

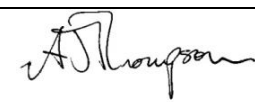
North View

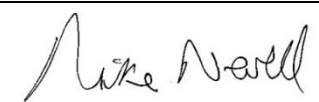
Written Scheme of Investigation for a scheme of archaeological evaluation trenching at Dalton Street, Manchester



Project Name:	Dalton Street, Manchester
Project Code:	Awaiting Code
Site Location:	Land bounded by Dantzig Street and Dalton Street, Manchester
NGR:	SJ 84534 99376
Planning Ref:	N/A
Document Title:	Written Scheme of Investigation for a programme of archaeological evaluation at Dalton Street, Manchester
Document Type:	Written Scheme of Investigation
Version:	Version 1.0
Prepared for:	Mr Allan Smith, Forrest

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1. Introduction

1.1 Circumstances of the project

1.1.1 In order to secure archaeological interests, the Senior Planning Archaeologist for the Greater Manchester Archaeological Advisory Service (GMAAS), in his capacity of archaeological advisor to the Greater Manchester Planning Authorities, has recommended that the redevelopment of the site should be preceded by an archaeological investigation as agreed within this Written Scheme of Investigation (WSI).

1.1.2 This advice is in line with the guidance provided by the National Planning Policy Framework (NPPF). In particular, Paragraph 141 requires developers to record and advance understanding of heritage assets to be lost, in a manner proportionate to their importance and impact.

1.1.3 In the light of this advice, High Peak Borough Council attached a condition to planning consent (Planning Ref HPK/2015/0571, Condition 33) that allowed for an investigation of below-ground archaeological remains. The wording of Condition 33a stated:

‘No development below ground level/slab level (including below-ground aspects of demolition) shall take place on any phase of development agreed under condition 6 until a Written Scheme of Investigation for archaeological work for that phase has been submitted to and approved by the Local Planning Authority in writing, and until any pre-start element of the approved scheme has been completed to the written satisfaction of the Local Planning Authority. The scheme shall include an assessment of significance and research questions, and:

1. The programme and methodology of site investigation and recording;
2. The programme for post-investigation assessment;
3. Provision to be made for analysis of the site investigation and recording;
4. Provision to be made for publication and dissemination of the analysis and records of the site investigation;
5. Provision to be made for archive deposition of the analysis and records of the site investigation;
6. Nomination of a competent person or persons/organization to undertake the works set out within the Written Scheme of Investigation.

No development shall take place other than in accordance with the archaeological Written Scheme of Investigation approved under condition (a). The development shall not be occupied until the site investigation and post-investigation assessment has been completed in accordance with the programme set out in the archaeological Written Scheme of Investigation approved under condition (a) and the provision to be made for

analysis, publication and dissemination of results and archive deposition has been secured.

Reason:- To enable the recording of any matters of archaeological/built heritage interest as the site is in an area of heritage significance or an area of archaeological potential, in accordance with the provisions of Policy EQ6 of the High Peak Local Plan 2016.'

- 1.1.1** This Written Scheme of Investigation (WSI) for an appropriate programme of intrusive investigation has been prepared by Adam Thompson, Director of Salford Archaeology at the Centre for Applied Archaeology (CfAA) on behalf Forrest Ltd. The document has been prepared in consultation Dr Andrew Myers, Greater Manchester Archaeological Advisory Service in his capacity of archaeological advisor to High Peak Borough Council. Any change to the proposed WSI will be agreed between the Client, the DCC and Salford Archaeology.
- 1.1.2** The WSI allows for the initial intrusive investigation of the steam-power plant (engine house and boiler house) associated with the weaving shed via a targeted 'strip and record' excavation, coupled with the detailed excavation of the former engine house that served the adjacent spinning mill. In the event of significant archaeological remains being discovered during the initial 'strip and record' evaluation of the steam-power plant for the weaving shed, further archaeological investigation is likely to be required in advance of or during development works; this may take the form of an open-area excavation, or a targeted watching brief during the earth-moving works necessitated by the construction programme.

1.2 Purpose of the Document

1.2.1 An Archaeological Written Scheme of Investigation (WSI) is a comprehensive document detailing the requirements and methodological approaches of a programme of archaeological works. It is defined by Historic England as:

‘Where development will lead to the loss of a material part of the significance of a heritage asset, policy HE12.3 [of PPS5, now paragraph 141 of the NPPF] requires local planning authorities to ensure that developers take advantage of the opportunity to advance our understanding of the past before the asset or the relevant part is irretrievably lost. As this is the only opportunity to do this it is important that:

- 1: Any investigation is carried out to professional standards and to an appropriate level of detail proportionate to the assets likely significance, by an organisation or individual with appropriate expertise;
2. The resultant records, artefacts and samples are analysed and, where necessary, conserved;
- 3: The understanding gained is made publically available;
- 4: An archive is created, and deposited for future research.’

