

University of  
**Salford**  
MANCHESTER

**Archaeological  
Building Survey  
& Architectural  
Catalogue:**

The Cellars,  
Worsley New Hall

**Client:** Peel  
Investments (North)  
Ltd.

**Technical Report:**  
Matt Bishop & Dr  
Michael Nevell

**Report No:** 9/2013





## *Contents*

---

<b>Summary</b>	<b>3</b>
<b>1. Introduction</b>	<b>4</b>
<b>2. Methodology</b>	<b>5</b>
<b>3. Archaeological and Historical Background</b>	<b>6</b>
<b>4. Building Description</b>	<b>8</b>
<b>5. Discussion</b>	<b>19</b>
<b>6. Sources</b>	<b>21</b>
<b>7. Archive</b>	<b>22</b>
<b>Appendix 1: Figures</b>	<b>23</b>
<b>Appendix 2: Catalogue of Salvageable Architectural Features</b>	<b>42</b>



## *Summary*

---

The Centre for Applied Archaeology (CfAA) was commissioned by Peel Investments (North) Ltd. to undertake archaeological investigation and recording of the lower cellar of Worsley New Hall, Worsley, Greater Manchester (NGR SD 73950 00581). This work was carried out during January 2013 and formed an additional phase of recording work to supplement the excavation of the hall site in 2012.



# **1. Introduction**

---

## **1.1 Background**

The Centre for Applied Archaeology (CfAA) was commissioned by Peel Investments (North) Ltd. to undertake archaeological investigation and recording of the lower cellar of Worsley New Hall, Worsley, Greater Manchester (**Fig 1:** NGR SD 73950 00581). This work was carried out during January 2013 and formed an additional phase of recording work to supplement the excavation of the hall site in 2012.

## **1.2 Location**

The site lies within the City of Salford, in the western half of the town of Worsley, approximately 4km west of Salford city centre, 0.5km east of Boothstown and 0.2km north of the Bridgewater Canal. The hall site is centred at NGR SD 73950 00581 and lies within the Worsley New Hall Estate, Middlewood. The wider area is bounded by Leigh Road (A572) to the north, to the south by the boating lake within the grounds of Worsley New Hall. Middlewood Scout Camp lies to the south of site (**Fig. 2**). Worsley New Hall was excavated in 2012 and the excavation area lies on rising ground which measures 45m AOD at its southern boundary and 55m AOD at its northern boundary.

## **1.3 Geology**

The drift geology of the study area comprised Glacio-Fluvial Sand and Gravel. This includes diamicton deposits, very poorly sorted sediments that are characterised by great lateral and vertical variations in thickness, composition and texture. The underlying solid geology comprised mudstones, siltstone and sandstones of the Upper Carboniferous Millstone Grit Group (<http://www.bgs.ac.uk>)





## 2. *Methodology*

---

### 2.1 *Introduction*

The survey of the lower cellar at Worsley New Hall has followed the conventions laid down in *Understanding Historic Buildings. A guide to good recording practice* (English Heritage 2006) and the Institute of Field Archaeologists' *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* (IFA, Revised Edition 2001).

### 2.2 *Scope of Works*

In brief this work comprised of:

- Confined spaces training of archaeological staff prior to entry into the lower cellar area and the compilation of a risk assessment for safe working.
- A photographic survey of the lower cellar showing the overall appearance of the structure and the principle room spaces and circulation areas, and architectural and structural features relevant to the structure's design. The photographs have been taken as high resolution digital photographs, with the viewpoint directions shown on plans.
- Measured floor plan and cross-section at 1:100 scale.
- The compilation of a catalogue of architectural and historical buildings materials that could be salvaged for later re-use from the both cellars at Worsley New Hall.
- A written report including a description of the structure and a discussion of the site's development and context as part of Worsley New Hall and the 2012 excavations.



### ***3. Archaeological and Historical Background***

---

#### ***3.1 Historical Background***

Worsley New Hall was constructed between 1839 and 1845 for the 1st Earl of Ellesmere (Lord Francis Egerton formerly Leveson Gower) at a cost of £100,000. The Hall was designed by Edward Blore, a recognised establishment architect who was most noted for his work on Buckingham Palace. In 1846 William Andrews Nesfield one of the most sought after landscape gardeners in England was retained by the Earl of Ellesmere to advise in the development of the Hall's formal Gardens. By 1857 the Hall's head gardener Mr John Mitchell had completed the laying out of the formal gardens and all three fountains were in place.

In the same year the Earl of Ellesmere died and the Estate passed to his son George Granville Francis Egerton, who continued to add to the elaborate garden designs with the assistance of his head gardener, Mr. James Davidson. In 1862 the 2nd Earl of Ellesmere died and the estate passed to his eldest son Francis Charles Granville Egerton, 3rd Earl of Ellesmere. By 1875 Nesfield's planting designs had been modified by the head gardener Mr. William Upjohn, due to the expense involved in maintaining them and the eastern parterre had been replaced by a croquet lawn. During his time at Worsley the 3rd Earl continued to make improvements to the estate which included the construction of lamp pillars to light the carriage way in 1903 and the installation of electricity in the Hall in 1908. The 3rd Earl died in 1914 and the estate passed to his eldest son Lieutenant-Colonel John Francis Granville Scrope Egerton, 4th Earl of Ellesmere.

Between 1914 and 1919 the Hall was lent to the British Red Cross as a hospital for wounded soldiers. After the war the family was unable to cover the cost of repairing the Hall after its hospital use or maintain the formal gardens, so in 1920 the 4th Earl began dismantling the Hall and in 1921 the Hall's books and furniture were sold at auction. By 1923 the family severed their connections with Worsley and the estate passed into the control of the Bridgewater Estates Ltd, who hired a caretaker by the name of Richard Edge to look after the property. Between March 1939 and October 1940, the Hall and its grounds were occupied by the Lancashire Fusiliers as a training ground. During this period extensive damage was done to the Hall's interior with reports of its interior fittings being used for fuel. As a result of the damage the War Department were fined nearly £400 to cover the cost of the repairs. During the summer of 1942 the ground floor, cellars and gardens of the Hall were used as a training ground for the 45th County of Lancaster Battalion Home Guard as well as the Royal Air Force.

By 1943 the Hall was in a bad state of structural repair due to being undermined by Manchester Collieries who removed the Hall's supporting coal pillars. In the September of the same year the upper floors of the Hall were badly damaged due to a fire and as a result Bridgewater Estates Ltd put tenders out for the demolition of the Hall. In 1945 the Hall was sold to Mr. Littler a scrap merchant from Ashton in Makerfield for £2,500. The Hall was demolished by 1949 and the stone and brick work were used in the construction of council estate housing in Hebden Bridge, Yorkshire.



### 3.2 *Archaeological Background*

In May 2011 the CfAA were commissioned by Peel Investments (North) Ltd to conduct an archaeological Desk-Based Assessment of the grounds and associated structures of Worsley New Hall (Nash 2011). The Desk-Based Assessment established that the study area contained potential archaeological remains of the estate which had regional and local significance. A Building Survey for the remaining standing buildings within the Worsley New Hall study area was also produced (Nash 2011).

Following consultation with the curatorial body (GMAAS) it was recommended that the below ground archaeological remains identified by the Desk-Based Assessment would require archaeological intervention prior to commencement of any development work. This intervention took the form of an archaeological evaluation which sought to assess the extent and degree of preservation of any in-situ remains and to assess the sites suitability for a community archaeology project. The evaluation was conducted over a two week period in October/November 2011 and revealed substantial intact archaeological remains relating to the New Hall, which included some of the internal and external footprint of the Hall's eastern wing, along with some external features relating to the Hall's formal gardens. The majority of archaeological remains were found in a good or excellent state of preservation.

Between April and June 2012 extensive excavations at Worsley New Hall revealed the remains of a vaulted cellar and above a basement associated with Worsley New Hall.



