



**JOHN MOORE HERITAGE SERVICES**

**16/00156/FUL - SEVERN VALLEY RAILWAY,  
STATION LANE, BRIDGNORTH, SHROPSHIRE WV16 5DT**

**ARCHAEOLOGICAL OBSERVATION, INVESTIGATION,  
RECORDING, ANALYSIS AND PUBLICATION OF WORKS**

**WRITTEN SCHEME OF INVESTIGATION**

**Site Code: BRSR 16  
Project Number: 3600**

**AUGUST 2016**

## 1 Introduction

- 1.1 Shropshire Council has granted planning permission for erection of 2-storey building to include workshop/stores/office and staff facilities and 53-bed hostel accommodation; single storey cafe building; refurbishment of station building to include retail area; elevational alterations; removal of temporary buildings and provision of additional car parking and associated works (16/00156/FUL).

*Condition 22 states: No development approved by this permission shall commence until the applicant, or their agents or successors in title, has secured the implementation of a phased programme of archaeological work in accordance with a written scheme of investigation (WSI). This written scheme shall be approved in writing by the Planning Authority prior to the commencement of works.*

*Reason: The site is known to hold archaeological interest. This information is required prior to the commencement of the development as it relates to matters which need to be confirmed before the development proceeds in order to ensure a sustainable development.*

- 1.2 The Archaeological Advisor to Shropshire Council (SC) has agreed that the archaeological work associated with the single storey café building can be dealt with under an archaeological watching brief during ground works. This Written Scheme of Investigation is concerned with the development of this building only. Other Written Schemes of Investigation would be submitted to cover the proposed development west of the railway tracks and other associated works.
- 1.3 This document outlines the method by which this archaeological work would be undertaken for the single storey café building in order to fulfil the requirements of Shropshire Council. The first part of the document is site specific while the appendices detail John Moore Heritage Services' standards and general procedures.
- 1.4 The single storey café building will be constructed just south of the station buildings. The area currently is an extension of car parking / yard area with tin buildings, concrete slabs and some setts.
- 1.5 The railway station is located in a small valley on the west side of the Severn Valley. The Severn Valley at this point was formed 25,000 years ago when a lake located in the Upper Severn Valley drained to the south creating the present Ironbridge Gorge (Marshall 1989, 9). The main part of the site lies on a northeast facing slope. The site is located between 40m and 70m Above Ordnance Datum.
- 1.6 The underlying geology around and under the site consists of two main rocks and superficial deposits in the valley base. On the upper slopes of the western site the underlying bedrock is part of the Alveley Member, a mixture of mudstone, siltstone and sandstone that were laid down some 307million to 309 million years ago in the Carboniferous Period ([mapapps.bgs.ac.uk/geologyofbritain/home.html](http://mapapps.bgs.ac.uk/geologyofbritain/home.html)). In the valley base and on the east side the underlying bedrock is Bridgnorth Sandstone Formation, which is sandstone that was laid down 271million to 299million years ago in the Permian Period. Overlying the bedrock in the base of the valley is the Power House Terrace Deposit, a mixture of sand and gravel that was laid out 2 million years ago in the Quaternary Period. Boreholes carried out by the Severn Valley Railway indicate

that the terrace on which the railway station and associated buildings are located is an area of made ground.

- 1.7 A Heritage Impact Assessment of the proposed development has been carried out (Yeates 2015). The Severn Valley Railway was constructed in the late 1850s and early 1860s. The 1<sup>st</sup> edition OS map of 1882 shows the south part of the proposed building footprint as being waste ground. By 1903 (2<sup>nd</sup> edition OS) the waste ground had been divided from the area to the north and contained a small rectangular outbuilding. On the 3<sup>rd</sup> edition OS map (1927) the division between the two parts has been moved further north. The outbuilding had a small extension on the southern side and a further building had been constructed in this enlarged area.

## **2 Aims of the Investigation**

- 2.1 In general the purpose of the archaeological investigation is to determine and understand the nature, function and character of an archaeological site in its cultural and environmental setting
- 2.2 To make a record of significant archaeological remains revealed during the course of any operations that may disturb or destroy archaeological remains.
- 2.3 In particular:
- To attempt to establish the date, nature and extent of any activity or occupation revealed in the development site.
  - To establish the relationship of any remains found to the surrounding contemporary landscapes, in particular to the railway.

