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Archaeological Evaluation and Excavation Report

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Durham Street, Rochdale, Archaeological Evaluation and Excavation Report

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Summary

Oxford Archaeology (OA) North was commissioned by Ecus Limited, on behalf of Countryside Homes, to undertake a programmes of archaeological investigation on land assigned for development to the north of Durham Street, Rochdale (centred on NGR 390133, 412507). The work was informed by an earlier desk-based assessment indicating that the development area formed the site of a late nineteenth-century cotton spinning mill and accompanying domestic houses.

The programme of archaeological work originally comprised an archaeological evaluation with five trenches targeting the remains of a former mill and terraced housing depicted on historic mapping of the site. Based on the results obtained, this was almost immediately followed by two larger, open-area excavations. This latter phase of works focused on two areas; the eastern end of the former mill complex, targeting the chimney and associated power structures observed within evaluation Trench 3 and historic mapping, and, the south-western quarter of the development area, targeting the full footprint of domestic housing observed within evaluation Trenches 4 and 5. As part of this second excavation area, two cellars were sample excavated in order to ascertain their depth and character.

The combined programme of work recorded significant remains relating to the power systems of the former mill. These seem to highlight the location and character of the steam engine and boilers, within the eastern extent of the northern range of the mill. The octagonal chimney observed on historic mapping was also uncovered, in part, at the end of a cobbled road surface with additional walls and floor surfaces forming elements of the southern range of mill structures. The full footprint of the targeted domestic housing was exposed, with some evidence of truncation by subsequent modern development. Individual houses differed in their overall footprint, but highlighted a common theme throughout, with slight adaptations adding a degree of differentiation.

Acknowledgements

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The project was managed for OA North by Dr Adam Tinsley. The fieldwork was directed by Andrew McGuire, who was supported by Emma Fishwick, James Hodgson, Paul Simkins, Johny Milton, Kate Sanderson and Sergio Quintero-Cabello. Survey and digitising were carried out by Andrew McGuire, Sergio Quintero-Cabello, and Mark Tidmarsh. Thanks, is also extended to the team of OA staff that prepared the archive under the management of Dr Adam Tinsley.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology (OA) North was commissioned by Ecus Limited, working on behalf of Countryside Properties, to undertake a trial trench evaluation, and almost immediately after, a programme of extended excavation, at the site of Durham Street, Rochdale, (NGR 390133, 412507)

1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. 18/01228/FUL). A brief and specification of works was set by the Greater Manchester Archaeological Advisory Service (GMAAS) and, in response, successive Written Schemes of Investigation (WSI: see *Appendix B and C*) were produced by Ecus Limited, detailing the requirements and methodology necessary to carry out each stage of the works required to satisfy the conditions. This document outlines how OA North implemented the specified requirements.

1.2 Location, topography and geology

1.2.1 The proposed development area (PDA), centered on NGR 390133, 412507, is located approximately 900m south-east of the town centre of Rochdale, Greater Manchester (Fig. 1). The PDA is bound to the south by Durham Street, to the north-east by Lincoln Street, and to the west by Isherwood Street. A car park is located beyond the northern boundary of the site. The site occupies an area of approximately 0.8ha forming a roughly square plot.

1.2.2 The PDA is currently an unoccupied brownfield site, previously and most recently used as commercial and industrial works, and was largely dominated by scrub vegetation, tarmaccadam and concrete surfaces.

1.2.3 The underlying geology of the site is recorded as sandstone of the Old Lawrence Rock Formation (BGS 2019), with recorded superficial glacio-fluvial deposits of sand and gravel (Cranfield 2019). The site is broadly flat with a ground level of approximately 144 m above Ordnance Datum (AOD).

1.3 Archaeological and historical background

1.3.1 The archaeological and historical background of the site is discussed in the desk-based assessment produced by Ecus Limited (2018: *Appendix D*) and will not be repeated here.

1.3.2 A trial trench evaluation of the site was conducted by OA North during February 2019 (11^{th} -15^{th}), which identified extensive and well-preserved below ground structural remains relating to separate ranges of mill buildings and associated workers housing, as well as various elements of infrastructure. The remains of the mill can be identified on historic mapping of the site as that of Larkfield Mills, established *c* 1891, as a cotton spinning mill in the ownership of 'J & G Walker limited'. The mill represents a relatively late development in the well-established and long-lived textile industry within Rochdale. It was founded in an area of former landscaped gardens, opened for subsequent development as the town grew, in order to take advantage of its position

near the Rochdale Branch Canal, which tied the town and its burgeoning textile industry to major commercial hubs such as Manchester to the south-west, and further transportation networks established at Sowerby Bridge and the Calder Navigation further to the east. The expansion of industry along the banks of the branch canal is well documented (Ecus 2019) and was accompanied by an expanding programme of workers' housing. All such remains were readily identifiable with cartographic sources dating to the mid nineteenth-century, consulted as part of the des- based assessment. The requirement for further targeted mitigation was subsequently agreed with GMAAS and a further phase of expanded excavation was rapidly implemented.

2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 ***Introduction***: the general methodology for each phase of the archaeological investigations was outlined in separate WSIs prepared by Ecus Limited, each formulated in consultation with Andrew Myers of GMAAS. The first WSI related to a programme of archaeological trial trenching, targeting the remains of the Larkfield Mills complex and associated domestic housing (Ecus 2019a: *Appendix B*). Following the archaeological evaluation, and based on the results obtained, Andrew Myers recommended that two, open-area, excavations expanded upon the remains identified within two locations (Ecus 2019b: *Appendix C*). Area 1 expanded upon the structures identified in Trench 3 and associated with the boiler house of the northern mill building range, and Area 2 expanded upon Trenches 4 and 5, which identified two former terraced rows of workers' housing. This formed a rolling programme of work, with the evaluation undertaken between the 11th and 15th of February, rapidly followed by the expanded excavations, undertaken between the 11th and 29th of March 2019.

2.1.2 ***Evaluation Aims***: the principal aim of the evaluation was to gain information about the archaeological resource within the site, including its presence or absence, character, extent, date, integrity, state of preservation and quality, in order to assess its significance within the appropriate context and better inform the need for and scope of subsequent mitigation works.

2.1.3 The specific aims of the evaluation were to:

i ensure the recording of identified extant heritage assets;
ii establish the degree of preservation of below-ground remains and conditions of survival;
iii ensure that any below-ground archaeological deposits exposed are promptly identified;
iv inform any further necessary mitigation strategy;
v Place the recorded archaeological remains within their local/regional/national context and to make this record available.

2.1.4 ***Excavation Aims***: following identification of well-preserved structural remains within all evaluation trenches, relating to each targeted building identified from historic mapping for the area, and after discussion with GMAAS, two locations were identified in which excavations would be expanded. This comprised Area 1 expanding upon features identified in Trench 3 of the evaluation and believed to represent the remains of a boiler house within the northern mill building, and Area 2 expanding upon features identified in both Trenches 4 and 5 and representing the remains of two terraced rows of former workers housing. The aims of this phase of expanded archaeological excavation were as follows:

2.1.5 The objectives of the excavation were:

i. to contribute to the understanding of land use and development during the mid-nineteenth century within the Durham Street area;

ii. to record any archaeological evidence relation to the late nineteenth-century housing;
iii. to record any archaeological evidence relation to the late nineteenth-century Larkfield Mills; and
iv. to contribute to addressing research initiatives as identified by the North West Archaeological Research Framework (2007), considered to be of relevance to the site.

2.1.6 The initiatives identified in the relevant research framework specific to the site were as follows:

- *Initiative 7.24 Need to excavate urban cellars to examine life 'below stairs' in the middle-class house and cellar dwellings and workshops in working class houses;*
- *Initiative 7.25 Where threatened with possible redevelopment excavations are required of now undeveloped and cleared former working-class areas regarded as slums;*
- *Initiative 7.36 Studies of industrial landscapes should examine the presence of indicators of authority and social control to illuminate the wider impact of industrialisation on society in general and on individual communities.*

2.2 Methodology

2.2.1 The phase of archaeological evaluation was undertaken between the 11th and 15th February 2019. After consultation between Ecus Limited and GMAAS, a phase of expanded targeted excavation was rapidly agreed and enacted soon after, being completed between 11th and 29th March 2019.

2.2.2 The programme of archaeological evaluations involved the excavation of five, 20-30m trenches (Fig 2), at predetermined locations as set out in the WSI (Ecus 2019a; *Appendix B*). Trenches 1-3 targeted the footprint of the former Larkfield Mills complex and Trenches 4-5 targeted the footprint of back to back terraced housing as depicted on the 1893 OS map (Fig. 5) All work was undertaken in accordance with the agreed WSI, as well as relevant industry standards and guidelines (CIfA 2014a; 2014b; 2014c; 2014d; HE 1995; HE 2015).

2.2.3 Trenches 3-5 highlighted archaeological remains of significance and were subsequently subsumed by two open-area excavations (Areas 1 and 2) within the north-east and south-west portions of the site respectively (Fig. 2). The works were governed by a separate WSI (*Appendix C*). Area 1 measured *c* 20m x 20m, was slightly irregular in shape, and located in the north-eastern corner of the PDA, and consequently the eastern portion of the Larkfield Mills footprint. It specifically targeted the boiler house identified during excavation of Trench 3, as well as other structures presumed to be associated with the power source for the mill, including a chimney stack clearly identifiable on historic mapping (Fig 5). Area 2 comprised an L-shaped plot measuring *c* 20m along both the east/west and north/south axis, exposing the full footprint of housing to the south of Haigh Street and Back Durham Street respectively, as identified in the evaluation trenching and on historic mapping. The excavation of both the evaluation trenches and wider excavation areas followed similar principles as outlined below.

2.2.4 Prior to excavation, all trenches and excavation areas were accurately located using a pole mounted Global Positioning System (GPS), accurate to within +/- 0.02m, based upon locations outlined in the relevant WSI. Immediately prior to excavation, and at any point deemed necessary and appropriate during such works, each area was subject to scan using a C.A.T 4+ cable detection unit in order to attempt to locate any underground services. At this point, it was established that the original location for Trench 1 existed beyond the current site boundary. As a result, the trench was moved approximately 10m to the east and its final position re-surveyed.

2.2.5 All mechanical excavations were undertaken using a 13-tonne tracked excavator, fitted with a toothless ditching bucket, and overseen by the site supervisor. Where concrete, or similar obstructions were present, the upper surface was broken out with a hydraulic breaker before any overburden was removed in successive spits, of no more than 0.20m depth, down to the first significant archaeological horizons or natural deposits. Any excavations extending beyond a depth of 1m below ground level (bgl) and considered to be unsafe, for example due to the instability of edges, were recorded and immediately backfilled to a safe working depth.

2.2.6 Any exposed archaeological remains were subsequently manually cleaned and recorded. The extent of the excavated trenches and the location of any archaeological features were recorded using a pole mounted GPS system. Site and trench location plans were digitally recorded using photogrammetry, via pole-mounted digital cameras, and reproduced at an appropriate scale, accurately tied into the National Grid with spot heights on all principal features.

2.2.7 Archaeological features and deposits were recorded using a continuous numbered context system, on *pro-forma* recording sheets in accordance with the standard set by OA's recording manual based upon a system adapted from that used by the Centre for Archaeology Service of English Heritage. A full site archive including indices was also maintained. A full photographic record was maintained, using a Canon EOS digital SLR (18 MP). Photographs included a graduated metric scale with location, subject and context numbers recorded on *pro-forma* photographic index sheets.

2.2.8 The structural remains within Areas 1 and 2 were recorded using rectified photography and photogrammetric survey using an Unmanned Aerial Vehicle (UAV; a small remote-controlled drone) and additional digital photographs. Appropriate survey-control measures were established through the positioning of survey points. The position of these reference points was then surveyed using a GPS system to locate every record accurately. The survey data were then processed using appropriate computer software package (AgiSoft), which allows the production of detailed plans and elevations, as well as three-dimensional models (*see* Figs. 3-4).

2.2.9 A full professional archive has been compiled in accordance with both WSIs, and current CIfA guidelines (CIfA 2014d). The archive will be deposited with the Bury Archive Service on completion of the project. Copies of this report will also be sent to the GMAAS, for inclusion in the Greater Manchester Historic Environment Record (HER). In addition, the Arts and Humanities Data Service (AHDS) online database project *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The composite results of both the evaluation and excavation are presented below and include a stratigraphic description of each area of excavation that contained archaeological remains. The full details of all trenches with dimensions and depths of all deposits can be found in *Appendix A*.

3.1.2 Context numbers reflect the trench numbers unless otherwise stated e.g. pit ***102*** would be a feature within Trench 1, while ditch ***304*** would be a feature within Trench 3. Context numbers adopted within the subsequent expanded excavation areas were similarly designated, but differentiated by the use of higher number sequences, i.e. Area 1 context numbers started at ***1000***.

3.2 General soils and ground conditions

3.2.1 The stratigraphic sequence across all excavation areas was uniform. The natural geology of sandy gravels, where encountered, was overlain by re-deposited sandy gravels, which in turn was overlain by the intact structural remains, infilled with demolition rubble, and capped by hardcore and, in most places, tarmaccadam/concrete. Structures, where present, were generally cut into the natural substrate and infilled with the modern overburden.

3.2.2 Ground conditions throughout both phases of mitigation was generally good, and the excavation areas remained dry throughout. Archaeological features, where present, were easy to identify against the underlying natural geology and within the overlying modern overburden, primarily consisting of intact structural features, variably comprising mortared brick and/or cut stone.

3.3 General distribution of archaeological deposits

3.3.1 Archaeological features were present in all evaluation trenches. Trenches 1-3 contained both extant surfaces and structural remains pertaining to the former Larkfield Mills complex, extending in places to observable depths of between 2-3m bgl. Trenches 4 and 5 contained extant structural remains associated with cellars of the documented nineteenth century terraced housing. These were generally exposed at a depth of less than 0.50m bgl, but were not otherwise excavated during the evaluation, due to the restrictions of the trenches. During the expanded works, two cellar structures were sampled and found to extend to a depth of approximately 2m bgl. The location of trenches are featured in Figure 2, with the constituent features subsumed within those identified in the wider excavations.

3.4 Evaluation trenches

3.4.1 ***Trench 1***: (*see* Plate 1 and Fig 3) measured 20m x 2m, aligned north/south, and was located to the north-west of the study area. It was located in order to investigate the remains of buildings within the western extent of the Larkfield Mills complex. Unfortunately, the original location lay outside the current site boundary and Trench 1 was subsequently moved to the east by approximately 10m (see Fig 2). Archaeological remains were observed at shallow depths below a tarmac surface

extending across the entire trench. These included a sequence of overlying concrete surfaces ***103***, ***106***, ***107*** and ***108***. These were located within the northern and central areas of Trench 1 and each no more than 0.10m in depth. Surface ***106*** was noted to seal surfaces ***103*** and ***107*** which were probably the same surface. Surface ***108*** was distinguished from other surfaces by colour and fabric and probably represents a different phase of construction, or an amendment to ***106***.

3.4.2 Twol pillar bases (***104*** and ***105***) were also recorded within the trench. Both bases were similar in construction and located in close proximity on opposite sides of the trench within the northern half of Trench 1; they were bounded by concrete surfaces ***103*** and ***107***. Further excavations within the vicinity of ***104*** observed a substantial sandstone foundation below the base. This extended to approximately 3m bgl, where excavations were halted. A possible construction cut for this foundation was observed at a depth of approximately 1.50m.

3.4.3 Structures ***109*** and ***110*** formed the southern wall of the northern mill building with ***110*** forming a potential threshold or entrance extending into the western baulk. These features were bounded to the north by surfaces ***107***/***108***, and to the south by road surface ***111***. Structure ***109*** was constructed using large sandstone blocks and a light grey mortar. Only the upper surface of this wall was visible. Structure ***110*** represented a concrete addition to the line of wall ***109***, representing either a repair or modification to the original structure.

Plate 1: Trench 1, viewed facing north-east

3.4.4 The southern extent of the trench was marked by road surface ***111***, which extended from the southern face of wall ***109*** to the southern limit of excavation and was constructed using cobbled setts (Plate 1). The setts were aligned north-east/south-west and partially truncated to the north-west by the base of a concrete bollard (***112***).

Plate 2: Trench 2, viewed facing south

3.4.5 ***Trench 2***: (*see* Plate 2 and Fig 2) measured 20m x 2m, was aligned north/south and centrally located, within the northern half of the study area. The trench was located to investigate further aspects of both the north and south building range of the Larkfield Mills complex. Archaeological features were observed at varying depths, up to 0.70m below the modern tarmac surface and hardcore.

3.4.6 The main structural elements relating to the mill comprised walls ***204***, ***205***, and ***206***, all were located within the northern extent of Trench 2. Wall ***204*** formed the largest section, extending north/south down the centre of the trench, and was constructed using squared sandstone blocks, with individual dimensions of 0.40m x 0.25m, bonded with a lime-based mortar. It may have been truncated at either end and was butted to the west by two parallel short lengths of wall (***206***), which extended beyond the limit of excavation and were approximately 2m apart. Wall ***206*** was constructed using three stretcher skins of hand-made bricks, bonded with a lime-based mortar. The internal wall faces within this area were also painted. This would suggest that potential cellar space and/or access was present therein. The use of similar mortar would suggest the two wall types are contemporary and form an internal partition or free-standing structure within the main mill structure.

3.4.7 A 3m area to the south of ***206*** incorporated a localised deposit of demolition rubble and a single stone step. To the immediate south of this area, wall ***205*** extended across

the trench on an east/west axis and comprised well-dressed sandstone blocks bonded with a hard, light grey, mortar. The wall obviously forms the southern external wall of the northern range of mill buildings (see Fig 5) and was bounded to the south by an external cobbled surface (***207***).

3.4.8 Road surface ***207*** was located within the centre of Trench 2 and bordered by ***205*** to the north and the partially preserved structures ***210***/***211*** to the south. Surface ***207*** comprised sandstone setts, with individual elements measuring 0.28m x 0.19m x 0.09m, aligned north/south, with the original camber seemingly retained. Additional setts, aligned east/west, formed drainage channels at the northern and southern extent. Structure ***210*** comprised a small patch of both hand-made and 'frogged' bull-nosed bricks. These were laid in two surviving courses at the northern extent with a brick pilaster on the internal (southern) face. Structure ***211*** further to the south comprised a partially preserved sandstone flag surface extending on an east/west alignment. Both ***210*** and ***211***, while only partially preserved, can be seen to represent an extension of northern elements of structure ***1009***, and possibly wall ***1011***, identified during the Area 1 excavations further to the east (see *Section 3.5.22*). Collectively, these structures either define an external footpath bordering the southern extent of road surface ***207***/***1008***, or else an internal floor and possible dividing wall within the southern mill range. An interpretation as the later, is better supported by the cartographic evidence which positions ***210*** and ***211*** within the southern mill building (Fig 5).

3.4.9 The southern extent of this footpath was defined in Trench 2 by wall ***208,*** which extended across the trench on an east/west axis. Wall ***208*** was constructed using hand-made bricks bonded with a dark grey cement-like mortar. The bricks were 'soldiered' suggesting a foundation or load bearing coarse, but is set back from the northern extremity of the building when overlain on historic mapping, and therefore probably relates to an internal dividing wall. Potential partially preserved aspects of the same wall were observed as a single course of red brick, overlying elements of structure ***1013*** in Area 1 (see *Section 3.5.23*) and probably represents an internal dividing wall within a building of the southern mill range.

3.4.10 Immediately to the south of and butting wall ***208***, surface ***209*** comprised large flagstones, each measuring upwards of 1.05m x 0.65m, with no visible bonding agent. This surface extended almost to the southern end of Trench 2 and probably relates to an internal floor surface within the southern mill range, identified in Area 1 as further elements of surface ***1009*** (see *Section 3.5.22)*.

3.4.11 ***Trench 3***: (*see* Plate 3 and Fig 3) this trench measured 20m x 2m, was aligned north/south and located towards the north-eastern extent of the PDA (Fig 2and 3). The trench was located to investigate the eastern extent of the northern range of buildings belonging to the former Larkfield Mill complex. Excavations within the northern half of the trench extended to a depth of 2m bgl, where features were recorded and interpreted as boiler room furniture (see *Section 3.5.3*). Based upon the results of the evaluation, identifying the potential of the area as a power source for the mill and therefore of considerable interest to an understanding of the industrial infrastructure preserved on site, the area was subsequently targeted for further

excavation. *Section 3.5* describes the findings of those expanded works relative to Area 1.

3.4.12 ***Trenches 4 and 5***: (see Plates 4 and 5 and Fig 4) these trenches were located within the south-western quadrant of the development area and measured 30m x 2m and 20m x 2m respectively. Trench 4 was aligned north-east/south-west and Trench 5 approximately east/west. Both trenches were primarily intended to target a portion of the housing observed on the 1893 OS map, between Haigh Street and Durham Street (Fig 5).

3.4.13 Excavations within both trenches confirmed the presence of below ground remains in the form of walls and floor surfaces (Plates 4 and 5). Additionally, both trenches identified the use of cellared space within the footprint of several structures. Based upon the good level of preservation and the cartographic evidence highlighting differences in form between individual houses, Area 2 was targeted for further excavation, in order to fully realise the footprint of those structures observed. It was also agreed that a sample of one example of each different cellar type would be subject to excavation. *Section 3.5.32* describes the findings within Area 2.

Plate 3: Trench 3, viewed facing north

Plate 4: Trench 4, viewed facing north

Plate 5: Trench 5 viewed facing west

3.5 Open Area Excavations

3.5.1 ***Area 1***: was located across the north-eastern extent of the proposed development area, encompassing evaluation Trench 3 (Fig 2). The excavation area primarily targeted the boiler room identified in Trench 3, as well as a chimney and associated power systems observed on late nineteenth and early twentieth-century OS mapping. A variety of rooms and structures were identified during the course of the excavation (Fig 3), including nineteenth-century stone walling, twentieth-century brick walling, stone floors, machine bases and flue systems, which conform with the anticipated features. Together, these structures formed elements of the northern and southern range of mill buildings alongside ancillary structures associated with the former mill complex. Although no evidence for phasing or changing use of space is highlighted within the relevant OS mapping, the character and fabric of the physical remains may infer two distinct phases of construction or later remodelling, dating to the late nineteenth- and early twentieth-centuries, primarily identified in relation to the southern mill building (see *Section 3.5.20-3.5.31*).

3.5.2 ***Former Mill Building (Northern Range)***: the remains of the northern mill range were delineated by a substantial stone wall extending approximately east/west across the northern half of Area 1 and forming the southern elevation of the former mill (Fig 3 and 5). A right-angled, north/south aligned, return at the eastern extent of this wall, denoted the eastern limit of the building, with additional right-angled lengths forming rooms ***1004*** (east) and ***1005*** (west) within. These walls were all similarly constructed, measuring 0.60m in width and comprising square cut, coursed, sandstone masonry bonded with a lime-based mortar (Plate 6). A single, 1.15m wide stepped entrance was accommodated within the eastern elevation. Significant elements of these rooms could not be fully excavated due to the instability of several walls, the proximity of areas to site boundary walls, and the identified presence of asbestos materials within the infilling rubble. However, sufficient detail was revealed to be able to confirm the purpose of the rooms operating as a boiler (***1004***) and engine (***1005***) room for the mill.

*Plate 6: Room **1004**, viewed facing north-west, with main mill wall (bottom left), the eastern boundary wall and stepped access (bottom right), flagstone floor and boiler bays (centre), and dividing wall and room **1005** (background)*

3.5.3 Room ***1004*** lay within the footprint of evaluation Trench 3 (*see Section 3.4.12 above*) and formed what would have been the Larkfield Mills boiler room. The room measured 9m x 7m and was largely characterised by two rectangular, brick-built 'bays', which would have housed a pair of boilers. These were bordered to the south by a flagstone floor surface, which incorporated a sub-surface, stone-lined coal hopper (Plate 6).

3.5.4 Health and Safety issues considerably restricted investigations as part of Trench 3, but excavation was able to define elements of what was later revealed to be the eastern bay. This was defined by two parallel lengths of north/south aligned walls comprising hand-made red brick (***308***), and forming the western and eastern external bay wall. Along the internal surface of each wall an internal setting of refractory brick (***307***) formed two parallel and opposing plinths. The plinths were approximately 0.60m in width and were noted to have been truncated at their southern extent. The infilling material was not removed during the Area 1 excavation due to the subsequent identification of potential asbestos materials in the general infill of the area, and the proximity of works to the site boundary immediately to the north-east.

3.5.5 Expansion of the Area 1 excavations, revealed the western extent of room ***1004*** and confirmed the presence of a second boiler housing bay to the west of that originally identified in Trench 3. Excavations therein exposed a right-angled, return of wall ***308***, which formed the southern limit of the western bay. An additional, single course of refractory brick, returned northwards at the western extent of this wall and was bonded to the fabric of the stone-built western elevation of the boiler room, with a highly degraded grey mortar (Plate 7).

*Plate 7: The western return of wall **308** forming the southern extent of the western boiler bay, with the supporting boiler plinth (centre right), western boundary wall to room **1004** (background)*

3.5.6 A second set of refractory brick plinths and a refractory brick floor surface were also observed within the western boiler chamber (Plate 7). The plinths were 0.84m in width and spaced 1.10m apart. The southern extent of the plinths incorporated bull-nosed bricks to form a rounded corner. The eastern plinth also incorporated a row of refractory brick 'mountings' within the western edge of the upper surface (Plate 8). It is therefore evident that both boiler chambers were of identical construction.

3.5.7 As noted above (*Section 3.5.3*), the southern half of room ***1004*** contained a flagstone floor surface that bordered the southern extent of the boiler housing bays, extending up to the west, south and east boundary walls. Set within this floor, at a roughly central location, and bordering the southern elevation, was a large stone-lined sunken hopper. The structure was approximately 3.10m x 1.80m and 0.50m in depth. A set of vertical iron plates with flanged brackets were set between brick supports along the northern extent and the remaining three sides were angled to create a 1.90m x 1.20m stone lined base. A smaller recess was also observed to the northern extent and additional vertical plating was observed within the backfill between the boiler housing and the floor surface (Plate 9).

Plate 8: The supporting boiler plinths in the western boiler house bay.

3.5.8 This evidence suggests the location of the charging or stoking platform from which the two boilers would have been fuelled. The sunken hopper within the floor was heavily saturated with hydrocarbon residues and coal staining was noted along the northern face of the southern elevation, inferring that coal was delivered via the road (***1008***) and stored within this area. The iron plates and sequential recesses to the north may have been used as sluice gates with smaller holding areas used to channel coal towards the boilers under gravity.

Plate 9. Detail of the sunken coal hopper within room 1004 of the boiler house. Viewed facing north

3.5.9 A further feature observed within room ***1004*** was a large stone machine base identified within Trench 3 as structure ***306***. The machine base was located within the south-east corner of the room and constructed using two large cut stone blocks, approximately 1.85m x 1.40m. The base stood at 0.50m above the charging platform and was noted to have several holding pins along the upper surface, alongside socketed recesses within the western face at roughly floor level. The base was bordered to the east by a brick and stone-capped culvert or flue which extended up to the face of the southern elevation and then west along the northern internal face of the southern wall of the boiler room. A high-pressure cast-iron pipe was also observed within the south-eastern corner extending south through the wall and beneath road ***1008***.

