on Ashton's Street/Fleet Street, appear to have incorporated cellars, as suggested by the presence of pavement lights on historical mapping.

The Ordnance Survey 60": 1 mile map of 1850 provides considerable detail of the buildings occupying the site in the mid-19th century. The layout of buildings shown on the 1891 Town Plan is largely unchanged to that recorded on the 1850 survey, although a few of the buildings along the principal thoroughfares of Greengate and Queen Street appear to have been subject to some remodelling and change of use. The Salford Screw & Bolt Works, for instance, had been adapted for use by the Castleton Steam Packing Co, engine packing manufacturers, by the mid-1890s (Slater 1895, 325).

Later editions of Ordnance Survey mapping, published in 1908 and 1933, broadly replicate the layout of buildings in the study area, with only minor changes. Thereafter, however, the workers' housing across the site was gradually cleared, creating an opportunity for the Greengate Rubber Works to expand its manufacturing premises on the north side of Greengate. This firm was founded in 1867 by Isador Frakenberg, a leather factor, who subsequently commenced water-proofing cloth and moved production to works in and adjacent to Birtles Square on Greengate (Tomlinson 1989, 49). In 1920 the firm became a public company as the Greengate & Irwell Rubber Co (Tomlinson 1989, 49; Slater & Kelly 1920), and subsequently erected new buildings on the south side of Greengate, across the site. By the late 20th century, virtually the entire site was occupied by the rubber works.

3. Methodology

3.1 Archaeological Evaluation

The principal aim of the archaeological evaluation was to establish the presence or absence of any buried remains of archaeological interest within the proposed development area and, if present, characterise the level of preservation and significance, and provide a good understanding of their potential. This was achieved by the excavation of nine evaluation trenches that were placed across the footprint of buildings of potential archaeological interest depicted on the sequence of historical maps (Figures 3 and 4). It was anticipated that this approach would represent an appropriate sample of the archaeological resource.

General Methodology: all archaeological work was conducted following the ClfA Standards and Guidance for archaeological field evaluation (ClfA 2014). Prior to the commencement of any excavation works, the location of the trench targeted for archaeological investigation was laid out accurately with respect to the Ordnance Survey national grid. The position of this area was then scanned for any live services using a cable avoidance tool.

Archaeological Excavation: machine excavation was used to define carefully the extent of any structural remains. This was carried out using a mechanical excavator of appropriate power under close archaeological supervision. Thereafter, remains were cleaned manually to define their extent, nature, form and, where possible, date. Once the extent of buried archaeological remains was established, they were subject to detailed archaeological excavation and recording. Hand excavation was undertaken by trained professional archaeologists. All information identified in the course of the site works was recorded stratigraphically, utilising *pro-forma* context sheets, and was accompanied with sufficient pictorial record (plans, sections and photographs) to identify and illustrate individual features.

Context Recording: all contexts will be recorded using *pro-forma* sheets, and details will be incorporated into a Harris matrix. All written recording of survey data, contexts, photographs, artefacts and ecofacts will be cross-referenced from record sheets using sequential numbering.

Photography: a full and detailed photographic record of individual contexts was maintained and similarly general views from standard viewpoints of the overall site at all stages of the archaeological investigation was generated. Photography was undertaken in accordance with HE guidance, Digital Image Capture and File Storage Guidelines for Best Practice (July 2015). All frames included a visible, graduated metric scale. Photographs records were maintained on photographic *pro-forma* sheets.

Planning: the precise location of all archaeological structures encountered was surveyed using a total station linked to a pen computer data logger. This process generated scaled plans within AutoCAD, which were then be subject to manual survey enhancement. The drawings were generated at an accuracy appropriate for 1:20 scale, and all information was tied in to Ordnance Datum.

Finds policy: finds recovery and sampling programmes was in accordance with best practice (following current Chartered Institute for Archaeologists' guidelines, Standard and guidance for the collection, documentation, conservation and research of archaeological materials.

4. Evaluation Results

4.1 Trench 1

Trench 1 was located across the southern part of the site, close to Queen Street, and was targeted on the footprint of workers' houses and a former smithy. It was aligned broadly east/west, measured 22.5m x 2.2m, and was excavated to a maximum depth of 2.45m (Plate 4).



Plate 4: Trench 1, looking west, showing the excavated remains of cellar 100

Trench 1 was covered by a layer of modern overburden (**03**), which had a maximum depth of 0.4m. At the eastern end of the trench was a brick-built cellar, **100**, which consisted of two brick walls and a brick and stone floor (Plate 4). The north/south-aligned wall of the cellar was three brick-courses wide (equating to 0.43m), and survived to a height of 1.05m, bonded with a soft, yellow, sandy, lime mortar. It had an exposed length of 2.2m, but continued beyond the limit of excavation. This was abutted by a further three-course wide brick wall, aligned east/west, at the eastern end. This was bonded with a hard, black mortar, indicative of a late 19th- or 20th-century construction date, and survived to maximum height of 0.45m. The cellar floor, revealed at a depth of 1.55m, covered an area of 2m x 3.6m, and consisted of brick and sandstone blocks.

Cellar **100** was filled with a distinctive fill, **101**, which consisted of brick fragments, stone, and mortar. It had a maximum depth of 1.55m.