## **3 Strategy**

- 3.1 An archaeologist will be present on site to control any groundwork that has the potential to reveal or disturb archaeological remains. This will include continuous monitoring of any ground reduction, excavation for tie beams between piles and any service/drainage runs, and any other significant invasive works.
- 3.2 All archaeological deposits and features revealed will be cleaned by hand and recorded in plan before being excavated and recorded at an appropriate level. Any archaeological features or other remains i.e. concentrations of artefacts, will be recorded by written, drawn and photographic record. Where archaeological features are exposed during any groundworks but otherwise will remain unaffected they will be recorded only by plan, written description and photographically with any surface finds collected. Any variation to this will be agreed with the Archaeological Advisor to Shropshire Council, on behalf of the local planning authority.
- 3.3 Other general methodologies for the work will be in accordance with Annex 1.
- 3.4 All site recording will be carried out in accordance with Appendix 1, 1.12-1.22.
- 3.5 An experienced archaeological Project Officer or Supervisor will undertake the archaeological site monitoring works under the overall direction of J Moore MCifA.

- 3.6 Should other significant archaeological finds be made, which cannot be adequately dealt with within the above strategy, then works will halt and the advice of the Archaeological Advisor to Shropshire Council will be sought.

#### **4 Report and Archive**

- 4.1 Following completion of all on-site work a report will be prepared. This will take account of the minimum requirements of MoRPE (English Heritage 2006).
- 4.2 The content and style of the report will be as defined in Appendix 1 and the general requirements of the Archaeological Advisor to Shropshire Council.
- 4.3 A list of specialist staff that may be used for analysis of samples and artefacts is given in Appendix 3.
- 4.4 The site archive, including the finds (subject to the land owners consent), will be deposited with the relevant museum on completion of the post-excavation analysis and report production.
- 4.5 The archive will be prepared in accordance with the guidelines published in *Guidelines for the Preparation of Excavation Archives for Long-term Storage* (United Kingdom Institute for Conservation, 1990), *Standards in the Museum Care of Archaeological Collections* (Museums and Galleries Commission, 1994), *Archaeological Archives: a best practice in creation, compilation, transfer and curation* (Brown 2007), *Northamptonshire Archaeological Archive Standards* (June 2014) and the Chartered Institute for Archaeologists (2014a).
- 4.6 A copy of the final report will be submitted to the office of the Archaeological Advisor to Shropshire Council along with a copy for the County Historic Environment Record as a public document. A microfilm copy of the report and the archive will be submitted to the NMR as a public document.
- 4.7 As a minimum a summary report on the results will be prepared for publication in *Transactions of the Shropshire Archaeological and Historical Society*.
- 4.8 An OASIS entry will be completed.

#### **5 General**

- 5.1 All stages of the project will be carried out in accordance with the procedures laid down in MoRPHE (English Heritage 2006).
- 5.2 All work will conform to CIfA standards (CIfA 2014).
- 5.3 Appendix 2 is relevant.

#### **6 Bibliography**

Brown, D H, 2007 *Archaeological Archives: a best practice in creation, compilation, transfer and curation*. Archaeological Archives' Forum

Chartered Institute for Archaeologists, 2014. *Standard and Guidance for Archaeological Watching Briefs*.

Chartered Institute for Archaeologists, 2014a. *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*

English Heritage (now Historic England) 1991 *Exploring Our Past*

English Heritage, 2006 *Management of Research Projects in the Historic Environment and MoRPHE Project Planning Note 3: Excavation* (2008)

English Heritage, 2011 *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from sampling and recovery to post-excavation* (second edition). Centre for Archaeology Guidelines

McKinley, J, & Roberts, C, 1993 *Excavation and post-excavation treatment of cremated and inhumed human remains*. Institute of Field Archaeologists Technical Paper 13

Museums and Galleries Commission 1994 *Standards in the Museum Care of Archaeological Collections*

United Kingdom Institute for Conservation 1990 *Guidelines for the Preparation of Excavation Archives for Long-term Storage*

Yeates, S, 2015 *Heritage Impact Assessment on Severn Valley Railway Station, Bridgnorth, Shropshire*. John Moore Heritage Services. Unpublished client report.