3.5.10 Given the location and surrounding elements it may be inferred that this machine base housed a Shell and Tube Surface Condenser or Heat Exchanger (Plate 11). These pieces of machinery were designed to increase the efficiency of boiler systems and were common throughout the late nineteenth- and early twentieth-centuries. They worked by channelling exhaust steam or gas over water-fed tubes via a series of baffles. The heat from the exhaust gas would pre-heat the water on its way to the boiler and (in a condenser) would cool the steam enough that it would condense into a heated liquid, ready to be recycled back into the system.

*Plate 10. The machine base identified in room **1004**, with the stepped access to the room beyond, within the eastern boundary wall*

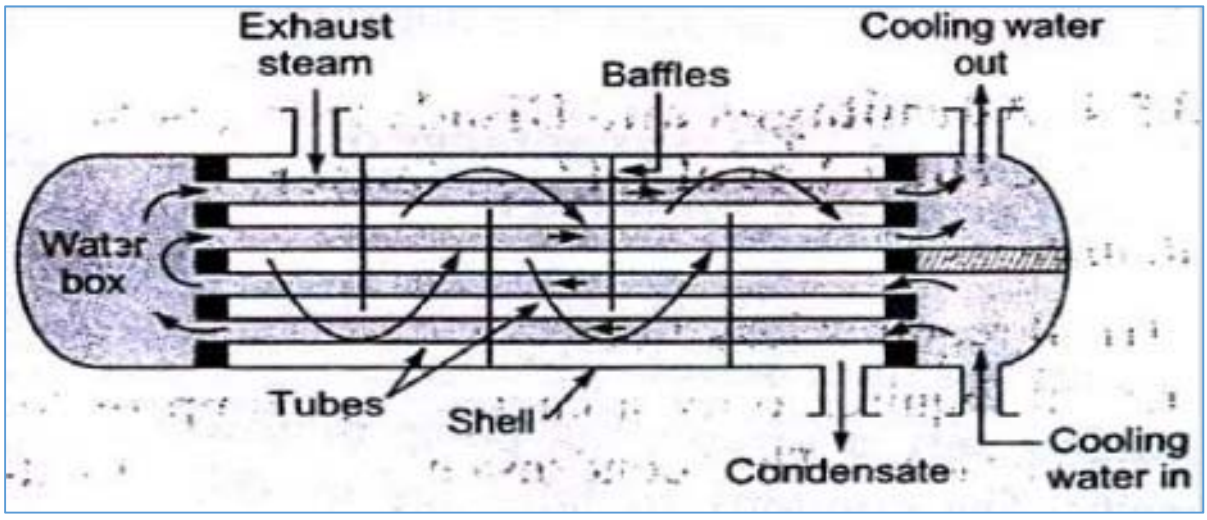

*Plate 11: An example of a Shell and Tube Condenser potentially similar to the one postulated to have been housed in room **1004***

3.5.11 Room ***1005*** was located to the west of boiler room ***1004*** and measured approximately 9m x 5m (Fig 3). The room was characterised by a series of substantial brick platforms or plinths, with a sunken iron base to the north, and a narrow recess to the east. A cast iron I beam formed structural support for any features to the southern extent of the room, where later phasing associated with external drainage was observed in and around the south-east corner (*see Section 3.5.26*). Unfortunately, this entire area was

sealed off for most of the excavation due to unstable fabric and the presence of potential asbestos materials within the backfill. As a result, any findings presented here are limited to approximate observations.

3.5.12 The dominating elements within room ***1005*** were two prominent brick structures, aligned north/south throughout the room. These features comprised a single brick plinth with stepped foundations to the north, and a larger, rectangular brick platform measuring 6m x 2m to the south. This larger platform was constructed with squared ends and a curved western edge. This was deliberately constructed to lean 'out' towards the stone wall marking the western boundary of the room, and the upper surface hinted at the construction of a vaulted or arched extension. A pair of Iron facets and associated holding pins were incorporated into the stone fabric of the boundary wall, directly opposite this architectural feature. Between the two brick platforms an iron plate was observed at a depth of 0.80m. All three structures contained iron holding pins within the upper surfaces.

3.5.13 When considered together, and based on their form and layout, it seems possible that these remains may relate to a horizontal tandem-compound steam engine (Plate 12). If this was the case, the northern base and platform would have secured the cylinders of the engine, whilst the platform to the south would have supported the piston with the flywheel occupying the space between it and the western stone wall. Regardless of the form of the engine, the array of internal fixtures, taken with the location and proximity of the boiler structures in room ***1004*** strongly suggests that room ***1005*** most likely housed the engine room that powered the former mill.

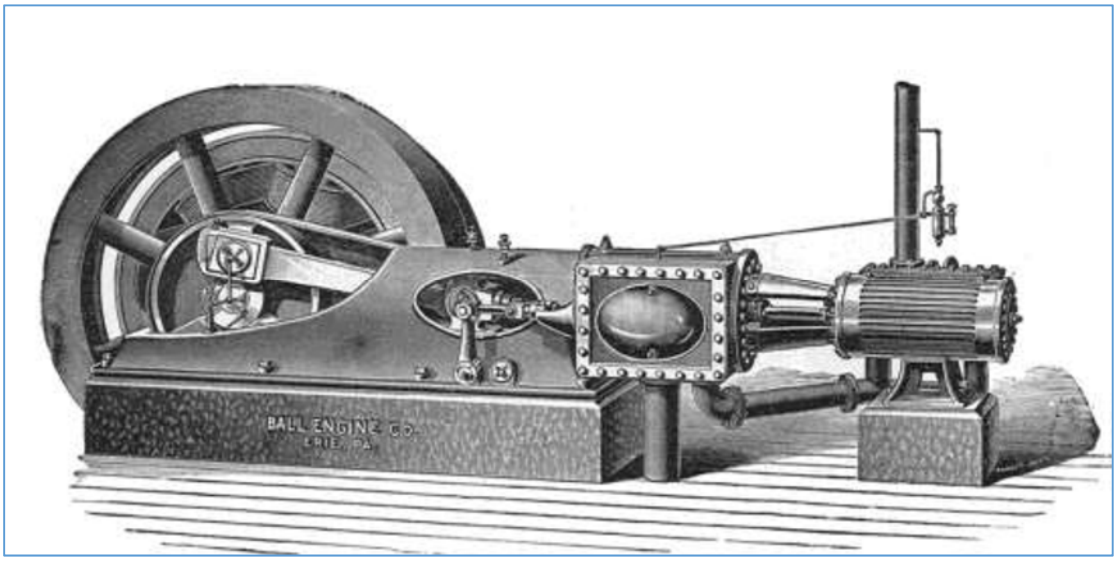

Plate12: An 1897 engraving of a tandem-compound engine, of a type that may have been installed within Room 1005

3.5.14 Parallel to and approximately 2m west of engine room ***1005***, a linear structure (**1006**) extended north/south (Plate 13 and Fig 3) for 6m. The feature comprised two parallel, walls of hand-made, machine-made and refractory brick, two-skin wide and less than a metre apart. The structure was closed at the southern end by a double skin section tied into both opposing walls, and with a short double skin section extending between the two approximately 2m further north. This created several internal cells

approximately 2m long and 0.60m wide. To the north, the structure was covered by damaged flagstones, potentially the remnants of capping extending the length of the feature. The structure has been interpreted as a potential flue system.

3.5.15 Two potential platforms or surfaces were noted at the southern extent, bordering a portion of the truncated western wall. Further truncation at the northern extent of the western wall seems to be contemporary with the partitioning of the internal structure, possibly to divert the flue to the north-west. This partition was constructed using machine-made brick and bonded using a dark grey mortar.

*Plate 13. Detail of structure **1006**, with room **1005** beyond. Viewed facing south east.*

3.5.16 The differing elements of feature ***1006*** suggest a prolonged use and maintenance of structural elements or a deliberate construction comprising re-used materials. Both inferences are common within industrial flue systems where exposure to excessive temperatures would quickly degrade their fabric. The potential surfaces at the southern extent of ***1006*** may be indicative of machinery being present. These surfaces comprised stone flags and soldiered machine-made bricks, which are generally associated with foundations or other structural supports. The partitioning and truncation at the northern extent, aligns with mortar scarring observed within the surface deposits to the immediate west and highlight the potential for further structural remains at additional depth.

3.5.17 The remains of several ancillary structures and surfaces were observed within Area 1 and included an octagonal chimney (***1007***), a service road (***1008***) and an external floor surface (***1018***) bordering an eastern annexe of the southern mill building (***1015***). As with engine room ***1005***, the deposits within the vicinity of the octagonal chimney

comprised suspected asbestos contaminated materials. This limited the amount of work done in the area.

3.5.18 Partially revealed against the eastern limit of excavation, a series of up to five skins of hand-made red brick, 0.90m wide, with an internal lining of refractory brick and bonded with a white lime mortar. This formed half of a octagonal structure with a diameter of approximately 4.60m (2.80m internally: Plate 14 Fig 3). The form and position of the structure can be readily related to position of a chimney, which presumably served boiler room ***1004***, as identified on historic mapping (Fig 5). A potential flue was observed to extend west from the western elevation of the chimney base. This sub surface structure was bordered by machine-made brick and capped with stone flags, but could only be partially excavated due to the presence of contaminants.

*Plate 14. The partially exposed base of chimney **1007**, with the flagstone capped flue extending west from its centre, and a further flagstone capped flue or culvert to the south.*

3.5.19 Extending west from chimney ***1007*** and between the northern and southern range of mill buildings was a cobbled surface ***1008***. This was formed by well-dressed sandstone blocks closely set with no clear bonding agent, divided into at least two distinct areas. The first can be defined as a small irregular shaped area, south of chimney ***1007***, with cobbled sets laid on a north/south alignment and extending up to wall ***1011*** and other structural elements of the southern range of mill buildings further to the west. This area appears to form a small courtyard area at the eastern end of the southern range of mill buildings, with a probable further flagstone footpath (***1018***), extending north-west/south-east at the eastern limit of the site. This flagstone footpath was further defined along the very limit of excavation by a 6m length of a wall, comprised of rough,

machine made red brick, bonded with a grey, sandy mortar with limestone inclusions. This wall appears to relate to the western limit of a further building extending east of the excavation area, as defined on historic mapping (Fig 5).

3.5.20 A second, more substantial area of cobbled surface ***1008***, 9m wide and between 15m and 20m long, extended directly west of chimney ***1007***, and separated the northern and southern range of mill buildings. This area was divided almost equally, with the eastern half defined by cobbled sets extending on an east/west axis, and the western half defined by cobbles set on a north/south axis, the dividing line corresponding with the boundary wall extending between room ***1004*** and ***1005*** of the northern mill range. The western half had been disturbed in the area of room ***1005***, although it was unclear if this simply related to damage during demolition or else defined a further structural element extending south of the room. This was not investigated due to the presence of asbestos contamination. The western half also contained a manhole cover clearly indicating the presence of drainage systems beneath the surface, possibly joining one or other of the culverts noted further west and abutting the chimney. The surface can clearly be related to similar surfaces further to the west, identified as ***207*** in Trench 2 (see *Section 3.4.8*), and ***111*** in Trench 1 (see *Section 3.4.4*), and clearly formed a service road between the two former mill ranges, with OS mapping suggesting an entrance at the western extent of the complex (Plate 15 Fig 5). This service road would have been crucial for the movement of materials within the Larkfield Mills complex (*see 3.5.8 above*).

*Plate 15. Cobbled road surface **1008** (left foreground), yard area **1018** (centre background), and elements of the southern mill buildings (right foreground and centre), under excavation. Viewed facing east.*

3.5.21 ***Former Mill Building (South Range)***: the northern external wall of the southern range of mill buildings was defined by wall ***1011***, which extended east/west along the

southern edge of cobbled surface ***1008***, before turning south and extending for approximately 5.5m. At its southern limit, the wall butts a further east/west aligned wall (***1014*** see *Section 3.5.24*). The wall varied between three to five skins wide, and comprised a mixture of hand-made and frogged red brick, the later primarily identified within the north/south aligned section, where several potential entrance ways are defined, providing access to the north-east from the road and yard surface defined by ***1008***. The frogged brick may indicate a phase of later modification or repair to this section of the building, perhaps providing or improving the access points identified above, and/or associated with modification associated with room ***1010*** (see *Section 3.5.25*).

3.5.22 The east/west-orientated section of wall ***1011*** aligns with structure ***210*** identified in Trench 2 (see *Section 3.4.8*). To the south of the wall, elements of a flagstone surface (***1009***) were partially preserved along most of its length and probably relates to a similar partial structure identified in Trench 2 (***211*** see *Section 3.4.8*). This surface is partially preserved in two further sections further to the south, the most southern of which extended along the northern face of wall ***1014***. This surface almost certainly relates to an internal floor within the southern mill range.

3.5.23 In areas where floor surface ***1009*** had been removed, primarily to the east of the building (Fig 3), several brick-built structures were identified (***1012***, ***1013*** and ***1016***), which, while firm stratigraphic relationships were largely missing, appeared to underlie the floor surface (***1009***), as well as the potential remains of a wall, identified as ***208*** in Trench 2 (see *Section 3.4.9*). All such structures comprised frogged red brick set with a dark grey mortar, in one or two skins width. Structure ***1013*** extended east/west for approximately 6m, visibly curving to the north towards the eastern end. In close proximity to and respecting this end of ***1013***, structure ***1012*** comprised two parallel rows of brick measuring up to 2.5m long and spaced approximately 1m apart, extending north-east/south-west. To the east of this structure and abutting the north-east end of the southern length of ***1012***, a rectangular structure (***1016***) was aligned north/south and extended towards wall ***1014***. This structure was distinguished by the use of a double skin of brick. The function of these structures is unclear, although the identification of fragments of sandstone flag, within the infill material between the two lengths of ***1012***, as well as the postulated position below flagstone surface ***1009***, might suggest a potential flue or capped culvert system, into which fragments of flagstone surface ***1009*** had collapsed upon demolition of the building. Alternatively, given the insecurity of the stratigraphic relationship with the floor surface, it is possible the structures instead define internal divisions within the wider room, possibly representing later modification of the layout.

3.5.24 Immediately east of structure ***1016*** and abutting the external eastern surface of wall ***1011***, a square structure defined an annexe room (***1010***) measuring approximately 3m x 2.50m (Plate 16 Fig 3). The southern extent of the room was also bonded to the northern face of wall ***1014*** and included a 0.60m wide concrete surface running east/west against its external northern face. The room may have been accessed via a break in wall ***1011*** to the west.

3.5.25 Room ***1010*** also contained a 2m x 1m rectangular structure extending from wall ***1011***, 1.50m north of wall ***1014***. All of the walls within room ***1010*** comprised machine-made

frogged brick, bonded with a dark cement mortar. The north-eastern corner of the structure was truncated by a ceramic drain. The materials used in the construction of room ***1010***, are the same as those used within the eastern length of wall ***1011***, suggesting they are contemporary, possibly representing a phase of modification to the original layout, although the form of this small annexe is evident on the earliest mapping of the southern mill building (Fig 5).

Plate 16. Detail of Room ***1010***. Viewed facing south-east.

3.5.26 To the south of the structures described above, and defining their southern extent, wall ***1014*** extended east/west through the centre of the observed mill footprint (Fig 4). It was approximately 10m long and 0.60m wide along its east/west axis, comprising hand-made bricks and square coursed stone forming the northern face. Three potential openings, marked by stone steps, were noted along its length, and possibly gave access between the area to the south and that defined to the north by wall ***1011***. Wall ***1014*** was evidently truncated at its eastern end by a modern inspection pit (manhole). Beyond this truncation a further 5m length of the wall extended south to the southern limit of excavation. It therefore formed a large internal room and the eastern external limit of the southern mill building, as can be identified on historic mapping (Fig 5).

3.5.27 Extending south from wall ***1014***, was a flagstone floor surface covering an area of approximately 10m x 4m (Fig 4). This floor was truncated in areas and extended beyond the southern and western limits of excavation. No additional features such as pillar bases or machine supports were observed within this area, perhaps indicating that this part of the mill was used for storage purposes.

3.5.28 Immediately east of and abutting the external eastern elevation of wall ***1014***, a further room was identified (***1015***: Plate 17 Fig 4). This room measured approximately 3.70m x 2.75m with the external defining wall comprising three skins of hand-made red brick set with a light grey lime mortar. The room contained a large stone base measuring 2.10m x 1.90m, with two threaded bolts, fitted around a large recessed slot, which had been cut into the western side. A set of stone steps formed an entrance within the eastern elevation leading on to the surface of the stone base from the external flagstone surface ***1018***. A 1m gap filled with demolition debris occupied the space between the stone base and the western elevation. (Plate 17). The room can be clearly related to a small structure appended to the eastern elevation of the main mill building on historic mapping, with several more smaller structures extending east beyond that (Fig 5)

*Plate 17. Detail of Room **1015**. Viewed facing north-east.*

3.5.29 Whilst room ***1015*** obviously housed some sort of machinery, as evidenced by the large machine base and fixtures, it is difficult to ascertain what that machinery may have been. The location and character may suggest that the area housed a rope race (Plate 18). Used in mills from the late nineteenth-century onwards, a rope race was used to distribute power through a vertical shaft, to the upper floors of a mill. In this instance, the wheel holding the rope may have slotted into the space between the machine base and the western elevation. However, it should be noted that these structures are generally found within close proximity of the engine room and the only power source observed during excavations was located within room ***1005*** within the northern range of mill buildings (*see Section 3.5.11*). This may suggest a further power source may have been housed within the building at the eastern limit of the site, potentially relating to wall ***1017*** along the eastern limit of the Area 1 excavations.

Plate 18: The fly wheel from a steam engine distributing power via a rope race (left) and an example of a rope race (right)

3.5.30 ***Area 2***: was located across the south-western extent of the PDA, encompassing evaluation Trenches 4 and 5 (Figs 2 and 4). The excavation area primarily targeted the footprint of housing along Haigh Street and Back Durham Street, with Coverdale Square and a north/south extension to Wilkinson's Yard extending between the two, as observed on late nineteenth-century OS mapping (Fig 5; also see *Appendix D*). A variety of rooms/structures were identified (Fig 4), including nineteenth-century stone walling, twentieth-century brick walling, stone floors and cellars. Together, these structures formed elements of the housing observed within the area as well as elements of the former street surfaces bounding them. Despite having slightly differing floorplans, common elements were noted including the use of 'half' cellars throughout. As per the WSI, after removal of modern overburden across the area had been achieved and the general ground plan of the structures exposed in their entirety at this level, a sample of two cellars was subject to further excavation by machine. These were primarily targeted upon structures within the southern terrace, due to the visible presence of asbestos contamination within many of the cellar infill deposits in the northern range. The targeted cellars comprised structures ***2018*** and ***2021***, within the terraced row extending along Durham Street (Fig 4). These structures were recorded by digital photography, but were not otherwise manually cleaned, due to prevailing health and safety considerations, which saw them rapidly backfilled soon after.

3.5.31 Occupying the extreme north of the excavation area, a deposit of demolition rubble (***2003***), extended across the excavation area and to a point approximately 3m south of the northern limit of excavation (Fig 4). This butted against the remains of a wall (***2027***), which extended east/west across the excavation area and was identified as ***405*** within Trench 4. The wall comprised four skins of machine made red brick approximately 0.50m wide, and can be firmly related to the southern external wall of the southern range of mill buildings on historic mapping (Fig 5 Plate 19).

3.5.32 Immediately south of wall ***2027***, a series of surfaces defined a road surface (Structure ***2005***), comprising central sets of well-dressed sandstone blocks, laid running north/south (Fig 4: Plate 19). This was bracketed to the north and south by a series of well-dressed sandstone blocks, laid running east/west and forming a curb line either side of the road, with the remains of a flagstone footpath also on either side. To the north, the footpath butted against the southern mill wall (***2027***). These remains can clearly be related to the former line of Haigh Street, which previously ran through the PDA on an east/west alignment and divided the buildings of Larkfield Mill from the rows of terraced workers housing to the south (Fig 5).

*Plate 19. The remains of Haigh Street (Structure **2005**). Viewed facing south-east.*

3.5.33 Immediately south of road surface ***2005***, a series of structural remains (***2006***-***2012***; Fig 4), generally arranged from north to south respectively, were identified extending south for a total of approximately 25m, before ending along the northern edge of a structure clearly forming another road surface (***2017***). These structures had previously been partially exposed down their central line within Trench 4.

3.5.34 Expansion of their footprint within Area 2 revealed, at a general level, that the structures formed a series of four adjoining rectangular blocks, each extending on an east/west axis. The blocks had been collectively truncated along their western edge by modern activity, relating to the construction cut for a building, believed to be a garage, as noted on historic mapping of the site from the late twentieth-century (Ecus 2019). This general truncation aside, the footprint of each block was relatively well preserved, with only intermittent sections of walling absent, presumably because of varying degrees and depths of demolition activity and resulting variable levels of preservation.

The four blocks were almost identical in lay out and a general description will be provided that can be applied to each unit (Fig 4).

3.5.35 The general form of each structure comprised a 10m x 5m rectangle, divided into two roughly equal halves, by a single north/south aligned central wall. In addition, the eastern half of each block was further subdivided into two equal sections by a central east/west aligned dividing wall, absent within the area of structure ***2010*** (Fig 4), although this may simply be a result of preservation rather than structural difference. All walls were constructed from hand-made red brick bonded with a light grey lime mortar, with each separate block seemingly tied into adjoining blocks, suggesting all four were constructed at the same time. Within the eastern half of each block, as well as the external walls at either end of the entire range, the walls were predominantly two skins wide, while the majority of internal dividing walls were generally only one skin wide (see Plate 20). This difference supports the notion of cellared space, with a probable vaulted roof, exclusively within the the eastern footprint of each building.

*Plate 20. The eastern half of structure **2007** and **2008**. Viewed facing south-east.*

3.5.36 A limited series of internal features were observed within each block which were mirrored throughout each layout, again supporting the notion of contemporary construction. In the western room of each block two short, parallel lengths of brick built wall, approximately 1m apart, extended north from the centre of the southern wall (Plate 21). Occasionally, the remains of a brick built surface was observed within the projecting structure, with some signs of heat damage to the surface. Within structure ***2009*** this also included evidence for a pot boiler, which, by extension, was probably a common feature of all four buildings. These features clearly relate to the position of fireplace constructed against the southern wall of each building,

presumably at ground floor level, although very limited evidence for any wider floor surfaces at this level was preserved. This would suggest the western undivided rooms within each building served as the living room for each.

*Plate 21. An example of a fireplace recorded in the western half of structure **2006**. Viewed facing south.*

3.5.37 A further common feature was the remains of a brick-built rectangular structure, approximately 1.5m long and 1m wide, and aligned north/south (Plate 20 Fig 4). The structures are evident within the eastern half of each building, situated within the south-western corner of the southern division. The most northerly building (2006) also contained remains of a second structure, situated within the south-western corner of the northern division. Given the similar nature of each building footprint this would suggest that further structures of this nature were originally present within the northern division of each building. In some instances, the central area created by these rectangular structures, was found to contain the remains of sandstone blocks forming presumed steps. This indicates that the footprint of the eastern half of each building contained cellared space divided into two rooms and accessed via one or more sets of steps along the western limit. The presence of the cellar space is further indicated by the limited preservation of additional brick coursing evident along the internal side of eastern room ***2010***, suggestive of the presence of a vaulted roof to the cellar space. This might also account for the greater thickness of the walls within the eastern half of each building.

3.5.38 After a site meeting with Ecus and GMAAS, it was decided not to excavate an example of the cellar rooms in this range, due to the abundance of asbestos materials within many of the infilling rubble deposits. However, the evidence, as limited as it is, would

suggest a similar arrangement to those examples (structures ***2018*** and ***2021***) sample excavated within the southern range of buildings.

3.5.39 The four buildings within this north/south aligned range, can clearly be related to the four terraced houses identified on historic mapping (Fig 4) extending between Haigh Street (***2005*** see *Section 3.5.32*) to the north, and Back Durham Street (***2017*** see *Section 3.5.40*) to the south. The archaeological and cartographic evidence indicate these houses formerly fronted west on to Coverdale Square. The mapping indicates a basic paired opposing L-shaped layout, with a square section between and to the rear, along the former line of Wilkinson's Yard. This plan and the apparent presence of potential entrance points to the cellar areas, represented by breaks in the eastern walls of the range, was originally interpreted as potentially indicating the presence of buildings fronting on to Wilkinson's Yard, and positioned within the square section between the L-shaped buildings. However, given the vagary of the historic mapping, it is more likely that these square areas relate to a shared external yard space, perhaps with external toilet facilities, as was common practice among terraced housing of this period, and is still evident to some extent within surviving terraced housing in the area. The gaps interpreted as potential access points within the cellar walls, and resulting in a contextual separation of the eastern half of the building footprints, may, therefore, instead relate to either variation in preservation, or else indicate the presence of coal chutes, similar to those identified in structure ***2018*** (see *Section 3.5.44* below).

3.5.40 Extending east/west across the excavation area, and marking the southern extent of the range of structures defining the row of terraced housing detailed in *Sections 3.5.34-3.5.39* above, was structure ***2017***. This comprised a series of well-dressed sandstone blocks, laid running north/south (Plate 22), to form a road surface approximately 7.50m x 1.86m in size. A section of constructed subterranean gutters flanked either side of the surface, with the remains of a covering flagstone surface only partially preserved towards the eastern limit of excavation, but obviously had extended the entire length of the former structure. These structures had been truncated towards their western limit by the construction cut for the modern building, noted to have removed elements of the structures to the north and south-west (see *Sections 3.5.34* and *3.5.41*). The cobbled surface obviously correlates with the position of Back Durham Street identified on historic mapping (Fig 4 and 5) and, consequently, previously divided the two rows of terraced housing targeted by the excavation.

Plate 22. Structure ***2017***, the remains of Back Durham Street. Viewed facing east.

3.5.41 Immediately south of the remains of Back Durham Street (***2017***) a series of structural remains were recorded extending from east to west along the entire length of the southern leg of excavation Area 2 (structures ***2018-2026*****:** Fig 4). This group of structures formed a range of buildings extending west between the former line of Back Durham Street and Durham Street (Figs 5). The remains had been partially revealed within Trench 5 (see *Section 3.4.12*), which also extended for a further 10m beyond the western limit of excavation for Area 2, revealing further elements of the same (Fig 4). Within Area 2, these structures had been collectively truncated along their northern limit, west, beyond the surviving line of ***2017***, by modern activity noted elsewhere (see *Section 3.5.34* and *3.5.40*). Elements of the structures were also recorded extending south beyond the limit of excavation, and only the northern half of the footprint of each individual building was therefore exposed within Area 2.

3.5.42 Despite the limitations noted above, the physical remains and cartographic evidence indicate that the footprint of individual buildings within this southern range, were similar in plan to those examined further north (see *Section 3.5.33-3.5.39*), although many do not appear to display the L-shape form and consequently may have lacked the postulated external yard space. They therefore comprised adjacent individual rectangular blocks, this time aligned north/south, with some variation in size and, for the most part, exceeding the dimensions of individual buildings within the northern range. The defining walls of each building were principally constructed using hand-made redbrick, up to two skins wide, bonded with a similar light grey lime mortar, and tied into adjacent structures, again indicating a contemporary phase of construction. In slight contrast to the northern range of buildings, individual examples were also noted to incorporate sections of foundation wall formed with well-dressed sandstone

blocks (see *Section 3.5.44*). This could demonstrate a different phase of construction to the northern range of buildings, perhaps even differentiation in the status of occupants (the slightly larger size and stone-built foundations of some of the southern range of buildings perhaps intended for occupation by foremen or other workers holding positions of authority). However, it must be noted that the full extent of the foundations within the northern range, and indeed the majority of the southern range, were not fully exposed and could also easily incorporate sandstone elements at depth.