The central section of the trench was dominated by several large structures associated with the 20th-century rubber works, **02**. These top of these structures were uncovered at a depth of 0.3m, and consisted of four parallel, north/south-aligned brick and concrete walls (Plate 5). These structures also contained heat affected firebricks, and clearly represented the remains of a bank of boilers associated with the rubber works.

At the western end of the trench was a large linear cut, **102**, which was aligned north-east/south-west and measured 3.4m wide and was 2.3 deep, where a brick culvert was located. The cut, **102**, was filled by **103**, a dark brown silty clay.



Plate 5: Boiler remains associated with the 20th-century rubber works

4.2 Trench 2

Trench 2 was located immediately to the north of Trench 1 and was broadly aligned east/west across the footprint of workers' housing along Hutchinson Street, the Salford Screw Bolt Works, and a small area that didn't appear on historical mapping to have been developed intensively in the 19th century, offering potential for medieval remains. The trench measured 40m x 2.2m, and was excavated to a maximum depth of 1.5m (Plate 6).

A north/south-aligned, three-course wide brick wall, **200**, was exposed at the eastern end of the trench. This measured 0.4m x 2.2m and survived to a maximum height of 0.85m. It was bonded with a mid-grey, firm, mortar that contained charcoal and lime. It continued beyond the limit of excavation. Abutting wall **200** was an area of cobbles and setts, **201**, which measured 2.2m x 4.9m. It lay at a depth of 0.35m, and continued beyond the limit of excavation to the north and south. It abutted another north/south-aligned brick wall, **202**, to the west. The removal of this cobble surface revealed that they had been laid directly onto a thick layer of 19th-century made-ground, with no evidence for any earlier layers surviving *in-situ*.



Plate 6: Trench 2, looking west

Wall **202** lay parallel to wall **200** and measured 2.2m x 0.3m. It was bonded with a soft, sandy, yellow, lime mortar. Immediately to the west of wall **202** were the fragmentary remains of a flagstone floor, **203**. This area of floor measured 0.4m x 1.3m.

No archaeological remains survived across the central part of the trench, where the natural drift geology, **01**, was revealed at a depth of 0.55m below modern demolition rubble / overburden. The drift geology consisted of mid-yellow sandy clay and gravel.

Part of a late 19th-century boiler house, **204**, was uncovered at the western end of the trench. After consultation with GMAAS, it was decided that the boiler merited further investigation and the area of excavation was expanded to include the full footprint of the boiler bed (Plate 7). The entire structure measured 2.65m x 7.1m, and was excavated to a maximum depth of 1.95m (Figure 6). The outer walls of the structure comprised a double-course of firebricks. The walls survived to a height of 1.25m, where a series of inward-curving refractory blocks were laid, representing the boiler props. The outer walls formed the sides of the boiler housing, through the corners were all rounded. Much of the walls had been truncated towards the north. The remains of a 0.5m wide flue was excavated at the southern end.

At the base of the outer walls was a brick flue which had a maximum width of 0.5m. The floor of the flue was constructed of common bricks. The flue continued around the entire circuit of the boiler bed. From the flue, the base of the boiler bed dropped a further 0.7m to the level of the flame bed, which 5.3m x 0.83m.



*Plate 7: The boiler bed **204**, looking south-east*

4.3 Trench 3

Trench 3 was aligned broadly north/south across the south-eastern part of the site, adjacent and parallel with Gravel Lane (Figure 2). It was placed across the footprint of workers' houses, and measured 22.5m x 2.2m (Figures 3 and 4). Much of the trench had been heavily disturbed by activity associated with the 20th-century rubber works, and several large concrete structures were located at the north of the trench (Plate 8). The natural drift geology (**01**) was revealed at a depth of 0.4m.



Plate 8: Trench 3, looking north

A short section of a brick wall, **300**, survived in the central part of the trench. It was heavily truncated by the later concrete structures, but appeared to be a double-coursed junction between two walls, both composed of hand-made bricks. It measured 1.65m x 0.32m, and was bonded with a yellow, sandy lime mortar.

In the centre of the trench were further truncated remains (**301**) of one of the terraced houses depicted on 19th-century mapping. This consisted of an east/west-aligned section of wall that was three brick courses wide, representing the side wall of one of the double-depth houses that had fronted onto Gravel Lane, and a two-course wide wall, aligned north/south, that had formed an internal partition. The latter incorporated the threshold for a door, which contained a flagstone. Several other broken flagstones to the east of wall **301** represented the vestiges of an internal floor.

The remains of another east/west-aligned brick wall, **302**, were exposed along the southern edge of the trench (Figure 2). The fabric of this wall comprised hand-made bricks, bonded with a soft, yellow, sandy lime mortar, consistent with a late 18th- or early 19th-century construction date.

Further excavation was carried out in the southern part of the trench, as the natural geology was encountered at a relatively shallow depth (30.80m above Ordnance Datum), and there appeared to have been little disturbance from the construction of the rubber works, raising the potential for the survival of medieval or post-medieval layers (Plate 9). However, the only archaeological remains encountered comprised a 19th-century ceramic drain (**303**) that was aligned north-east/south-west, and a short section of a north/south-aligned wall (**305**) of hand-made bricks bonded with the same yellow sandy lime mortar.