1.3 National and Local Planning Policies

- 1.3.1** The National Planning Policy Framework (NPPF; Department for Communities and Local Government, March 2012) sets out the Government's planning policies and outlines the presumption in favour of sustainable development, which is defined by three dimensions: economic, social and environmental. Of the 12 core planning principles underpinning plan and decision making, conserving 'heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations' is one.
- 1.3.2** Section 12 specifically deals with the historic environment (paragraphs 126-41) and paragraph 128 states that local planning authorities, when determining applications, should require the applicant to describe the significance of any affected heritage assets. This should be sufficient so as to understand the potential impact on their significance and this should be done using the appropriate expertise where necessary. Paragraph 135 indicates that the effect of the proposal on non-designated assets (designated assets are covered in paragraphs 132-34) should be taken into account. Paragraph 141 requires developers to record and advance understanding of heritage assets to be lost, in a manner proportionate to their importance and impact.
- 1.3.3** Paragraph 137 specifically deals with Conservation Areas and states that local planning authorities should look for opportunities for new development to enhance or better reveal heritage assets' significance. Paragraph 138 states that not all elements of conservation areas contribute to its significance, therefore loss of buildings which make a positive contribution to the significance of the area should be treated as substantial, or less than substantial harm. This also has to be assessed alongside the relative significance of the asset affected as well as the significance of the conservation area as a whole.
- 1.3.4** NPPF outlines the need for local planning authorities to create local plans and frameworks to implement NPPF at a local level. *The City of Manchester Unitary Development Plan 2004-2016, policy CH5: Archaeology and Ancient Monuments*, sets out the Metropolitan Borough Council's policy on archaeological remains and development. Under this policy the council stipulate that:
- "Planning permission will not be granted for development that would have an unacceptable impact on an ancient monument, or site or feature of archaeological importance, or its setting." "Where planning permission is granted for development that will affect known or suspected remains of local archaeological value, planning conditions will be imposed to secure the recording and evaluation of the remains and, if appropriate, their excavation and preservation and/or removal, prior to the commencement of the development."

- 1.3.5** The council provide a reasoned justification as *“Archaeological remains are a finite and non-renewable resource, which are often highly fragile and vulnerable to damage and destruction. A sites and monuments record is maintained, providing information on known archaeological remains.”*
- 1.3.6** Wherever possible, development should be located and designed so as to avoid damage to archaeological remains, ensuring that they are preserved in situ. Where this is not possible, or appropriate, the developer will be required to make suitable provision to ensure that the archaeological information is not lost, and in many cases to secure the preservation of the remains
- 1.3.7** The Greater Manchester Archaeological Advisory Service (GMASS) act as archaeological curators for the Greater Manchester Region and provide archaeological advice to Manchester City Council and have been consulted for the present assessment.

2. Aims and Objectives

2.1 Academic Aims

2.1.1 The principal aims of the project are:

- to establish the presence or absence of buried archaeological remains pertaining to the buildings identified as of interest during the Desk Based Assessment and, if present, establish their condition, extent and significance;
- Particular reference will be paid to the Glassworks as first depicted on the 1844 mapping, and the workers housing on both sides of Flag Row. The southernmost first depicted on the 1794 mapping and the northernmost first depicted on the 1893 mapping.

2.2 Objectives

2.2.1 The principal objectives of the archaeological investigation are:

- to record, as far as is reasonably possible, the location, extent, condition, significance and quality of any surviving archaeological remains;
- to determine the presence, character, and extent of buried remains pertaining to the original glass works.
- to determine the presence, character, and extent of buried remains pertaining to the workers housing and terraced housing.
- to inform a decision as to whether further archaeological investigation will be required in advance of the proposed construction works;
- to make available the results of the work.

2.2.2 The aims and objectives outlined above may be achieved via the following stages:

- *Trial Trenching Evaluation:* the initial excavation of eight trenches, located across the site corresponding with cartographic and documentary evidence suggesting evidence for a range of differing housing typologies and industrial remains of the glass works.
- *Post-excavation and Report Production:* the site records, finds and any samples from the excavation programme outlined below will form a checked and ordered site archive as outlined in the English Heritage guideline document *Management of Archaeological Projects* (2nd edition, 1991). Following compilation of the project archive a report will be produced;
- *Archive Deposition:* the results of the excavation will form the basis of a full archive to professional standards, in accordance with current Historic England guidelines and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation

and indexing of all the data and material gathered during the course of the project;

- *Dissemination:* the information will be finally disseminated through the deposition of the archive at the Museum of Science and Industry (MOSI), and a final report at the Greater Manchester Historic Environment Record.

2.2.3

The aims of the project have been agreed with the relevant archaeological body (Greater Manchester Archaeological Advisory Service) and are designed to align with those identified within the appropriate Archaeological Regional Research Framework of the individual region. In this case the:

Research and Archaeology in North West England. An Archaeological Research Framework for the North West England.

Volume 1: Resource Assessment

Volume 2: Research Agenda and Strategy

Edited by Mark Brennand (Archaeology North West, Volume 9 (Issue 19 for 2007)

2.2.3.1

Specific Aims of the project are complimentary to the following strategies and incentives:

7.6	A Study of the development of workers' housing in Greater Manchester and East Lancashire to examine the development of different housing types and to inform the conservation agendas.
7.7	Study and compare the material culture of workers households in rural and industrialised communities with those of farm labourers to identify and explain similarities and differences and possibly identify ethnic as well as cultural affinities.
7.22	Add to the extensive urban survey and historic landscape characterisation of the towns of Greater Manchester
7.24	Excavate urban cellars to examine life 'below stairs' in the middle class house and cellar dwellings and workshops in working class houses.
7.25	Industry Specific Studies are needed for those industries that have received little archaeological attention. More research is needed into the smaller but highly significant 19 th and 20 th century workshop based industries.