3.5.43 Mirroring the footprint of the northern range of buildings, individual buildings within the southern range were also further divided into two halves, defining a series of northern and southern rooms. However, only the northern rooms of this footprint were exposed, fully or in part, within the excavation area, with only limited sections of the southern rooms observed extending beyond the limit of excavation. Few of these northern rooms displayed evidence for a further partition, although west of ginel ***2023***, rooms ***2024*** and ***2025*** probably reflect such a division of one property, and further excavation of structure ***2018*** and ***2021***, confirmed the presence of a north/south aligned central dividing wall within the cellar base. It is therefore likely that all the northern rooms in this range were similarly divided as per the northern range.

3.5.44 Located at the eastern limit of the southern range, the footprint of structure ***2018*** represented one of the best-preserved and most accessible examples (Fig 4). The structure was therefore targeted for further mechanical excavation and its description below will serve as a guide to the layout of rooms in this range (Plate 23). The structure was excavated to a depth of approximately 1.5m below the general level of excavation in Area 2, at which point a flagstone floor surface was exposed and formed the base of the cellar structure. The basic floorplan of this structure measured approximately 3.40m x 4.30m and was bisected by a central brick partition along the north/south axis. The room was bounded by 0.40m wide stone walls comprising rough cut, squared, and partially coursed sandstone blocks, bonded with a lime-based mortar. The northern elevation was found to incorporate two, small 'coal chutes' roughly 0.60m wide and extending into the footpath of Back Durham Street to the north (***2017***: Plate 23). The southern extent incorporated a set of cellar stairs descending into the partitioned cellar, presumably providing access from the southern room. These were constructed using hand-made brick with stone steps and bonded with a lime-based mortar. The layout of Cellar ***2018*** was identical in form to the second structure also subject to mechanical excavation (cellar ***2021***) further to the west.

Plate 23. Structure ***2018***, featuring the steps set in the southern elevation (background), and coal chute (foreground). Viewed facing south-west.

Plate 24. Structure ***2019***. Viewed facing south-east.

3.5.45 Extending for approximately 12m to the east of ***2018***, a series of four other rooms, of comparable size, were defined by a combination of red brick and stone walling (***2019***, ***2020***, ***2021***, and ***2022*** from east to west), Within this range structure ***2020*** *(Fig 4 Plate 24)* was distinguished by the presence of various internal fixtures, including a single short buttress for a probable fireplace, extending west from its eastern boundary wall, together with a red brick built square structure, with a central recess containing ash and cinder deposits, probably indicative of a pot boiler. The presence of these elements at this level, with no visible floor surface preserved, would suggest an absence of a cellar within this northern room. However, immediately west of this, structure ***2021*** was subject to further sample excavation and established the presence of a cellar room, identical to that of ***2018***.

3.5.46 The western limit of this range of buildings was defined by the presence of structure ***2023*** *(Plate 25)*: This structure formed a covered ginnel observed on historic mapping (Fig 4 and 5) and probably incorporated into the first-floor footprint of structure ***2022*** to the east. The structure was bounded to the east by a single skin partition wall and to the west by a two-skin brick wall, originally observed within evaluation Trench 5 as ***506***. Both were constructed using hand-made bricks and bonded with a lime-based mortar. The internal floor surface (***503***) comprised flagstones with an average size of 1.60m x 0.88.

Plate 25. Flagstone surface ***2023*** representing a probable ginnel dividing the row of terraced housing along Durham Street. Viewed facing south.

3.5.47 To the west of ginnel ***2023***, a further series of structures (***2024-2026***) extended to the western limit of Area 2. This sub-set of houses shared a similar footprint as those observed to the east of ginnel ***2023***, but were solely constructed using hand-made red

brick at this level. The northern extent of this sub-set was truncated by the foundation cut for a modern building with the best examples observed in structures ***2024*** and ***2025***.

3.5.48 Structure ***2024*** measured approximately 1.62m x 3.36m and was bounded to the east and west by two-skin brick walls (Fig 4 Plate 26). A single skin partition bordered to the south with a 0.75m wide stairwell (descending west/east) observed along the northern face. The presence of the stairwell indicates cellar structures continued to feature among the buildings in this area.

Plate 26. Detail of the east/west aligned stairwell within Cellar ***2024***. Viewed facing south.

3.5.49 Structure ***2025*** measured approximately 2.34m x 3.36m (Plate 27) and had been identified in Trench 5, where it was found to be bounded by single skin red brick partition walls to the west (***506***) and south, the eastern boundary (**505**) being shared with that of structure 2024. No additional elements were noted during the excavation, but cellar ***2024*** was clearly accessed from this room, suggesting a mirrored footprint with ***2026***, which was located immediately to the west and extended beyond the limit of excavation in this direction.

3.5.50 A series of two or more structures were identified within Trench 5, beyond the western limit of excavation for Area 2 (see *Appendix A*). While these remains were only partially exposed in the trench, they appear to conform with the general footprint of the structures exposed more fully further to the east.

3.5.51 As previously noted, the southern range of buildings within Area 2 and Trench 5 can be directly related to the row of terraced housing extending along and fronting onto Durham Street on historic mapping (Fig 5). The footprint of these houses was broadly

analogous with the northern range, appearing to have a rectangular footprint, further subdivided into roughly equal halves, with cellar space to the rear, further partitioned along the central axis of the building. They did differ from the northern row of terraced houses in some elements, with certain buildings within the eastern half having been constructed with sandstone foundations, and generally being slightly larger in proportions. In addition, the majority of these houses do not appear to have the L-shaped configuration identified on historic mapping relating to the northern terrace. This may indicate a different phase of construction to the northern range, or else perhaps denote slight differentiation in the status of intended occupants.

Plate 27. Cellar ***2025*** (centre), with cellar ***2024*** (centre left), ginnel 2023 beyond, and cellar ***2026*** (center right). Viewed facing south-east.

3.6 Finds summary

3.6.1 No finds were identified or recovered during either phase of investigation. This is unsurprising given the relatively low number of cellar structures fully excavated as per the WSI, as well as the general nature of the back-fill deriving from demolition of the buildings during the later twentieth-century.

4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 In general, field investigations were conducted successfully with nineteenth and twentieth-century structures surviving at reasonably shallow depths and clearly identifiable against the infilling demolition deposits, as well as any underlying natural substrate. Targeted structures pertaining to the nineteenth-century Larkfield Mills complex and associated workers' housing were observed within each evaluation trench and, subsequently, within the expanded excavation areas, with good levels of preservation throughout, and easily relatable to the evidence of historic mapping.

4.1.2 Problems were encountered with regards to some of the trench locations and potentially live services. Consultation was sought where trenches needed to be re-located, but ultimately this had very little impact on the overall results.

4.2 Evaluation and excavation objectives and results

4.2.1 The specific aims of the evaluation were:

i. To identify and record any archaeological deposits, structures or built fabric within the identified areas of interest;
ii. To determine the extent, condition, character, significance and date of any encountered or exposed archaeological remains;
iii. To identify mitigation strategies to ensure the recording, preservation or site management of archaeological remains within the site.

4.2.2 The excavations within evaluation Trenches 1-5 confirmed the presence of substantial archaeological remains pertaining to the Larkfield Mills complex and the associated workers housing along Durham and Haigh Street. Of particular interest in relation to the Larkfield Mill complex was the potential remains of a boiler house identified within Trench 3, which offered potential for the investigation of any power source for the mill. As a result, and after consultation with GMAAS and Ecus Limited, a secondary phase of archaeological works in the form of a strip map and record was undertaken over two areas.

4.2.3 The specific aims of the expanded excavation were:

I. to identify and record any archaeological deposits, structures or built fabric within the identified areas of interest;
II. to determine the extent, condition, character, significance and date of any encountered or exposed archaeological remains;
III. to accurately record the location and stratigraphy of areas excavated during groundworks;
IV. to recover artefacts disturbed by the site works;
V. to recover samples from sealed waterlogged contexts for environmental processing;
VI. to prepare a comprehensive record and report of archaeological observations during the site work; and
VII. to identify mitigation strategies to ensure the recording, preservation or management of archaeological remains within the site.

4.2.4 The expanded works comprised Area 1; targeting the observed remains of the boiler house and any other associated structures pertaining to the Larkfield Mill complex (see *Sections 3.5.1-3.5.31*), and; Area 2; targeting the full footprint of those houses observed within Trenches 4 and 5. Excavations within Area 2 also included the excavation of an agreed sample of cellared spaces, specifically those relating to rooms ***2018*** and ***2021*** (*see Sections 3.5.32-3.5.47 above*). The expanded excavations in Area 1 confirmed and expanded upon the detail of the boiler house identified in Trench 3, revealing further elements of boiler bays, machine bases, and other details, identifying several bays believed to house individual boilers, as well as a machine base, probably to house a steam engine, and various other elements relating to the mechanics of power distribution, as well as fuel and waste management. This evidence allowed reasonable inference as to the original form of the boiler and engine components. Beyond the boiler and engine room further infrastructure was also revealed, including an associated chimney base, a road and yard surface, and further elements of the southern mill complex. The expanded works in Area 2 revealed large sections of the full footprints of each of the terraced houses revealed in Trench 4 and 5, providing further detail of their construction and phasing.

4.3 Interpretation

4.3.1 **Lark Field Mills:** it is evident from the documentary and cartographic evidence (*Ecus 2019 Appendix D*) that the Larkfield Mills Complex was established as a cotton spinning mill during the latter half of the nineteenth-century. Trade directories first highlight the presence of the working mill in 1891 where 'Larkfield Mills' is listed under the ownership of 'J & G Walker limited' (Cotton Spinners & Manufacturers' Directory, Lancashire, University of Leicester 2019). Larkfield Mills operated under the same ownership until 1947 when a letter, published in The London Gazette (29th July 1947 p.3559) confirms the appointment of liquidators for the voluntary 'winding up' of the company, a date which coincides roughly with the demolition of the southern mill building between the 1933 and 1959 as identified relative to OS maps (Ecus 2019, Fig 5).

4.3.2 Trenches 1 -3 of the evaluation successfully identified significant structural elements of the Larkfield Mill complex (Fig 3 and 5), which can easily be situated relative to historic mapping due to preserved load baring walls and other significant elements, such as the cobbled road surface bisecting the northern and southern mill complexes. Significantly, Trench 3 identified elements of the boiler house, forming an important component of the power source for the mill. Consequently, the Area 1 excavations were targeted upon this location and successfully uncovered further elements of the eastern end of the mill complex, providing additional evidence for the location of the engine and boiler house, as well as an external chimney base, which could also be related to the cartographic evidence and presumably was connected to the boiler room via a series of underground flues, some of which were partially identified within the surrounding cobbled surfaces. In addition, further elements of the southern mill complex were also identified showing some signs of modification and truncation by later twentieth-century activity. No evidence was revealed as to the function of the southern mill structures, although a potential use as storage facilities was inferred in relation to some rooms.

4.3.3 **Domestic Housing**: the housing encountered within Trenches 4 and 5, and subsequently expanded upon in Area 2, can be divided into two sub-sets relating to the different trows of terraced housing identified in the historic mapping. Each row of terraced housing appears to have been constructed in a single phase, with individual buildings tied into adjacent structures and sharing almost identical footprints throughout. Some differences were noted between the northern and southern terraces, with some examples within the southern terrace demonstrating construction with a sandstone, rather than all brick foundation, and generally being slightly larger than the northern counterpart. The mapping may also indicate a slightly different L-shaped layout within the northern range, perhaps indicative of the provision of shared external yard space, by inference suggesting the absence of such space among some southern buildings. These difference may suggest the terraces were built during differing phases of the expansion of workers housing, or else potential differences in the status of intended occupants. With this said, very little phasing was observed within individual structures and the fabrics used can be broadly attributed to the mid-late nineteenth-century onwards.

4.4 Significance

4.4.1 The programme of archaeological works undertaken at Durham Street, Rochdale, have highlighted that archaeological remains pertaining to the Larkfield Mills complex and associated terraced workers housing, survived to a high degree across much of the PDA. These features took the form of intact floor surfaces, stone and brick walls and cellars, with relatively limited evidence of modification or addition. Of particular interest were those structures associated with the powered systems used throughout the Larkfield Mill Complex. Whilst not warranting any further analysis or publication, the results of this programme of archaeological works will contribute to the growing body of archaeological data relevant to the industrial development of Rochdale in the late nineteenth-century.

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6 FIGURES

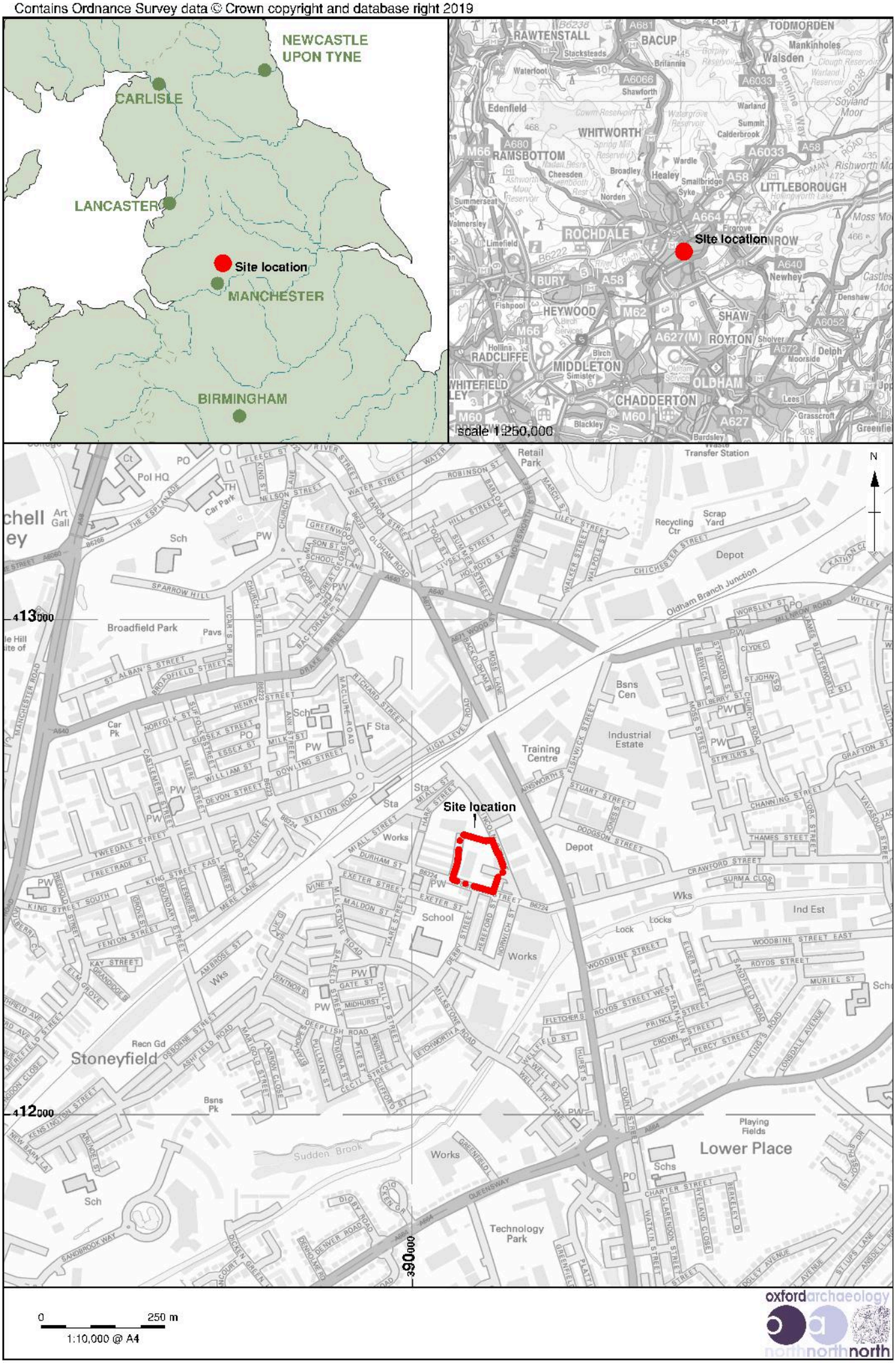

Figure 1: Site location

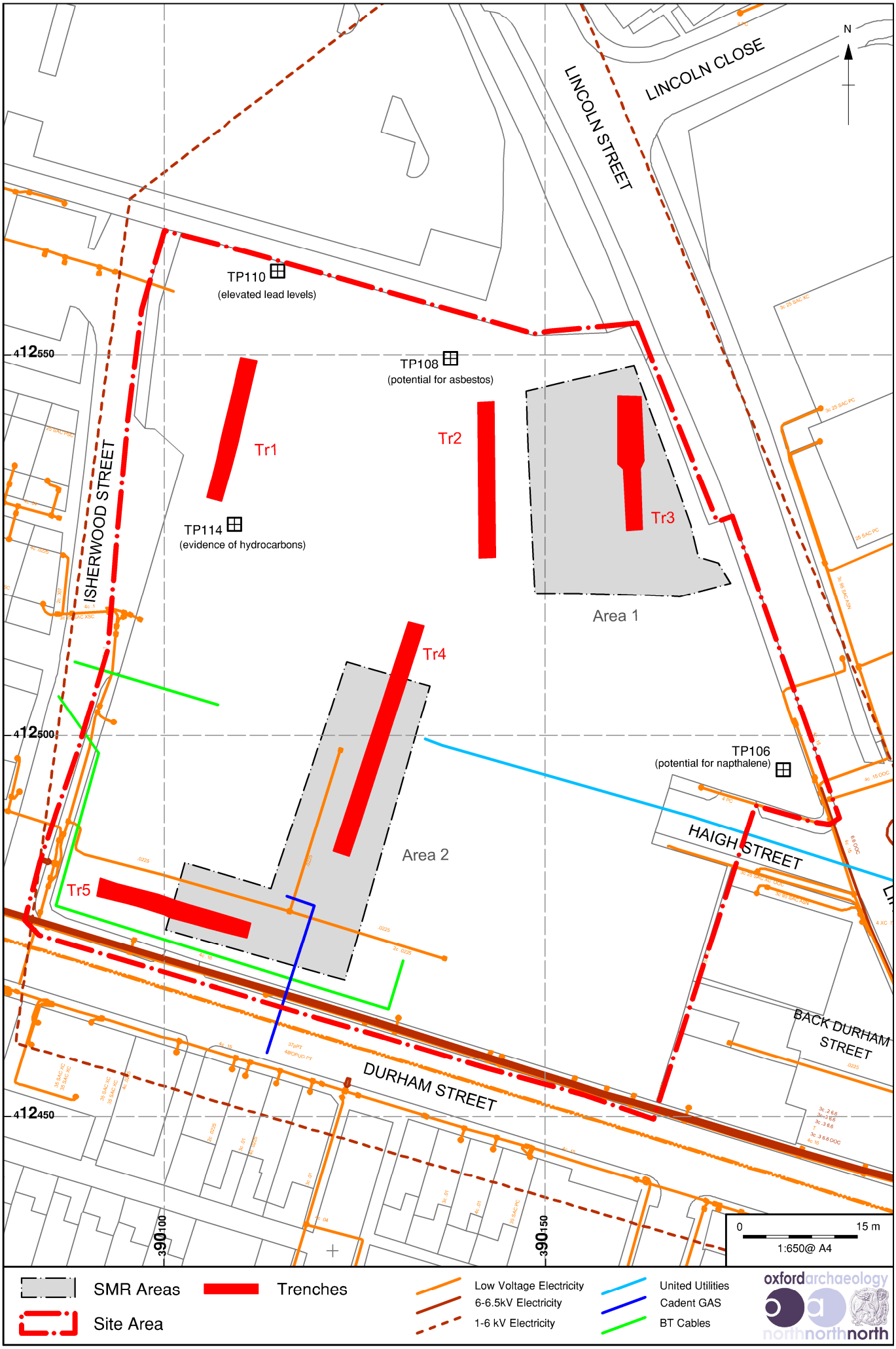

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Fig 2 Location of Strip, Map and Record Areas, and Evaluation Trenches

Level_Number	Height (mOD)	Level_Number	Height (mOD)	Level_Number	Height (mOD)
1	140.46	36	141.99	76	141.96
2	140.11	37	141.93	77	142.35
3	140.17	38	141.62	78	142.18
4	140.26	39	141.91	79	142.10
5	140.37	40	142.03	80	141.98
6	140.73	41	141.13	81	141.98
7	141.39	42	141.89	82	142.13
8	140.44	43	142.05	83	142.00
9	140.31	44	142.05	84	141.90
10	139.95	45	141.97	85	141.85
11	142.26	46	141.98	86	142.02
12	140.17	47	141.78	87	142.10
13	141.19	48	141.82	88	142.23
14	141.50	49	141.89	89	142.17
15	141.55	50	141.99	90	142.20
16	141.38	51	141.98	91	142.24
17	141.46	52	141.90	92	142.27
18	142.03	53	141.83	93	142.22
19	141.92	54	141.83	94	142.27
20	141.97	55	142.33	95	142.19
21	141.48	56	141.86	96	142.24
22	142.34	57	141.81	97	142.19
23	141.90	58	141.90	98	142.02
24	141.88	59	142.21	99	141.93
25	141.70	60	141.84	100	141.67
26	141.74	61	141.78	101	141.46
27	141.86	62	141.85	102	140.96
28	141.74	63	141.85	103	141.10
29	140.93	64	141.90	104	141.07
30	141.88	65	141.89	105	140.38
31	141.77	66	141.61	106	140.44
32	141.88	67	141.92	107	139.70
33	142.27	68	141.92	108	142.07
34	141.94	69	141.89	109	142.23
35	142.06	70	141.94		

Area 1 Levels

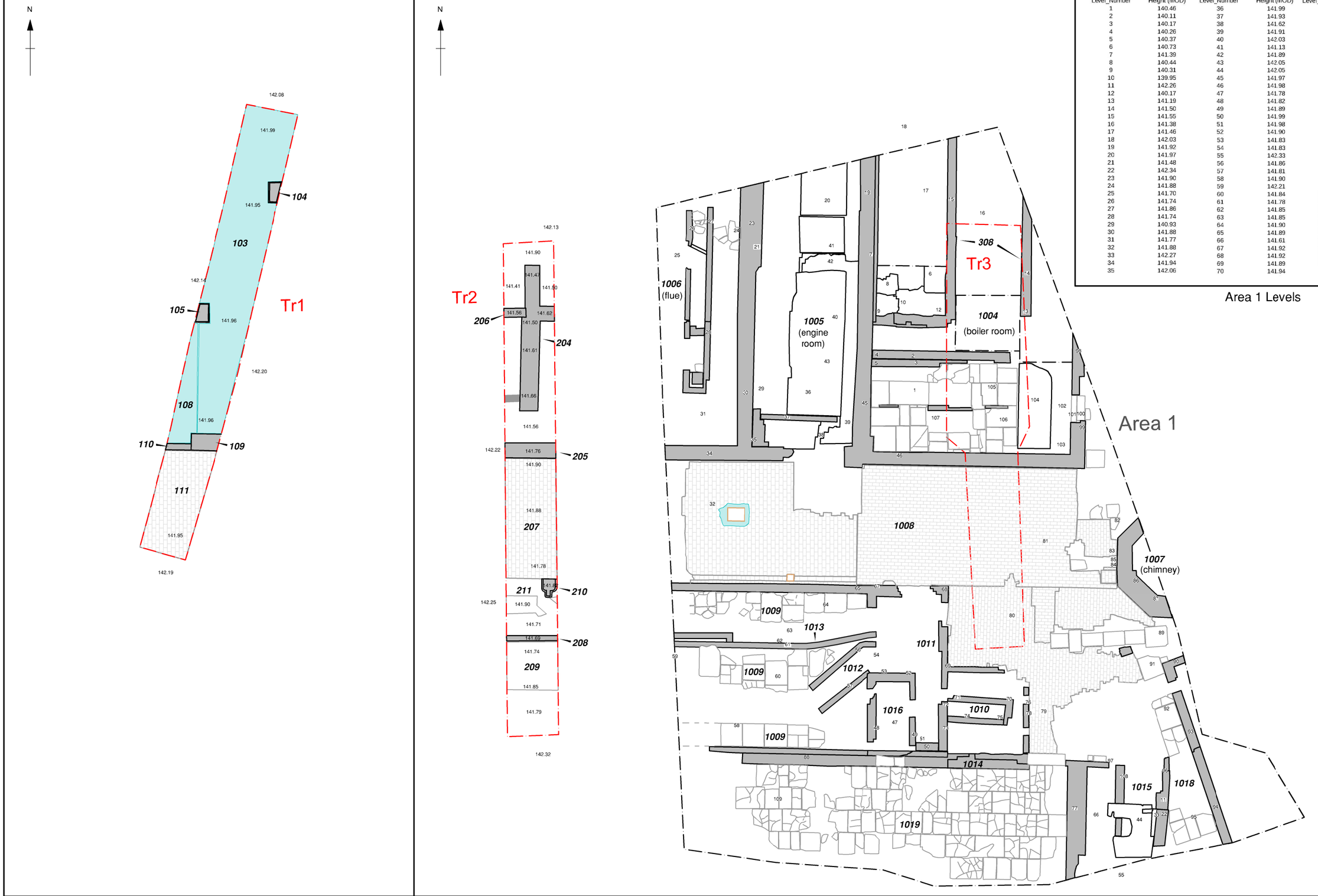

Figure 3: Archaeological remains revealed in Area 1 and Evaluation Trenches 1 and 2

Level_Number	Height (mOD)	Level_Number	Height (mOD)	Level_Number	Height (mOD)
1	142.57	53	142.01	105	141.81
2	142.28	54	142.34	106	141.89
3	142.07	55	142.05	107	142.00
4	142.03	56	141.77	108	141.92
5	141.78	57	141.99	109	141.98
6	142.06	58	141.86	110	141.95
7	142.02	59	142.03	111	141.95
8	142.04	60	142.11	112	142.01
9	141.94	61	142.17	113	141.92
10	142.09	62	141.98	114	141.93
11	142.07	63	142.04	115	141.91
12	141.99	64	141.72	116	141.93
13	141.84	65	142.15	117	141.96
14	141.83	66	142.15	118	141.96
15	141.65	67	142.21	119	141.94
16	141.75	68	142.18	120	141.90
17	141.74	69	142.07	121	141.89
18	142.00	70	142.17	122	141.95
19	142.01	71	142.06	123	141.92
20	142.01	72	142.00	124	141.95
21	141.92	73	142.03	125	142.00
22	142.06	74	142.12	126	142.01
23	142.29	75	142.09	127	141.97
24	142.08	76	142.17	128	141.98
25	142.03	77	142.10	129	141.89
26	142.08	78	142.07	130	141.83
27	141.98	79	142.03	131	141.97
28	142.03	80	142.11	132	141.88
29	141.93	81	141.99	133	141.95
30	142.03	82	142.06	134	141.97
31	142.07	83	141.97	135	141.87
32	142.02	84	142.04	136	141.84
33	142.02	85	142.04	137	141.94
34	141.78	86	141.95	138	141.88
35	141.95	87	141.99	139	141.91
36	142.03	88	141.96	140	141.98
37	141.93	89	142.01	141	141.97
38	141.61	90	142.05	142	141.96
39	141.99	91	141.98	143	141.96
40	142.13	92	142.06	144	141.87
41	142.04	93	142.08	145	142.34
42	142.00	94	142.03	146	142.01
43	142.19	95	141.95	147	142.05
44	142.02	96	142.04	148	142.00
45	142.11	97	142.06	149	142.18
46	142.09	98	141.99	150	142.09
47	142.08	99	141.98	151	142.14
48	142.16	100	141.93	152	142.21
49	142.09	101	141.96	153	142.14
50	141.85	102	141.97	154	142.08
51	142.09	103	141.96	155	142.46
52	141.86	104	141.91		