*Plate 9: Extension to Trench 3 showing the foundation trench for drain **303***

4.4 Trench 4

Trench 4 was located immediately to the north of Trench 3, and was again targeted on the footprint of workers' houses that had fronted onto Gravel Lane. The trench was aligned north/south, and measured 24m x 2.2m (Figure 2).

Whilst structural elements of two 19th-century cellars were identified, these had been largely destroyed by the construction of the rubber works in the mid-20th century, the remains of which dominated the remains exposed in the trench (Plate 10). In particular, substantial concrete stanchions and associated walls cut across the whole of the trench.

The remains of a 19th-century cellar (**400**) were encountered at the southern end of the trench. This comprised two double-course walls of hand-made bricks, and the vestiges of a 0.7m wide flagstone stair (Plate 11). The western wall of cellar **400**, exposed along the edge of the trench, survived to a height of 1.6m and maximum length of 2.5m.

Fragments of a second cellar were revealed in the centre of the trench. These comprised a north/south-aligned brick wall (**401**) that survived to a height of 2.1m, and probably represented the rear wall of a house that had fronted onto Gravel Lane. Set within the brick wall were three arched recesses, each up to 0.8m wide, which appeared to have contained flagstone shelves (Plate 12). An east/west-aligned double-coursed wall (**402**) located to the north of wall **401** probably represented the north wall of the house.

Immediately to the north of these 19th-century cellars were several large modern brick walls and concrete stanchions associated with the 20th-century rubber works.



Plate 10: Trench 4, looking north, showing cellar **400**



Plate 11: The remains of the staircase 400, with concrete stanchion in the foreground



Plate 12: Brick wall 401, looking south-west

4.5 Trench 5

Trench 5 was located adjacent and to the west of Trench 4 in the north-eastern part of the site (Figure 2). It was aligned north-east/south-west, measured 16m x 2.2m, and was placed across the footprint of workers' housing on Wroe's Court and a small area that appeared from the historical mapping to have sustained little development in the 19th century, offering potential to retain medieval and post-medieval remains (Plate 13). However, a large, intact basement constructed of brick and concrete associated with the 20th-century rubber works was revealed at the southern end of the trench, the construction of which had clearly removed any archaeological remains; further recording of this basement was precluded on Health & Safety grounds.

An L-shaped brick wall (**502**) and associated foundation trench (**500**) were revealed in the centre of the trench. The top of foundation trench **500** was exposed at a depth of 0.65m below the modern ground surface, at a height of 32.80m above Ordnance Datum. It was cut into the natural geology, and had a width of 0.48m and depth of 0.25m, with near vertical sides and a flat base. The wall comprised hand-made bricks and the north/south-aligned section was 0.36m wide, and probably represented the vestiges of a semi-basement, although there was not surviving evidence for a floor. However, the structure had been largely destroyed by the construction of the rubber works.



Plate 13: Trench 5 looking north

4.6 Trench 6

Trench 6 was located in the north-centre of the site, and was placed across the footprint of workers' housing on Wroe's Court. It was aligned north-east/south-west, and measured 19m x 2.2m. It was excavated to a maximum depth of 0.45m, exposing the natural geology along its base (Plate 14). This was overlain by modern overburden, **03**, which derived from modern demolition. No remains of archaeological interest were uncovered.



Plate 14: Trench 6, looking south-west

4.7 Trench 7

Trench 7 was also located to the west of Trench 6, and was aligned north-west/south-east across the footprint of workers' housing along Ashton Street. It measured 22m x 2.2m, and was excavated to a maximum depth of 0.5m, although the natural geology was encountered at a depth of 0.4m. Further excavation for geo-technical purposes revealed the sandstone bedrock at a depth of approximately 3m.

A single feature, comprising a single-course wall (**700**) of hand-made bricks, was exposed in the trench. This measured 2.5m x 0.24m, and continued beyond the limit of excavation. It survived to a height of just a single course of bricks. The position of this wall corresponded with the location of a wall shown on Green's map of 1787-94 (Figure 3).



Plate 15: Trench 7, looking south-east, showing wall 700 in the foreground

4.8 Trench 8

Trench 8 was located in the north-western part of the site, and was aligned north-north-east/south-south-west across the footprint of the workers' housing along Hutchinson Street. It measured 17.5m x 2.2m, and was excavated to a maximum depth of 0.65m (Plate 16). All archaeological remains in the southern half of the trench had been removed by the construction of concrete foundations associated with the rubber works, although a single historic structure (**800**) survived to the north (Plate 16). This comprised an L-shaped, double-course wall of hand-made bricks, bonded with soft, sandy, lime-based mortar, which enclosed a brick floor. The north/south-aligned section of the wall survived to a length of 3.1m, and the east/west-aligned part was 1.3m long, extending beyond the edge of the excavated trench. The internal elevations of the walls were rendered with mid-brown coloured mortar. The brick floor was sealed beneath a layer of ash and clinker (**801**), which had a maximum thickness of 0.35m.



Plate 16: Trench 8, looking south-west

4.9 Trench 9

Trench 9 was aligned broadly east/west across the footprint of workers' housing along Ashton Street located in the northern part of the site. It measured 25m x 2.2m, and was excavated to a maximum depth of 0.65m. The natural geology was exposed along the base of the trench at a depth of 0.45m below the modern ground surface. No archaeological remains were present.