John Moore Heritage Services  
25<sup>th</sup> August 2016

## APPENDIX 1

### 1 *Area Excavation/Watching Brief*

- 1.1 Prior to any area excavation, appropriate survey (e.g. geophysical, earthwork, contour) or sampling strategy (e.g. for topsoil artefact densities, metal detecting, phosphate analysis) will be undertaken prior to the site strip.
- 1.2 In most cases sites will be mechanically stripped of topsoil and other overburden. An appropriate machine will always be used. This will normally be a 360<sup>o</sup> tracked excavator with a 1.5 or 1.8m wide toothless bucket. In other cases a JCB 3CX Sitemaster (or similar), or for work with restricted access or working room a mini-excavator such as a Kubota KH 90 will be used. Suitably sized dumpers or lorries will be employed to remove spoil. No plant will be allowed to cross stripped areas.
- 1.3 All machining will be undertaken under the direct control of experienced archaeologists.
- 1.4 All undifferentiated topsoil or overburden will be removed down to the first significant archaeological horizon in level spits. The archaeological horizon to which the material will be cleared will have first been established by an evaluation or by the digging of test pits.
- 1.5 Depending on the aims of the project, the excavated spoil may be monitored in order to recover artefacts. Where their findspots are plotted this will usually be on a 2m grid.
- 1.6 The surface exposed by the stripping will be cleaned using appropriate hand tools.
- 1.7 Should the site grid not have already been established it would be done at the cleaning stage. The grid will normally be based on 10m spacing and related to the National Grid. A temporary benchmark related to Ordnance Datum will be founded
- 1.8 After the cleaning and planning of the excavation area the sampling strategy will be finalised. This will take into account the project aims (which may need modifying at this stage) and the type, quality and quantity of remains revealed. The sampling strategy will normally seek to maintain at least the following levels:
  - all structures and all zones of specialised activity (e.g. funerary, ceremonial, industrial, agricultural processing) will be fully excavated and all relationships recorded, ditches and gullies will have all relationships defined, investigated and recorded. All terminals will be excavated. Sufficient of the feature lengths will be excavated to determine the character of the feature over its entire course; the possibility of recuts of parts, and not the whole, of the feature will be considered. This will be achieved by a minimum 10% sample of each feature (usually a 1m section every 10m). Sufficient artefact assemblages will be recovered (where possible) to assist in dating the stratigraphic sequence and for obtaining ample ceramic groups for comparison with other sites.
  - all pits, as a minimum, will be half-sectioned. Usually at least 50% (by number) of the pits will be fully excavated. Decisions as to which pits will be fully excavated will be taken in the light of information gained in the half-sectioning taking into consideration, amongst other things; pit function, artefact content and location
  - for post and stake holes where they are clearly not forming part of a structure (see above) 100% (by number) will be half-sectioned ensuring that all relationships are investigated. Where deemed necessary, by artefact content, a number may demand full excavation.
  - for other types of feature such as working hollows, quarry pits etc., all relationships at least will be ascertained. Further investigation will be a matter of on-site judgement, but will seek to establish as a minimum their extent, date and function.
  - for layers a decision on-site will be made as to the extent that they will be excavated. The factors governing the judgement will include the possibility that they mask earlier remains, the need to understand function and depositional processes, and the necessity to recover sufficient artefacts to date the deposit and to meet the project aims.
- 1.9 For palaeoenvironmental research different sampling strategies will be employed according to established research targets and the perceived importance of the strata under investigation. For carbonised plant remains, small bones and small objects, bulk samples of a minimum of 40 litres (but up to 60 litres for early prehistoric features) or 100% of small contexts will be collected. Bulk samples of 10-30 litres will be taken from waterlogged deposits for analysis of macroscopic plant remains. Columns for pollen analysis will be taken where appropriate. Mollusc samples will be gathered when required, sampling incrementally along a suitable stratigraphy (often ditches) for changes of the environment through time. Other bulk samples for small animal bones and other small artefacts may be taken from appropriate deposits depending on the aims of the project.
- 1.10 Any finds of human remains will be left *in situ*, covered and protected. The coroner's office will be informed. Excavation, recording and removal will only take place under the relevant Home Office licence and local authority environmental health regulations.

- 1.11 All finds of gold and silver will be moved to a safe place and reported to the Coroner's office according to the procedures relating to Treasure Trove. Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the artefacts from theft or damage.