Area 2 Levels

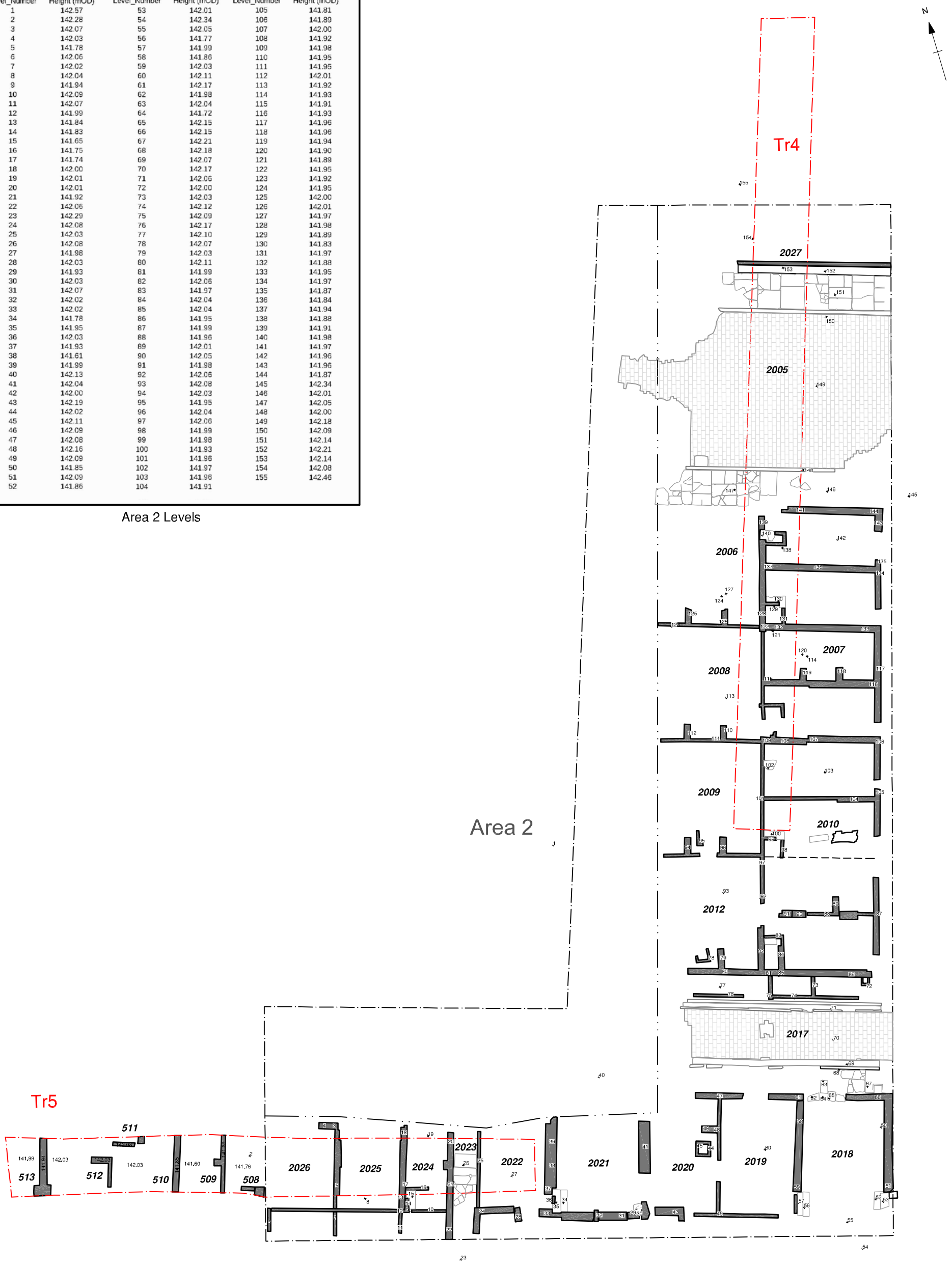

Figure 4: Archaeological remains revealed in Area 2 and Trench 5 (west)

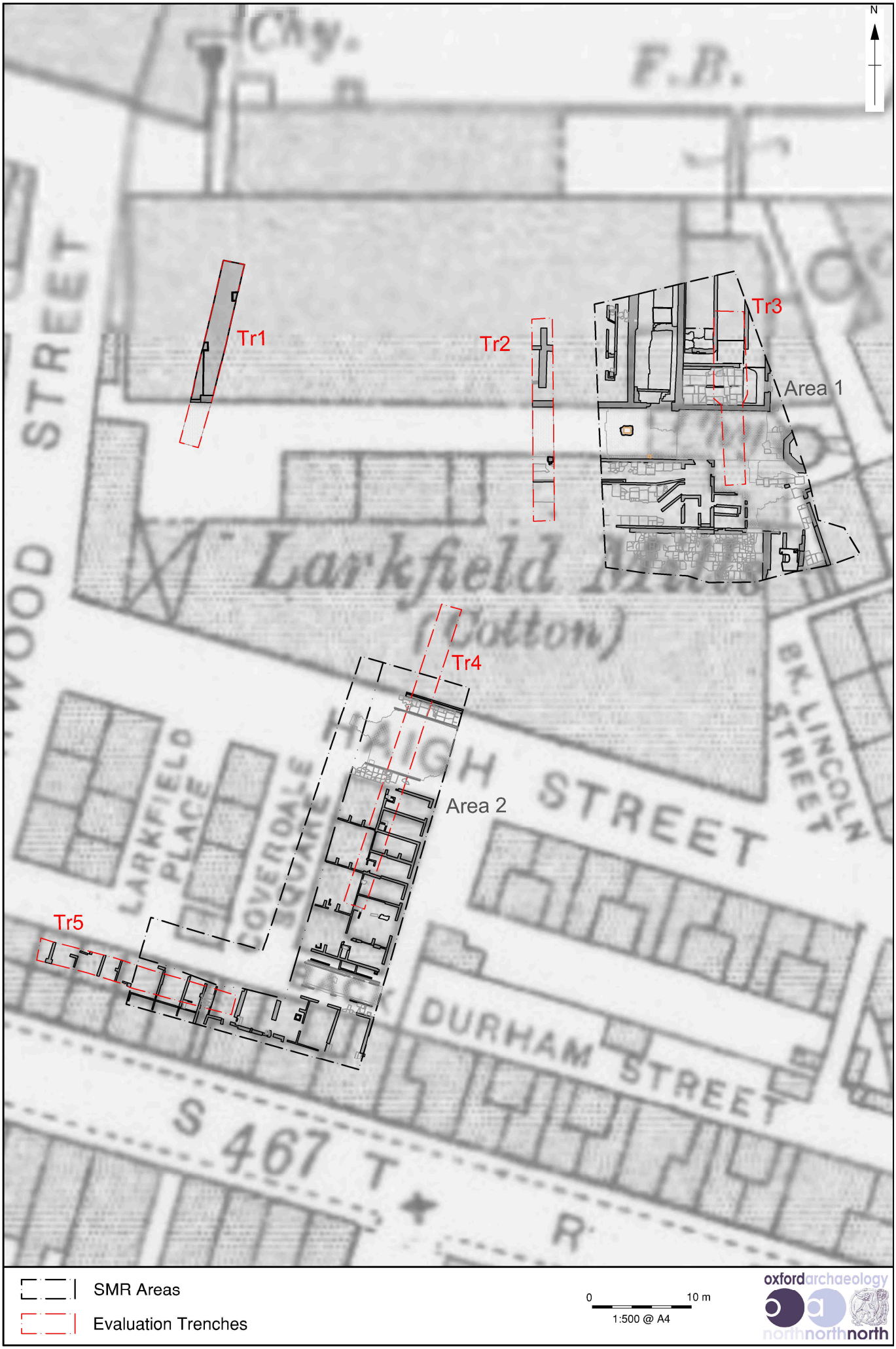

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Figure 5: Archaeological remains superimposed on the Ordnance Survey 1:25" map of 1893

APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1						
General description					**Orientation**	N-S
Trench 1 contained 19th and 20th century walls and floor surfaces pertaining to the Larkfield Mills complex.					**Length (m)**	18.90
					Width (m)	2.00
					Max. depth (m)	0.30
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
100	Layer	-	0.15	Tarmaccadam	-	C20th
101	Layer	-	0.21	Hardcore	-	C20th
102	Layer	-	0.15	Demolition rubble	-	C20th
103	Surface	-	-	Concrete floor	-	C20th
104	Base	0.95	3.00	Stone pillar base	-	C19/20th
105	Base	0.77	-	Stone pillar base	-	C19/20th
106	Surface	-	-	Concrete skim	-	C20th
107	Surface	-	-	Concrete skim	-	C20th
108	Surface	-	-	Concrete floor	-	C19/20th
109	Wall	0.70	-	Stone wall	-	C19th
110	Wall/Sill	0.25	-	Concrete wall/threshold	-	C19/20th
111	Surface	4.80	-	Stone setts road surface	-	C19/20th
112	Base	0.30	-	Concrete post base	-	C20th

Trench 2						
General description					**Orientation**	N-S
Trench 2 contained 19th and 20th century structural remains pertaining to the Larkfield Mills complex.					**Length (m)**	20.00
					Width (m)	2.00
					Max. depth (m)	0.70
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
200	Layer	-	0.05	Tarmaccadam	-	C20th
201	Layer	-	0.12	Hardcore	-	C20th
202	Layer	-	0.29	Demolition rubble	-	C20th
203	Layer	-	-	Natural (re-dep)	-	-
204	Wall	0.70	-	Stone wall	-	C19th
205	Wall	0.70	-	Stone wall	-	C19th
206	Wall	0.35	-	Brick Wall	-	C19/20th
207	Surface	4.65	-	Stone setts road surface	-	C19/20th
208	Wall	0.25	-	Brick Wall	-	C19/20th
209	Surface	1.90	0.10	Flagstone floor	-	C19/20th
210	Base	0.50	-	Poss. Pilaster base	-	C20th
211	Surface	0.65	-	Poss. Pathway	-	C19/20th

Trench 3						
General description					**Orientation**	N-S
Trench 3 contained archaeological remains pertaining to 19th century power systems within Larkfield Mills complex.					**Length (m)**	20.00
					Width (m)	2.00
					Max. depth (m)	2.00
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
300	Layer	-	0.10	Tarmaccadam	-	C20th
301	Layer	-	0.12	Hardcore	-	C20th
302	Layer	-	0.35	Demolition rubble	-	C20th
303	Wall	0.67	1.00	Stone wall	-	C19th
304	Surface	10.25	-	Stone setts road surface	-	C19/20th
305	Surface	3.80	-	Flagstone floor	-	C19/20th
306	Base	3.80	0.50	Stone machine base	-	C19th
307	Structure	4.50	-	2xBrick platform	-	C19th
308	Wall	0.35	1.50	2xBrick wall	-	C19th

Trench 4						
General description					**Orientation**	NE-SW
Trench 4 observed the southern boundary wall of the Larkfield Mills complex, intact remains of Haigh Street and 19th century domestic housing.					**Length (m)**	31.40
					Width (m)	2.00
					Max. depth (m)	0.53
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
400	Layer	-	0.08	Tarmaccadam	-	C20th
401	Layer	-	0.20	Hardcore	-	C20th
402	Void	-	-	Void	Void	Void
403	Layer	-	0.17	Demolition rubble	-	C20th
404	Layer	-	-	Natural	-	-
405	Wall	0.11	0.50	Single brick course	-	C19/20th
406	Wall	0.60	-	Stone wall	-	C19
407	Surface	1.20	-	Flagstone path	-	C19/20th
408	Surface	5.85	-	Stone setts road	-	C19/20th
409	Surface	1.20	-	Flagstone path	-	C19/20th
410	Structure	5.00	-	Domestic Housing	-	C19
411	Structure	4.42m	-	Domestic Housing	-	C19
412	Structure	3.50	-	Domestic Housing	-	C19

Trench 5						
General description					**Orientation**	E-W
Trench 5 contained the partial remains of 19th century back-back housing.					**Length (m)**	20.00
					Width (m)	2.00
					Max. depth (m)	0.54
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
500	Layer	-	0.09	Tarmaccadam	-	C20th

501	Layer	-	0.09	Hardcore	-	C20th
502	Layer	-	0.37	Demolition rubble	-	C20th
503	Surface	0.88	0.08	Flagstone surface	-	C19/20th
504	Wall	0.25	-	Brick wall	-	C19
505	Wall	0.25	-	Brick wall	-	C19
506	Wall	0.25	-	Brick foundation	-	C19
507	Wall	0.25	-	Brick wall	-	C19
508	Structure	0.95	1.36	Stairwell	-	C19
509	Wall	0.11	-	Brick partition wall	-	C19
510	Wall	0.25	-	Brick wall	-	C19
511	Wall?	0.11	-	Poss. Brick wall	-	C19/20th
512	Wall	0.11	-	Brick partition wall	-	C19
513	Wall	0.25	-	Brick wall	-	C19

Area 1							
General description						**Orientation**	N/A
Area 1 contained the extant remains of the Larkfield Mills complex. Specifically, those areas relating to internal power systems.						**Length (m)**	
						Width (m)	
						Max. depth (m)	
Context No.	**Type**	**Length (m)**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1000	Layer	-	-	0.23	Tarmaccadam/concrete	-	C20th
1001	Layer	-	-	0.16	Demo rubble	-	C20th
1002	Layer	-	-	0.20	Hardcore	-	C20th
1003	Layer	-	-	-	Natural/Re-dep natural	-	C19th
1004	Room	9.00	7.00m		Boiler room	-	C19th
1005	Room	9.00	??		Engine room	-	C19h
1006	Structure	6.00	1.06	-	Flue	-	C19th
1007	Structure	4.60	4.60	-	Chimney	-	C19th
1008	Surface	15.00	9.00	-	Road surface	-	C19th
1009	Surface	6.00	5.35	-	Flagstone floor	-	C19th
1010	Room	2.50	3.30	-	Brick Structure	-	C20th
1011	Wall	12.50	0.48	-	Exterior wall	-	C20th
1012	Structure	3.00	1.00	-	Poss. Culvert/Drain	-	C19th
1013	Wall	6.00	0.36	-	Interior wall	-	C19th
1014	Wall	10.00	0.60	-	Load bearing wall	-	C19th
1015	Room	3.70	2.75	-	Partitioned room	-	C19th
1016	Room	2.70	1.95	-	Brick structure	-	C20th
1017	Wall	6.00	??	-	Exterior wall	-	C19th
1018	Surface	6.00	1.80	-	Flagstone surface	-	C19th
1019	Surface	10.00	3.40	-	Flagstone surface	-	C19th

Area 2							
General description						**Orientation**	N/A
Area 2 contained the remains of domestic housing bordered by Back Durham Street and Haigh Street. These were divided into 4 sub-sets defined by footprint and layout.						**Length (m)**	
						Width (m)	
						Max. depth (m)	
Context No.	**Type**	**Length (m)**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
2000	Layer	-	-	0.11	Tarmaccadam	-	C20th
2001	Layer	-	-	0.22	Concrete	-	C20th
2002	Layer	-	-	0.12	Hardcore	-	C20th
2003	Layer	-	-	0.18	Demo rubble	-	C19th
2004	Layer	-	-	-	Natural	-	C19th
2005	Surface	7.80	9.06	-	Haigh Street	-	C19th
2006	Structure	8.80	4.55	-	House and Cellar	-	C19th
2007	Structure	4.70	4.10	-	House and Cellar	-	C19th
2008	Structure	8.80	4.55	-	House and Cellar	-	C19th
2009	Structure	8.80	4.55	-	House and Cellar	-	C19th
2010	Structure	4.70	4.10	-	House and Cellar	-	C20th
2011	Cut	6.30	0.32	-	Modern service	-	C20th
2012	Structure	8.20	4.40	-	House and Cellar	-	C19th
2013	Structure	0.34	0.30	-	Drain	-	C19th
2014	Structure	0.31	0.15	-	Drain	-	C19th
2015	Structure	3.54	0.11	-	Brick structure	-	C20th
2016	Wall	1.97	0.11	-	Modern wall	-	C20th
2017	Surface	7.50	1.86	-	Back Durham St.	-	C19th
2018	Structure	4.30	3.40	1.65	Split cellar	-	C19th
2019	Structure	4.45	2.85	-	Room	-	C19th
2020	Structure	4.45	2.70	-	Room	-	C19th
2021	Structure	3.60	3.40	1.65	Split cellar	-	C19th
2022	Structure	3.50	2.50	-	Room	-	C19th
2023	Structure	4.30	0.88	-	Covered Alley	-	C19th
2024	Structure	3.36	1.62	-	Cellar of 2025	-	C19th
2025	Structure	3.36	2.34	-	Room	-	C19th
2026	Structure	3.40	3.40	-	Room	-	C19th
2027	Wall	6.60	0.46	0.12	Factory Wall	-	C19th

APPENDIX B WSI FOR EVALUATION

Durham Street, Rochdale, Greater Manchester –

Written Scheme of Investigation for Archaeological Evaluation

Planning Ref: 18/01228/FUL

Countryside Properties UK Ltd

Report prepared by:
ECUS Ltd.
Brook Holt
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S61 2DW

January 2019

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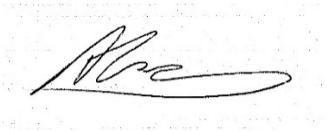
ECUS Ltd

Report to:	**Countryside Properties UK Ltd**
Report Title:	**Durham Street, Rochdale, Greater Manchester – Written Scheme of Investigation for Archaeological Evaluation**
Revision:	**V1**
Issue Date:	**January 2019**
Report Ref:	**12564**

Originated By:



Alex Cassels
Heritage Consultant Date: 15/01/2019

Reviewed By:

Simon Johnson
Principal Heritage Consultant Date: 16/01/2019

Approved By:

Simon Johnson
Principal Heritage Consultant Date: 16/01/2019

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Contents

1. Introduction

1.1 Project Background

1.1.1 This document presents a Written Scheme of Investigation (WSI), prepared by Ecus Limited for the Countryside Properties UK Ltd (hereafter 'the Client'), for an archaeological evaluation of land at Durham Street, Rochdale, Greater Manchester hereafter 'the site') centred on National Grid Reference 390133, 412507 (**Figure 1**).

1.1.2 The archaeological evaluation is being undertaken to provide information of the archaeological potential and interest of the site in accordance with the National Planning Policy Framework, and in line with Condition 8 attached to the decision notice (Planning Ref: 18/01228/FUL) for a residential development within the site.

1.1.3 The site has previously been the subject of a desk-based assessment (DBA; Ecus 2018) which assessed the archaeological potential of the site. There have been no previous intrusive archaeological investigations within the site.

1.2 Scope

1.2.1 This WSI sets out the nature and extent of known and potential archaeological remains at the site; identifies a strategy for its investigation; and presents the methods and standards by which the works will be undertaken. The document has been prepared in accordance with current guidelines published by the Chartered Institute for Archaeologists (2014a-d) and in consultation with Dr Andy Myers (GMAAS) as advisor to the Local Planning Authority (LPA).

1.3 The Site

Site Location, Geology and Topography

1.3.1 The site is located approximately 900 m south-east of the town centre of Rochdale, Greater Manchester (**Figure 1**). The site is currently an unoccupied brownfield site following the demolition of the industrial buildings which previously stood within the site. The site is bounded to the south by Durham Street, to the north-east by Lincoln Street and to the west by Isherwood Street. A car park is located beyond the northern boundary of the site. The site occupies an area of approximately 0.8 ha.

1.3.2 The underlying geology of the site is recorded as sandstone of the Old Lawrence Rock Formation with recorded superficial glacio-fluvial deposits of sand and gravel (British Geological Survey 2019). The site is broadly flat with a ground level of approximately 144 m above Ordnance Datum (aOD).

Historic and Archaeological Baseline

1.3.3 The site has previously been the subject of a DBA (Ecus 2018) and the following summarises the findings of that previous study.

1.3.4 There is no record of any prehistoric, Romano-British or early medieval activity within the site or its immediate surroundings. The medieval core of Rochdale was situated to the north-west of the site and it is likely that the site formed part of the agricultural hinterland of the town at this point.

1.3.5 The textile industry had been important to the economy of Rochdale since the

medieval period but this importance increased significantly during the post-medieval period. By the early eighteenth century, Rochdale is recorded as being famous as a centre for the woollen trade but it was the industrial revolution that stimulated the growth of the town beyond its medieval core.

1.3.6 This growth was aided by the construction of the Rochdale Canal which runs to the south of the site and was opened by the end of the eighteenth century. The canal included a branch, located to the east of the site, from its main course to Richard Street. Murphy's 1831 Map of Rochdale shows the impact that the construction of the canal had, with mills and warehouses lining the canal branch.

1.3.7 The 1851 Ordnance Survey (OS) Town Plan of Rochdale shows the site as part of the landscaped gardens of Lark Field or Hare Lands with the house itself situated to the south of the site. By the production of the 1893 OS map the site had been developed as part of the continuing expansion of Rochdale. The site itself was divided by Haigh Street with workers housing to the south and a cotton mill, named as Larkfields Mill, in the north of the site (**Figure 2**). The 1910 and 1930 OS maps depict little change from this layout.

1.3.8 The site had largely been cleared and redeveloped by the production of the 1957 OS map (**Figure 3**). Some of the mill buildings, including the northern range, appear to have been retained but these had been demolished by the 1970s. The site was cleared in the early twenty-first century.

1.4 Strategy for Archaeological Works

Archaeological Potential

1.4.1 Rochdale was known as a textile production centre from the medieval period onwards, becoming increasingly important from the eighteenth century onwards. The site was developed in the late nineteenth century as part of the expansion of the town from its medieval core.

1.4.2 The buildings constructed within the site included a cotton mill and workers housing. The site was cleared by the 1950s and by 1957 new industrial buildings had been constructed within the site. These buildings occupied a smaller footprint than the late nineteenth century buildings. It is considered that there is a high potential for remains of a post-medieval and modern date relating to the mill buildings, and residential buildings formerly situated within the site.

Archaeological Evaluation

1.4.3 The purpose of the archaeological evaluation is to gain sufficient information about the archaeological resource within a given area or site (including its presence or absence, character, extent, date, integrity, state of preservation and quality), in order to make an assessment of its merit in the appropriate context, leading to one or more of the following:

- The formation of a strategy to ensure the recording, preservation or management of the resource;
- The formation of a strategy to mitigate a threat to the archaeological resource;
- The formation of a proposal for further archaeological investigation within a programme of research (CIfA 2014a).

1.4.4 The archaeologist must be mindful that the purpose of evaluation is to determine the presence, or otherwise, of archaeological deposits and to assess their nature, extent, significance etc., and must not unnecessarily interfere with archaeological remains. The archaeologist must make every effort to ensure that field evaluation is minimally intrusive and minimally destructive to archaeological remains in both the design and execution of work (CIfA 2014a).

1.4.5 The trenching plan comprises four 20 m x 2 m trenches and one 30 m x 2 m trench. These trenches have been positioned to investigate specific aspects of the buildings depicted on the 1893 OS map and avoid areas which are likely to have been significantly disturbed by later activity within the site. The trench dimensions and their objectives are set out in **Table 1**.

Table 1: Trench Locations

Trench	Size	Objective
1	20 m x 2 m	To identify the western end of the northern range of Larkfield Mill and the smaller building fronting Isherwood Street.
2	20 m x 2 m	To identify the exterior walls of the northern and southern ranges of Larkfield Mill.
3	20 m x 2 m	To identify a possible boiler / engine house within the northern range of Larkfield Mill
4	30 m x 2 m	To identify housing on Coverdale Square, Haigh Street, and the southern range of Larkfield Mill.
5	20 m x 2 m	To identify back-to-back housing on Durham Street.

2. Methodology for Archaeological Evaluation

2.1 Standards

2.1.1 The project will confirm to current national guidelines as set out in the Chartered Institute for Archaeologists' Standard and Guidance for Archaeological Field Evaluation (CIfA 2014a); Standard and guidance for the collection, documentation, conservation and research of archaeological materials (CIfA 2014b); and Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives (CIfA 2014c).

2.2 Aims and Objectives

2.2.1 The principal aim of the evaluation is to gain information about the archaeological resource within the site (including its presence or absence, character, extent, date, integrity, state of preservation and quality), in order to make an assessment of its merit in the appropriate context.

2.2.2 The specific aims of the evaluation are to:

- to identify and record any archaeological deposits, structures or built fabric within the identified areas of interest;
- to determine the extent, condition, character, significance and date of any encountered or exposed archaeological remains;
- to accurately record the location and stratigraphy of areas excavated during groundworks;
- to recover artefacts disturbed by the site works;
- to recover samples from sealed waterlogged contexts for environmental processing;
- to prepare a comprehensive record and report of archaeological observations during the site work; and
- to identify mitigation strategies to ensure the recording, preservation or management of archaeological remains within the site.

2.2.3 The objectives of the project are:

- to contribute to the understanding of land use and development within the site;
- to characterise any archaeological evidence relation to the late nineteenth century housing; and
- to characterise any archaeological evidence relation to the late nineteenth century Larkfield Mills.

2.3 Methodology

2.3.1 All work is to be undertaken by a Registered Organisation with the CIfA, and they will employ experienced staff who are corporate members of the CIfA or who demonstrably work to an equivalent standard for fieldwork.

2.3.2 The archaeological contractor should ensure that contracts are in place, and that availability is confirmed, with external specialists to cover all necessary processing, conservation and specialist analysis through assessment and analysis stages of the project.

Excavation and Recording Methodology

2.3.3 Trenches are to be opened by mechanical excavator fitted with a plate or toothless ditching bucket in such a manner as to avoid or minimise damage to any archaeological remains.

2.3.4 Where concrete, or similar, surfaces or obstructions are present, the upper surface is to be broken out with a hydraulic pecker, with particular regard given to the potential for archaeological remains to survive directly beneath the surface.

2.3.5 All machine excavation is to be undertaken under the direct supervision of an archaeologist and stop at the top of the first significant archaeological horizon or the natural substrate.

2.3.6 All topsoil or recent overburden will be removed down to the first significant archaeological horizon in successive level spits. Under no circumstances will the machine be used to cut arbitrary trenches down to natural deposits.

2.3.7 All potential archaeological remains will be cleaned and recorded by hand. The extent of the excavated area and the location of any archaeological features and deposits will be recorded in plan. Judicious use of plant to investigate very large features should not be undertaken without the prior approval of Ecus.

2.3.8 All archaeological deposits are to be recorded using a continuous numbered context system on pro-forma recording system in accordance with the standard set by the *Archaeological Site Manual* (Museum of London Archaeology Service, 1994). The written record is to be hierarchically based and centred on the context record. Each context record will fully describe the location, extent, composition and relationship of the subject and will be cross-referenced to all other assigned records.

2.3.9 All archaeological features will be sampled sufficiently to characterise and date them. However, the following strategy will be employed as a minimum sample level:

- 50% (by plan area) of each post hole.
- 50% (by plan area) of each pit.
- 20% (by plan area) of each linear feature (minimum 1m sample).
- 100% of ditch terminals.
- 100% of intersections between linear features will be examined.