Plate 17: Trench 9, looking west

4.10 Finds

No finds were recovered from any of the trenches.

5. Discussion

5.1 Introduction

The archaeological evaluation uncovered very fragmentary remains related to the late 18th- and 19th-century occupation of the site, and included the vestiges of industrial and domestic buildings. Whilst the site was located on the fringe of the historic medieval core of Salford, no remains pre-dating the late 18th or early 19th century were present. Most of the archaeological remains across the site had evidently been removed during the construction of a large rubber works in the 20th century.

5.2 Medieval and Post-medieval Periods

The study area lay a short distance to the south of Greengate, which formed one of the principal thoroughfares in the medieval town of Salford, and to the rear of the modern Abito Building, where significant evidence for continuous occupation from the 13th century onwards was uncovered during an archaeological excavation in 2004-05 (Gregory and Miller 2015). The eastern edge of the site is bounded by Gravel Lane, which similarly dates to the late medieval period, and whilst this does not appear to have been a main focus for settlement, it is nevertheless likely to have sustained some activity during this period. However, based on the results obtained from the evaluation trenching, it seems that the site had been subject to considerable landscaping during the 18th and 19th centuries that involved a lowering the ground level and, in the process, removing physical evidence for previous occupation of the site.

This suggestion is supported to some degree by the results obtained from an archaeological excavation of the former Christ Church on the south side of Queen Street that was carried out in 2019, which exposed the remains of a medieval ditch that was cut into the natural geology. The top of this ditch was identified at a height of 31.10m above Ordnance Datum, providing an indication of the medieval ground surface some 50m to the south of the present site during the later medieval period (Cook 2019). This compares with the level of the natural geology in Trench 3, which was revealed at a height of 30.80m above Ordnance Datum towards the southern end of Trench 3. This certainly suggests that the level of the natural ground in the southern part of the site had been reduced. In Trench 5 in the northern part of the site, however, the natural geology was encountered at a height of 32.80m above Ordnance Datum, which tentatively suggest that the original ground surface rose slightly towards Greengate.

5.3 Evidence for Late 18th-Century Activity

Despite the fragmentary survival of the 18th- and 19th-century remains across the site, an interpretation can be offered for most of the excavated structures due to the comprehensive cartographic record for the area. The earliest remains exposed during the evaluation potentially included the single course of hand-made bricks revealed at the south-eastern end of Trench 7, the position of which corresponds loosely to the location of a plot boundary wall depicted on William Green's map of 1787-94 (Figure 3). However, the position of this wall similarly corresponds to a small outbuilding associated with the early 19th-century Salford Screw & Bolt Works, as shown on the Ordnance Survey Town Plan of 1850 (Figure 4). Trenches 3, 4, 7 and 8 were all placed across the footprint of buildings depicted on Green's map of 1787-94, although no physical remains were encountered that could be attributed to any of these buildings.

5.4 The 19th-century Remains

Notwithstanding the intensive development of the 19th century, the surviving foundations of buildings deriving from this period were surprising scant in the evaluation trenches. The fragmentary remains of cellars were revealed at the eastern end of Trench 1 and in Trench 4, with the position of the excavated walls corresponding to double-depth properties fronting onto Queen Street and Gravel Lane respectively, as shown on the Ordnance Survey maps of 1850 and 1892 (Figures 4 and 5).

Most of the other 19th-century remains could be tied to the various domestic buildings in the vicinity. The disturbed remains in Trench 3, such **301**, were the remains of those terraced houses at the east of the site that fronted onto Gravel Lane; these buildings were not cellared. The single brick wall, **302**, was probably an internal partition within the inventively named public house, the 'British Queen'. Trenches 6, 7 and 9 confirmed that none of the dwellings that fronted Ashton Street, and those houses on the western side of Wroe's Court, had been cellared and the shallow foundations of those structures had been cleared in the 20th century. The small brick structure in Trench 8, **800**, along with the associated clinker layer, **801**, was likely a toilet block to the west of Hutchinson's Court, as shown on the mid-19th century historic mapping.

Perhaps most surprising was the paucity of surviving remains of the early 19th-century Salford Screw & Bolt Works, with surviving foundations limited to part of the eastern wall of the building and a parallel internal wall, together with a stone sett surface between the two walls, all exposed in Trench 2. There was no physical evidence for any machinery, or any indication of the manufacturing processes carried out in the works.

The most significant 19th-century remains were those of boiler house **204**, revealed at the western end of Trench 2. The position of this boiler does not correspond with the footprint of buildings shown on the Ordnance Survey Town Plan of 1850, which the southern part of the boiler's footprint to have been occupied by the outshot to a double-depth house along Queen Street, whilst the northern part remained undeveloped. The building along Queen Street had been replaced with a larger structure by the end of the 19th century, as shown on the Ordnance Survey map of 1892, together with a new building to the rear, the footprint of which corresponds neatly with the excavated remains of the boiler housing. The use of this building is not identified on the historical mapping, although it seems likely that it was associated with the new property on Queens Street, which is listed in a trade directory for 1895 as a warehouse for a cotton and cotton waste merchant (Slater 1895, 325), and subsequently for the Bayer Co Ltd, aniline manufacturers (Slater 1911, 576); neither of these trade directories contain any listing for businesses on Hutchinson Street, and it therefore seems likely that the excavated boiler was part of the warehouse complex on Queen Street. Based upon the size and shape of the excavated housing, it was most likely that it had been designed for a 'Cornish'-type boiler. The fragmentary stub of a flue indicated that exhaust gases had exited the boiler from its southern end, although there were no remains of the associated chimney survived *in-situ*. The warehouse had been replaced by two double-depth houses by the early 1930s, signalling the abandonment of the boiler.