3. Method Statement

3.1 Archaeological Evaluation

3.1.1 The principal aim of the archaeological evaluation will be to establish the presence or absence of buried archaeological remains of the 18th Century workers housing across the site and the 19th Century glass works and associated structures.

3.1.2 A total of eight archaeological evaluation trenches will be excavated over targeted locations across the site. The total excavated length of trenches will be 200m.

Trench No:	Extent	Target
Trench 1	1 x 30m	Four properties on the western end of Flag Row, identified on the 1794 and 1849 mapping, possible workers housing.
Trench 2	1 x 30m	Number of smaller (12) terraced workers houses first identified on the 1893 mapping
Trench 3	1 x 30m	South side of Flag Row, six terraced properties first identified on Greens 1794 mapping
Trench 4	1 x 30m	Portland Street Glass Works, first identified on the 1844 mapping: <i>The building is approximately 60ft square with a timber framed roof, supported by beams radiating from the chimney. The furnace itself is of 14ft 4 in in diameter at the bottom, and there are eight semi-circular headed openings round the perimeter, where the glass blowers could operate.</i>
Trench 5	1 x 40m	Portland Street Glass works and functionally unknown arm of the Collyhurst Iron Foundry
Trench 6	1 x 25m	Portland Street Glass works and Collyhurst Iron Foundry
Trench 7	1 x 10m	Victoria Bolt & Nut Works
Trench 8	1 x 10m	Victoria Bolt & Nut Works

3.1.3 Trench Location Plan



Scale:

0

50m



3.1.1 General Methodology

All archaeological work shall be conducted following the ClfA Standards and Guidance for archaeological field evaluation (Published October 1994, Revised September 2001 and October 2008). Prior to the commencement of any excavation works, the location of the area targeted for archaeological investigation will be laid out accurately with respect to the Ordnance Survey national grid. The position of the areas will then be scanned for any live services using a cable avoidance tool.

3.1.2 Excavation of the modern ground surface will be undertaken by a machine of appropriate power using a toothed bucket and, where necessary, a breaker. The uppermost levels of overburden/demolition material will then be removed using the same machine, but fitted with a toothless ditching bucket, to the top of the first significant archaeological level. The work will be supervised closely by a suitably experienced archaeologist. Following machine excavation all trenches will be cleaned using appropriate hand tools and archaeological features recorded by photography and scaled plan. Should the depths or the stability of the trenching result in a unsafe working environment the exposed areas will be photographed from above for recording purposes and immediately backfilled. No personnel shall enter any trenches designated as unsafe.

3.1.2 Machine excavation

Machine Excavation will then be used to define carefully the extent of any surviving foundations, floors, and other remains. Thereafter, structural remains will be rapidly cleaned manually to define their extent, nature, form and, where possible, date. Hand excavation will be undertaken by trained professional archaeologists. If the excavation of individual trenches is to proceed below a depth of 1.2m, then the trench will be widened sufficiently to allow the sides to be stepped in. All information identified in the course of the site works will be recorded stratigraphically, utilising *pro-forma* context sheets, and will be accompanied with sufficient pictorial record (plans, sections and digital photographs) to identify and illustrate individual features.

Machines will be operated and provided by a suitably experienced subcontract plant hire firm and all relevant Licences and Permits checked prior to commencement of working. The plant hire firm will have experience of undertaking archaeological works previously. All plant will be fully cleaned prior to exiting the site and no Salford Archaeology will operate machinery. This will be undertake by Plant Hire employees only.

3.1.3 Spoil & Reinstatement

Excavated material (spoil) will be removed from the proximity of the trench excavations and no material will be stored within a 2m distance of any trench edge. Following completion of the onsite programme of archaeological works the excavation trenches will be backfilled with the excavated material and compacted. It should be noted that this will take time to settle and Salford Archaeology advises that upon completion of the backfilling, no cars or heavy machinery are placed over the trench locations.

3.1.4 Context Recording:

A unique text-number site code should be created prior to the commencement of the programme of works. Separate contexts should be recorded individually on pro-forma context sheets. Incorporated into a Harris matrix. Plans and sections recorded on drawing sheets at an appropriate scale of 1:10, 1:20, or 1:50, depending on the complexity of the data and features encountered. All drawings will be individually identified and cross referenced, contexts enumerated and principal layers and features annotated with OD level information.

A 'site location plan' indicating the site north and based on the current Ordnance Survey 1:1250 map (reproduced with the permission of the Controller of HMSO) will be prepared. This is to be supplemented by a trench plan at 1:200 (or 1:100), which will show the location of the areas investigated in relation to the investigation area and National Grid Reference. The location of the OS bench marks used and the site TBM will also be indicated.

The OD height of all principal strata and features will be calculated and indicated on the appropriate plans and sections.

All contexts will be recorded using *pro-forma* sheets, and details will be All written recording of survey data, contexts, photographs, artefacts and ecofacts will be cross-referenced from record sheets using sequential numbering.

3.1.5 Photographic Archive

A comprehensive photographic archive will be produced utilising a high-resolution digital camera. Where necessary, artificial lighting will be employed to ensure that the images of the interior are of high quality. All frames, excluding general contextual views, will incorporate a graduated metric scale. A plan showing the view point directions will be produced, together with a full photographic index.