## ***4. Building Description***

---

### ***4.1 Worsley New Hall Lower Cellar Descriptions***

This section of the report provides a detailed description of the cellar level, below the excavated basement level. Unlike the basement level, the cellar remained completely intact and required no excavation. 27 rooms were surveyed within the cellar level. Access was gained by three hatchways in the floors of basement rooms 1, 8 and 13. These led into cellar rooms C3, C22, and C25. Approximately half of the cellar level was accessible to the survey. This was the southern, garden side of the building, with four more rooms in the centre of the building. These rooms were open and contained no obstructions. The northern part of the building was largely inaccessible having been blocked off. These inaccessible areas below the rest of the exposed basement level the cellar rooms were filled with brick rubble up to the vaulted ceilings or floors. This was shown to be the case throughout the northern part of the building by small excavations in the basement level, in various locations. All areas and rooms that were accessible have been surveyed and drawn to scale. All the rooms surveyed were orientated north-south. The flooring throughout the cellar was stone and brick rubble and roughly a constant level throughout. The ceilings were all vaulted and on average c.1.40m high, from the rubble flooring. The ceilings were constructed of handmade brick and laid in a stretcher bond.

### ***4.2 Room Descriptions***

#### **Room C1**

This room was located at the south-eastern corner of the building and was the most easterly room accessible in the cellar. It was rectangular in plan, with the south east corner of the room angled on a north-east to south-west orientation. The room measured c.2.00m long by 1.23m at its widest point, tapering to 0.99m at its southern end, where the angled corner narrowed the room. The western and southern walls were constructed from handmade brick with no defined bonding. Some bricks showed signs of over-firing and were blackened. The western wall was one stretcher brick thick, or 0.23m. The southern half of the east wall was handmade brick with a garden wall bonding. The northern half of the east wall, and northern wall were stone. These were rough ashlar blocks with a rock-faced finish. The stone walls were an unknown thickness. The western wall had a c.0.60m wide and c.0.80m high opening within it. This had a brick arch above. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The southern wall had a c.0.30m opening. This led to a sloping 45° angled cavity, heading up towards the basement above. This room also contained a cast iron pipe that came in through the opening in the western wall, orientated east-west. The pipe terminated in this room but may have extended through the opening in the southern wall previously.

## Room C2

This room was located west of C1. It was rectangular in plan, with the south-east corner of the room angled on a north-east to south-west orientation. It measured c.4.80m in length and 1.44m in width. The eastern wall was constructed of handmade brick with an English Garden Wall bonding, one stretcher brick thick. The northern wall was constructed of rough ashlar blocks with a rock-faced finish, as was the southern part of the western wall. North of the south-west stone wall was an arch. This was also constructed of rough ashlar blocks with a rock-faced finish. The south-west stone wall was built upon a stone plinth footing. The southern wall was formed by a blocking. This was handmade brick with an English Garden Wall bonding. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had a c.0.60m wide and c.0.80m high opening within it. The room had a cast-iron pipe running along the floor, orientated east-west.

## Room C3

This room was located west of C2. It was rectangular in plan. It measured c.8.60m in length and 1.46m in width. The eastern wall was constructed of rough ashlar blocks with a rock-faced finish, with an archway at its northern end. This wall sat on a stone plinth. The southern wall was also rough ashlar blocks with a rock-faced finish. The western wall was handmade brick with no constant definable bond. The western wall had a brick plinth running along its face. At the southern end of the building this led to a rough stepped section of brick. The southern end of the room had a stone plinth that protruded north from the southern stone wall and west from the eastern stone wall. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. This arch rose from the eastern wall and its half way peak was level with the western brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall had three openings. All were c.0.60m wide and c.0.80m high. The central opening had a cast iron pipe running along the floor, orientated east-west.

## Room C4

This room was located west of C3. It was rectangular in plan. It measured c.8.60m in length and c.1.40m in width. The western wall was constructed of rough ashlar blocks with a rock-faced finish and sat on a stone plinth. This wall had an archway at its northern end. This archway was blocked with brick laid in a stretcher bond. At the midpoint of the arch blocking was a roughly cut opening through the brick that measured c.09.0m high and c.0.40m wide. The eastern wall was handmade brick with no constant definable bond. The southern wall was formed by an upside down archway of rough ashlar blocks with a rock-faced finish. To the east of the arch, within its curve was a brick blocking. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. This arch rose from the western wall and its half way peak was level with the eastern brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had three openings. All were c.0.60m wide and c.0.80m high. The central opening had a cast iron pipe running along the floor, orientated east-west. This pipe split at a junction east of the western wall. One

length ran north-south along the floor and exited the room through a hole in the northern end ceiling. The other length of pipe continued east-west into Room C5.

#### Room C5

This room was located west of Room C4. It was rectangular in plan. It measured c.6.60m in length and c.1.15m in width. The eastern wall was constructed of rough ashlar blocks with a rock-faced finish and sat on a stone plinth. This wall had an archway at its northern end. This archway was blocked with brick laid in a stretcher bond. At the midpoint of the arch blocking was a roughly cut opening through the brick that measured c.0.90m high and c.0.40m wide. The southern wall was constructed of rough ashlar blocks with a rock-faced finish. The western wall was constructed of handmade bricks with no constant definable bond and was one stretcher brick thick. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The archway was blocked with handmade brick. The stone walls and the arch were 0.84m in width. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall had a c.0.60m wide and c.0.80m high opening within it. This had a brick arch above. This room contained a cast iron pipe that came in through the opening in the eastern wall and ran out through the western wall, orientated east-west.

#### Room C6

This room was located west of C5. It was rectangular in plan. It measured c.6.60m in length and c.1.15m in width. The western wall was constructed of rough ashlar blocks with a rock-faced finish and sat on a stone plinth. This wall had an archway at its northern end. The southern wall was also rough ashlar blocks with a rock-faced finish. The eastern wall was handmade brick with no constant definable bond. Half way along this wall was a brick column that was constructed to the height of the room, into which a length of cast iron pipe ran south from the main, east-west pipe. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the western wall and its half way peak was abutted by the eastern brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had a c.0.60m wide and c.0.80m high opening within it.

#### Room C7

This room was located west of C6. It was rectangular in plan. It measured c.6.60m in length and c.1.15m in width. The eastern wall was constructed of rough ashlar blocks with a rock-faced finish, with an archway at its northern end. This wall sat on a stone plinth. The southern wall was also rough ashlar blocks with a rock-faced finish. The western wall was handmade brick with no constant definable bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall

had a c.0.60m wide and c.0.80m high opening within it. The main cast iron pipe running through the cellar east-west turned north, east of the western brick wall. The pipe entered the brick blocking within the northern wall at c.0.60m high.

#### Room C8

This room was located west of C7. It was rectangular in plan. It measured c.6.60m in length and c.1.15m in width. The western wall was constructed of rough ashlar blocks with a rock-faced finish and sat on a stone plinth. This wall had an archway at its northern end. The southern wall was also rough ashlar blocks with a rock-faced finish. The eastern wall was handmade brick with no constant definable bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the western wall and its half way peak was abutted by the eastern brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had a c.0.60m wide and c.0.80m high opening within it.

#### Room C9

This room was located west of C8. It was rectangular in plan. It measured c.6.60m in length and c.1.15m in width. The eastern wall was constructed of rough ashlar blocks with a rock-faced finish, with an archway at its northern end. This wall sat on a stone plinth. The southern wall was also rough ashlar blocks with a rock-faced finish. The western wall was handmade brick with no constant definable bond. The northern wall of the room consisted of a portion of stone arch constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall had a c.0.60m wide and c.0.80m high opening within it.

#### Room C10

This room was located west of C9. It was rectangular in plan. It measured c.6.60m in length and c.1.15m in width. The western wall was handmade brick with no constant definable bond. The northern wall of the room consisted of a portion of stone arch constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. The eastern wall was handmade brick with no constant definable bond. The southern wall was formed by an upside down archway of rough ashlar blocks with a rock-faced finish. Within the curve of the arch, to the west was a small gap that led into a chamber south of this room. The chamber was inaccessible but was measured from the opening and drawn. The chamber had a stone wall at its east, west and southern parts. These were constructed of rough ashlar blocks with a rock-faced finish. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western and eastern walls had single c.0.60m wide and c.0.80m high opening within them. In the centre of this room was a brick column that spanned the room from floor to ceiling.