The subsequent development of the rubber works led to the removal of any earlier archaeological remains across much of the site.

6. Conclusion

6.1 Impact

The results obtained from the archaeological evaluation have demonstrated that some very fragmentary below-ground remains of the 18th- and 19th-century houses survive within the site boundary. However, most of those buildings did not contain cellars, and the remains were particularly fragmentary due to the intrusions of the later rubber works. The remains of the early 19th-century screw and bolt factory had similarly been largely removed during the construction of the rubber works in the 20th century. The only structural remains that survived intact were those pertaining to a late 19th-century boiler at the western end of Trench 2, although this was recorded fully during the course of the evaluation.

Delivery of the consented scheme will necessitate considerable earth-moving works across the site, and it may be concluded that construction work will have an impact on the archaeological resource. However, the evaluation has demonstrated that most of the buildings of archaeological interest do not contain cellars and their foundations were therefore largely removed during the 20th century. No remains predating the 18th century were uncovered.

6.2 Mitigation

In the light of the results obtained from the archaeological evaluation it is considered unlikely that further intrusive investigation will yield any significant additional data. It is therefore not envisaged that any further archaeological investigation will be required.

7. Archive

7.1 Archive

The results of the archaeological investigation will form the basis of a full archive to professional standards and in line with current guidelines (ClfA 2014). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the ClfA in that organisation's code of conduct.

The site archive will be so organised as to be compatible with the other archaeological archives produced in north-west England. All drawn records will be transferred to and stored in digital format, in systems which are easily accessible. The project archive will ultimately be offered to the Salford Museum in Salford for long-term deposition. A copy of this report will be lodged with the Greater Manchester Historic Environment Record, and the on-line OASIS (On-line Access to Index of Archaeological Investigations) form will be completed. In addition, a copy of the report will be publicly available for downloading via the University of Salford's Figshare website, a data repository designed to manage and share research data outputs:

<https://salford.figshare.com/>

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The excavation fieldwork was undertaken by Andrew Radford and Lorraine McVinnie. The report was written by Andrew Radford, and the illustrations were compiled by Richard Ker. The report was edited by Ian Miller, who was also responsible for project management.

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Appendix 1: Context List

| Context Number | Trench | Description |
|----------------|--------|--|
| 01 | | Natural ground |
| 02 | | Rubber works |
| 03 | | Overburden |
| 100 | 1 | Brick and flagstone structure – cellar |
| 101 | 1 | Cellar fill of 100 |
| 102 | 1 | Cut for drain |
| 103 | 1 | Fill of 102 |
| 200 | 2 | Brick wall |
| 201 | 2 | Cobbled surface |
| 203 | 2 | Brick wall |
| 204 | 2 | Boiler house |
| 300 | 3 | Brick wall |
| 301 | 3 | Brick and flagstone structure – house |
| 302 | 3 | Brick wall |
| 303 | 3 | Cut for drain |
| 304 | 3 | Fill of 303 |
| 305 | 3 | Brick wall |
| 400 | 4 | Brick and flagstone structure – cellar |
| 401 | 4 | Brick wall |
| 402 | 4 | Brick wall |
| 500 | 5 | Cut for wall |
| 501 | 5 | Fill of 500 |
| 502 | 5 | Brick wall |
| 700 | 7 | Brick wall |
| 800 | 8 | Brick structure |
| 801 | 8 | Ash and clinker fill of 800 |

Appendix 2: Figures

- Figure 1: Site location
- Figure 2: Evaluation
- Figure 3: Excavated remains superimposed on William Green's map of 1787-94
- Figure 4: Excavated remains superimposed on the Ordnance Survey Town Plan of 1850
- Figure 5: Excavated remains superimposed on the Ordnance Survey map of 1892
- Figure 6: Plan of the excavated boiler house in Trench 2