3.1.6 Planning:

The precise location of all archaeological structures encountered will be surveyed by EDM tacheometry using a total station linked to a pen computer data logger. This process will generate scaled plans within AutoCAD, which will then be subject to manual survey enhancement. The drawings will be generated at an accuracy appropriate for 1:20. Sections will be manually drafted as appropriate at a scale of 1:10. All information will be tied in to Ordnance Datum.

3.1.7 Human remains

Human remains are not expected to be present, but if they are found they will, if possible, be left *in-situ* covered and protected. The removal of human remains will only take place in compliance with environmental health regulations and following discussions with, and with the approval of, the Ministry of Justice. If human remains are identified, the Ministry of Justice and curator will be informed immediately. An osteoarchaeologist will be available to give advice on site.

If disarticulated remains are encountered, these will be identified and quantified on site. If trenches are being immediately backfilled, the remains will be left in the ground. If the excavations will remain open for any length of time, disarticulated remains will be removed and boxed, for immediate reburial at an appropriate site. Any grave goods or coffin furniture will be retained for further assessment.

Where a licence is issued, all human skeletal remains must be properly removed in accordance with the terms of that licence. Where a licence is not issued, the treatment of human remains will be in accordance with the requirements of Civil Law, ClfA Technical Paper 13 (1993) and Historic England guidance (2005).

3.1.8 Finds policy

All finds will be collected and handled following the guidance set out in the IfA guidance for archaeological materials. Unstratified material will not be kept unless it is of exceptional intrinsic interest. Material discarded as a consequence of this policy will be described and quantified in the field.

Finds of particular interest or fragility will be retrieved as Small Finds, and located on plans. Other finds, finds within the topsoil, and dense/discrete deposits of finds will be collected as Bulk Finds, from discrete contexts, bagged by material type. All artefacts and ecofacts will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication *First Aid for Finds*, and recording systems must be compatible with the recipient museum. All finds that fall within the purview of the Treasure Act (1996) will be reported to HM Coroner according to the procedures outlined in the Act, after discussion with the client and the local authority.

3.1.9 Sampling

A sampling strategy for the recovery and assessment of all samples will be in line with relevant English Heritage guidelines, such as those for environmental samples put forward in *Environmental Archaeology: A Guide to the Theory and Practice of Methods from Sampling and Recovery to Post Excavation* (English Heritage 2002). Different sampling strategies may be employed according to the perceived importance of the deposit or feature under investigation in consultation with the curatorial body (GMAAS). Close attention should be given to sampling for date, structure and environment. Sample size should be taken into account the frequency with which material is likely to occur.

Particular interest will be paid to deposits such as the plough soil layer, and any other archaeological deposits which are stratigraphically earlier than the prison. The strategy for sampling archaeological and environmental deposits and structures (which can include soils, timbers, pollen, diatoms, animal bone and human burials) will be developed in consultation with GMAAS. Subsequent on site work and analysis of the processed samples and remains will be undertaken by specific specialists.

A soil sampling programme will be undertaken for the recovery and identification of charred and waterlogged remains where suitable deposits are identified. The collection and processing of environmental samples will be undertaken in accordance with English Heritage guidelines (English Heritage 2002). Environmental and soil specialists will be consulted during the course of the evaluation with regard to the implementation of this

sampling programme. Soil samples of approximately 30 litres for flotation (or 100% of the features if less than this volume) will be removed from selected contexts.

3.1.10 Treasure

Any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996.

4. Health and Safety

4.1 Health and Safety

4.1.1 Full regard will be given to all constraints during the course of the project. The University of Salford provides a Health and Safety Statement for all projects and maintains a Safety Policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Federation of Archaeological Employers and Managers (FAME).

- The Health and Safety at Work Act (1974);
- Management of Health and Safety at Work Regulations (1999);
- The Construction (Design and Management) Regulations (2015);
- The Control of Asbestos Regulations (2006);
- The Workplace (Health, Safety and Welfare) Regulations (1992);
- Construction (Health, Safety and Welfare) Regulations (1996);
- The Health and Safety (Miscellaneous Amendments) Regulations (2002);
- The Control of Substances Hazardous to Health Regulations (2002);
- The Health and Safety (First-Aid) Regulations (1981);
- The Regulatory Reform (Fire Safety) Order (2005);
- The Provision and Use of Work Equipment Regulations (1998);
- Lifting Operations and Lifting Equipment Regulations (1998).

4.1.2 Salford Archaeology undertakes to safeguard, so far as is reasonably practicable, the health, safety and welfare of its staff and of others who may be affected by our work. This applies in particular to providing and maintaining suitable premises, and providing all reasonable safeguards and precautions against accidents. The University of Salford will also take all reasonable steps to ensure the health and safety of all persons not in their employment, such as volunteers, students, visitors, and members of the public (this includes trespassers).

The working day will vary but the general limits will be 7.30 am and 6.30 pm Monday to Friday. Occasional Saturday working may be required, of which the working day will be 8.00 am – 4.00 pm.

All relevant health and Safety legislation, CDM, COSHH regulations and codes of practice will be respected. A risk assessment and method statement will be produced by the archaeological contractor and submitted to the Client prior to the commencement of any onsite archaeological works.

It is the duty of the Client to provide all information reasonably obtainable relating to any contamination or live services present on site prior to the commencement of the programme of archaeological works.

All CfAA staff associated with the excavation will be given a copy of the method statement and the risk assessment prior to the beginning of the works and will be required to read both documents. Site procedures shall be in accordance with the guidelines set out in the

Health and Safety Manual of the Federation of Archaeological Managers and Employers (FAME).