## Room C11

This room was located west of C10. It was rectangular in plan. It measured c.6.60m in length and c.0.90m in width. The eastern wall was handmade brick with no constant definable bond. The southern end of this wall contained a small brick cavity with an archway above it. A stone plinth that underlies the brick wall was visible within this cavity. The northern wall of the room consisted of a portion of stone arch constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. The southern wall was also rough ashlar blocks with a rock-faced finish. The western wall in this room was constructed of rough stone with a regular course. Through this wall, an opening measuring c.0.90m in height and c.0.60m in width had been roughly cut through to allow access west of this room. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had a c.0.60m wide and c.0.80m high opening within it.

## Room C12

This room was located west of C11. It was rectangular in plan. It measured c.8.80m in length and c.0.90m in width. The eastern wall in this room was constructed of rough stone with a regular course. Through this wall, an opening measuring c.0.90m in height and c.0.60m in width had been roughly cut through to allow access east of this room. The eastern wall was handmade brick with no constant definable bond. The northern wall of the room consisted of a portion of stone arch constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. The southern wall was also rough ashlar blocks with a rock-faced finish. At the southern end the room widened out and contained the lowest section of an upside down archway. The brick wall on the western side of the room abutted this archway. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall had a c.0.60m wide and c.0.80m high opening within it.

## Room C13

This room was located west of C12. It was rectangular in plan. It measured c.6.60m in length and c.1.15m in width. The western wall was handmade brick with no constant definable bond. The northern wall of the room consisted of a portion of stone arch constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. The eastern wall was handmade brick with no constant definable bond. The southern wall was formed by an upside down archway of rough ashlar blocks with a rock-faced finish. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western and eastern walls had single c.0.60m wide and c.0.80m high opening within them. Adjacent to the western wall of this room was a brick column that spanned the room from floor to ceiling.

## Room C14

This room was located west of C13. It was rectangular in plan. It measured c.6.60m in length and c.1.15m in width. The western wall was constructed of rough ashlar blocks with a rock-

faced finish, with an archway at its northern end. This wall sat on a stone plinth. The southern wall was also rough ashlar blocks with a rock-faced finish. The eastern wall was handmade brick with no constant definable bond. The northern wall of the room consisted of a portion of stone arch constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had a c.0.60m wide and c.0.80m high opening within it.

#### Room C15

This room was located west of C14. It was rectangular in plan. It measured c.6.60m in length and c.1.24m in width. The eastern wall was constructed of rough ashlar blocks with a rock-faced finish, with an archway at its northern end. This wall sat on a stone plinth. The southern wall was also rough ashlar blocks with a rock-faced finish. The western wall was handmade brick with no constant definable bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall had a c.0.60m wide and c.0.80m high opening within it.

#### Room C16

This room was located west of C15. It was rectangular in plan. It measured c.6.60m in length and c.1.24m in width. The western wall was constructed of rough ashlar blocks with a rock-faced finish and sat on a stone plinth. This wall had an archway at its northern end. The southern wall was also rough ashlar blocks with a rock-faced finish. The eastern wall was handmade brick with no constant definable bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the western wall and its half way peak was abutted by the eastern brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had a c.0.60m wide and c.0.80m high opening within it.

#### Room C17

This room was located west of C16. It was rectangular in plan. It measured c.6.60m in length and c.1.24m in width. The eastern wall was constructed of rough ashlar blocks with a rock-faced finish, with an archway at its northern end. This wall sat on a stone plinth. The southern wall was also rough ashlar blocks with a rock-faced finish. The western wall was handmade brick with no constant definable bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall had a c.0.60m wide and c.0.80m high opening within it.

## Room C18

This room was located west of C17. It was rectangular in plan. It measured c.6.60m in length and c.1.32m in width. The western wall was constructed of rough ashlar blocks with a rock-faced finish and sat on a stone plinth. This wall had an archway at its northern end. The southern wall was also rough ashlar blocks with a rock-faced finish. The eastern wall was handmade brick with no constant definable bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the western wall and its half way peak was abutted by the eastern brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had a c.0.60m wide and c.0.80m high opening within it.

## Room C19

This room was located west of C18. It was rectangular in plan. It measured c.6.60m in length and c.1.34m in width. The eastern wall was constructed of rough ashlar blocks with a rock-faced finish, with an archway at its northern end. This wall sat on a stone plinth. The southern wall was formed by an upside down archway of rough ashlar blocks with a rock-faced finish. To the west of the arch, within its curve was a brick blocking. The western wall was handmade brick with no constant definable bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall had a c.0.60m wide and c.0.80m high opening within it.

## Room C20

This room was located west of C19. It was rectangular in plan. It measured c.6.60m in length and c.1.32m in width. The western wall was constructed of rough ashlar blocks with a rock-faced finish and sat on a stone plinth. This wall had an archway at its northern end. The southern wall was also rough ashlar blocks with a rock-faced finish. The eastern wall was handmade brick with no constant definable bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick. This arch rose from the western wall and its half way peak was abutted by the eastern brick wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall had a c.0.60m wide and c.0.80m high opening within it.

## Room C21

This room was located west of C20. It was rectangular in plan. It measured c.7.25m in length and 1.34m in width. The eastern wall was constructed of rough ashlar blocks with a rock-faced finish, with an archway at its northern end. This wall sat on a stone plinth. The southern wall was also rough ashlar blocks with a rock-faced finish. The western wall was handmade brick with no constant definable bond. The northern wall of the room was constructed of

rough ashlar blocks with a rock-faced finish. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The western wall had three openings. All were c.0.60m wide and c.0.80m high. The room contained brick and stone rubble, above the floor level. The rubble was almost ceiling high at the southern end of the room. The southern end also contained a brick section protruding east, from the western wall.

#### Room C22

This room was located west of C21. It was rectangular in plan. It measured c.7.25m in length and c.1.34m in width. The western wall was handmade brick with no constant definable bond. It was one header brick thick and was cladding a rough stone wall behind it. The northern wall of the room was constructed of rough ashlar blocks with a rock-faced finish. The eastern wall was handmade brick with no constant definable bond. The southern wall was formed by an upside down archway of rough ashlar blocks with a rock-faced finish. The arch was atop a large ashlar block and plinth. In the south-eastern corner of the room adjacent to the arch, was a brick column that spanned the room from floor to ceiling. The flooring was obscured by a large amount of brick and stone rubble. The ceiling was vaulted and constructed of brick and laid in a stretcher bond. The eastern wall had three openings. All were c.0.60m wide and c.0.80m high. The western wall had an opening within it that measured c.0.40m square. This formed an opening to the stone wall behind and led into a cavity that extended c.1.00m west. The room contained brick and stone rubble, above the floor level. The rubble was almost ceiling high in the centre of the room. The ceiling was vaulted and constructed of brick and laid in a stretcher bond.

#### Room C23

This room was located c.2.00m north of Room C9/C8. It was rectangular in plan and measured c.3.57m in length and c.1.40m in width. The western wall was handmade brick with an English bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The southern wall of the room also consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The eastern wall consisted of a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch spanned the entire wall. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond.

#### Room C24

This room was located c.2.00m north of Room C10/C9 and west of C23. It was rectangular in plan and measured c.3.57m in length and c.1.40m in width. The eastern wall was handmade brick with an English bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch rose from the western wall and its half way

peak was abutted by the eastern brick wall. The southern wall of the room also consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch rose from the western wall and its half way peak was abutted by the eastern brick wall. The western wall was constructed from roughly dressed stone blocks with a random coursing. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond.

#### Room C25

This room was located west of C24. It was rectangular in plan and measured c.3.57m in length and c.1.40m in width. The western wall was handmade brick with an English bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The southern wall of the room also consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch rose from the eastern wall and its half way peak was abutted by the western brick wall. The eastern wall was constructed from roughly dressed stone blocks with a random coursing. The western wall contained an opening that measured c.0.60m wide by c.0.80m high. This opening had a double height brick arch above it. This room was accessed by one of the three original hatches. This hatch had been open at the time of demolition and therefore the room contained demolition rubble below the hatch that spread from there.