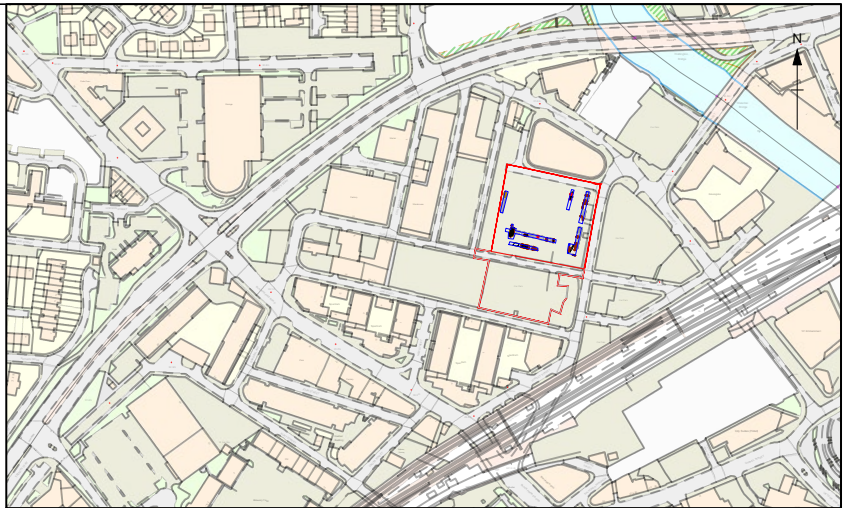


Figure 1:
Site location



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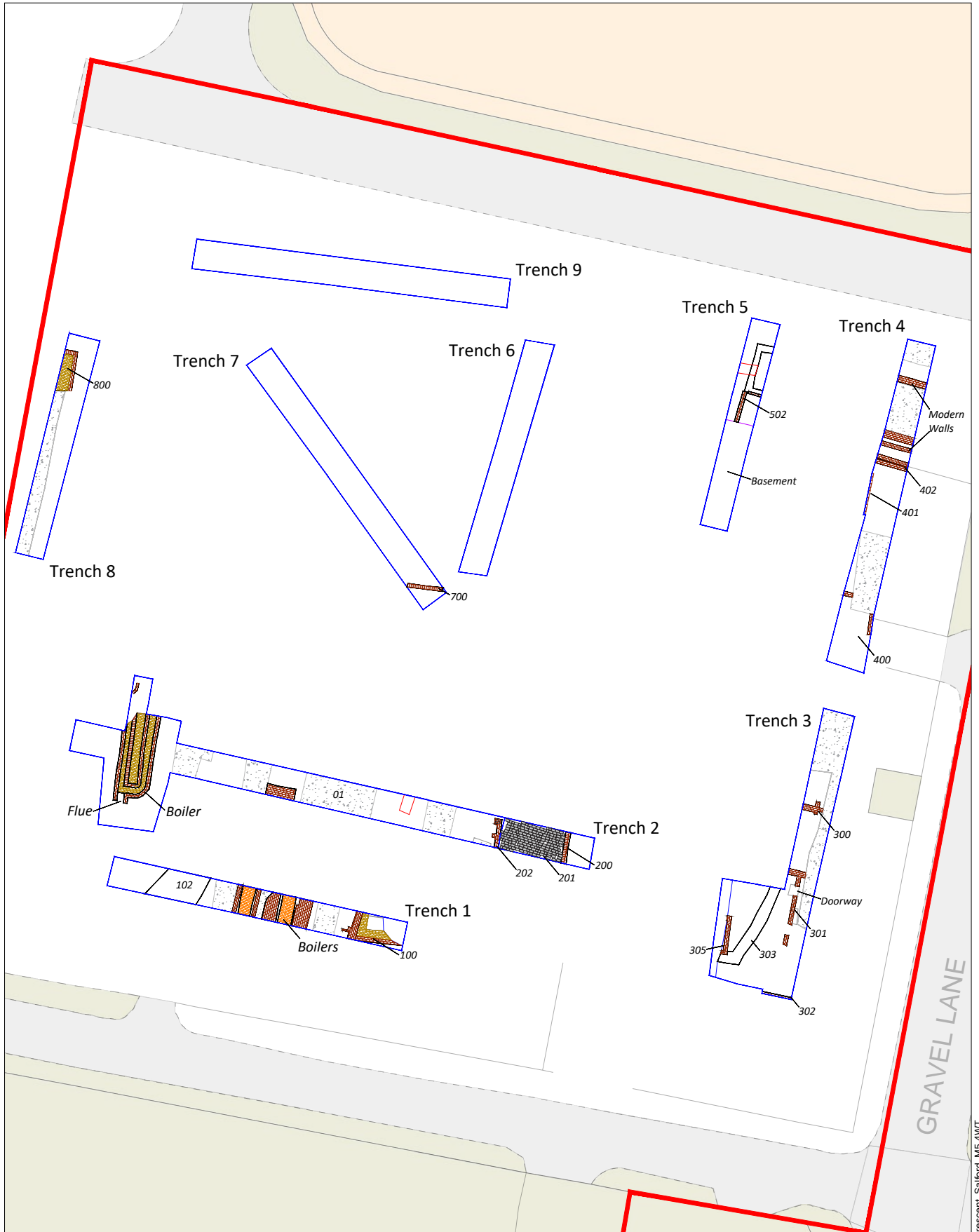


Figure 2:
Trenches superimposed on the modern Ordnance Survey map



Key:

- hybrid application boundary
- trench
- brick wall
- brick floor
- firebrick
- concrete