4.1.3 Access

Reasonable access to the site will be granted to representatives of the relevant archaeological curatorial body (GMAAS), who may wish to be satisfied, through regular site inspections, that the scope and practice of the archaeological works are being conducted according to professional standards and in accordance with any agreements made. Full and complete access will also be provided for the client and their agents and invited parties of guests (e.g. Students, councillors, planners, and museum staff – all with the express permission of the client prior to accessing the site). No visitors will be allowed onto the site without the permission of the senior Salford Archaeology member of staff and the client. All visitors will be required to adhere to site safety rules as verbally explained and will be required to sign in/out of the site on arrival/departure.

4.1.4 Services – Gas, Electricity, Water, Sewers, Telecoms

Where available service plans will be inspected prior to any ground disturbance and all areas identified for investigation will be scanned using a cable avoidance tool. All staff will wear PPE at appropriate times dictated as by the Senior Archaeologist on site. A daily signing in and out book will be maintained during the duration of the works.

No member of CfAA staff will touch or otherwise interfere with a live service even if declared 'safe'. In the event of the accidental disruption of a live service by archaeologists the Salford Archaeology Senior Archaeologist will inform both their project manager and the Principal Contractor and, when appropriate, call the relevant emergency number.

Any underground service not previously identified which is encountered during excavation will be assumed to be live and will immediately need to be made safe and isolated from further excavation by the Client. Any visible overhead cables, pipes, ducts etc will be assumed to be live if no written substantiation that they are dead, and will immediately need to be made safe and/or isolated from further excavation. Where for whatever reason making safe of under- or over ground services does not happen Salford Archaeology may need to remove its staff from the site or an area.

4.1.5 COSHH and Contaminated land

Salford Archaeology are not aware of any previous documented land usage suggesting that the site is likely to contain specific potentially dangerous subsurface ground contamination.

Should the client identify any potential contamination issues, they should notify Salford Archaeology in writing at the earliest possible opportunity.

All Salford Archaeology staff will at all times:

- wear all required and appropriate PPE
- observe displayed procedures with regards to Dirty and Clean areas of the site, especially with regards to eating and smoking
- Report signs of any contaminants on site to the CfAA project officer who will inform the project manager, client, or Principal contractor as appropriate – e.g. discarded

containers, odd coloured deposits, and strange smells.

- be given inductions and further regular tool box talks specific to the contaminants on site indicating nature, appearance, smell, method and required preventative procedures.
- Avoid any known contaminated area where possible, e.g. only those staff required to work a trench will enter it.
- Keep their exposure to the minimum necessary to complete their work.

4.1.5 Specialist H&S Advice

Salford Archaeology is advised on its Health and Safety matters by the University of Salford, who provide ongoing advice on health and safety matters to all departments in the organisation. On most sites a Senior member of Salford Archaeology will visit at least once to carry out a H&S audit. They report to the Salford Archaeology site project officer who will carry out their recommendations. Where necessary or if requested, this report will be made available to the client's H&S representative.

4.1.6 Construction Design and Management Regulations CDM 2007

Archaeology as a stand-alone activity and profession is not considered to be part of the construction industry and is therefore currently formally exempt from the CDM regulations 2007. However, where archaeological work is undertaken as part of a construction project, whether defined as notifiable or not under the regulations, it is considered reasonable to expect that work to conform to CDM 2007. Salford Archaeology cannot act as the CDM co-ordinator or Principal Contractor for any construction project, but may be considered a Designer under the regulations.

4.1.7 CSCS

At present the profession of Archaeologist is largely covered by the CSCS, Construction Related Organisation CRO White Card for Archaeological Technician (Code 5363); other cards are available for site visitors etc. For this all Salford Archaeology staff likely to undertake fieldwork must pass a CITB Health and Safety Test at least to operative level. Where a member of staff has not yet received their card they will produce a certificate to prove that they have passed the test or a letter confirming that a test has been booked for them.

4.1.8 English Language

All members of Salford Archaeology staff are sufficiently fluent in both spoken and written English to understand all verbal and written safety instructions and warnings on site.

4.1.9 Behavior

Mobile phones, personal CD players, I-pods and similar will not be used by Salford Archaeology staff in archaeological areas of work. Smoking and naked flames are not permitted in the trenches or areas of work. Alcohol is not permitted on site.

4.1.10 Legal Status of employees

As a Centre within the University of Salford, Salford Archaeology conforms to all UK employment legislation covering the legal right to work in the UK of all staff, and has in place, via the University's Human Resources department, rigorous procedures to ensure that legislation is conformed to.

4.1.11 Training and Certification

Salford Archaeology provides Safety Training for its staff as follows:

- Induction Training for all staff (undertaken on joining Salford Archaeology, and as appropriate on individual projects).
- General H&S Training for all staff.
- Specialist H&S Training (designed to cover specialist areas and to update professional knowledge; as appropriate to deployment)

All Salford Archaeology staff on site will be competent to carry out their archaeological work. Where less experienced staff are used these will at all times be under the supervision of the Site Supervisor or other experienced member of staff for training. Certain specific aspects of Salford Archaeology work require additional and specific training and certification, and only those members of staff with the relevant training and certification will be allowed to undertake them.