#### *Recording*

- 1.12 All on-site recording will be undertaken in accordance with the standards and requirements of the *Archaeological Site Manual* (Museum of London 1994).
- 1.13 A continuous unique numbering system will be employed.
- 1.14 Written descriptions, comprising both factual data and interpretative elements, will be recorded on standardised sheets.
- 1.15 Where stratified deposits are encountered a 'Harris'-type matrix will be compiled during the course of the excavation.
- 1.1.6 The site grid will be accurately tied into the National Grid and located on the 1:2500 or 1:1250 map of the area.
- 1.17 Plans will normally be drawn at a scale of 1:100, but on urban or deeply stratified sites a scale of 1:50 or 1:20 will be used. Burials will be drawn at 1:10. Other detailed plans will be drawn at an appropriate scale.
- 1.18 Long sections of trench edges or internal baulks showing layers and any cut features will be drawn at 1:50 or 1:20 depending on amount of detail contained. Sections of features will be drawn at 1:20.
- 1.19 All sections will be accurately related to Ordnance Datum.
- 1.20 Registers of sections and plans will be kept.
- 1.21 A full black and white, and colour (35mm transparency) photographic record will be maintained. This will illustrate the principal features and finds both in detail and in a general context. The photographic record will also include working shots to represent more generally the nature of the fieldwork.
- 1.22 A register of all photographs taken will be kept on standardised forms.

#### *Finds*

- 1.23 All identified finds and artefacts will be collected and retained. Certain classes of material i.e. post-medieval pottery and building material may on occasion be discarded after recording if a representative sample is kept. No finds will be discarded without the prior approval of the archaeological representative of the local authority and the receiving museum.
- 1.24 All finds and samples will be treated in a proper manner and to standards agreed in advance with the recipient museum. Finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in United Kingdom Institute for Conservation's *Conservation Guidelines No. 2*.
- 1.25 At the beginning of the project (prior to commencement of fieldwork) the landowner and the relevant museum will be contacted regarding the preparation, ownership and deposition of the archive and finds.

#### *Archiving, Post-Excavation and Publication*

- 1.26 Following completion of each stage or the full extent of the fieldwork (as appropriate) the site archive will be prepared in the format agreed with the receiving institution. The excavation archive will be security copied and a copy deposited with the NAR before post-excavation analysis begins or as soon after as can be arranged.
- 1.27 On completion of the archive a summary report will be prepared. This will include:
- an illustrated summary of the results to-date indicating to what extent the project aims were fulfilled
  - a summary of the quantities and potential for analysis of the information recovered for each category of site, artefacts, dating and palaeo-environmental data
  - proposals for analysis and publication
- 1.28 The proposals for analysis and publication will include:
- a list of the revised project aims arising from the fieldwork and post-excavation assessment
  - a method statement which will make clear how the methods advocated are those best suited to ensuring that the data-collection will fulfil the stated aims of the project
  - a list of all tasks involved in meeting the stated methods to achieve the aims and produce a report and research archive in the stated format
  - details of the research team and their projected work programmes in relation to the tasks. Allowance will be made for general project-related tasks such as project meetings, management, editorial and revision time a publication synopsis indicating publisher, report

- format and content shown by chapters, section and subheadings with the anticipated length of text sections and proposed number of illustrations
- 1.29 The summary report embracing the analysis and publication proposals will be submitted to the local planning authority for approval.
- 1.30 Any significant variation in the project design, including timetables, proposed after the agreement of the proposals must be acceptable to the local planning authority.
- 1.31 The results of the project will be published in an appropriate archaeological journal or monograph. The suitable level of publication will be dependent on the significance of the project results, but as a minimum the basic requirements of Appendix 7.1 of *Management of Archaeological Projects* (English Heritage 1991) will be met. A summary of the results will be given in appropriate local publication where available, with consideration given to a fuller publication in a specialist archaeological journal.