2.3.10 An overall site location plan will be produced at a scale of 1:2,500 or 1:1,250, accurately tied into the National Grid. All trenches will be planned at 1:20, and all excavated features will appear on at least one detailed plan at 1:50 or 1:20 scale and at least one section at 1:20 or 1:10, co-ordinated on to an overall site plan. Drawings will be made in pencil on permanent drafting film.

2.3.11 The spot height of all principal features and levels shall be established in metres relative to Ordnance Datum, correct to two decimal places. Plans, sections and elevations will be annotated with spot heights as appropriate.

2.3.12 A full photographic record will be maintained, with a DSLR cameral of no less than 10 MP. Photographs should include a clearly visible, graduated metric scale, and their location and subject recorded. Digital records created as part

of the project should comply with specific data standards.

2.3.13 Should features of potentially national importance and possibly of schedulable quality be observed, fieldwork will cease until the remains have been inspected by the GMAAS Archaeologist as advisor to the LPA and the appropriate Historic England Regional Inspector of Ancient Monuments.

Finds

2.3.14 Finds will be treated in accordance with the relevant guidance given in the Chartered Institute for Archaeologists' *Standard and Guidance for Archaeological Field Evaluation* (2014), the UK Institute of Conservators Guidelines *Conservation Guideline No 2* and the Museums and Galleries Commissions *Standards in the Museum Care of Archaeological Collections* (1991) excepting where they are superseded by statements made below.

2.3.15 All finds will be treated in accordance with English Heritage (2002, 2004, 2006) and CIfA (2014b) guidance, and the requirements of the relevant local museum.

2.3.16 The museum will be contacted for a mid-project review following the completion of fieldwork to revise basic information about the Archive, and to agree a policy for retention, at which time a museum accession number may be assigned to the archive.

2.3.17 All artefacts from excavated contexts will be retained and recorded by context, except those from features or deposits of obviously modern date. In such circumstances, sufficient artefacts will be retained in order to elucidate the date and/or function of the feature or deposit. Any earlier residual artefacts of potential archaeological/historical value from modern features will be retained.

2.3.18 All finds and samples will be exposed, lifted, processed, cleaned, conserved, marked, bagged and boxed in accordance with the requirements of the relevant receiving museum.

2.3.19 Any artefacts requiring conservation or specific storage conditions will be dealt with immediately in line with *First Aid for Finds* (Watkinson & Neal 1998).

Environmental Sampling

2.3.20 The development of an appropriate sampling strategy will depend upon the survival and condition of the deposits identified. If necessary the Historic England Regional Science Advisor will be consulted for site-specific guidance at the earliest possible opportunity. In general terms, it is anticipated that the following strategies will be followed.

2.3.21 Bulk environmental soil samples for plant macro-fossils, small animal and fish bones and other small artefacts will be taken from appropriate well-sealed and dated/datable archaeological deposits. The collection and processing of environmental samples will be undertaken in accordance with Historic England guidelines (Historic England 2011).

2.3.22 The residues and sieved fractions of the bulk environmental soil samples will be recorded and retained with the project archive. For charred material, bulk samples of 40-60 litres in volume will be taken for processing by flotation. All samples will be floated on a 250-300 nm mesh and the heavy residues washed over a 0.5-1 mm mesh. The heavy residues will be scanned with a magnet to

recover micro-slags. A statement on the environmental potential of excavated deposits will be appended to the evaluation report. Samples identified of further analysis will be fully processed.

Human Remains

2.3.23 In the unlikely event of discovery of any human remains, it is proposed that they will be left *in situ*, covered and protected until the Client, Coroner and the GMASS Archaeological Officer acting on behalf of the LPA have been informed. Where groundworks will unavoidably disturb them they will be fully recorded, excavated and removed from the site subject to compliance with the relevant Ministry of Justice Licence which will be obtained by the archaeological contractor under the Burial Act 1857.

2.3.24 Should it be necessary to excavate human remains, all excavation and post-excavation will be in accordance with the standards set out in CIfA Technical Paper 13 *Excavation and post-excavation treatment of cremated and inhumed remains* (McKinley and Roberts 1994). The final placing of human remains following analysis will be subject to the requirements of the Ministry of Justice Licence.

Treasure

2.3.25 All finds identified in the Treasure Act (1996) and the Treasure (Designation) Order (2002) as being treasure will be recorded, removed to a safe place and reported to the local Finds Liaison Officer or Coroner according to the procedures relating to the Act. Where removal can not be effected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft.

2.4 Report

2.4.1 Within one month of completion of the final fieldwork element, a report setting out the results will be prepared and submitted to the client who will submit the report to the GMASS Archaeologist for approval.

2.4.2 The report will be prepared in accordance with the guidance given in the Chartered Institute for Archaeologist's *Standards and guidance: archaeological field evaluation* (2014a) except where superseded by statements below.

2.4.3 The report will contain, at a minimum, the following:

- A non-technical summary;
- Introduction;
- Planning background including relevant references;
- Relevant historical and archaeological background;
- Geology and topography of each intervention site;
- Research aims and objectives;
- Methodology of site-based and off-site work;
- Results of archaeological evaluation, including specialist reports where relevant;
- Plans, sections and photographs as appropriate;

- Assessment of the results against the original expectations;
- Statement of potential of the archaeology;
- Conclusions and recommendations for an appropriate mitigation strategy;
- Publication and dissemination proposals, if relevant at this stage;
- Archive details, including date of deposition and deposition statement;
- Bibliography;
- Acknowledgements;
- Detailed context index;
- OASIS form.

Dissemination

2.4.4 Once approved the report will be issued as a final document, and a hard copy and PDF (of PDF/A standard) will be submitted to the Greater Manchester Historic Environment Record within two months of completion.

2.4.5 Details of the Site will be submitted online to the OASIS (Online Access to the Index of Archaeological Investigations) database within two months of completion.

2.4.6 Publication of the results, at least to a summary level (to a relevant journal) and beyond if justified, shall take place in the year following the archaeological fieldwork.

2.4.7 Where appropriate, wider dissemination could also be achieved through displaying temporary information and interpretation boards on site, producing press releases on the results of the archaeological work, and/or engaging local community groups and schools in the project through tours or presentations.

2.5 Archive

Physical Archive

2.5.1 The site archive will be deposited with the relevant local museum within six months of the completion of fieldwork, subject to any additional stages of archaeological mitigation.

2.5.2 Before work begins on site the archaeological contractor will contact the landowner to endeavour to reach an agreement in principle regarding the deposition of finds.

2.5.3 A notification of fieldwork will be supplied by the archaeological contractor to the relevant local museum at the earliest possible opportunity at which time a museum accession number may be assigned to the archive. This number should be clearly marked on all site files, finds bags and boxes. Where possible the finds themselves should also be labelled or marked with this number.

2.5.4 The museum will then be contacted following the completion of fieldwork to revise basic information about the Archive, and to agree a policy for retention.

2.5.5 The complete project archive will be prepared and arrangements for the deposition of the archive within three months of completion of the project will

be made in accordance with *Guidelines for the preparation of excavation archives for long-term storage* (UKIC 1990).

2.5.6 The site archive must include all:

- copies of correspondence relating to fieldwork
- any survey or specialist reports
- site notebooks/diaries
- original photographic records and registers
- original drawing records and registers (plans, sections, elevations)
- original context records
- artefacts, ecofacts and any other sample residues
- original finds records
- original sample records
- a summary account of the context record
- a summary of the artefact record
- a summary of the environmental record:
- all relevant digital and meta data
- draft reports
- a copy of the final report/ publication

Digital Archive

2.5.7 Digital archive must be deposited with a Trusted Digital Repository and made publicly accessible. It is understood that the only suitable repository for digital archaeological archives at the present time (January 2019) is the Archaeology Data Service (ADS).

2.5.8 The digital archive must be compiled in accordance with the standards and requirements of the ADS, which may be accessed through the ADS website:

2.5.9 In brief, it is envisaged that:

- Digital archives from householder-scale projects (e.g. small-scale building recording, watching brief on domestic works) will be deposited through the upload of images to the OASIS record (up to 50 images)
- Small- to medium-scale projects (50-300 files) will be deposited through the ADS-easy upload services
- Larger projects (>300 files) will be deposited through the standard ADS service

3. Management of the Archaeological Works

3.1 Summary

3.1.1 Ecus' archaeological consultant will be responsible for monitoring the works,

on behalf of the client, to ensure compliance with the agreed WSI. They will act as the principal contact for the archaeological contractor, and provide regular updates on progress to the GMASS Archaeologist, and the Client.

3.1.2 Site inspections will be arranged so that the general site stratigraphy can be assessed in the initial stage of trial trenching and/or so that the site can be inspected when fieldwork is near to completion but before any trenches have been backfilled.

3.1.3 In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated, work will cease and the GMASS Archaeologist and a representative of the developer will be notified. An assessment will be made of the importance of the remains and any provision for their recording or preservation in situ as appropriate.

4. Health & Safety Arrangements

4.1 General

4.1.1 Responsibility for site Health and Safety will reside with the contractor. This will extend to all activities undertaken by the Contractor's staff, and the safety of staff and the public. The appointed contractor must comply and confirm with the Health and Safety at Work Act (1974), and all other appropriate health and safety regulations.

4.1.2 The appointed archaeological contractor will provide all relevant Risk Assessments and Health and Safety Plans to the Client as required. Sample Health and safety documentation and all appropriate CSCS cards will be provided as required upon request.

4.1.3 The appointed archaeological contractor will be expected to carry appropriate Employer's Liability and Public Liability Insurance.

4.1.4 All equipment must be suitable for the purpose and in sound condition and comply with Health and Safety Executive recommendations.

4.1.5 Health and safety must always take priority over archaeological matters. All archaeologists undertaking fieldwork (e.g. a site visit) must do so under a defined Health and Safety policy. Archaeologists undertaking fieldwork must observe safe working practices; the Health and Safety arrangements must be agreed and understood by all relevant parties before work commences. (CIfA 2014).

5. Copyright

5.1 Paper and Digital Archive

5.1.1 The copyright and ownership of the paper and digital archive from the archaeological work will rest with the originating body (the archaeological organisation undertaking the work). The originating body will deposit the material with the recipient museum or repository on completion of the contracted works, whereupon and to whom they will transfer title and/or licence the use of the records.

5.2 Report

5.2.1 Full copyright of each report shall be retained by the originating body (the archaeological organisation undertaking the work) under the Copyright, Designs and Patents Act 1988 with all rights reserved, excepting that the Developer will be licensed: to use each report in all matters directly relating to the scheme; and to make each report available for public dissemination as part of the dissemination measures identified in section 2.4.

6. References

6.1 Bibliography

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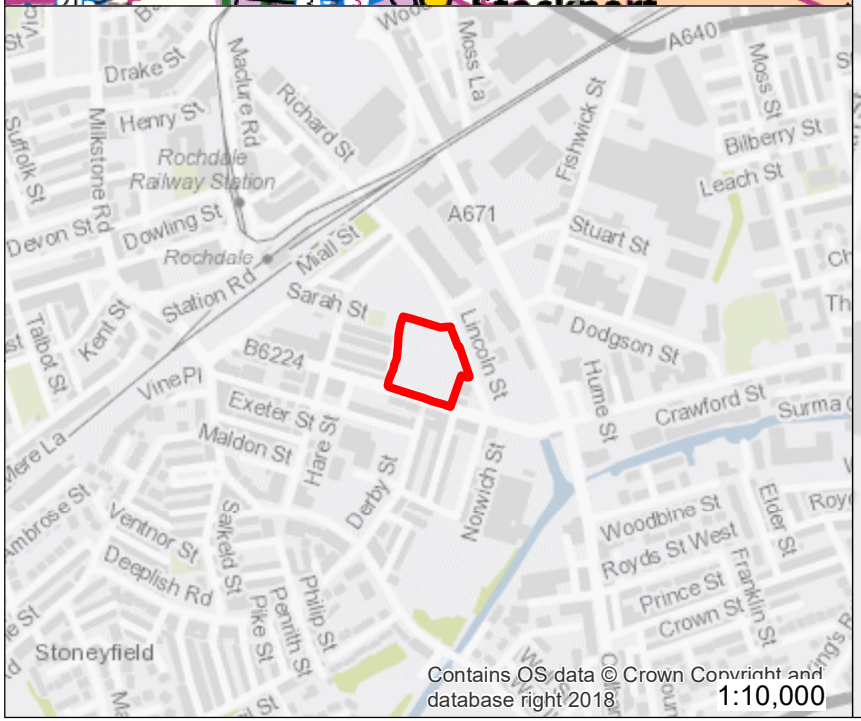
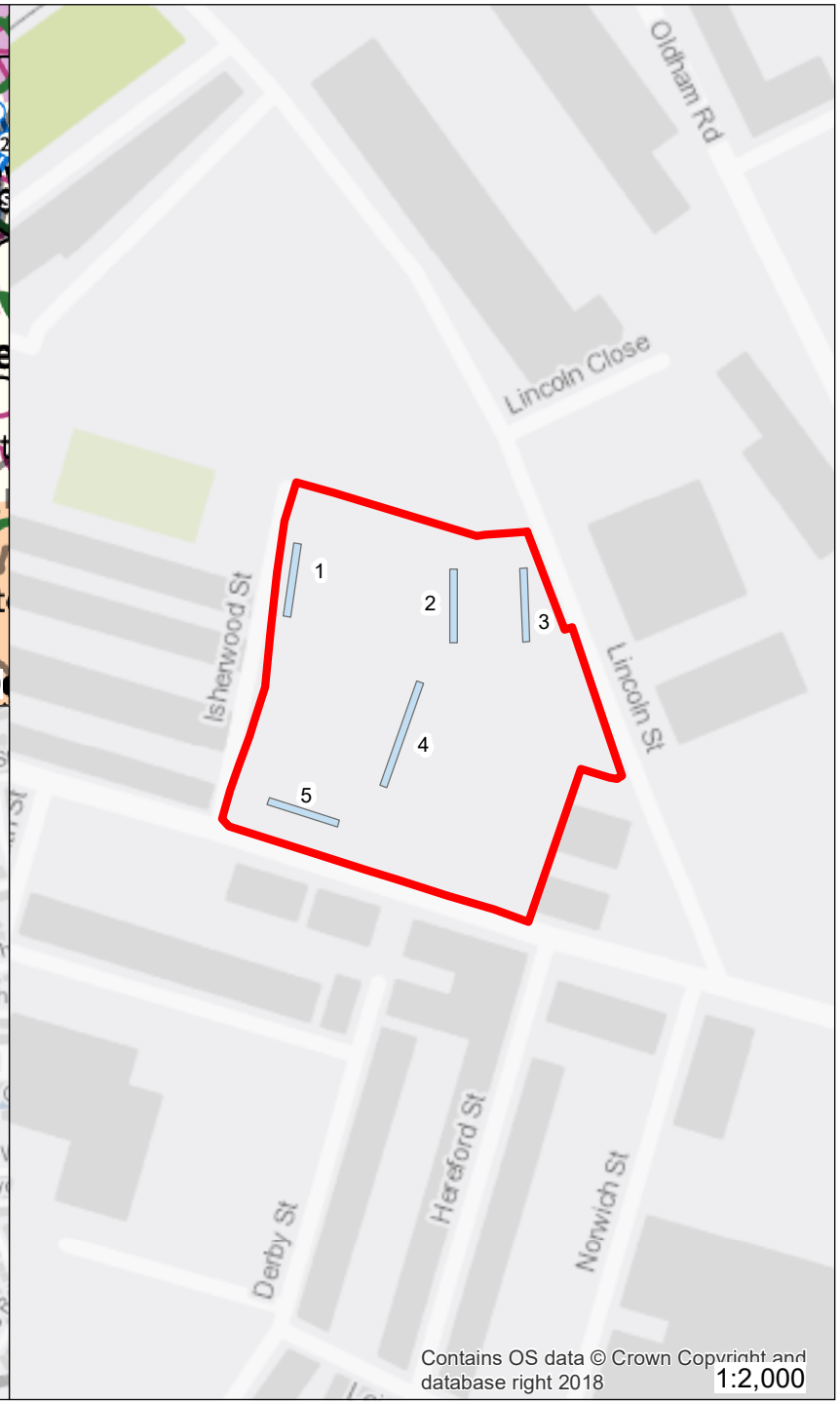
Illustrations





ecus
ENVIRONMENTAL CONSULTANTS

Site

Trench

N

Countryside Properties UK Ltd

Durham Street, Rochdale -
WSI for archaeological evaluation

Figure 1: Site Location

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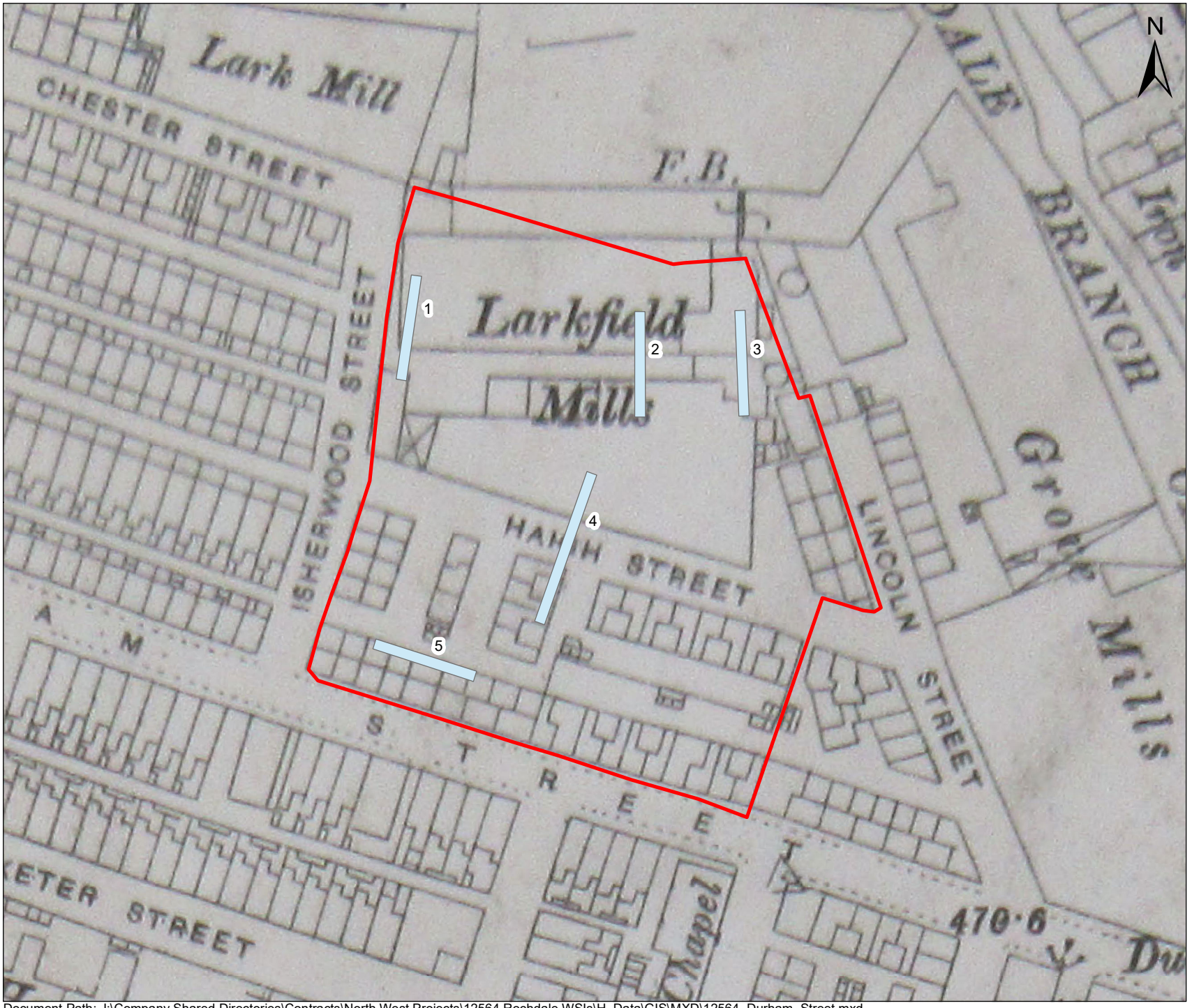
T: 0114 2669292 www.ecusltd.co.uk

February 2019 | Scale: As shown @ A4 | Drg.Ref: AKC/12564/1



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Legend

Site

Trench

Meters

0 10 20 30 40 50

Countryside Properties UK Ltd

Durham Street, Rochdale –
WSI for Archaeological Evaluation

Figure 2
Trench locations on 1893 OS

Brook Holt 3 Blackburn Road Sheffield S61 2DW
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Document Path: J:\Company Shared Directories\Contracts\North West Projects\12564 Rochdale WSIs\H. Data\GIS\MXD\12564_Durham_Street.mxd

Date: February 2019 | Scale: 1:1,000 | Drg.Ref: AKC/12564/2.2

APPENDIX C WSI FOR EXCAVATION

Durham Street, Rochdale, Greater Manchester –

Written Scheme of Investigation for Archaeological Excavation

Planning Ref: 18/01228/FUL

Countryside Properties UK Ltd

Report prepared by:
ECUS Ltd.
Brook Holt
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S61 2DW

February 2019

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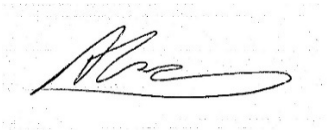
ECUS Ltd

Report to:	**Countryside Properties UK Ltd**
Report Title:	**Durham Street, Rochdale, Greater Manchester – Written Scheme of Investigation for Archaeological Excavation**
Revision:	**V1**
Issue Date:	**February 2019**
Report Ref:	**12564.02**

Originated By:



Alex Cassels
Heritage Consultant Date: 15/02/2019

Reviewed By:

Simon Johnson
Principal Heritage Consultant Date: 19/02/2019

Approved By:

Simon Johnson
Principal Heritage Consultant Date: 20/02/2019

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Contents

1. Introduction

1.1 Project Background

1.1.1 This document presents a Written Scheme of Investigation (WSI), prepared by Ecus Limited for the Countryside Properties UK Ltd (hereafter 'the Client'), for a programme of archaeological strip, map, and record on land off Durham Street, Rochdale, Greater Manchester (hereafter 'the site') centred on National Grid Reference 390133, 412507 (**Figure 1**).

1.1.2 The archaeological strip map and record is being undertaken following an archaeological evaluation which identified archaeological remains relating to the former Larkfield Mill and associated workers housing to ensure preservation by record in accordance with the National Planning Policy Framework, and in line with Condition 8 attached to the decision notice (Planning Ref: 18/01228/FUL) for a residential development within the site.

1.1.3 The site has previously been the subject of a desk-based assessment (DBA; Ecus 2018), which assessed the archaeological potential of the site. Subsequently an archaeological evaluation, comprising five trial trenches was undertaken by Oxford Archaeology North. The archaeological evaluation identified structural remains consistent with those depicted on the 1893 Ordnance Survey map.

1.2 Scope

1.2.1 This WSI sets out the nature and extent of known and potential archaeological remains at the site; identifies a strategy for its recording; and presents the methods and standards by which the works will be undertaken. The document has been prepared in accordance with current guidelines published by the Chartered Institute for Archaeologists (2014a-d) and in consultation with Dr Andy Myers (GMAAS) as advisor to the Local Planning Authority (LPA).

1.3 The Site

Site Location, Geology and Topography

1.3.1 The site is located approximately 900 m south-east of the town centre of Rochdale, Greater Manchester (**Figure 1**). The site is currently an unoccupied brownfield site following the demolition of the industrial buildings which previously stood within the site. The site is bounded to the south by Durham Street, to the north-east by Lincoln Street and to the west by Isherwood Street. A car park is located beyond the northern boundary. The site occupies an area of approximately 0.8 ha.

1.3.2 The underlying geology of the site is recorded as sandstone of the Old Lawrence Rock Formation with recorded superficial glacio-fluvial deposits of sand and gravel (British Geological Survey 2019). The site is broadly flat with a ground level of approximately 144 m above Ordnance Datum (aOD).

Historic and Archaeological Baseline

1.3.3 The site has previously been the subject of a DBA (Ecus 2018) and the following summarises the findings of that previous study.

1.3.4 There is no record of any prehistoric, Romano-British or early medieval activity within the site or its immediate surroundings. The medieval core of Rochdale

was situated to the north-west of the site and it is likely that the site formed part of the agricultural hinterland of the town at this point.

1.3.5 The textile industry had been important to the economy of Rochdale since the medieval period but this importance increased significantly during the post-medieval period. By the early eighteenth century, Rochdale is recorded as being famous as a centre for the woollen trade but it was the industrial revolution that stimulated the growth of the town beyond its medieval core.

1.3.6 This growth was aided by the construction of the Rochdale Canal which runs to the south of the site and was opened by the end of the eighteenth century. The canal included a branch, located to the east of the site, from its main course to Richard Street. Murphy's 1831 Map of Rochdale shows the impact that the construction of the canal had on the growth of the town, with mills and warehouses lining the canal branch.

1.3.7 The 1851 Ordnance Survey (OS) Town Plan of Rochdale shows the site as part of the landscaped gardens of Lark Field or Hare Lands with the house itself situated to the south of the site. By the production of the 1893 OS map the site had been developed as part of the continuing expansion of Rochdale. The site itself was divided by Haigh Street with workers housing to the south and a cotton mill, named as Larkfields Mill, in the north of the site (**Figure 2**). The 1910 and 1930 OS maps depict little change from this layout.

1.3.8 The site had largely been cleared and redeveloped by the production of the 1957 OS map (**Figure 3**). Some of the mill buildings, including the northern range, appear to have been retained but these had been demolished by the 1970s. The site was cleared in the early twenty-first century.

1.3.9 An archaeological evaluation, undertaken by Oxford Archaeology North in February 2018, investigated the archaeological potential of the site. This evaluation comprised the excavation of five trenches located to identify the following:

- Trench 1: the western end of the northern range of Larkfield Mill and the smaller building fronting Isherwood Street.
- Trench 2: the exterior walls of the northern and southern ranges of Larkfield Mill.
- Trench 3: a possible boiler / engine house within the northern range of Larkfield Mill
- Trench 4: housing on Coverdale Square, Haigh Street, and the southern range of Larkfield Mill.
- Trench 5: back-to-back housing on Durham Street.

1.3.10 **Figure 2**, shows the location of the excavated, evaluation trenches.

1.3.11 Excavation was restricted in Trench 5 by unanticipated services. In Trench 4 excavation had to be halted due to identified suspected asbestos contamination. Despite this the evaluation identified the anticipated structural remains in all trenches.

1.4 Strategy for Archaeological Works

Previous Impacts and Archaeological Potential

1.4.1 The archaeological evaluation demonstrated that the footprint of the mill and workers housing remained in good condition and had not been substantially impacted by subsequent demolition. Haigh Road and a suspected yard between the buildings of Larkfield Mill, where excavated, survived intact.

Archaeological Strategy

1.4.2 The archaeological strategy comprises two phases. First it is proposed to strip and map two areas (**Figure 3**). Following the initial strip, targeted excavation of the best preserved examples of archaeological remains will be undertaken.

Strip and Map

1.4.3 It is proposed to excavate two areas of the site measuring a total of 1,200 sq m (**Figure 3**). Area 1 is situated in the north-east of the site and has been placed to target the area evaluated by Trench 3 during the previous phase of archaeological work. This trench identified the boiler room of the Larkfield Mill and the expanded Area 1 will target the boiler room, flues, and chimney base as well as further structural remains of the Larkfield Mill buildings.