4.1.12 Personal Protective Equipment (PPE)

All Salford Archaeology staff are supplied with and will wear or use the following PPE where required and as appropriate:

- Safety Helmets (EN397)
- Ear Defenders (EN 352-3)
- Safety spectacles (EN166)
- Goggles (Chemical BSEN 166 Type 3)
- Dust masks plain and valved (EN149 2001)
- Disposable overalls (Type 5/6 disposable EN340)
- Hi-visibility vests (EN471)
- Gloves Nitrile and latex disposable, PVC, EN374
- Heavy duty nitron rubber gloves (EN420, 388)
- Safety footwear - steel toecap and mid-sole boots and Wellingtons EN345-47

Any other PPE required by the client and/or Principal Contractor must be provided or funded by them.

4.1.13 Liaison with Client/Principal Contractor H&S representative

The appointed Salford Archaeology site supervisor will act as the principal liaison with their counterpart at the offices of the Contractor throughout the periods of excavation. They will take advice from the University of Salford H&S advisor and liaise with the Contract Manager.

4.1.14 Personal information relating to Salford archaeology staff

In compliance with the Data Protection Act (1998) and to protect the personal and financial safety of our staff, Salford archaeology will not provide personal data for staff to clients, Principal contractors, or other bodies without the express written permission of those staff. We will also seek to ensure that such information is being securely held and responsibly used by the organisation seeking it and not provide it without first obtaining a signed standard written statement.

4.1.15 Fire and Emergency Procedures

Where the client or Principal contractor has procedures for dealing with fire and other emergencies on site, Salford Archaeology staff will at all times inform themselves of these procedures and follow them.

Where the client advises that it is necessary for Salford Archaeology to establish its own procedures with regards to fire and other emergencies on a site, this will be done by the Site Supervisor by the end of the first day of site work, after details of the site layout (e.g. entrances/exits, safe assembly points, fire equipment points, location of accommodation, trenches and other work areas) have been finalised.

4.1.16 First Aid and appointed First Aider(s)

Salford Archaeology will ensure that the site contains an appointed first aider(s) for the site. A first aid kit, of an appropriate size for the site, will be located in the site office/mess hut/canteen.

4.1.17 Salford University Safety Documents and Accident Book

The site safety documents will be located with the first aid kit in the site office/mess hut/canteen. The safety documents will include a minimum of:

- Current Health and Safety at Law Poster for display where legislation requires
- Accident Book compliant with the Data Protection Regulations.
- University of Salford Public Liability Insurance & Employers Liability Insurance for display
- Current CfAA Health and Safety Policy
- A copy of the site Welfare, Health and Safety Method Statement, extracted from the Site WSI, and modified as agreed during the course of the site.

4.1.18 Inductions and Tool Box talks

All staff and volunteers receive a full induction including Health and Safety on commencement of their first day of work with the organisation. A record of the induction is kept.

Where a site is under the control of a Principal contractor, staff will attend all initial site inductions and subsequent toolbox talks as required and managed by the Principal Contractor.

Where Salford Archaeology has control of a site: A site-specific induction will be undertaken by the Project Officer (or other competent staff member) for each member of staff on their first day of work. All visitors to the site will also receive a short Health

and Safety induction on their first visit. A signed record of all on site inductions will be maintained by Salford archaeology for inspection.

4.1.19 Toolbox Talks

Irrespective of whether the site is controlled by Salford Archaeology or a Principal Contractor, on larger projects e.g. those with more than 2-3 staff and of a week or longer duration, regular toolbox talks will be given by the Supervisor or other suitable member of staff using the *CITB: construction site safety tool box talks manual*. As a minimum requirement these talks will occur 1-2 times per week and be of 10-15 minutes duration.

4.1.20 Accident reporting and RIDDOR

In order to identify quickly problem areas and allow corrective action to be taken all accidents, dangerous occurrences and near misses, including those that do not cause injury, will be a) reported immediately to the Salford Archaeology supervisor and b) entered in the site Accident Book.

The *Reporting of Injuries, Diseases and Dangerous Occurrences* (RIDDOR) Regulations 1995 sets out requirements for the reporting of certain types of accidents. RIDDOR notifiable accidents will be reported immediately by the CfAA site supervisor to:

- the Senior Archaeologist onsite, who inform the appropriate enforcing authority, normally the Health and Safety Executive.
- the client's representative on site
- If necessary the scene of the accident will be sealed off by Salford Archaeology and left undisturbed until the HSE's Inspector and any other interested party have carried out an investigation.

4.1.21 Stopping work for Health and Safety issues

If at any time the site or part of the site being worked by Salford Archaeology is made unsafe or the safety of staff is endangered, other than through the actions of Salford Archaeology, then they will give notice to the client or his agents of the unsafe conditions which will be confirmed in writing if a claim for compensation is to be made. If reasonable steps are not taken immediately to abate the danger or risk then Salford Archaeology reserves the right to withdraw its staff and workforce from the site until it is declared safe, and the period of time of the withdrawal will be added to any agreed period of work. If Salford Archaeology is unable to find suitable work to redeploy such staff financial compensation will also be sought.

4.1.22 Asbestos

The Client and/or Main Contractor will supply Salford Archaeology with a copy of the documents required under Regulation 4 of the Control of Asbestos Regulations 2006 relating to any building that staff will be required to enter. No work will undertaken without this. Where the client has not provided this before work is due to start, Salford Archaeology will procure the services of a competent body to carry out the survey and recharge any costs to the client. Where risks are identified, mitigations will be put in place by the client before work starts.