## APPENDIX 2

### 2 *General*

- 2.1 The requirements of the Brief will be met in full where reasonably practicable (see also paragraph 2.2).
- 2.2 Any significant variations to the proposed methodology will be discussed and agreed with the local planning authority in advance of implementation.
- 2.3 The scope of fieldwork detailed in the main part of the Written Scheme of Investigation is aimed at meeting the aims of the project in a cost effective manner. John Moore Heritage Services attempts to foresee all possible site-specific problems and make allowances for these. However there may on occasions be unusual circumstances, which have not been included in the programme and costing. These can include:
- unavoidable delays due to extreme bad weather, vandalism etc.
  - trenches requiring shoring or stepping, ground contamination, unknown services, poor ground conditions
  - extensions to specified trenches or feature excavation sample sizes requested by the local authority's archaeological advisor
  - complex structures or objects, including those in waterlogged conditions, requiring specialist removal

#### *Health and Safety*

- 2.4 All relevant health and safety legislation, regulations and codes of practice will be respected.
- 2.5 With the introduction of the Construction (Design and Management Regulations) 2007 John Moore Heritage Services works with Clients, Main Contractors, and Planning Supervisors to create a Health and Safety Plan. Each project will have its own unique plan.

#### *Insurances*

- 2.6 John Moore Heritage Services holds Employers Liability Insurance, Public Liability Insurance and Professional Indemnity Insurance. Details can be supplied on request.
- 2.7 John Moore Heritage Services will not be liable to indemnify the client against any compensation or damages for or with respect to:
- damage to crops being on the Area or Areas of Work (save in so far as possession has not been given to the Archaeological Contractor)
  - the use or occupation of land (which has been provided by the Client) by the Project or for the purposes of completing the Project (including consequent loss of crops) or interference whether temporary or permanent with any right of way light air or other easement or quasi easement which are the unavoidable result of the Project in accordance with the Agreement
  - any other damage which is the unavoidable result of the Project in accordance with the Agreement
  - injuries or damage to persons or property resulting from any act or neglect or breach of statutory duty done or committed by the client or his agents servants or their contractors (not being employed by John Moore Heritage Services) or for or in respect of any claims demands proceedings damages costs charges and expenses in respect thereof or in relation thereto.

- 2.8 Where excavation has taken place evaluation trenches will be backfilled with excavated material but will otherwise not be reinstated unless other arrangements have previously been agreed. Open area excavations normally will not be backfilled but left in a secure manner unless otherwise agreed.

*Copyright and Confidentiality*

- 2.9 John Moore Heritage Services will retain full copyright of any commissioned reports, tender documents or other project documents under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it will provide an exclusive licence to the Client in all matters directly relating to the project as described in the Written Scheme of Investigation.
- 2.10 John Moore Heritage Services will assign copyright to the client upon written request but retains the right to be identified as the author of all project documentation and reports as defined in the Copyright, Designs and Patents Act 1988.
- 2.11 John Moore Heritage Services will advise the Client of any such materials supplied in the course of projects, which are not John Moore Heritage Service's copyright.
- 2.12 John Moore Heritage Services undertake to respect all requirements for confidentiality about the Client's proposals provided that these are clearly stated. In addition John Moore Heritage Services further undertakes to keep confidential any conclusions about the likely implications of such proposals for the historic environment. It is expected that Clients respect John Moore Heritage Service's and the Institute of Field Archaeologists' general ethical obligations not to suppress significant archaeological data for an unreasonable period.

*Standards*

- 2.13 John Moore Heritage Services conforms to the standards of professional conduct outlined in the Institute of Field Archaeologists' Code of Conduct, the IFA Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology, the IFA Standards and Guidance for Desk Based Assessments, Field Evaluations etc., and the British Archaeologists and Developers Liaison Group Code of Practice.
- 2.14 Project Directors normally will be recognised in an appropriate Area of Competence by the Institute of Field Archaeologists.
- 2.15 Where practicable John Moore Heritage Services will liaise with local archaeological bodies (both professional and amateur) in order that information about particular sites is disseminated both ways (subject to client confidentiality).

**APPENDIX 3**

Specialists that may be used for analysis of materials include:

Prehistoric pottery	Frances Raymond	Berks Archaeological Services
Romano-British pottery	Paul Booth	Oxford Archaeology
Lithics	Martin Tingle	Free-lance specialist
Medieval and post-medieval pottery	Paul Blinkhorn	Free-lance specialist
Plant macro remains, insect remains and molluscs	Mark Robinson	Oxford University Environmental Archaeology Unit
Human remains	Linzi Harvey	Free-lance specialist
Animal bone	Claire Ingrem	Free-lance specialist
Tile and brick	Terrance Paul Smith	Museum of London Specialist Services