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0

20 m



Scale at A4 1:400

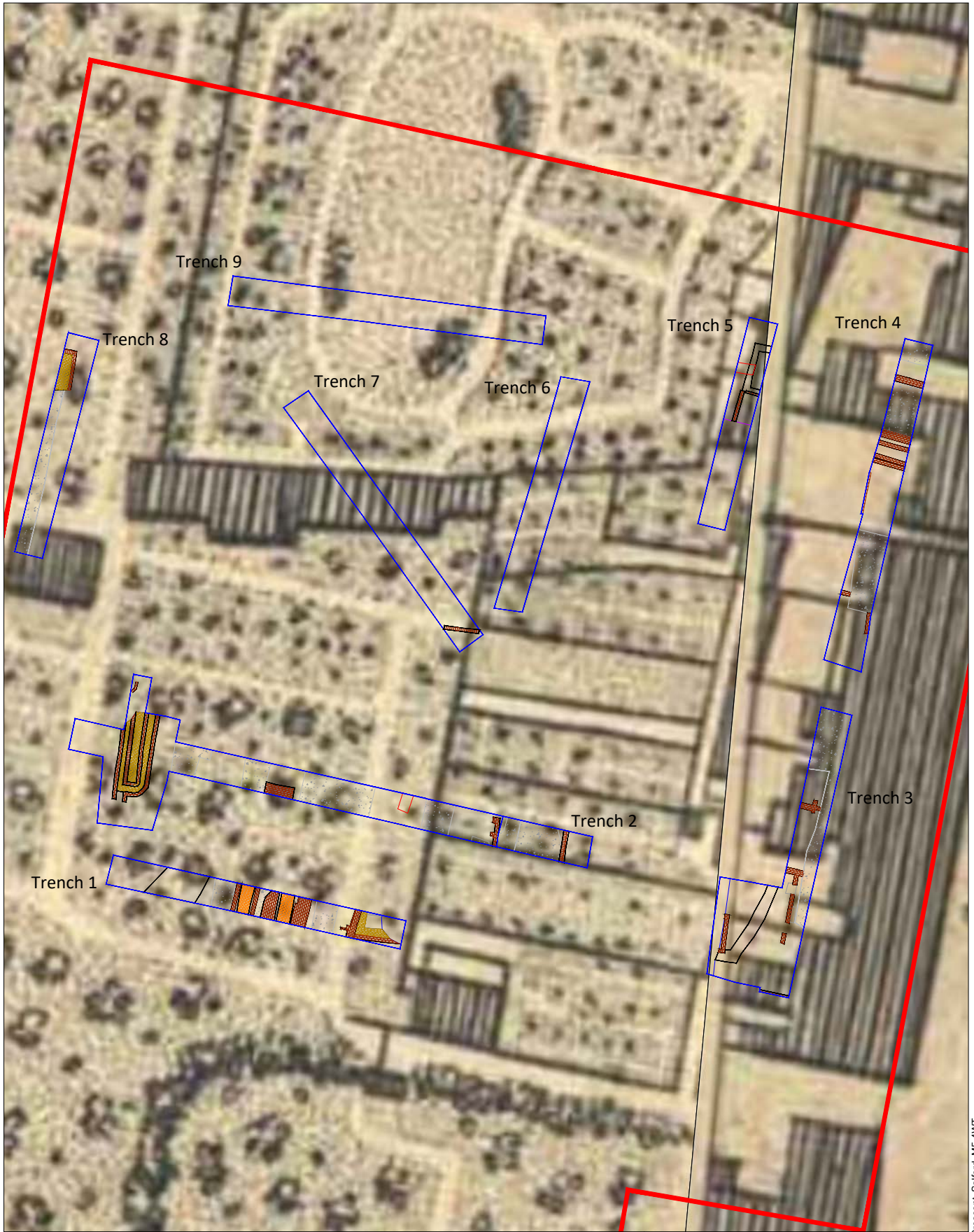


Figure 2:

Excavated remains superimposed on Green's maps of 1787-94



Key:

- site boundary
- trench
- brick wall
- brick floor
- firebrick
- concrete



SALFORD
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0

20 m



Scale at A4 1:400



Figure 4:
Excavated remains superimposed on the Ordnance Survey Town Plan of 1850



Key:

- site boundary
- trench
- brick wall
- brick floor
- firebrick
- concrete



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0 20 m



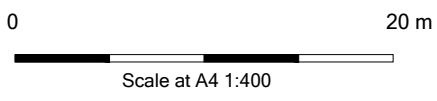
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Figure 5:
Excavated remains superimposed on the Ordnance Survey map of 1892



- Key:
- site boundary
 - trench
 - brick wall
 - brick floor
 - firebrick
 - concrete