#### Room C26

This room was located west of C25. It was rectangular in plan and measured c.3.57m in length and c.1.40m in width. The eastern wall was handmade brick with an English bond. The northern wall of the room consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch rose from the western wall and its half way peak was abutted by the eastern brick wall. The southern wall of the room also consisted of half a stone archway constructed of rough ashlar blocks with a rock-faced finish. The arch was blocked with handmade brick in an English bond. This arch rose from the western wall and its half way peak was abutted by the eastern brick wall. The western wall was constructed from roughly dressed stone blocks with a random coursing. The flooring was stone and brick rubble and was a constant level throughout the room. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The eastern wall contained an opening that measured c.0.60m wide by c.0.80m high. This opening had a double height brick arch above it. Within the middle of the room, a brick column rose from the floor to the ceiling. It was c.0.23m square. The column sat atop a stone flag pad. Atop the column were two pieces of timber that made contact with the vaulted ceiling. Abutting the southern wall was a one brick thick skin protruding north from that wall.

#### Room C27

This room was located directly below the corridor west of Basement Room 16. At the cellar level, it was located north of Room C4. It was roughly rectangular in plan. It measured

c.4.64m in length and c.1.28m in width. The northern extent of this room was formed by one half of a stone archway constructed of rough ashlar blocks with a rock-faced finish. This arch rose from the western wall and its half way peak was abutted by the eastern stone wall. North of this archway was brick rubble that formed an obstruction and made any thing north of this point in the cellar inaccessible. The eastern wall was constructed from roughly dressed stone blocks with a random coursing. It formed the eastern support for the vaulted ceiling above. This wall abutted the archways to its north and south and was not bonded or keyed into any other wall. This wall was c.0.55m wide. The southern extent of this room was formed by one half of a stone archway constructed of rough ashlar blocks with a rock-faced finish. This arch rose from the western wall and its half way peak was abutted by the eastern stone wall. The western wall consisted of two stone arches constructed of rough ashlar blocks with a rock-faced finish. They were both partially open, but blocked by handmade bricks on their western sides, sealing this room from anything further west within the building. The ceiling was vaulted and c.1.40m high, from the rubble flooring. The ceiling was constructed of brick and laid in a stretcher bond. The flooring was stone and brick rubble and fluctuated in height throughout the room.

#### ***4.3 Test Pits/Slots***

Three test pits were dug within the cellar to explore relationships between features and as and attempt to locate the natural level below the foundations. Test Pit 1 was dug against the southern end of the eastern wall in Room C27. Test Pit 2 was dug against the northern side of the southern wall in Room C15. Test Pit 3 was placed within the southern corner of the area within the arch that formed the western wall of Room C27.

Within all three slots the natural geology was quickly reached. The natural consisted of yellow sandstone. The foundation walls seen in the cellar had been built directly onto the bedrock. In each test pit, below the features identified during the survey were two large ashlar blocks. The bedrock was located c.0.40m below the brick rubble floor level as surveyed. This was the same level throughout the cellar, in all the test pits.





## 5. Discussion

---

### 7.1 Introduction

The extensive excavations at Worsley New Hall from April to June 2012 revealed the remains of a vaulted cellar and above a basement associated with Worsley New Hall. This was a purpose-built country house erected for the Earl of Ellesmere in the early 1840s. The excavations provided a detailed record of the construction materials and layout of the lowest two floors of the hall, although little of the western service wing was available for excavation. The following discussion focuses upon the layout and building materials of the Hall

### 7.2 Phasing

#### *Phase 1: 1840s*

Worsley New Hall was constructed between 1839 and 1845, for the first Earl of Ellesmere. The hall was designed by Edward Blore, a recognized architect who was most noted for his work on Buckingham Palace and other country houses of the period. In 1846 William Andrews Nesfield one of the most sought after landscape gardeners in England was retained by the Earl of Ellesmere to advise in the development of the Hall's formal Gardens. Although there are extensive records associated with the construction of the Hall and the wider estate, specific material relating to the basement and the cellar is sparse. The discovery of a lower basement, the cellar area of this report, was thus a surprise.

Structurally, the cellar level of Worsley New Hall belongs to the primary period of hall building; the years 1839 to 1845. This structure, in effect an undercroft, was planned as a support for the large building above. The stone arches were laid in a 'compass point' layout to offer stability and brace for the weight above. The stone walls in the cellar corresponded with the larger, load bearing, walls above in the basement level. The smaller brick walls in the cellar merely formed a meeting point for the vaulted ceilings. The brick walls in between the stone ones were not all uniform distances apart.

The stone walls and arches all sat on stone plinths and blocks that step out and become wider as they descend. These plinths and blocks sit atop the natural geological sandstone bedrock. The stone structure laid first at Worsley New Hall was the foundation level for the house. The stone ashlar blocks used were substantial and well dressed. They were not the fine ashlar of an exterior facing stone but were rock faced. The blocks may have been finished in this way so that they would have shown up cracks or damage easily. Engineers or maintenance staff from the estate would have been able to test for integrity if they could see the surface of the stone plainly.

#### *Phase 2: The Installation of the Heating System, late 1840s or 1850s*

There is archaeological evidence to show that the layout and fittings of the Hall continued to evolve once the foundations had been completed. Soon after the completion of the cellar and basement levels a heating system was installed in the Hall. This involved the cutting of in the





floor of the basement (the vaulting) and in a number of the walls in the cellar in order to install piping. The layout of the piping in the cellar suggests that most of the piping was taken through existing openings. The heating system thus installed was a variant of a system known as Price's Apparatus (Ian West pers. Comm.). A journal from 1838 shows this to have been newly-invented. Hot water heated in the coal-fired boiler circulated via convection through coils of tubes housed in brick chambers either side of the boiler. Fresh air drawn from outside the house was warmed by passing over these coils and was ducted to the upper storeys of the house, where it exited via grilles in the floor or skirtings. Unusually, the boiler flue did not go straight upwards but ran under the floor of the passageway in the Cellar for a distance. At least one of the other ducts running under the basement in the cellar to the heating chamber would have been a fresh air inlet.

### *Phase 3: Late 19<sup>th</sup> Century*

Later in the 19<sup>th</sup> century drains were inserted into the southern range of cellars – although these were not available for inspection during the current work. Probably also at this time a series of brick pillars, made from machine brick, were inserted in to several of the cellar rooms spaces as additional support.

### *Phase 4: The Installation of the Lifts*

Finally in the early 20<sup>th</sup> century a lift was inserted into the basement and cellar levels. This may be the moment at which most of the stone arches in the cellar were blocked with machine-made brick.

## **7.2 The Design and Function of the Cellar**

It is clear from the present survey that the cellar is a primary feature of the hall and was built at the same time as the basement. Such a double-depth cellar is a very usual 19<sup>th</sup> century feature in a British country house (Ian West pers. comm.), whilst the function of the lower vaulted area, the cellar, remains unclear. Coal could have been stored at basement level in the vaulted chambers to the east of the main entrance – where hatches in the courtyard might be expected to enable coal to be tipped into these. However, the cellar exhibited no signs of storage use. There were no fixtures or fittings, no blackening from coal and no evidence of crates or bottles. The cellar level did contain a number of pipes for the heating system, but these were a later addition. The cellar had no flooring anywhere. The flooring consisted throughout of brick and stone rubble, built up around the base of the foundations, leaving approximately 1.40m room height throughout. The access and openings between the rooms were big enough for an adult to crawl through, but not stand up, or carry a large amount of goods or equipment.

Some rooms in the cellar were filled entirely with brick rubble, and some were left open to c.1.40m in height. The cellar rooms surveyed were suitable for maintenance, pipe laying and checking the integrity of foundations. They were not suitable for storage or dwelling.

The southern half of the cellar was largely inaccessible. These rooms were full of brick rubble. It was not clear whether these rooms were filled at the point of construction, or filled later from an unknown external point. It is likely that the rooms were filled at the same time as the brick blocking was placed within the arches along the northern walls of Rooms C1-22, to close those areas off. The rooms may have been filled at the time of construction to act as a

frame for the vaulted ceilings to be built over. All the rooms in the cellar may have been vaulted from above, as the mortar is untidy below. The other rooms may have been vaulted over a wooden frame.