4.1.23 Welfare

For the duration of this project Salford Archaeology will provide staff with a secure welfare office/cabin and a portable toilet which will be compounded on site.

4.1.24 Site Risk Assessment

Under the Management of Health and Safety at Work Regulations 1999, CfAA has undertaken a preliminary assessment of the risks to H&S of employees, other contractors, and visitors (authorised and unauthorised) to which they may be exposed whilst they are on site.

Prior to the commencement of the onsite work Salford Archaeology have prepared the following Overall Site Risk Assessment for the hazards it feels are likely to be present on the site. This exercise is not intended to, and cannot, replace the need to conduct more detailed Risk Assessments on site once work has commenced. Further Risk Assessments for specific activities and areas of work will be made as work progresses and as required.

Risk Assessments form part of the Health and Safety controls for the site and will be kept on file on site and brought to the attention of and made available to all staff working there.

The initial Risk Assessment for this site is attached at the end of this document.

4.2 Insurance

The University of Salford has professional indemnity to a value of £50,000,000, employer's liability cover to a value of £50,000,000 and public liability to a value of £50,000,000. Written details of insurance cover can be provided if required.

5. Other Matters

- 5.1** ***Project Monitoring:*** the aims of monitoring are to ensure that the archaeological works are undertaken within the limits set by the Written Scheme of Investigation, and to the satisfaction of the Development Control Archaeologist for Derbyshire County Council. The curatorial archaeologist will be given at least five days' notice of when work is due to commence, and will be free to visit the site by prior arrangement.
- 5.2** ***Contingencies:*** in addition to the three areas specified for targeted excavation, allowance will also be made for a contingency area of up to 150m². This will enable a reasonable expansion to the excavation areas in the event of significant remains being encountered that extend beyond the areas investigated. The contingency excavation will only be implemented following discussion with the Development Control Archaeologist and the Client. These contingency costs are in accordance with the Chartered Institute for Archaeologists' guidance.
- 5.3** ***Working Hours:*** normal working hours are between 8.00 am and 4.00 pm, Monday to Friday. It is not normal practice for the University of Salford staff to be asked to work weekends or bank holidays, and should the Client require such time to be worked during the course of a project a contract variation to cover additional costs will be necessary.

6. Post Excavation Analysis

6.1 Post Excavation analysis centres around the archaeological finds assessment which is a pivotal point in the execution of an archaeological project. Its purpose is to evaluate the potential of the data-collection to contribute to archaeological knowledge and to identify the further study necessary. Any work undertaken should be directed towards allowing decisions to be made about the potential of the data and the nature of the future programme; no detailed analytical study should be undertaken until the assessment phase has been completed. Considerable breadth of academic knowledge is needed to make the necessary judgements; the best available staff should be used for assessment. Alternative sources of expert advice should be sought if not available within the project team.

6.2 All finds work to be carried out in accordance with the IFA Guidelines for Finds Work. All identified finds and artefacts will be retained and where appropriate stabilised. A discard policy should be discussed and agreed between the County Archaeologist and archaeological contractor following the commencement of site work.

All finds to be appropriately cleaned and packaged in accordance with UKIC Archaeology Guidelines and First Aid for Finds. Guidelines established in the Museums and Galleries Commissions Standards in the Museum Care of Archaeological Collections (1991) will also be followed.

A finds assessment is to be carried out after the completion of the onsite works and should as a minimum include:

- The provenance of material: this should include comments on provisional dating and evidence for contamination or residuality.
- The range and variety of materials: this should include comment on any bias observed due to collection and sampling strategies.
- The condition of material: this should include comments on the extent to which an assemblage is likely to be affected by preservation bias, and comment on its potential for long-term storage
- The existence of primary sources or relevant documentation may enhance the study of site data.
- The quantification and cataloguing of all material.

This will allow the formulation of a strategy of further post-excavation analysis if required, subject to discussions with the curatorial body. Following the finds assessment any finds and samples, where necessary, will be submitted for expert assessment as part of the post-excavation phase following guidelines set out in the Management of Archaeological Projects 2 (English Heritage 1991). The

appointment of archaeological specialists will be carried out after consultation with and approval of the County Archaeologist and client following the formulation of a post-excavation analysis strategy.

6.3

The initial result of the fieldwork stage will be the site archive, which will be prepared in accordance with the Management of Archaeological Projects. The site archive will be so organised as to be compatible with the other archaeological archives produced in the Greater Manchester area. All drawn records to be transferred to and stored in digital format, in systems which are easily accessible.

The integrity of the site archive will be maintained upon completion of the archaeological works with the archive ultimately being deposited to the Museum of Science and Industry (subject to their approval).

The minimum acceptable standard for the site archive is defined in the 'Management of Archaeological Projects 5.4' and 'Appendix 3' as well as The Management of Research Projects in the Historic Environment (MoRPHE) – English Heritage, 2006. It will include the comprehensive records of all materials recovered and all written, drawn, and photographic records, including a copy of all reports relating to the investigations undertaken

A summary of the results of the archaeological works, will be bound into the client report for submission to the Client, GMAAS and the Greater Manchester Historic Environment Record.