1.4.4 Area 2 is situated in the south of the site and has been placed to target the areas evaluated by Trench 4 and Trench 5 during the previous phase of archaeological work. These trenches identified back-to-back and terraced housing with the potential for in filled cellars.

1.4.5 It may become evident that the strip and map areas may require extension. If this is the case a further scope of works will be agreed with GMAAS and the client. The methodology and conditions laid out in this WSI will still be followed to avoid further delay to the construction timetable in production of additional WSI documents.

Excavation

1.4.6 Following the identification of the surviving archaeology a suitable sampling strategy will be agreed with GMAAS in order to best address the stated aims and objectives of the project. A full description of the fieldwork methodology to be adopted is discussed in detail below in Section 2.

2. Methodology for Archaeological Evaluation

2.1 Standards

2.1.1 The project will confirm to current national guidelines as set out in the Chartered Institute for Archaeologists' Standard and Guidance for Archaeological Field Evaluation (CIfA 2014a); Standard and guidance for the collection, documentation, conservation and research of archaeological materials (CIfA 2014b); and Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives (CIfA 2014c).

2.2 Aims and Objectives

2.2.1 The principal aim of the mitigation is to gain information about the archaeological resource within the site (including its presence or absence, character, extent, date, integrity, state of preservation and quality), in order to make an assessment of its merit in the appropriate context.

2.2.2 The specific aims of the excavation are to:

- to identify and record any archaeological deposits, structures or built fabric within the identified areas of interest;
- to determine the extent, condition, character, significance and date of any encountered or exposed archaeological remains;
- to accurately record the location and stratigraphy of areas excavated during groundworks;
- to recover artefacts disturbed by the site works;
- to recover samples from sealed waterlogged contexts for environmental processing;
- to prepare a comprehensive record and report of archaeological observations during the site work; and
- to identify mitigation strategies to ensure the recording, preservation or management of archaeological remains within the site.

2.2.3 The overall objectives of the project are:

- to contribute to the understanding of land use and development during the mid-nineteenth century within the Durham Street area; and
- to record any archaeological evidence relation to the late nineteenth century housing;
- to record any archaeological evidence relation to the late nineteenth century Larkfield Mills; and
- to contribute to addressing the following research initiatives as identified by the North West Archaeological Research Framework (2007), considered to be of relevance to the site.

Initiative 7.24 Need to excavate urban cellars to examine life 'below stairs' in the middle class house and cellar dwellings and workshops in working class houses.

Initiative 7.25 Where threatened with possible redevelopment excavations are required of now undeveloped and cleared former working class areas regarded as slums.

Initiative 7.36 Studies of industrial landscapes should examine the presence of indicators of authority and social control to illuminate the wider impact of industrialisation on society in general and on individual communities.

2.2.4 In order to achieve the overall objectives the following specific objectives of the project are:

- To identify the construction sequence and phasing of the housing and mill buildings;
- To investigate the development and phasing of power transmission through the mill buildings;
- To investigate the nature, construction and function of cellarage of the housing;
- To investigate the relationship between the various types of housing identifiable within the site;
- To investigate the presence and nature of mid-nineteenth century levelling layers; and
- To demonstrate the sequence and phasing of the site as a whole.

2.2.5 It is envisioned that specific objectives will be answered by excavating only the key areas and best preserved examples once the entire excavation area has been stripped.

2.3 Methodology

2.3.1 All work is to be undertaken by a Registered Organisation with the CIfA, and they will employ experienced staff who are corporate members of the CIfA or who demonstrably work to an equivalent standard for fieldwork.

2.3.2 The archaeological contractor should ensure that contracts are in place, and that availability is confirmed, with external specialists to cover all necessary processing, conservation and specialist analysis through assessment and analysis stages of the project.

2.3.3 Full details and CVs of appointed field staff and specialists will be made available to GMAAS as soon as the contractor has been appointed. This information will form an addendum to this agreed WSI if required.

Excavation and Recording Methodology

2.3.4 The excavation area will be set out using a GNSS to accurately locate it within the site. A CAT scan will be used to ensure that live electrical services are avoided. The excavation area will initially be broken with a mechanical excavator fitted with a pecker. The area will then be stripped by the mechanical excavator fitted with a plate or toothless ditching bucket in such a manner as to avoid or minimise damage to any archaeological remains. All machine excavation is to be undertaken under the direct supervision of an archaeologist and to stop at the top of the first significant archaeological horizon or the natural substrate, whichever is encountered first.

2.3.5 All tarmac or recent overburden will be removed down to the first significant archaeological horizon in successive spits. Under no circumstances will the machine be used to cut arbitrary trenches down to natural deposits unless this has been agreed with GMAAS.

2.3.6 All potential archaeological remains will be cleaned and recorded by hand and the extent of the excavated area and location of any archaeological features and deposits recorded in plan. Further excavation to address the aims and objectives of the project may require the use of a mechanical excavator. Any deep excavations will be stepped, shored or battered as appropriate to ensure safe access and egress.

2.3.7 All archaeological deposits are to be recorded using a continuous numbered context system on a pro-forma recording system in accordance with the standard set by the *Archaeological Site Manual* (Museum of London Archaeology Service, 1994). The written record is to be hierarchically based and centred on the context record. Each context record will fully describe the location, extent, composition and relationship of the subject and will be cross referenced to all other assigned records.

2.3.8 All archaeological features will be sampled sufficiently to characterise and date them. However, the following strategy will be employed as a minimum sample level:

- One cellar for each housing form identified on site;
- 50% (by plan area) of each post hole;
- 50% (by plan area) of each pit;
- 20% (by plan area) of each linear feature (minimum 1m sample);
- 100% of ditch terminals;
- 100% of intersections between linear features will be examined.

2.3.9 For brick structures, the record will include details of brick dimensions and type (handmade/machine-made, plain/frogged), mortar (colour, composition, hardness), bond and the extent of structures (number of courses, thickness in skins).

2.3.10 An overall site plan will be produced at a scale of 1:2,500 or 1:1,250, accurately tied into the National Grid. All trenches will be planned at 1:50, and all excavated features will appear on at least one detailed plan at 1:50 or 1:20 scale and/or one section at 1:20 or 1:10 and co-ordinated on to an overall site plan. Drawings will be made in pencil on permanent drafting film.

2.3.11 The spot height of all excavation areas, principal features and levels shall be established in metres relative to Ordnance Datum, correct to two decimal places. Plans, sections and elevations will be annotated with spot heights as appropriate.

2.3.12 A full photographic record will be maintained, with a digital camera of no less than 8 MP and 35 mm black and white print film as necessary. Photographs should include a clearly visible, graduated metric scale, and their location and subject recorded. Digital records created as part of the project should comply with specific data standards.

2.3.13 Should features of potentially national importance and possibly of schedulable quality be observed, fieldwork will cease until the remains have been inspected by GMAAS and the appropriate Historic England Regional Inspector of Ancient Monuments.

Finds

2.3.14 Finds will be treated in accordance with the relevant guidance given in the Chartered Institute for Archaeologists' *Standard and Guidance for Archaeological Excavation* (2014a), the UK Institute of Conservators Guidelines *Conservation Guideline No 2*, and the Museums and Galleries Commissions *Standards in the Museum Care of Archaeological Collections* (1991), and Historic England guidance (2002, and 2004), excepting where they are superseded by statements made below.

2.3.15 The museum will be contacted for a mid-project review following the completion of fieldwork to revise basic information about the Archive, and to agree a policy for retention, at which time a museum accession number may be assigned to the archive.

2.3.16 All artefacts from excavated contexts will be retained and recorded by context, except those from features or deposits of obviously modern date. In such circumstances, sufficient artefacts will be retained in order to elucidate the date and/or function of the feature or deposit. Any earlier residual artefacts of potential archaeological/historical value from modern features will be retained.

2.3.17 All finds and samples will be exposed, lifted, processed, cleaned, conserved, marked, bagged and boxed in accordance with the requirements of the relevant local museum.

2.3.18 Any artefacts requiring conservation or specific storage conditions will be dealt with immediately in line with *First Aid for Finds* (Watkinson & Neal 1998).

Environmental Sampling

2.3.19 The development of an appropriate sampling strategy will depend upon the survival and condition of the deposits identified. If necessary the Historic England Regional Science Advisor will be consulted for site-specific guidance at the earliest possible opportunity. In general terms, it is anticipated that the following strategies will be followed.

2.3.20 Bulk environmental soil samples for plant macro-fossils, small animal and fish bones and other small artefacts will be taken from appropriate well-sealed and dated/datable archaeological deposits. The collection and processing of environmental samples will be undertaken in accordance with Historic England guidelines (Historic England 2011).

2.3.21 The residues and sieved fractions of the bulk environmental soil samples will be recorded and retained with the project archive. For charred material, bulk samples of 40-60 litres in volume will be taken for processing by flotation. All samples will be floated on a 250-300 nm mesh and the heavy residues washed over a 0.5-1 mm mesh. The heavy residues will be scanned with a magnet to recover micro-slags. A statement on the environmental potential of excavated deposits will be appended to the evaluation report. Samples identified of further analysis will be fully processed.

Human Remains

2.3.22 In the unlikely event of discovery of any human remains, it is proposed that they will be left in situ, covered and protected until the Client, Coroner and the GMAAS Archaeological Officer acting on behalf of the LPA have been informed. Where groundworks will unavoidably disturb them they will be fully

recorded, excavated and removed from the site subject to compliance with the relevant Ministry of Justice Licence which will be obtained by the archaeological contractor under the Burial Act 1857.

2.3.23 Should it be necessary to excavate human remains, all excavation and post-excavation will be in accordance with the standards set out in CIfA Technical Paper 13 Excavation and post-excavation treatment of cremated and inhumed remains (McKinley and Roberts 1994). The final placing of human remains following analysis will be subject to the requirements of the Ministry of Justice Licence.

Treasure

2.3.24 All finds identified in the Treasure Act (1996) and the Treasure (Designation) Order (2002) as being treasure will be recorded, removed to a safe place and reported to the local Finds Liaison Officer or Coroner according to the procedures relating to the Act. Where removal cannot be effected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft.

2.4 Report

2.4.1 Within one month of completion of the final fieldwork element, a report setting out the results will be prepared and submitted to Ecus and the client who will submit the report to GMAAS for approval.

2.4.2 The report will be prepared in accordance with the guidance given in the Chartered Institute for Archaeologist's *Standards and guidance: archaeological excavation* (2014a) except where superseded by statements below.

2.4.3 The report will contain, at a minimum, the following:

- A non-technical summary;
- Introduction;
- Planning background including relevant references;
- Relevant historical and archaeological background;
- Geology and topography of each intervention site;
- Research aims and objectives;
- Methodology of site-based and off-site work;
- Results of archaeological excavation, including specialist reports where relevant;
- Plans, sections and photographs as appropriate;
- Assessment of the results against the original expectations;
- Conclusions;
- Publication and dissemination proposals, if relevant at this stage;
- Archive details, including date of deposition and deposition statement;
- Bibliography;
- Acknowledgements;

- Detailed context index;
- OASIS form.

Dissemination

2.4.4 Once approved the report will be issued as a final document, and a hard copy and PDF (of PDF/A standard) will be submitted to the Greater Manchester Historic Environment Record within two months of completion.

2.4.5 Details of the Site will be submitted online to the OASIS (Online Access to the Index of Archaeological Investigations) database within two months of completion.

2.4.6 Publication of the results, at least to a summary level (to a relevant journal) and beyond if justified, shall take place in the year following the archaeological fieldwork.

2.5 Archive

Physical Archive

2.5.1 The site archive will be deposited with the relevant local museum within six months of the completion of fieldwork, subject to any additional stages of archaeological mitigation.

2.5.2 Before work begins on site the archaeological contractor will contact the landowner to endeavour to reach an agreement in principle regarding the deposition of finds.

2.5.3 A notification of fieldwork will be supplied by the archaeological contractor to the relevant local museum at the earliest possible opportunity at which time a museum accession number may be assigned to the archive. This number should be clearly marked on all site files, finds bags and boxes. Where possible the finds themselves should also be labelled or marked with this number.

2.5.4 The museum will then be contacted following the completion of fieldwork to revise basic information about the Archive, and to agree a policy for retention.

2.5.5 The complete project archive will be prepared and arrangements for the deposition of the archive within three months of completion of the project will be made in accordance with *Guidelines for the preparation of excavation archives for long-term storage* (UKIC 1990).

2.5.6 The site archive must include all:

- copies of correspondence relating to fieldwork
- any survey or specialist reports
- site notebooks/diaries
- original photographic records and registers
- original drawing records and registers (plans, sections, elevations)
- original context records
- artefacts, ecofacts and any other sample residues
- original finds records

- original sample records
- a summary account of the context record
- a summary of the artefact record
- a summary of the environmental record:
- all relevant digital and meta data
- draft reports
- a copy of the final report/ publication

Digital Archive

2.5.7 Digital archive must be deposited with a Trusted Digital Repository and made publicly accessible. It is understood that the only suitable repository for digital archaeological archives at the present time (January 2019) is the Archaeology Data Service (ADS).

2.5.8 The digital archive must be compiled in accordance with the standards and requirements of the ADS, which may be accessed through the ADS website:

2.5.9 In brief, it is envisaged that:

- Digital archives from householder-scale projects (e.g. small-scale building recording, watching brief on domestic works) will be deposited through the upload of images to the OASIS record (up to 50 images)
- Small- to medium-scale projects (50-300 files) will be deposited through the ADS-easy upload services
- Larger projects (>300 files) will be deposited through the standard ADS service

3. Management of the Archaeological Works

3.1 Summary

3.1.1 Ecus' archaeological consultant will be responsible for monitoring the works, on behalf of the client, to ensure compliance with the agreed WSI. They will act as the principal contact for the archaeological contractor, and provide regular updates on progress to the GMAAS Archaeologist, and the Client.

3.1.2 Site inspections will be arranged so that the general site stratigraphy can be assessed and/or so that the site can be inspected when fieldwork is near to completion.

3.1.3 In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated, work will cease and the GMAAS Archaeologist and a representative of the client will be notified. An assessment will be made of the importance of the remains and any provision for their recording or preservation in situ as appropriate.

4. Health & Safety Arrangements

4.1 General

4.1.1 Responsibility for site Health and Safety will reside with the contractor. This will extend to all activities undertaken by the Contractor's staff, and the safety of staff and the public. The appointed contractor must comply and confirm with the Health and Safety at Work Act (1974), and all other appropriate health and safety regulations.

4.1.2 The appointed archaeological contractor will provide all relevant Risk Assessments and Health and Safety Plans to the Client as required. Sample Health and safety documentation and all appropriate CSCS cards will be provided as required upon request.

4.1.3 The appointed archaeological contractor will be expected to carry appropriate Employer's Liability and Public Liability Insurance.

4.1.4 All equipment must be suitable for the purpose and in sound condition and comply with Health and Safety Executive recommendations.

4.1.5 Health and safety must always take priority over archaeological matters. All archaeologists undertaking fieldwork (e.g. a site visit) must do so under a defined Health and Safety policy. Archaeologists undertaking fieldwork must observe safe working practices; the Health and Safety arrangements must be agreed and understood by all relevant parties before work commences. (CIfA 2014).

5. Copyright

5.1 Paper and Digital Archive

5.1.1 The copyright and ownership of the paper and digital archive from the archaeological work will rest with the originating body (the archaeological organisation undertaking the work). The originating body will deposit the material with the recipient museum or repository on completion of the contracted works, whereupon and to whom they will transfer title and/or licence the use of the records.

5.2 Report

5.2.1 Full copyright of each report shall be retained by the originating body (the archaeological organisation undertaking the work) under the Copyright, Designs and Patents Act 1988 with all rights reserved, excepting that the Developer will be licensed: to use each report in all matters directly relating to the scheme; and to make each report available for public dissemination as part of the dissemination measures identified in section 2.4.

6. References

6.1 Bibliography

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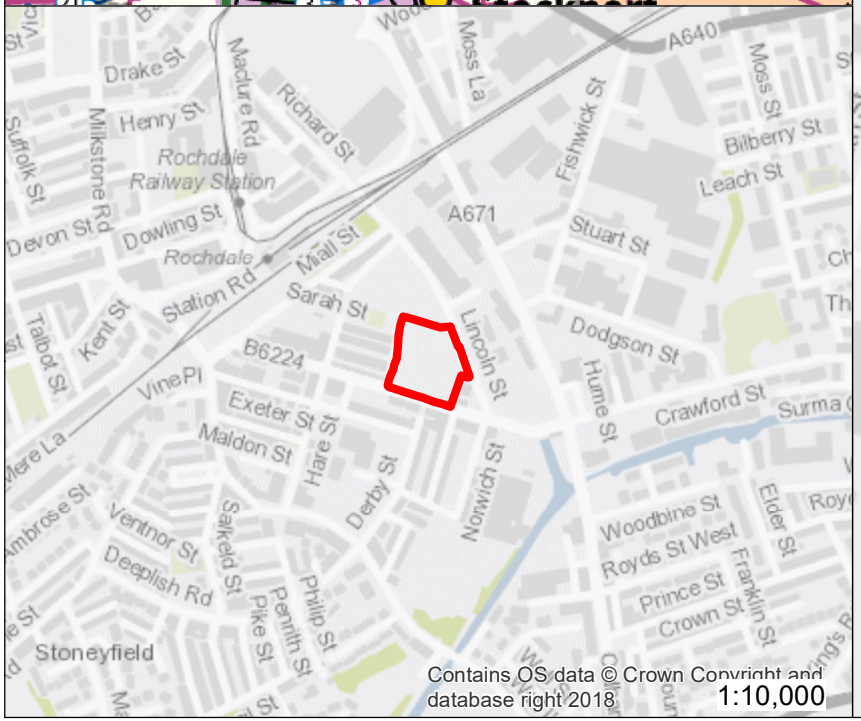
Illustrations



ecus
ENVIRONMENTAL CONSULTANTS

Site
Excavation Areas

N

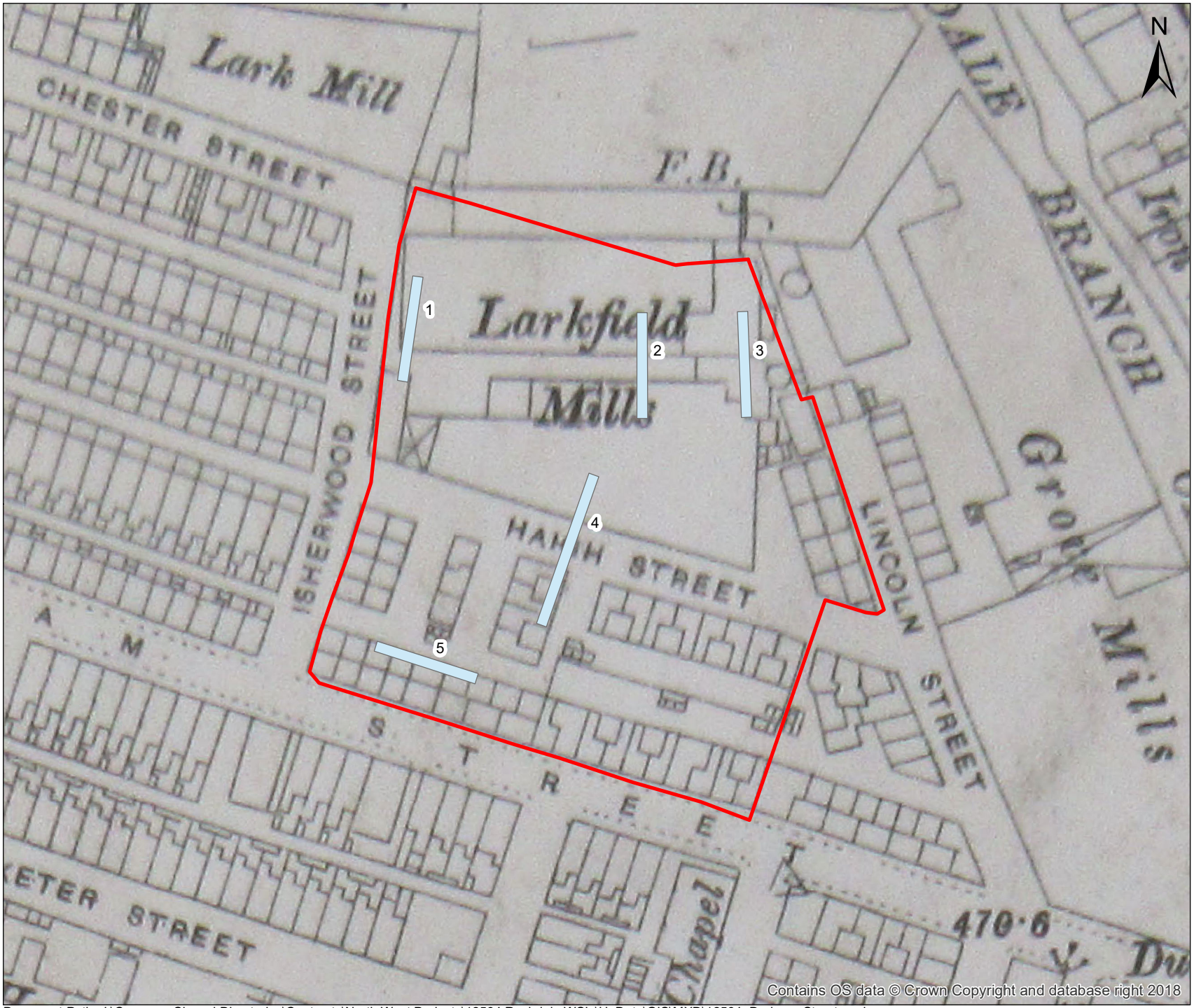
Countryside Properties UK Ltd

Durham Street, Rochdale -
WSI for archaeological excavation

Figure 1: Site Location

Brook Holt 3 Blackburn Road Sheffield S61 2DW
T: 0114 2669292 www.ecusltd.co.uk

February 2019 | Scale: As shown @ A4 | Drg.Ref: AKC/12564/1



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Legend

- Site
- Evaluation Trench

Meters

0 10 20 30 40 50

Countryside Properties UK Ltd

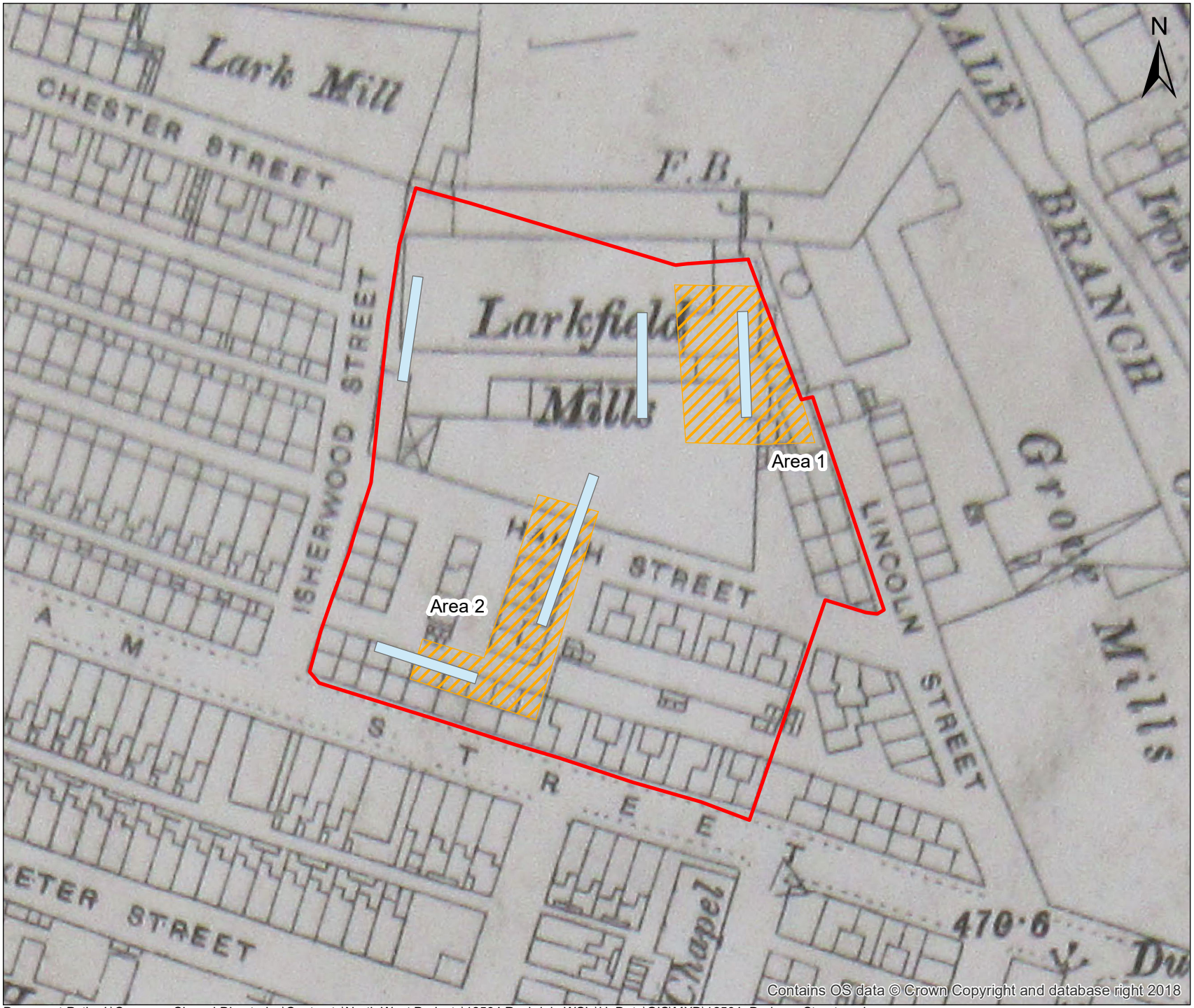
Durham Street, Rochdale –
WSI for Archaeological Excavation

Figure 2
Evaluation Trenches on 1893 OS

Brook Holt 3 Blackburn Road Sheffield S61 2DW
T: 0114 2669292 www.ecusltd.co.uk

Document Path: J:\Company Shared Directories\Contracts\North West Projects\12564 Rochdale WSIs\H. Data\GIS\MXD\12564_Durham_Street.mxd

Date: February 2019 | Scale: 1:1,000 | Drg.Ref: AKC/12564.2/2



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Legend

- Site
- Excavation Areas
- Evaluation Trench

Meters

0 10 20 30 40 50

Countryside Properties UK Ltd

Durham Street, Rochdale –
WSI for Archaeological Excavation

Figure 3
Excavation Areas on 1893 OS

Brook Holt 3 Blackburn Road Sheffield S61 2DW
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Date: February 2019 | Scale: 1:1,000 | Drg.Ref: AKC/12564.2/3

APPENDIX D DESK BASED ASSESSMENT

Durham Street, Rochdale, Greater Manchester – Archaeological Desk-Based Assessment

Countryside Properties UK Ltd

Report prepared by:
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0114 266 9292

November 2018

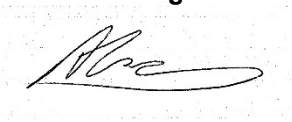
ECUS Ltd

Report to:	**Countryside Properties UK Ltd**
Report Title:	**Durham Street, Rochdale, Greater Manchester – Archaeological Desk-Based Assessment**
Revision:	**v.1**
Issue Date:	**November 2018**
Report Ref:	**Project No. 12293.3**

Originated By:

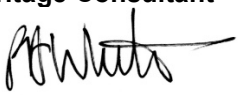
Jennifer Oliver
Senior Heritage Consultant Date: 26/11/2018

Reviewed By:



Alex Cassels
Heritage Consultant Date: 27/11/2018

Approved By:



Paul White
Head of Heritage Date: 27/11/2018

Prepared by:
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Executive Summary

Ecus Ltd were commissioned by Countryside Properties UK Ltd in October 2018 to prepare an archaeological desk-based assessment, for land at Durham Street, Rochdale centred at National Grid Reference 390133, 412507.