## 6. Sources

---

### ***Bibliography***

Brownbill, J. & Farrer, W. 1911, *A History of the County of Lancaster: Volume 4*. Victoria County Histories.

English Heritage, 2005, *Understanding Historic Buildings. A guide to good recording practice*. English Heritage.

Institute of Field Archaeologists', 2001, *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* (IFA, Revised Edition 2001).

Irvine, J. 1995, *Worsley Park, Salford: An Archaeological Evaluation*. University of Manchester Archaeological Unit.

Nash, V. 2011, *Archaeological Desk-Based Assessment: Worsley New Hall, Worsley, Greater Manchester*. Centre for Applied Archaeology.

*National Planning Policy Framework* (Department for Communities and Local Government, March 2012).

Nears, P. 2011, *Worsley New Hall: Presentation to the Eccles and District History Society*.

OAU 1995, *English Heritage Monuments Protection Programme Step 1 Report. Ice-Houses*. Oxford Archaeology Unit.

### ***Special Collections***

Bridgewater Estate Archives, 1840 to 1958. University of Salford Library.

### ***Maps***

OS 1" to 6 Mile, Country Series Provisional Edition 1949, Lancashire Sheet 103 NW.

OS 1:10,560, National Grid Series 1956, Sheet SD 70 SW.

OS 1:10,000, National Grid Series 1975, Sheet SD 70 SW.

OS 1:10,000, National Grid Series 1991, Sheet SD 70 SW.

OS 1:10,000, National Grid Series 1999, Sheet SD 70 SW.

### ***Web Sources***

Census Records for England 1841 – 1901 – [Ancestry.co.uk](http://Ancestry.co.uk)

Catford, N. 2002, Worsley – 4 Group, 70 Brigade AAOR serving the Manchester GDA. - [http://www.subbrit.org.uk/rsg/sites/w/worsley/door\\_to\\_SOR.html](http://www.subbrit.org.uk/rsg/sites/w/worsley/door_to_SOR.html)





## *7. Archive*

---

The archive is currently held by the Centre for Applied Archaeology and a copy of this report will be forwarded to the client and deposited with the Greater Manchester Historic Environment Record (HER) held by the Greater Manchester Archaeological Unit.

The archive consists of annotated field drawings, digital photographs, historic and modern mapping, census and trade directory entries along with photocopies of supporting historical documentary material.

## Appendix 1: Figures

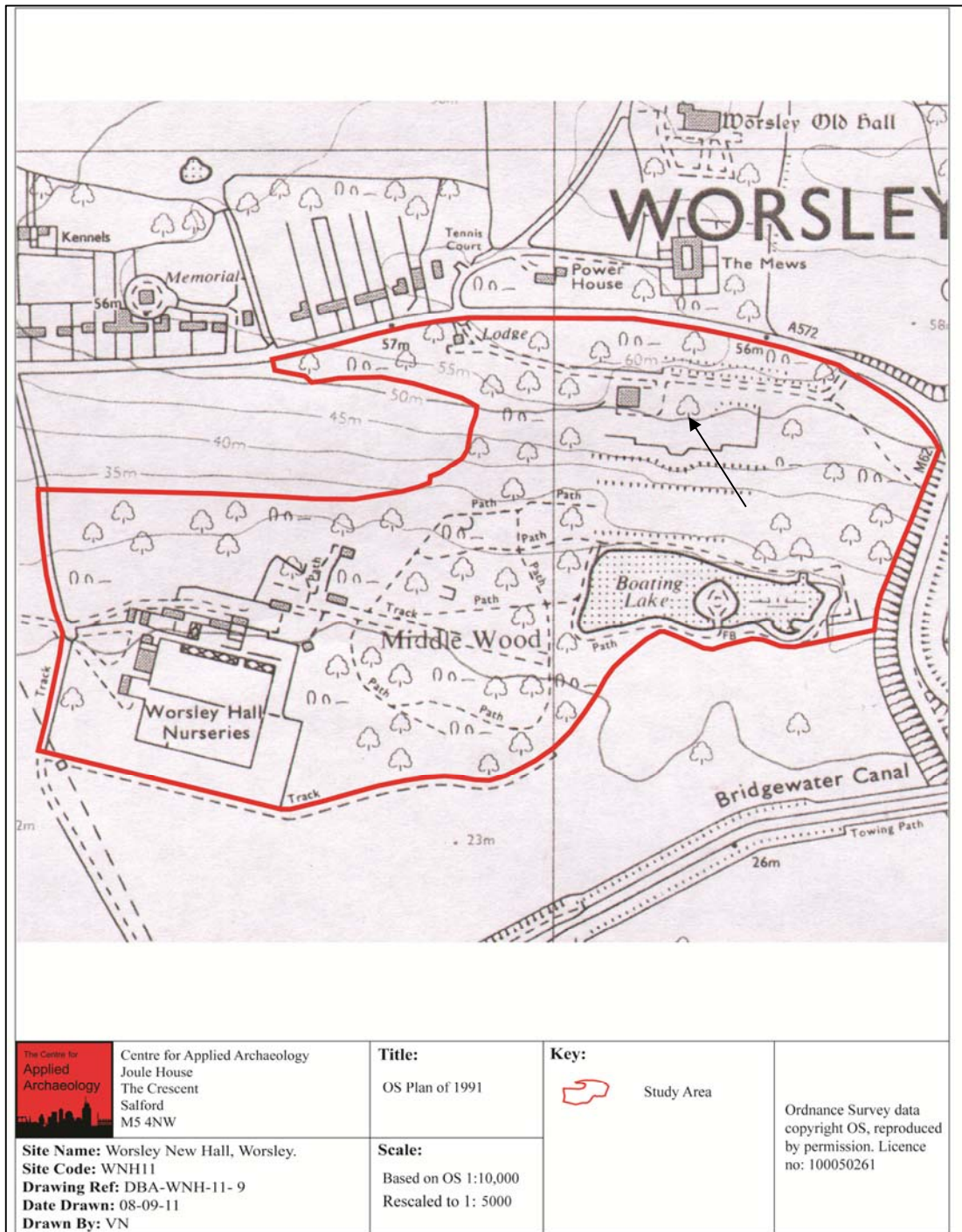
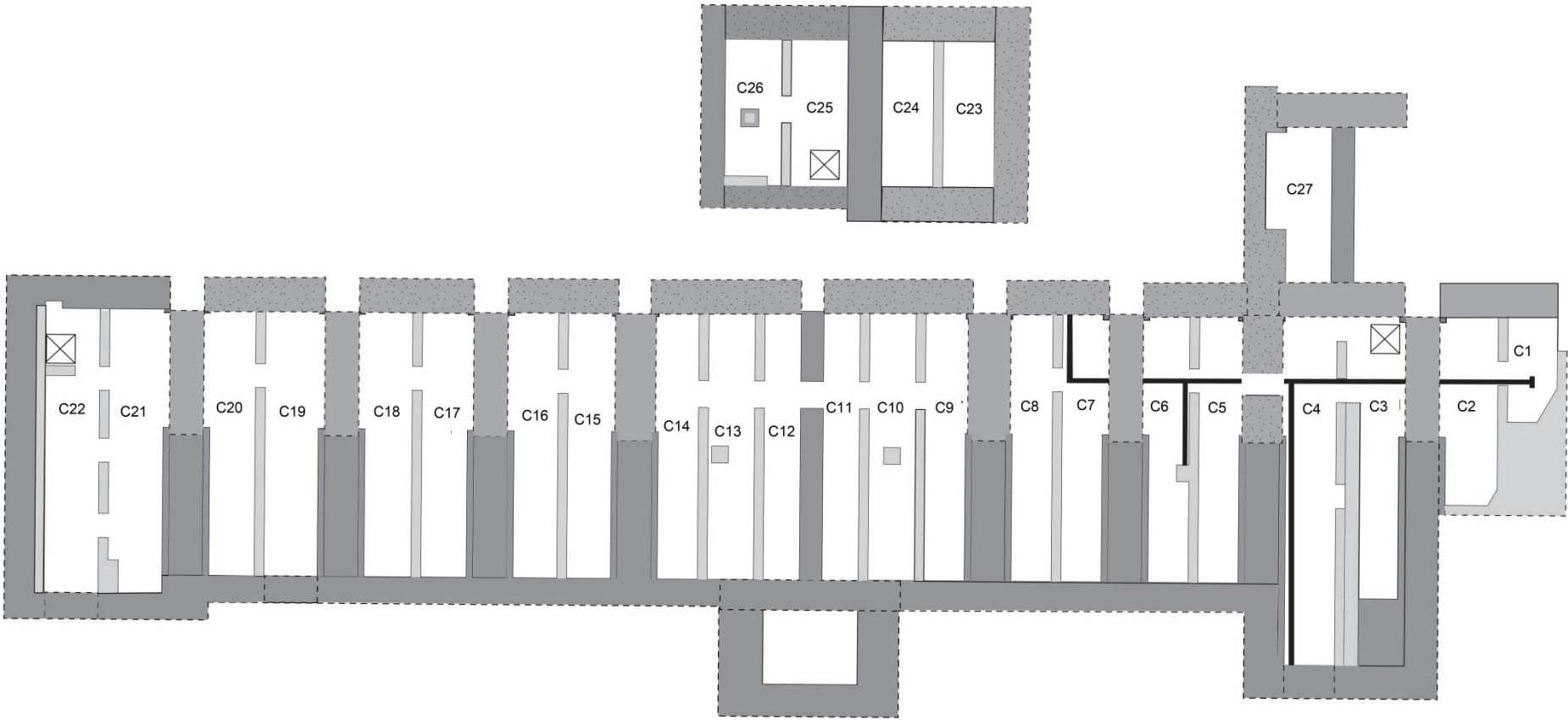