6.4

Post-Excavation and Report Production

6.4.1

Report:

A draft copy of a written synthetic report will be submitted for comment to the Development Control Archaeologist within six working weeks of the completion of the fieldwork. This will present the results obtained from the evaluation, and will include:

- a title page detailing site address, NGR, author/originating body, client's name and address;
- full content's listing;
- a non-technical summary of the findings of the fieldwork;
- a description of the archaeological background;
- a detailed account of the historical development of the site;
- a description of the methodologies used during the fieldwork;
- a description of the findings of the fieldwork;
- detailed plans of the excavation areas, showing the archaeological features exposed;
- an overall phased plan with sections of the excavated archaeological features;
- interpretation of the archaeological features exposed and their context within the surrounding landscape;
- a consideration of the importance of the archaeological remains present on the site in local, regional and national terms;
- recommendations for further archaeological investigation, as appropriate.

6.4.2 Archive

The results of the archaeological investigation will form the basis of a full archive to professional standards, in accordance with current Historic England guidelines (*The Management of Archaeological Projects, 2nd edition, 1991*), the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990), and current ClfA standards and guidance for the creation, compilation, transportation and deposition of archaeological archive (published October 2009). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the ClfA in that organisation's code of conduct. As part of the archiving process, the on-line OASIS (On-line Access to Index of Archaeological Investigations) form will be completed.

6.4.3 The archaeological archive will consist of the following:

- All original records created throughout the course of the project;
- All original drawings, whether created during fieldwork or post-investigation;
- Indexes to the drawings;
- Indexes to the photographic archive;
- All born digital material;
- Digital material created from written, drawn or photographed original records;
- The final project report;
- A list of contents of the archive.

6.4.3 It is likely that most, if not the entire, project archive will be in digital format. It would thus be appropriate to deposit the archive generated from the archaeological investigation with the Archaeological Data Service (ADS), through ADS-Easy. Any records that are created in hard copy during the course of the project will be scanned and added to this digital archive. In addition, it is proposed that a copy of the archive is amalgamated with other elements of the archaeological work undertaken by Salford Archaeology.

6.4 MITIGATION

Any alteration to this Method Statement/Written Scheme of Investigation will be undertaken by discussion with Salford Archaeology, GMAAS and the client.

Should significant unexpected archaeological remains be encountered or further works be anticipated no additional works will be conducted as part of this programme of works until a strategy of mitigation has been agreed between all parties.

6.5 MONITORING

As a minimum requirement, the curator will be given a minimum of one week's notice of work commencing on site to GMAAS, and will be afforded the opportunity to visit the site during and prior to completion of the on-site works so that the general stratigraphy of the site can be assessed and to discuss the requirement any further phases of archaeological work

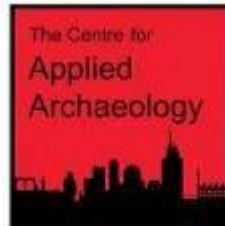
Salford Archaeology will notify the curator of any discoveries of archaeological significance so that site visits can be made, as necessary. Any changes to this agreed WSI will only be made in consultation with the curator.

7. Timetable

8. Staffing Proposals

- 5.1** The project will be under the overall charge of **Ian Miller BA FSA** (Assistant Director, Salford Archaeology) to whom all correspondence should be addressed. Ian has over 27 years' experience of commercial archaeology, and has a particular interest in the archaeology of the Industrial Period. His role will be to ensure that the Written Scheme of Investigation is implemented within the framework of the Project Objectives. He will be responsible for all aspects of staff and resource logistics, ensuring the smooth running of the project programme.
- 5.2** The fieldwork will be directed by **Graham Mottershead** (Project Officer, Salford Archaeology). Graham is an experienced field archaeologist who, has undertaken many excavations within Manchester and has particular experience in the excavation of workers housing and industrial remains
- 5.3** It is not possible to provide details of specific technicians that will be involved with the fieldwork at this stage, but all shall be suitably qualified archaeologists with proven relevant experience. It is anticipated that up to two technicians will be required for the initial stage of the fieldwork.

University of
Salford
MANCHESTER



CONSULTANCY



DESK BASED ASSESMENTS



WATCHING BRIEF & EVALUATION



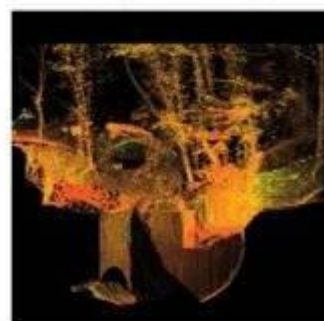
EXCAVATION



BUILDING SURVEY



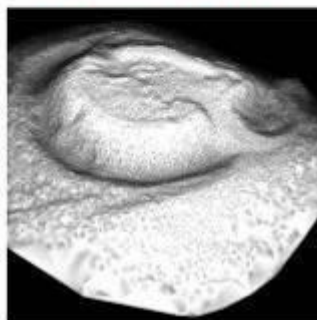
3D LASER SCANNING



COMMUNITY INVOLVEMENT



LANDSCAPE SURVEYS



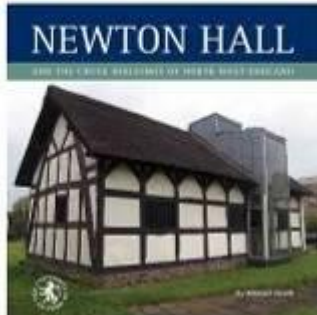
GEOPHYSICAL SURVEYS



WORKSHOPS & VOCATIONAL TRAINING



RESEARCH PUBLICATIONS



SEMINARS, DAYSCHOOLS CPD EVENTS