The site is characterised by post-industrial/commercial wasteland following the demolition of the industrial and large scale commercial buildings which formerly stood within the site. Any development within the land has the potential to affect the historic landscape character of the site, although the historic landscape character of the site is considered to have negligible heritage significance.

There are no designated heritage assets located within the site. There are a total of seven designated heritage assets within the 500 m study area. Due to the built-up townscape, it is considered there will be no impacts upon the settings of the designated heritage assets within the study area.

There are no known non-designated heritage assets located within the site. As a result there will be no physical impact upon known non-designated heritage assets.

It is considered that there is a high potential for remains of post-medieval and modern date relating to the mill buildings and residential buildings formerly situated within the site. These remains are thought likely to be of low heritage significance. It is anticipated that the proposed scheme will include groundworks which would impact on any archaeological remains that may be present within the site.

The effect of the proposed scheme on the known and potential heritage resource will be a material consideration in the determination of the planning application. This study has identified no over-riding historic environment constraints which are likely to prohibit development.

The need for scale, scope and nature of any further archaeological works to inform the proposal should be agreed through consultation with the local planning authority in accordance with paragraphs 189 of the NPPF.

Contents

1. Introduction

1.1 Project Background

1.1.1 Ecus Ltd were commissioned by Countryside Properties UK Ltd (hereafter 'the Client') in October 2018 to prepare an archaeological desk-based assessment, for land at Durham Street, Rochdale (hereafter 'the site') centred at National Grid Reference 390133, 412507.

1.1.2 The site is currently an unoccupied brownfield site following the demolition of previously present industrial buildings. The site has not been the subject of any previous archaeological investigations. This report is to inform a planning application for the construction of 38 houses within the site.

1.2 The Site

1.2.1 The site is located approximately 900 m south-east of the town centre of Rochdale, Greater Manchester (**Figure 1**). The site is currently an unoccupied brownfield site (**Plate 1**) following the demolition of the industrial buildings which previously stood within the site. The site is bounded to the south by Durham Street, to the north-east by Lincoln Street and to the west by Isherwood Street. A car park is located beyond the northern boundary of the site.

Plate 1: General view of site

1.2.2 The site occupies an area of approximately 0.83 ha. The site is broadly flat with a ground level of approximately 144 m above Ordnance Datum (aOD).

1.2.3 The underlying geology of the site is recorded as sandstone of the Old Lawrence

Rock Formation with recorded superficial glaciofluvial deposits of sand and gravel (British Geological Survey 2018).

1.3 Aims and Objectives

1.3.1 The purpose of this Archaeological Desk-Based Assessment is to determine, as far as is reasonably possible from existing records and observations, an understanding of the archaeological resource within and surrounding the application area in order to formulate:

- An assessment of the potential for heritage assets to survive within the area of study;
- An assessment of the significance of the known or predicted heritage assets considering their archaeological, historic, architectural and artistic interests;
- Strategies for further evaluation intrusive or non-intrusive, where the nature, extent or significance of the resource is not sufficiently well defined;
- An assessment of the impact of proposed development or other land use changes on the significance of the heritage assets and their settings; and
- Proposals for further archaeological investigation within a programme of research.

2. Regulatory and Policy Context

2.1 Introduction

2.1.1 There is national legislation and guidance relating to the protection of, and development on, or near, important archaeological sites or historical buildings within planning regulations as defined under the provisions of the Town and Country Planning Act 1990. In addition, local authorities are responsible for the protection of the historic environment within the planning system.

2.2 Historic Buildings and Ancient Monuments Act 1953

2.2.1 Historic England is enabled by the Historic Buildings and Ancient Monuments Act 1953 (as amended by the National Heritage Act 1983) to maintain a register of parks, gardens and battlefield sites which appear to Historic England to be of special historic interest. Registration in this way makes the effect of proposed development on the sites and their settings a material consideration. Historic England are a statutory consultee in relation to works affecting Grade I/II* Registered Parks and Gardens.

2.3 Ancient Monuments and Archaeological Areas Act 1979

2.3.1 Scheduled Monuments and Areas of Archaeological Interest are afforded statutory protection under the Ancient Monuments and Archaeological Areas Act 1979 (as Amended) and the consent of the Secretary of State (Department of Culture, Media and Sport), as advised by Historic England, is required for any works.

2.4 Planning (Listed Buildings and Conservation Areas) Act 1990

2.4.1 Works affecting Listed Buildings or structures and Conservation Areas are subject to additional planning controls administered by LPAs under the Planning (Listed Buildings and Conservation Areas) Act 1990. In considering development which affects a Listed Building or its setting, the LPA shall have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses (Section 66). In considering Conservation Areas the planning authority has a general duty to give special attention to the desirability of preserving or enhancing the character or appearance of that area (Section 72).

2.4.2 The statutory criteria for listing are the special architectural or historic interest of a building. Buildings on the list are graded to reflect their relative architectural and historic interest (DCMS, 2010a, para 7, page 4):

- Grade I: Buildings of exceptional interest;
- Grade II*: Particularly important buildings of more than special interest;
- Grade II: Buildings of special interest which warrant every effort being made to preserve them.

2.4.3 Historic England is a statutory consultee in relation to works affecting Grade I/II* Listed Buildings.

2.5 Local Plan

2.5.1 The site is situated within the administrative boundaries of Rochdale Borough Council who adopted the Rochdale Core Strategy in October 2016. The following policy concerns the historic environment and is considered to be relevant to the proposed scheme.

Rochdale Core Strategy (2016)

Policy P2: Protecting and enhancing character, landscape and heritage

1. *We will protect and enhance the borough's character, the distinctiveness of its town centres, housing areas and countryside, and the qualities of its landscapes, utilising the considerable potential of these assets in development and regeneration schemes. We will do this by:*

    a. *Requiring new development to integrate successfully with the key natural features of the borough, e.g. river valleys and the Pennine landscape;*

    b. *Requiring new development to take opportunities to protect and open up important views of hills and valleys which are part of the borough's unique character;*

    c. *Restoring the River Roch and other water bodies to their place as key and attractive features of the borough, including opening up waterways where they have been covered, and enhancing their setting, heritage assets and biodiversity potential;*

    d. *Protecting, enhancing and utilising outstanding cultural landscapes, such as the Cheesden Valley area and around Littleborough and Hollingworth Lake; and*

    e. *Conserving and enhancing townscape character.*

2. *We will protect the borough's heritage by:*

    a. *Conserving, enhancing and promoting key heritage assets, both statutory and nonstatutory, including consideration of their wider settings. Key heritage assets of the borough include:*

        i. *Four outstanding conservation areas: Central Rochdale, Middleton and Littleborough town centres and Rock Nook / Summit;*

        ii. *Other designated assets such as listed buildings, conservation areas, registered parks and scheduled ancient monuments;*

        iii. *The heritage of the Co-operative movement, the Rochdale Pioneers and the Labour movement;*

        iv. *The Edgar Wood and J. H. Sellers cultural heritage;*

        v. *The heritage of the seventeenth and eighteenth century vernacular tradition; and*

        vi. *The engineering heritage, including mills, canals and railways.*

b. Conserving, enhancing and utilising other non-statutory heritage assets of local interest, be they buildings, parks, gardens or archaeological sites, including promoting their sensitive restoration;

c. Using heritage assets positively and intelligently to strengthen identity and image and support the visitor economy, particularly in development and regeneration schemes; and

d. *Prioritising the conservation of heritage assets at risk from decay, giving special attention to designated heritage assets in this regard.*

2.6 National Planning Policy Framework

2.6.1 Section 16 of the National Planning Policy Framework (NPPF) sets out the Government's current planning policy in relation to conserving and enhancing the historic environment. The key requirements are summarised below.

2.6.2 Applicants are required to provide proportionate information on the significance of designated and non-designated heritage assets affected by the proposals and an impact assessment of the proposed development on that significance. This should be in the form of a desk-based assessment and, where necessary, a field evaluation (NPPF, 189).

2.6.3 LPAs are required to take into account 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 (NPPF, 185/192).

2.6.4 In determining planning applications, great weight should be given to the conservation of designated heritage assets - World Heritage Sites, Scheduled Monuments, Listed Buildings, Protected Wreck Sites, Registered Parks and Gardens, Registered Battlefields or Conservation Areas designated under the relevant legislation (NPPF, 193/194).

2.6.5 In weighing applications that affect directly or indirectly the significance of a non-designated heritage asset, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset (NPPF, 197).

2.6.6 LPAs should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their significance and the impact, and to make this evidence publicly accessible and any archives deposited with a local museum or other public depository (NPPF, 199).

3. Methodology

3.1 Standards

3.1.1 This assessment is undertaken in accordance with:

- The Chartered Institute for Archaeologists' Standard and Guidance for historic environment desk based assessment (CIfA, 2017).
- Planning Practice Guidance Conserving and enhancing the historic environment (6th March 2014), published by the Department for Communities and Local Government.
- Historic England's Historic Environment Good Practice Advice in Planning Notes (2015a-b, 2017).

3.2 Scope of Assessment

3.2.1 Baseline conditions are established through consideration of recorded heritage assets within a 500 m study area, agreed with the Greater Manchester Historic Environment Record (GMHER), around the site and desk-based review of existing sources of publicly accessible sources of primary and synthesised information, comprising:

- The GMHER, comprising a database of all recorded archaeological sites, find-spots, and archaeological events within the county.
- National heritage datasets including The National Heritage List for England (NHLE), Images of England, PastScape, Viewfinder, NMR Excavation Index, and Parks and Gardens UK.
- Historic manuscripts and maps held at Rochdale Local Studies and Archive.
- Relevant primary and secondary sources including published and unpublished archaeological reports relating to excavations and observations in the area around the site were studied.

3.2.2 A site visit was undertaken during November 2018 in order to assess the general character of the site, to identify heritage assets not identified through desk-based review and assess possible factors which may affect the survival or condition of known or potential assets

3.2.3 A bibliography of documentary, archive, and cartographic sources consulted is included in the References section of this report.

3.3 Assumptions and Limitations

3.3.1 This report is compiled using secondary information derived from a variety of sources, only some have been directly examined. The assumption is made that this data, as well as that derived from other secondary sources, is reasonably accurate.

3.3.2 In addition, the records held by GMHER represent a record of a wide range of information derived from historical sources and previous archaeological discoveries and does not preclude the subsequent discovery of further elements of the historic environment that are, at present, unknown.

3.4 Assessment of Significance

3.4.1 The National Planning Policy Framework recommends that, in determining applications, local planning authorities should require applicants to describe the significance of any heritage assets affected, including any contribution made by their setting (NPPF, 2018: 56).

3.4.2 The significance of heritage assets is defined in terms of their value to this and future generations because of their heritage interest, deriving not only from their physical presence, but also from their setting. This interest may be archaeological, architectural, artistic or historic (NPPF, 2018: 71):

- **Archaeological interest:** derives from the presence or potential for evidence of past human activities worthy of expert investigation at some point. Heritage assets with archaeological interest are the primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.
- **Architectural interest:** derives from the architectural design, decoration or craftsmanship of a heritage asset. Architectural interest may also apply to nationally important examples of particular building types and techniques and significant plan forms.
- **Artistic interest:** derives from interest in the design and general aesthetics of a place. It can arise from conscious design or fortuitously from the way the place has evolved. More specifically, architectural interest is an interest in the art or science of the design, construction, craftmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skill, like sculpture.
- **Historic interest:** derives from the ways in which past people, events and aspects of life can be connected through a place to the present. It tends to be illustrative or associative. Considers documentation, wider context, regional factors, and group value of the site.

3.4.3 The heritage interest of an asset's physical presence is assessed in terms of attributes identified in statutory criteria, general principles for selection (DCMS 2010a-b), selection guides published by Historic England, and regional research agendas.

3.4.4 The heritage interest of an asset's setting is assessed in accordance with Step 2 of Historic England's The Setting of Heritage Assets (2017), which considers the physical surroundings of the asset (including its relationship with other heritage assets); the way in which the asset is appreciated, and the asset's associations and patterns of use. Attributes of setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral (NPPF 2018, 71).

3.4.5 The overall significance of a heritage asset is the sum value of its interest, expressed within this report on a 6-point scale of Very High, High, Medium, Low, Negligible and Unknown using the criteria presented in Table 1.

3.4.6 The contribution of a given site or application area to an asset's significance is assessed in order to provide a basis for assessing the sensitivity of the heritage asset to change within that specific area. The criteria for this assessment are presented in Table 2.

Table 1: Criteria for determining the significance of heritage assets

Heritage Significance	Criteria
Very High	World Heritage Sites and the individual attributes that convey their Outstanding Universal Value, or non-designated heritage assets of demonstrable international heritage interest.
High	Scheduled Monuments, Listed Buildings (Grade I, II*, II), Conservation Areas, Registered Historic Parks and Gardens (Grade I, II*, II), Registered Battlefields, Protect Wreck Site, or non-designated heritage assets of demonstrable national importance due to their heritage interest.
Medium	Locally Listed Buildings and Landscapes, or non-designated heritage assets of demonstrable regional importance due to their heritage interest.
Low	Non-designated heritage assets of demonstrably limited heritage interest.
Negligible	Non-designated heritage asset of very limited heritage interest, typically due to poor preservation, survival or restricted contextual associations.
Unknown	The significance of the heritage asset can not been ascertained from available evidence.

Table 2: Criteria for valuing the contribution of the site to the significance of heritage assets

Contribution of Site	Criteria
High Contribution	The site possesses attributes that make a strong positive contribution to the understanding and/or appreciation of the interests that embodies its significance.
Medium Contribution	The site possesses attributes that make some positive contribution to the understanding and/or appreciation of the interests that embodies its significance.
Low Contribution	The site possesses attributes that make little positive contribution to the understanding and/or appreciation of the interests that embodies its significance.
Neutral Contribution	The site does not contribute to the understanding and/or appreciation of the interests that embodies its significance
Negative Contribution	A site detracts from the understanding and/or appreciation of the interests that define the significance of a heritage asset.

4. Historic Environment Baseline

4.1 Introduction

4.1.1 The following section identifies known heritage assets that may have the potential to receive effects from the proposed development, compiled from sources listed in Section 3.

4.1.2 National List entries are referenced by their National Heritage List for England (NHLE) entry number and depicted in **Figure 2**. HER features are listed by their HA (Heritage Asset) number detailed in **Appendix 1** and depicted in **Figure 2**.

4.2 Historic Environment Character

4.2.1 The character of the landscape within the site has been assessed as part of the Greater Manchester Urban Historic Landscape Characterisation (HLC) project (GMAU 2010; **Figure 3**). The site lies within two broad types characterised as 'Commercial' and 'Industrial'.

4.2.2 The Industrial HLC type represents 4% of the total area of Rochdale. Industry has been of prime importance to the physical and economic development of Rochdale since as early as the medieval period (GMAU 2010: 140). The commercial HLC type represents 3% of the total area of Rochdale.

4.2.3 At the time of the HLC project the site was recorded as being a general business (commercial) and food manufactory (industrial) site. Since the completion of the project the industrial buildings have been demolished and the site is currently better characterised as post-industrial/commercial wasteland.

4.3 Archaeological and Historical Baseline

Prehistoric and Romano-British

4.3.1 The GMHER records no evidence for prehistoric or Romano-British activity within the site or study area. Within the wider landscape, there is limited evidence for prehistoric or Romano-British activity. Due to the paucity of evidence from the site, study area and wider landscape it is considered that there is a low potential for archaeological remains dating from the prehistoric or Romano-British period to be present within the site.

Early medieval and Medieval

4.3.2 There is no archaeological evidence for early medieval activity within the site or study area. The place name of Rochdale translates from Old Scandinavian as 'valley of the River Roch' and is likely to date from the ninth or tenth century. The name of the river is a back-formation from an older Old English place name for Rochdale, '*Recedham*' meaning 'homestead with a hall' (Mills, 2011).

4.3.3 Rochdale is included within the Domesday entry for the Salford Hundred (Williams and Martin, 2003) and is not given its own entry which means that the size of the town at the end of the eleventh century cannot be estimated. The lord of the manor in 1086 is named as Roger of Poitou who had built up large estates in Lancashire following the Norman Conquest.

4.3.4 The GMHER does not include any records relating to the medieval era within the study area. The main focus of medieval activity would have been focussed around the medieval core of Rochdale, located approximately 900 m northwest of the site.

Post-medieval and Modern

4.3.5 The textile industry had been important to the economy of Rochdale since the medieval period but this importance increased significantly during the post-medieval period. By the early eighteenth century, Rochdale is recorded as being famous as a centre for the woollen trade (GMAU 2010) but it was the industrial revolution that stimulated the growth of the town beyond its medieval core.

4.3.6 Towards the end of the eighteenth century a canal was proposed which would link Rochdale with Manchester to the south-west and Sowerby Bridge, and the Calder Navigation to the north-east. A plan showing the proposed route of the Rochdale Canal, dating to 1791 (**Figure 4**), shows the extent of Rochdale at the end of the eighteenth century. The Rochdale Canal received an Act of Parliament in 1794 and was opened in Rochdale in 1798. Within the study area, there are two locks on the main channel of the canal which are Grade II Listed (NHLE: 1039316 & 1084248). The canal included a branch to a basin at Richard Street (**HA4**) and a bridge which formerly spanned this branch is also designated a Grade II Listed Building (NHLE: 1031919).

4.3.7 Murphy's map of Rochdale, dating to 1831 (**Figure 4**) shows the impact that the opening of the canal had made on the development of the town. Industrial buildings were constructed along the banks of the branch canal whilst on the southern side of the main channel Wellfield Mill (**HA8**) and Well I' th' Lane Mill (**HA5**) had been established. Within the site, Crossfield cottage is shown on the south-eastern corner of the boundary. The 1851 Ordnance Survey (OS) map shows Crossfield Cottage outside the site, suggesting an error in scale or alignment of the 1831 map.

4.3.8 By the time of the publication of the 1851 OS Town Plan of Rochdale part of the site formed a small part of the landscaped gardens of Lark Field or Hare Lands (**Figure 4**). The house itself was located approximately 65 m south of the site boundary. The house is depicted in part on the 1831 OS Map and is annotated as in the ownership of William Mann Esq. Lark Mill House and its landscaped grounds were located to the north of the site boundary, Lark Mill was located on the opposite side of the canal to the north. Crossfield, a large house, located to the south of Lark Hill, was owned by John Vavasour who is listed in the contemporary trade directory as a wool-stapler. The map indicates that he also owned the land to the east of the Rochdale Canal Branch including the site of the Crossfield Mill (**HA11**) which had been constructed by 1844.

4.3.9 The 1893 OS map shows the extent of the southern expansion of Rochdale during the second half of the nineteenth century (**Figure 4**). In the 1860s the Grade II Listed Norwich Street Mills (NHLE: 1268012) had been constructed approximately 85 m south of the site. The grounds to Lark Field/Harelands had been substantially reduced with the construction of new terrace housing and the new street layout imposed on the former landscaped grounds of the mill owners housing. At this time the site was divided by Haigh Street. To the north lay Larkfield Mills whilst to the south were a series of small terrace houses. Lincoln Street is first depicted, to the north-east of the site.

Modern

4.3.10 The 1910 and 1930 OS maps (**Figure 5**) depict little change from this layout. The 1957 OS map (**Figure 5**) shows that the site had at some point been cleared, Haigh Street was truncated, the terraces demolished and the Larkfield Mill buildings largely cleared. There is potential that the northernmost mill building remained in part and was used. The Golden Grain Bakery, depicted at the junction of Lincoln Street and the truncated Haigh Street may also have made use of part of the former Larkfield Cotton Mill. A new works building was constructed in the western part of the site. By 1971 the mill building to the north had been demolished. Between 2009 and 2012 the remaining buildings on site were demolished and the site has remained as post-industrial wasteland since.

5. Summary of Heritage Constraints

5.1 Introduction

5.1.1 In line with current planning policy (NPPF Ch.16 Para.185), a description of heritage assets directly affected by the proposed development, based on the current level of available information, is summarised below.

5.2 Historic Landscape Character

5.2.1 The site is characterised by post-industrial/commercial wasteland following the demolition of the industrial and large scale commercial buildings which formerly stood within the site. Any development within the land has the potential to affect the historic landscape character of the site, although the historic landscape character of the site is considered to have negligible heritage significance.

5.3 Designated Heritage Assets

5.3.1 There are no designated heritage assets located within the site. There are a total of seven designated heritage assets within the 500 m study area. Due the intervening built up townscape between the site and the assets, it is considered there will be no impact upon the settings of any of the designated heritage assets.

5.4 Non-designated Heritage Assets

5.4.1 There are no known non-designated heritage assets located within the site. As a result there will be no physical impact upon known non-designated heritage assets.

5.5 Archaeological Potential and Significance

5.5.1 There have been no known previously recorded archaeological investigations undertaken within the site boundary.

5.5.2 Based on the historic environment baseline (**Section 4**), these is considered to be the potential for the development to affect as of yet unknown non-designated archaeological remains, comprising:

- High potential for archaeological remains dating to the post-medieval and modern period. Remains are likely to relate to the former Larkfield Cotton Mills. There may be some potential for remains relating to former workers housing in the southern portion of the site. Any remains encountered are considered to be of low heritage significance due to the potential for enabling an understanding of the late nineteenth and early twentieth century cotton production industry which alongside the wool textile industry formed the predominant economic activity in Rochdale.

5.6 Previous Impacts

5.6.1 Up until 1831, the site formed part of a field system around Rochdale (**Figure 4**). By 1851 the site formed part of the landscaped grounds of the Lark Field/ Hare Lands and Lark Mill Houses. By 1893 Larkfield Mill and the terrace houses around Haigh Street had been constructed. The site remained relatively unchanged until

the publication of the 1957 OS map (**Figure 5**) which shows the demolition of some of the Larkfield Mills buildings, the demolition of the terrace housing and the construction of a new industrial/commercial unit. All buildings in the site were finally demolished between 2009 and 2012. The site has remained unoccupied since and as such there is high potential for archaeological remains relating to the former buildings. It is considered that the construction and demolition of the buildings during the late nineteenth and twentieth centuries will have had a severe impact on any archaeological remains predating the late nineteenth century industrial and residential use of the site.

6. Statement of Impact

6.1 Introduction

6.1.1 This section sets out a brief description of the scheme and provides an assessment of impact with regard to historic environment constraints.

Scheme Proposal

6.1.2 The proposed scheme is for the development of the land into a new residential estate comprising 38 new residential units, a new road and landscaping.

6.2 Assessment of Proposal

Effects during Construction

6.2.1 The potential for impacts to the historic environment to arise during the construction phase relates primarily to the potential for excavations and groundworks to affect any below ground archaeological remains that may be present within the footprint of works. The proposed work within the site will comprise:

- The creation of roads and footpaths;
- Soft landscaping across the new residential estate;
- The creation of new drainage and service connections; and
- Groundworks associated with the phased construction of new residential units.

Effects during Lifespan of Development

6.2.2 The majority of the effects on the historic environment would occur during the construction phase of the scheme. Impacts during the operation of the scheme, which could have an effect on the historic environment, comprise loss of context of the historic landscape character.

6.3 Impact Upon the Identified Archaeological Potential

6.3.1 It is considered that the groundwork activities outlined above have the potential to impact upon any archaeological remains which may be present within the site. Any such remains are anticipated to be of low heritage significance.

7. Discussion

7.1 Summary

7.1.1 The site is located approximately 900 m south-east of the centre of the town of Rochdale, Greater Manchester. The site is currently an unoccupied brownfield site following the demolition of the former commercial and industrial buildings which formerly occupied the site. The site is bounded by Lincoln Street to the east, Durham Street to the south and Isherwood Street to the west.

7.1.2 The proposed scheme is for the development of the land into a new residential estate comprising 38 residential units, a new access road and landscaping.

7.2 Statement of Impact

Archaeological Potential

7.2.1 It is considered that there is a high potential for remains of a post-medieval and modern date relating to the mill buildings, and residential buildings formerly situated within the site. These remains are thought likely to be of low heritage significance. It is anticipated that the proposed scheme will include groundworks which would impact on any archaeological remains that may be present within the site.

7.3 Historic Landscape Characterisation

7.3.1 The proposed scheme will change the current land use of the site from post-industrial/commercial waste ground to residential. This will result in a change from the current historic landscape character of the site. It is considered that the historic landscape character of the site is of negligible heritage significance. The proposed residential scheme will reflect the residential character of the area to the west and south of the site.

7.4 Designated and Non-designated Heritage Assets

7.4.1 There are no designated heritage assets located within the site. It is considered there will be no impact upon the setting of any designated heritage assets.

7.5 Recommendations

7.5.1 The need for scale, scope and nature of any further archaeological works to inform the proposal should be agreed through consultation with the local planning authority in accordance with paragraphs 189 of the NPPF.