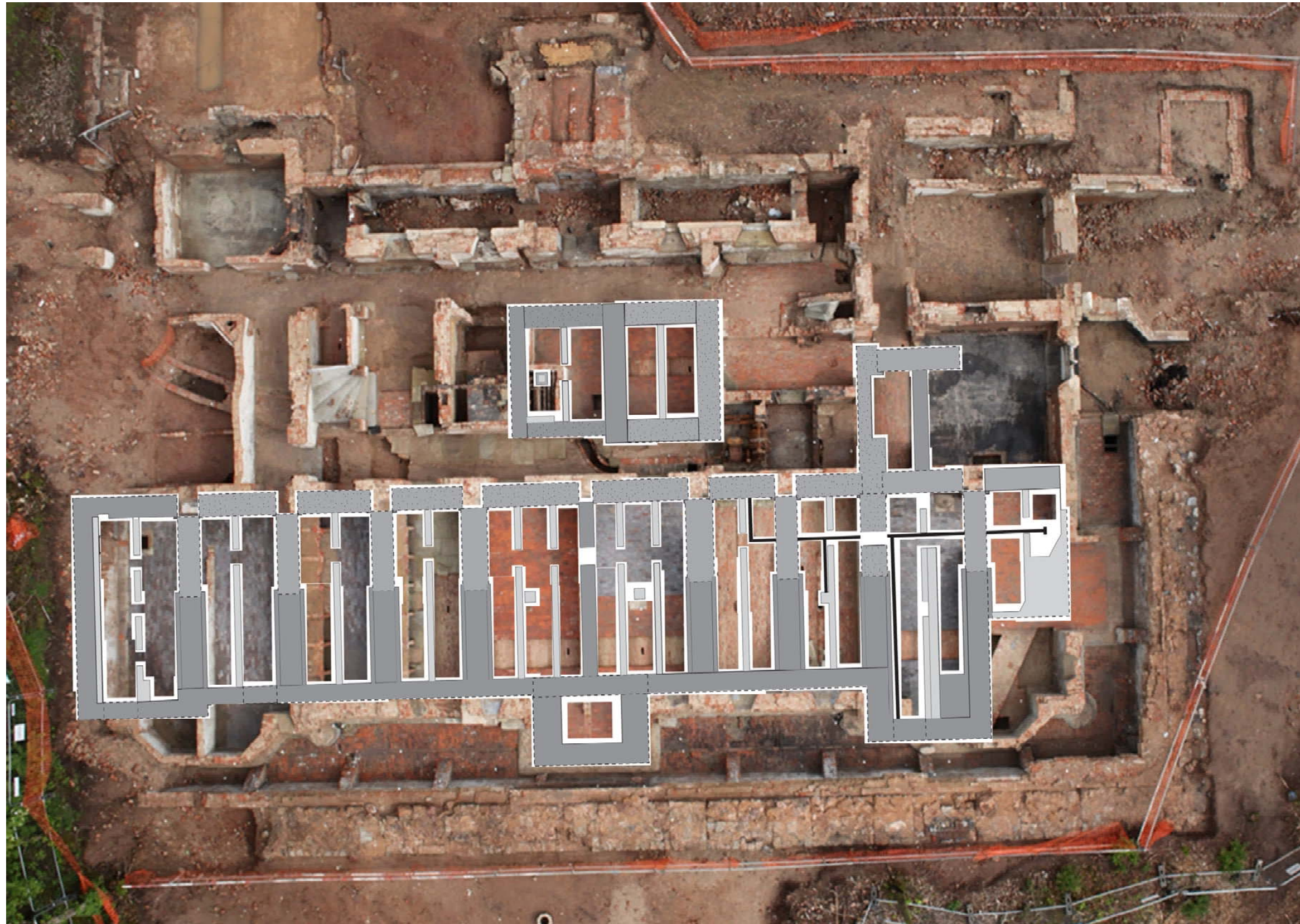
Fig 1: The location of Worsley New Hall (arrowed) and the research area (outlined).

*Fig 2: Measured plan of  
the cellar at Worsley  
New Hall.*



 The Centre for Applied Archaeology School of the Built Environment The Crescent Salford M5 4NW	<b>Title:</b> Plan of cellar		<b>Key:</b>  Brick wall  Stone wall  Stone arch  Stone arch with brick blocking  Hatch access	 N
	<b>Site Name:</b> Worsley New Hall <b>Site Code:</b> <b>Drawing Ref:</b> <b>Date Drawn:</b> <b>Drawn By:</b>			