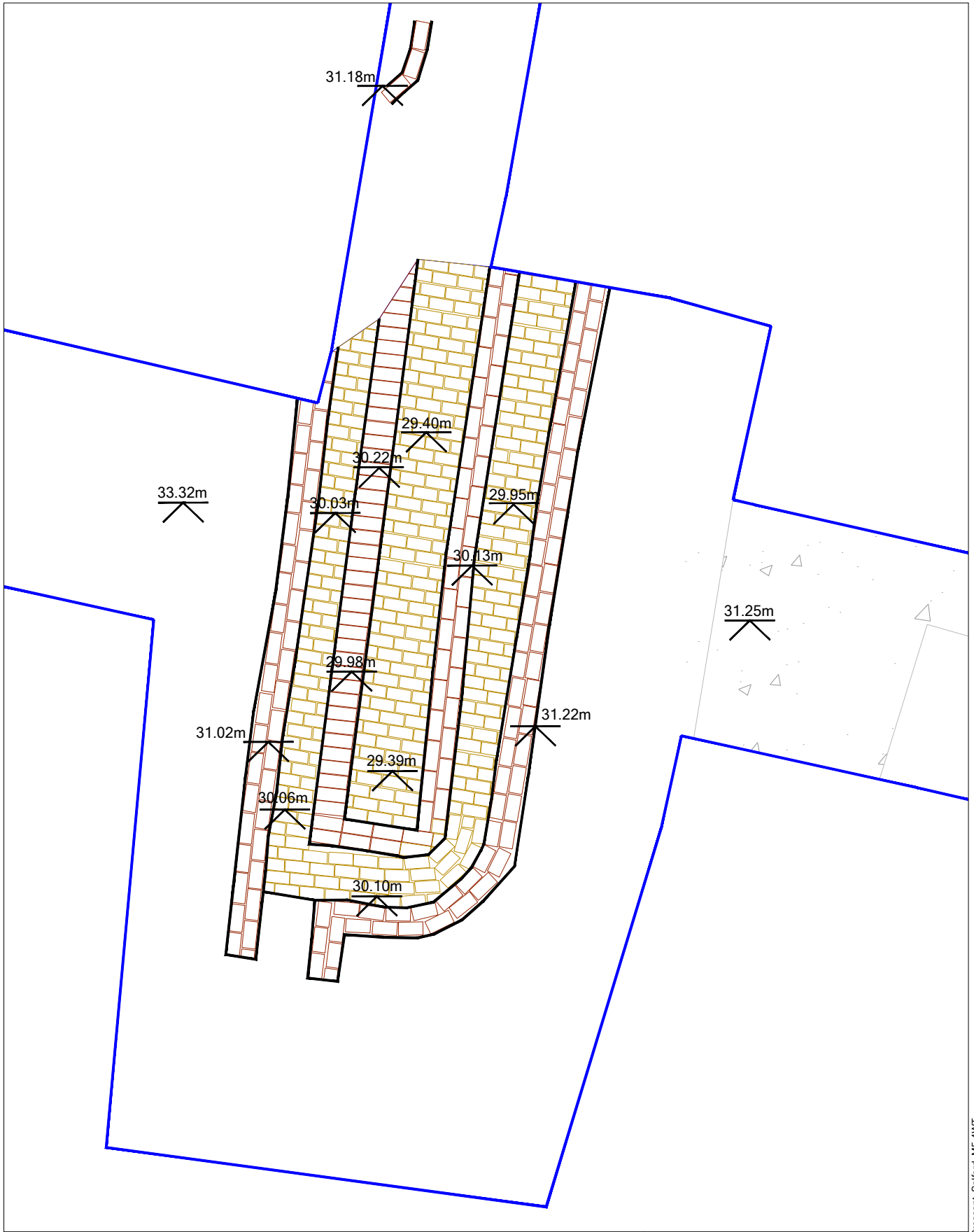


Figure 6:
Plan of the excavated boiler house in Trench 2

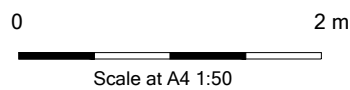


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- concrete

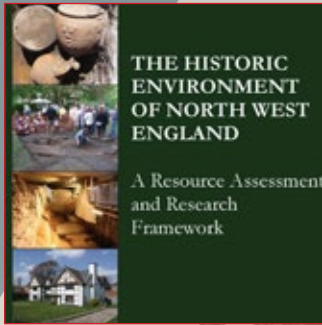


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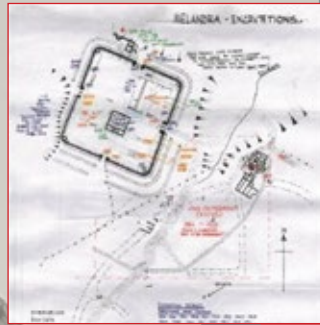




CONSULTANCY



DESK-BASED ASSESSMENTS



WATCHING BRIEF & EVALUATION



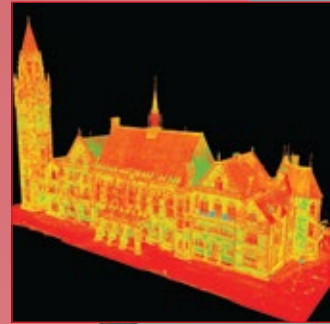
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BUILDING SURVEY



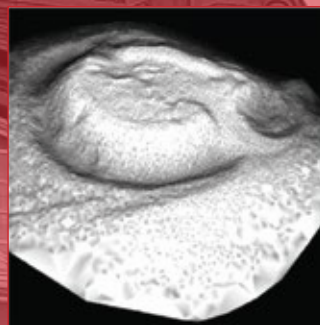
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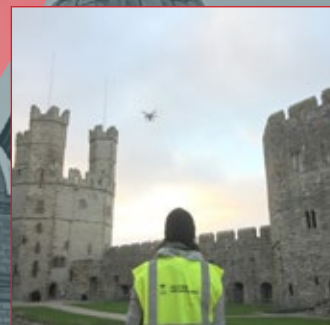
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LANDSCAPE SURVEYS



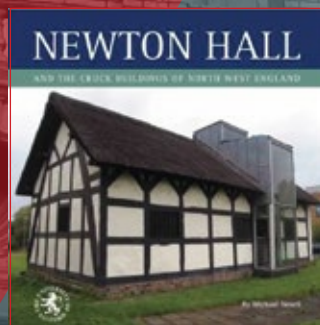
DRONE SURVEYS



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SEMINARS, DAYSCHOOLS CPD EVENTS