8. References

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1851 Ordnance Survey Town Plan of Rochdale Sheets 14, 15
1893 Ordnance Survey Lancashire Sheet 89.5
1910 Ordnance Survey Lancashire Sheet 89.5
1930 Ordnance Survey Lancashire Sheet 89.5
1957 Ordnance Survey Sheet SD9012SW

Appendix 1: Tables

Gazetteer of Designated Heritage Assets

Designation Reference	Name	Designation	Easting	Northing
NHLE: 1031919	Rochdale Canal Branch Arm Halfpenny Bridge	Grade II Listed Building	390129	412704
NHLE: 1268012	Norwich Street Mills	Grade II Listed Building	390224	412322
NHLE: 1084248	Rochdale Canal Lock Number 50 (Moss Lower Lock)	Grade II Listed Building	390356	412359
NHLE: 1038316	Rochdale Canal Lock Number 49 (Moss Upper Lock) (East of Oldham Road)	Grade II Listed Building	390547	412421
NHLE: 1376506	Roman Catholic Church of St John the Baptist	Grade II* Listed Building	389845	412758
DGM3129	Rochdale Town Centre	Conservation Area	389705	413279
DGM3132	Maclure Road	Conservation Area	389899	412767

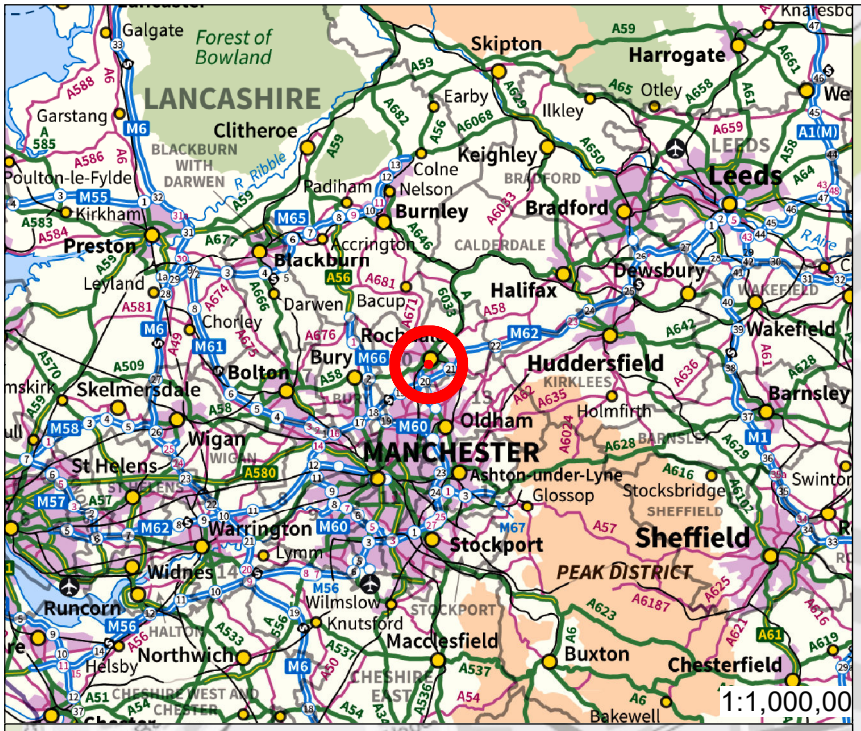
Gazetteer of Heritage Assets within the 500 m Study Area

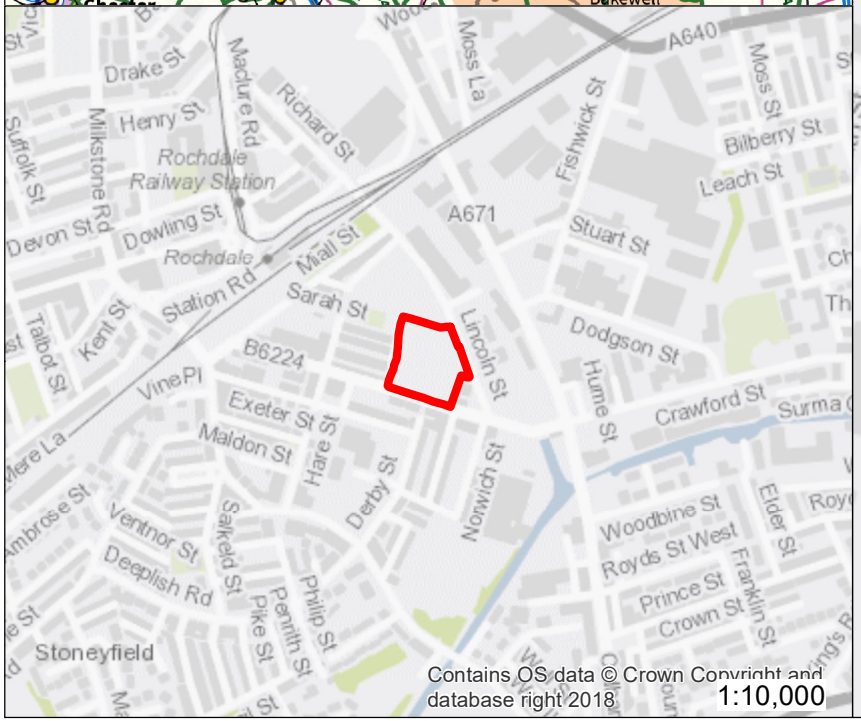
HA	Period	Name	Easting	Northing	GMHER reference
1	Post Medieval to AD 20th Century	Deeplish Hill and Deeplish Hall (site of)	390032	412144	MGM1051
2	AD 17th Century to AD 18th Century	Lower Place (site of)	390050	412050	MGM1058
3	AD 18th Century to AD 20th Century	Warehouse (site of)	389865	412945	MGM6064
4	AD 18th Century to AD 20th Century	Canal Basin (site of), Drake Street	389955	413005	MGM1044

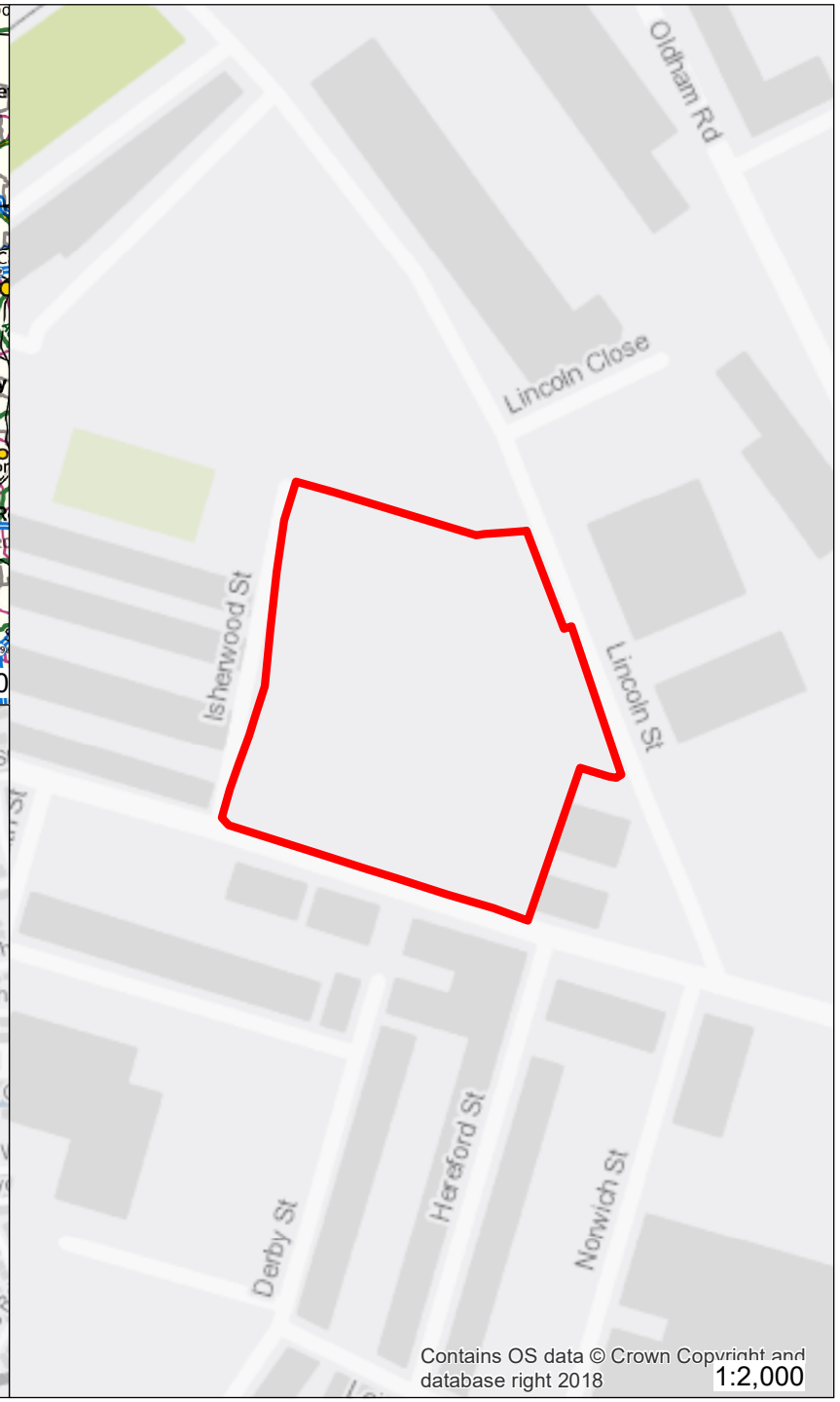
HA	Period	Name	Easting	Northing	GMHER reference
5	AD 18th Century to AD 20th Century	Well I' th' Lane Mill (site of)	390190	412050	MGM19044
6	AD 19th Century to AD 20th Century	13–16, Richard Street (site of)	389879	412876	MGM214
7	AD 19th Century to AD 20th Century	Vicars Moss Mill (site of)	390014	412873	MGM6119
8	AD 19th Century to Modern	Wellfield Mill (site of)	390446	412360	MGM6124
9	AD 19th Century	Former Rochdale Station (site of)	390279	412829	MGM3345
10	AD 19th Century to Modern	Rochdale Station	389921	412625	MGM1049
11	AD 19th Century to Modern	Crossfield Mill	390422	412407	MGM6130
12	AD 19th Century to AD 20th Century	Wellfield Mill (Wellfield New Mill) (site of)	390445	412297	MGM6367
13	AD 19th Century to AD 20th Century	Victoria Mill (Woollen) (site of)	390287	412462	MGM6132
14	AD 19th Century to AD 20th Century	Albert Cotton Waste Mill (site of)	390605	412470	MGM6128
15	AD 19th Century to Modern	Canal Street Mills	390282	412214	MGM6135
16	AD 19th Century to Modern	Morning Side Mill	390467	412416	MGM6129
17	AD 19th Century to Modern	Grove Mills (site of)	390224	412501	MGM6133
18	AD 19th Century to Modern	Victoria Mill (Cotton) (site of)	390540	412300	MGM6118

HA	Period	Name	Easting	Northing	GMHER reference
19	AD 19th Century to Modern	Sparrow Hill School (site of)	389826	412700	MGM17428
20	AD 19th Century to Modern	Era Mill (site of)	390642	412403	MGM19265

Illustrations







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Site Boundary

N

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Figure 1: Site Location

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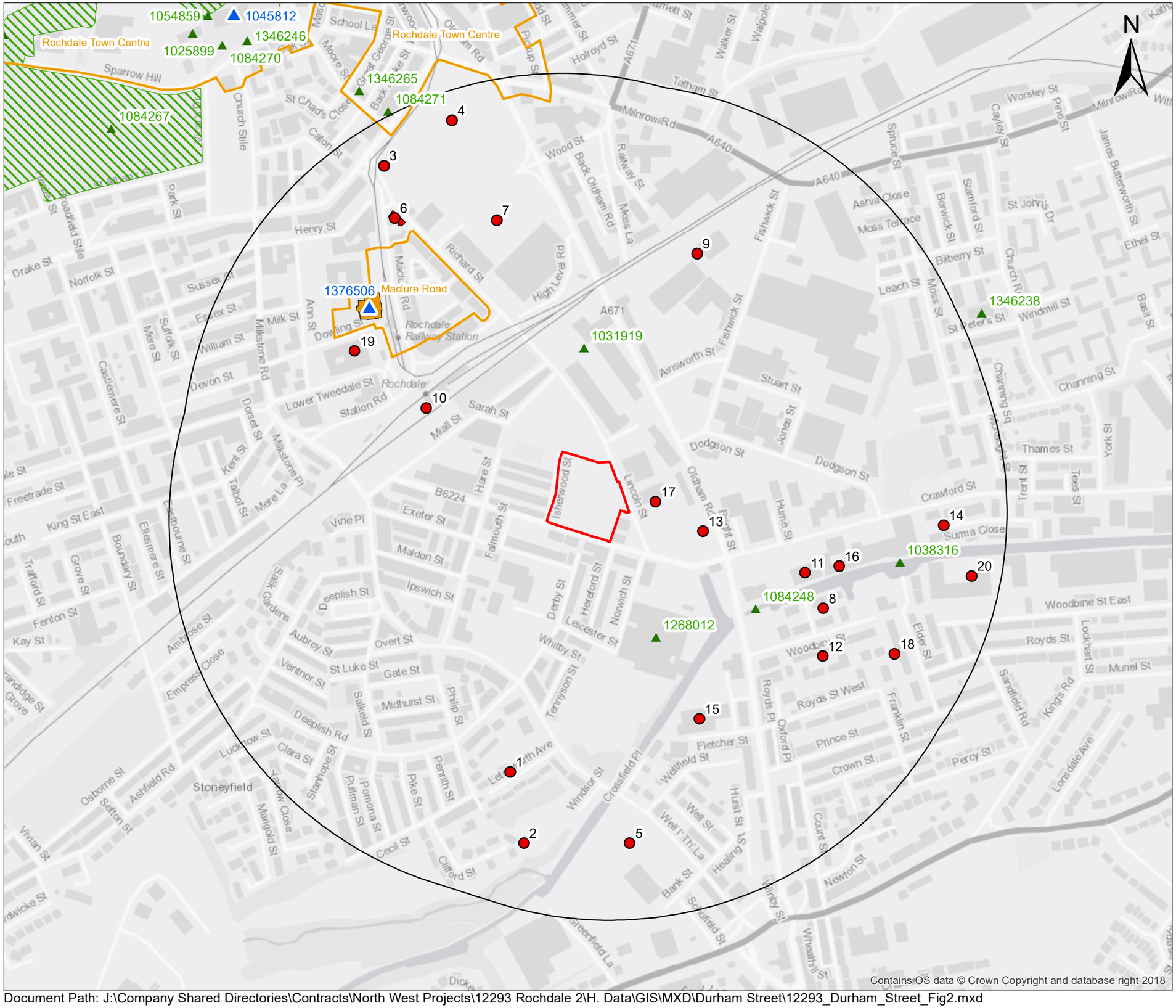
November 2018 | Scale: As shown @ A4 | Drg.Ref: JO/12293.3/1



Site Boundary

500 m Study Area

Designated Heritage Assets

- Grade II* Listed Building
- Grade II Listed Building
- Conservation Area
- Registered park & garden

Non-designated heritage assets by period

- Post-medieval
- Modern

Metres

0 50 100 200 300

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Figure 2: Designated and non-designated Heritage Assets within 500 m study area

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Document Path: J:\Company Shared Directories\Contracts\North West Projects\12293 Rochdale 2\H. Data\GIS\MXD\Durham Street\12293_Durham_Street_Fig2.mxd

Date: November 2018 | Scale: 1:5,000 @A3 | Drg.Ref: JO/12293.3/2.1

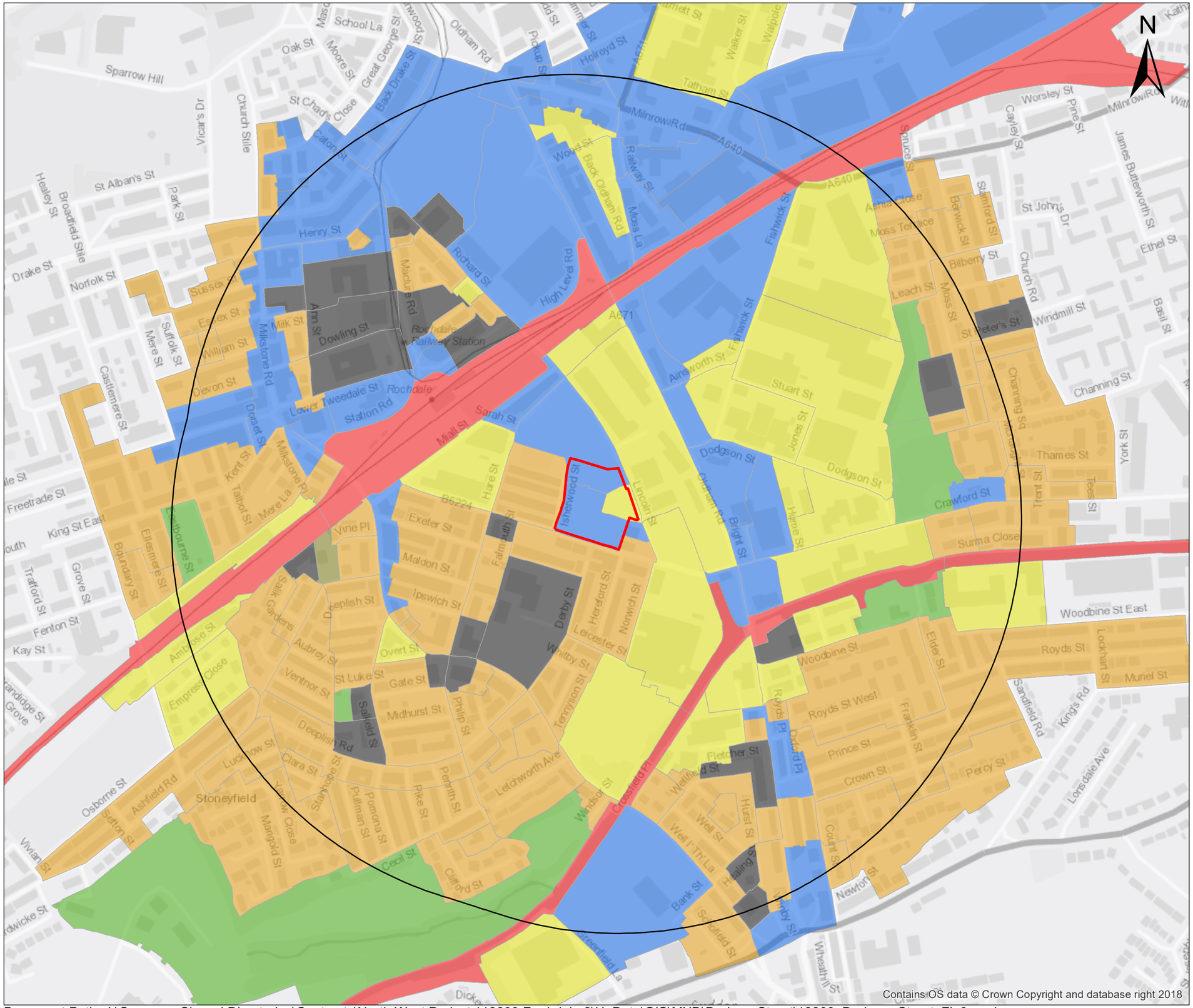

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Figure 3: Historic Landscape Characterisation

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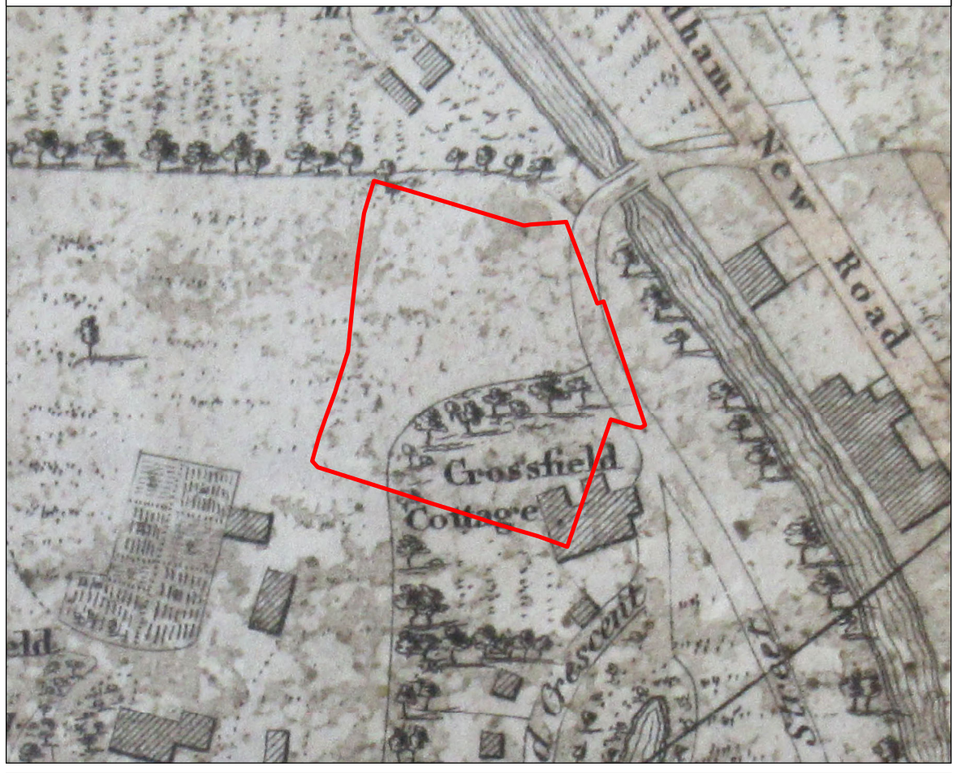
Document Path: J:\Company Shared Directories\Contracts\North West Projects\12293 Rochdale 2\H. Data\GIS\MXD\Durham Street\12293_Durham_Street_Fig3.mxd

Date: November 2018 | Scale: 1:5,000 @A3 | Drg.Ref: JO/12293.3/3

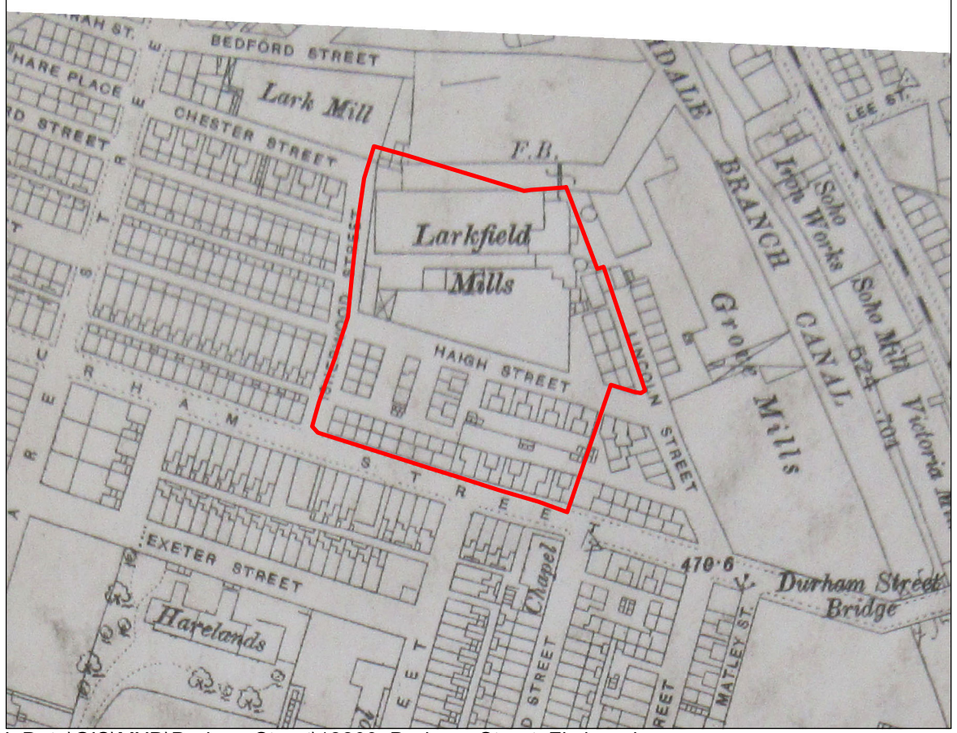
Crosley's Plan of Proposed Route of Rochdale Canal, 1791 1:20,000

Murphy's Plan of Rochdale 1831 1:2,000



Rochdale Town Plan Sheets 14, 15 1851 1:2,000

Lancashire Sheet LXXXIX.5 1893 1:2,000



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Site Boundary

N

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Figure 4 : Historic Mapping (1791, 1831, 1851 & 1893)

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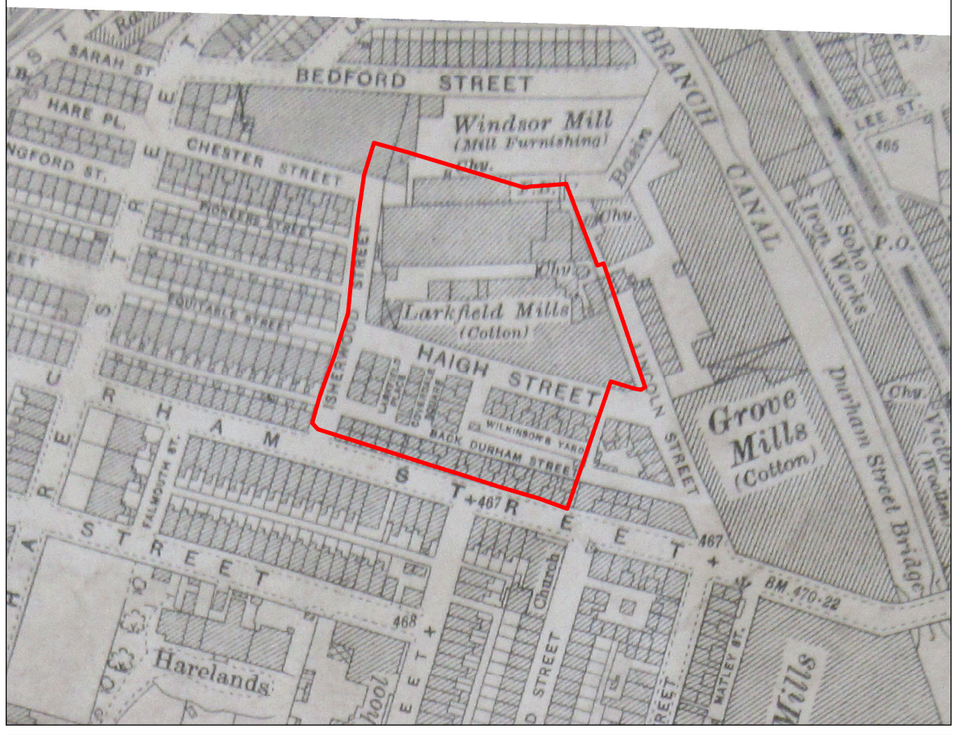
Document Path: J:\Company Shared Directories\Contracts\North West Projects\12293 Rochdale 2\H. Data\GIS\MXD\Durham Street\12293_Durham_Street_Fig4.mxd

Date: November 2018 | Scale as shown @A3 | Drg.Ref: JO/12293.3/4

Lancashire Sheet LXXXIX.5 1910 1:2,000

Lancashire Sheet LXXXIX.5 1930 1:2,000



SD9012SW 1957 1:2,000

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Site Boundary

N

Metres

0 10 20 40 60 80 100

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Norwich Street, Rochdale – Heritage Impact Assessment

Figure 5 : Historic Mapping (1910, 1930 & 1957)

Brook Holt 3 Blackburn Road Sheffield S61 2DW
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Document Path: J:\Company Shared Directories\Contracts\North West Projects\12293 Rochdale 2\H. Data\GIS\MXD\Durham Street\12293_Durham_Street_Fig5.mxd

Date: November 2018 | Scale as shown @A3 | Drg.Ref: JO/12293.3/5

APPENDIX E SITE SUMMARY DETAILS

Site name:	Durham Street, Rochdale
Site code:	DSR19/DSR19EX
Grid Reference	NGR 390133 412507
Type:	Evaluation and Excavation
Date and duration:	Evaluation conducted between 11th and 15th February 2019, Excavation between 11th and 29th March 2019
Area of Site	Evaluation involved five trenches of variable size arranged across the PDA Excavation involved two targeted expanded areas, one in the north-east quadrant and one in the south-west quadrant of the PDA
Location of archive:	The archive is currently held at OA, Mill 3, Moor Lane Mills, Moor Lane, Lancaster, LA1 1QD, and will be deposited with Greater Manchester HER in due course, There is no material archive.
Summary of Results:	Five evaluation trenches targeted various structures identified on historic mapping of the site and relating to the former location of a cotton mill complex known as Larkfield Mill in the northern half of the PDA, and associated terraced workers housing in the southern half. These trenches revealed that the targeted structures survived well across the site and included significant remains such as the boiler house servicing the mill complex. A scheme of expanded excavation works was subsequently agreed and targeted remains identified in the area of Trench 3, 4 and 5. Area 1 revealed further remains and details relating to the boiler house arrangement in the north-eastern corner of the site, also identifying an associated chimney base and additional structures relating to the mill. Area 2 revealed the near complete footprint of workers housing located in the south-western corner of the site and relating to two rows of terraced workers housing. This revealed a single phase of principle construction with limited subsequent modification or variability of construction method.

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