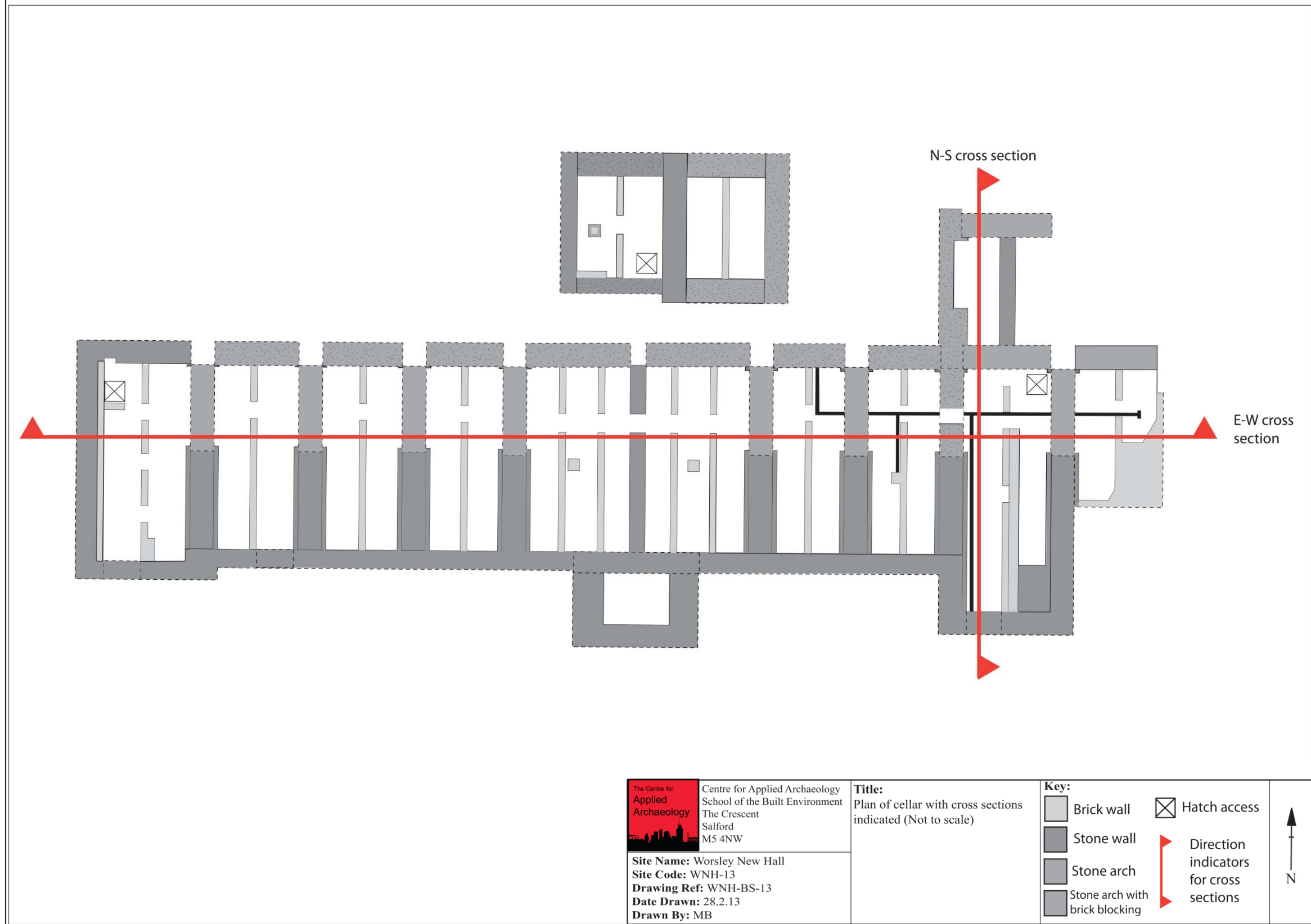




*Fig 3: Measured plan of the cellar at Worsley New Hall overlain against the aerial photograph of the 2012 excavations.*



*Fig 4: Measured plan of the cellar at Worsley New Hall showing the cross-sections.*



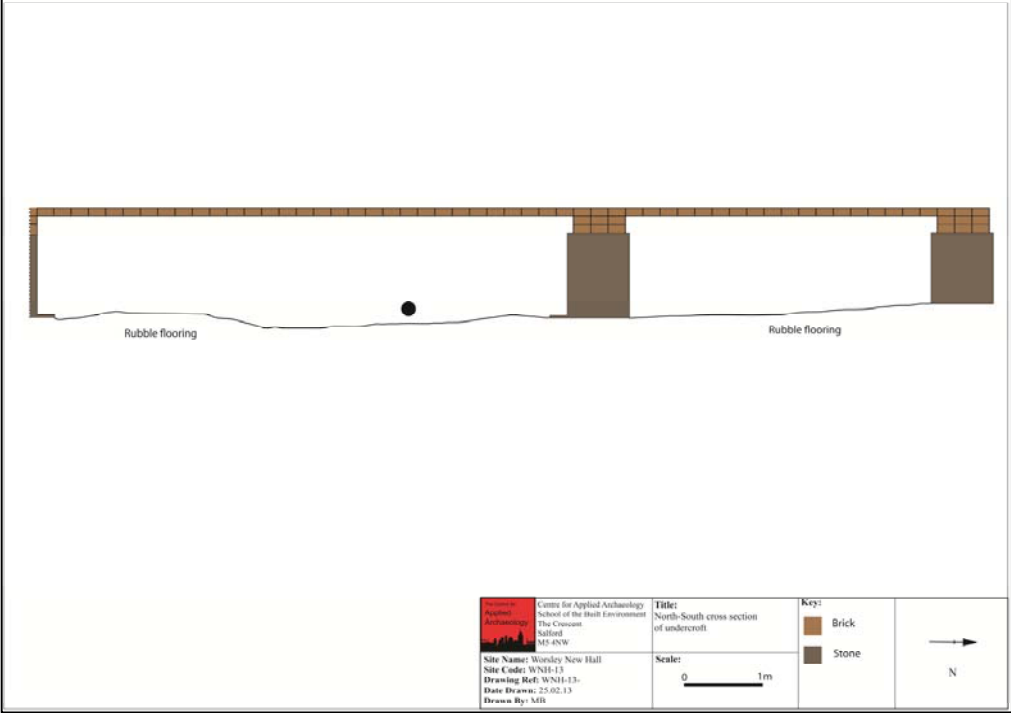
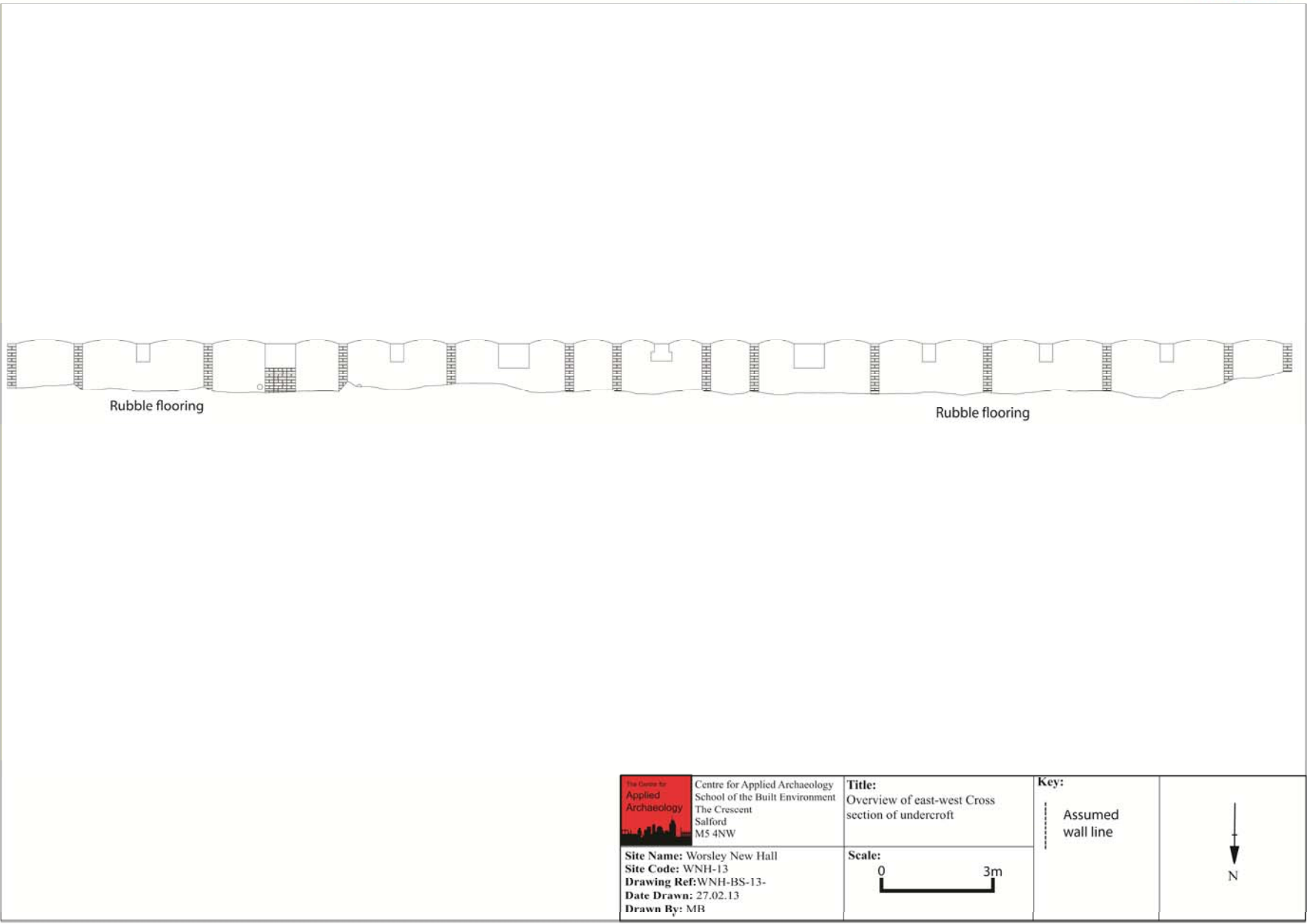


Fig 5: Measured cross-sections of the cellar at Worsley New Hall.



*Fig 6: View of the Room C1 showing the south and eastern walls with a stonework to the left.*



*Fig 7: View of the Room C1 looking south-east showing a heating pipe.*





*Fig 8: View of Room C3 looking south with stone rubble strewn across the floor.*



*Fig 9: View of Room C2 looking at the blocked opening at the southern end of the room space.*



*Fig 10: View of Room C4 looking at the southern wall showing a blocked stone inverted arch and heating pipe to the right.*



*Fig 11: View of Room C4 looking north showing the two stone arches set at right-angles to each other.*





*Fig 12: View of Room C5 looking south, with a stone arch on the left and brick rubble on the floor.*

*Fig 13: View of Room C6 looking south with a stone arch to the right and another heating pipe on the floor.*





*Fig 14: View of Room C7 looking north at the stone arches with brick blocking into which a heating pipe runs.*

*Fig 15: View of Room C10 looking south at an inserted machine-made brick column supporting the barrel vaulting.*







*Fig 16: View of Room C10 looking south at another inverted stone arch.*

*Fig 17: View of Room C11 looking west at a hole cut through a stone wall.*





*Fig 18: View of Room C11 looking south at a brick archway and what appears to be an inserted iron beam on the right.*



*Fig 19: View of Room C12 looking southwards at the stonework beneath the brick barrel vaulting.*



*Fig 20: View of Room C13 looking south at the inserted machine-made brick column supporting the barrel vaulting.*



*Fig 21: View of Room C13 looking at the southern wall and another inverted stone arch.*





*Fig 22: View of Room C16 looking south-west through a stone arch towards one of the access points.*



*Fig 23: View of Room C19 looking south with a stone arch to the left.*





*Fig 24: View of Room C21 looking south-west with brick and stone rubble on the floor.*



*Fig 25: View of Room C22 looking east at an inverted stone arch.*

*Fig 26: View of Room C22 looking at the western wall and a later opening.*



*Fig 27: View of Room C25 looking north at a stone arch.*



*Fig 28: View of Room C26 looking north at an inserted machine-made brick pillar supporting the barrel vaulting. Note the stone arch behind.*



*Fig 29: View of Room C27 looking north-west with stone arches in the background and to the left, and rubble-strewn floor.*



*Fig 30: View of Room C27 looking south with stone arches in the background and to the right and a stone wall to the left.*

*Fig 31: View of Room C27 showing Test Pit 1 alongside the southern end of the eastern wall.*





*Fig 32: View of Room C16 showing Test Pit 2 against the southern wall. Note the depth of the stone foundations.*



*Fig 33: View of Room C16 showing Test Pit 3 against the western wall. Note the depth of the stone foundations.*





## Appendix 2: Catalogue of Salvageable Architectural Features

<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F1	<b>LOCATION:</b> Upper
<b>ELEMENT/ITEM:</b> <i>Mid-19<sup>th</sup> century heating system</i>	

MATERIAL	DIMENSION	CONDITON	NOTES
Cast-iron set within a rick room on a brick base.	See Figure 3	Survives intact.	To be retained for potential re-use in later development.



<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F2		<b>LOCATION:</b> Upper	
<b>ELEMENT/ITEM:</b> <i>Mechanical remains of lift within lift shaft, Room B15. Early 20<sup>th</sup> century.</i>			
MATERIAL	DIMENSION	CONDITON	NOTES
Iron and steel set on a concrete base.	See Figure 3	Damaged during the demolition in the 1940s but the winch gear and electric motor survive.	To be retained for potential re-use in later development.





<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F3	<b>LOCATION:</b> Upper
---	------------------------

<b>ELEMENT/ITEM:</b> <i>Section of original, front, southern facade (south-eastern corner)</i>
--

MATERIAL	DIMENSION	CONDITON	NOTES
Stone dressings with handmade brick inner core.	See Figure 3	Partially destroyed by demolition in 1940s.	To be retained for potential re-use in later development.





<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F4	<b>LOCATION:</b> Upper
---	------------------------

<b>ELEMENT/ITEM:</b> <i>Section of original, eastern facade including the base of a window</i>
--

MATERIAL	DIMENSION	CONDITON	NOTES
Stone dressings with handmade brick inner core.	See Figure 3	Partially destroyed by demolition in 1940s.	To be retained for potential re-use in later development.



WNH BASEMENT FEATURE (F) NUMBER: F5		LOCATION: Upper B	
ELEMENT/ITEM: <i>Masons mark carved into the end of an ashlar block within wall (241), beneath Room B14.</i>			
MATERIAL	DIMENSION	CONDITON	NOTES
Stone	See Figure 3	Partially destroyed by demolition in 1940s.	To be retained for potential re-use in later development.



<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F6	<b>LOCATION:</b> Upper
---	------------------------

<b>ELEMENT/ITEM:</b> <i>Steps leading from the basement to the ground floor in Corridor 4</i>
---

MATERIAL	DIMENSION	CONDITON	NOTES
1840s stone steps.	See Figure 3	Partially destroyed by demolition in 1940s.	To be retained for potential re-use in later development.





<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F7	<b>LOCATION:</b> Upper
<b>ELEMENT/ITEM:</b> <i>Cast-iron fire surround in Room 13??</i>	

MATERIAL	DIMENSION	CONDITON	NOTES
Cast-iron with handmade brick backing	See Figure 3	Partially destroyed by demolition in 1940s.	To be retained for potential re-use in later development.



<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F5	<b>LOCATION:</b> Upper
<b>ELEMENT/ITEM:</b> <i>Cast-iron fire surround in Room 10??</i>	

MATERIAL	DIMENSION	CONDITON	NOTES
Cast-iron with handmade brick backing	See Figure 3	Partially destroyed by demolition in 1940s.	To be retained for potential re-use in later development.





<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F3		<b>LOCATION:</b> Upper	
<b>ELEMENT/ITEM:</b> <i>Sections of the original stone chimneys at the eastern end of the excavations.</i>			
MATERIAL	DIMENSION	CONDITON	NOTES
Stone.	See Figure 3	Partially destroyed by demolition in 1940s.	Material to be retained for potential re-use in later development.



<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F10	<b>LOCATION:</b> Lower Basement
<b>ELEMENT/ITEM:</b> Inverted arch, <i>southern wall in Room C4.</i>	

MATERIAL	DIMENSION	CONDITON	NOTES
Stone ashlar blocks	See Figure 2	Intact.	Material to be retained for potential re-use in later development.



<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F11	<b>LOCATION:</b> Lower
--	------------------------

**ELEMENT/ITEM:** *Stone arches, Room C4 looking north.*

MATERIAL	DIMENSION	CONDITON	NOTES
Stone ashlar blocks	See Figure 2	Intact.	Material to be retained for potential re-use in later development.





<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F12	<b>LOCATION:</b> Lower
--	------------------------

ELEMENT/ITEM: *Stone arches, Room C7.*

MATERIAL	DIMENSION	CONDITON	NOTES
Stone ashlar blocks	See Figure 2	Intact.	Material to be retained for potential re-use in later development.





<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F12	<b>LOCATION:</b> Lower
<b>ELEMENT/ITEM:</b> <i>Inverted stone arch in Room C10.</i>	

MATERIAL	DIMENSION	CONDITON	NOTES
Stone ashlar blocks	See Figure 2	Intact.	Material to be retained for potential re-use in later development.



<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F14	<b>LOCATION:</b> Lower
--	------------------------

**ELEMENT/ITEM:** *Stone archway in Room C16, beneath the later lift.*

MATERIAL	DIMENSION	CONDITON	NOTES
Stone ashlar blocks	See Figure 2	Intact.	Material to be retained for potential re-use in later development.



<b>WNH BASEMENT FEATURE (F) NUMBER:</b> F15	<b>LOCATION:</b> Lower
--	------------------------

**ELEMENT/ITEM:** *Stone arches in Room C27.*

MATERIAL	DIMENSION	CONDITON	NOTES
Stone ashlar blocks	See Figure 2	Intact.	Material to be retained for potential re-use in later development.

