Hamsterley Hall
Hamsterley
County Durham

NGR NZ 14257 55637

Emergency Archaeological Building Recording and Watching Brief

Report 064-13-HS | July 2013

Vindomora Solutions

Heritage support services

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Summary

Name of location:	Hamsterley Hall
Address of location:	Hamsterley Hall, County Durham NE39 1NJ
NGR:	NGR NZ 14257 55637
Client:	Mr. Steven Spry
Project Type:	Archaeological Building Recording and Watching Brief
Project Code:	HHH13
Planning Application ref:	-
Report Author:	Tony Liddell
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Ordnance Survey Licence Ref:	100053142

Concise Summary of Report

In June 2013, Vindomora Solutions was commissioned by the client and owner of Hamsterley Hall (Grade 2*), Steven Spry, to produce a Written Scheme of Investigation and subsequent scheme of emergency building recording for the recording and monitoring of the western brick wing of Hamsterley Hall which had suffered catastrophic collapse of the north and west elevations. Subsequently, the eastern elevation also suffered a major collapse and a scheme for the controlled demolition of the wing was approved by English Heritage and Natural England on severe health and safety grounds, as well as to attempt to avoid potential damage to the earlier central range of the Hall to which the brick wing was attached. The level of recording necessary was equivalent to a Level 4 Building Survey as set out in *Understanding Historic Buildings – a guide to good recording practice (*English Heritage 2006): however, the level of recording attainable was severely restricted by the lack of physical access to the building on health and safety grounds.

This project dealt with the recording and phasing of the western brick wing of the Hall, *rather than with the Hall as a whole*, though reference to the overall relationship of the brick wing with the main hall is of course integral to the discussion of the wing's historic fabric.

The initial visit to the site to assess the damage was undertaken on the 15th June 2013. The external photographic survey was undertaken on the 10th July, and the watching brief during demolition between the 19th-22nd July. Durham County Record Office was visited on the 22nd July in an attempt to find information on the construction date of the brick wing, and the Peoples' Collection at Beamish Museum was accessed on the 31st July 2013. Rectified external elevations of the existing walls were produced, along with floor plans and a general phasing of the brick wing was established.

On the 19th-22nd July 2013, Forric Construction undertook the controlled demolition of the western brick wing of Hamsterley Hall after the structure had begun to subside a month earlier. The recording process was severely hampered as expected by the poor condition of the building, which essentially meant that access could not be granted to the interior of the structure until the roof and walls were taken down to a safe level. During the demolition it was deemed that the ground floor walls, apart from the northwest

corner were dangerously unsafe and we taken down to ground level under full archaeological watching brief conditions.

Three phases of building were observed in the walls of the brick wing. The first phase is likely to date from before 1762 when Sir John Swinburne gave the Hall to his younger brother, R.H. Swinburne. Certainly, by 1779, an estate plan shows the brick wing in place. The second phase, built of a different brick type, added a second storey to the brick wing and is likely to have taken place when Swinburne enlarged the Hall in 1769 or soon afterward. The primary architectural period discernable for the initial construction and addition of the second storey is Georgian and Georgian-Gothic. The third phase may date from repair work undertaken during the 1940s, the evidence for this date being a 1940s Kiwi boot polish tin lid found in the wall core and a number of stamped bricks being found along with a back boiler of the same period.

During demolition (and earlier evidence from the collapsing walls) it was found that the brick wing was not keyed into the main stone range. Instead, it was adjoined via straight joints, for want of a better phrase almost 'tacked on' to the stone Hall. As such, once the weight of the roof was removed the remaining walls became extremely unstable. This physical relationship between the brick wing and the Hall also shows us that the brick wing was a later addition to the Hall, built after the stone range.

The newly exposed western elevation of the central stone range also presented further evidence of the brick wing's later addition, in the form of two blocked up ogee-arched windows which would have been bricked up before the addition of the single storey brick wing as the roof-line (showing as a dark stain on the exposed elevation) lay above the level of the windows. The exposed elevation also presented evidence of a blocked up door which would have presented a symmetrical elevation alongside the northernmost surviving ground floor door, which also presented evidence of once being external as it bore the marks of once including a door hood.

Architectural fragments were kept and put into storage on site, along with surviving metalwork. The brickwork was heaped into one large pile, ready for hand-cleaning and subsequent paletting.

With reference to the potential original usage of the brick wing, the presence of the large 'hob' range in the primary room on the ground floor suggests that this was a large kitchen for the Hall. The stone arched door in the southern wall of the primary ground floor area suggests a 'grand' room, or higher status working area than the rooms accessed through the arched door to the south: the other side of the short corridor had a simple brick arch, denoting lower status. On this side of the door was likely a back kitchen or scullery, a theory supported by the presence of a cooking range, with the rooms above being servants' sleeping quarters and living areas, again supported by the types of fireplace *in-situ*.

However, Georgian buildings tended to have their service rooms positioned in the rear corner of large houses with access to the cellars beneath, with the addition of large extensions for service areas not being built until the Victorian period. As such, and supported by the Victorian fireplaces in the upper storey rooms, it is likely that the layout and presented usage of the wing before demolition represented the Victorian re-use of the rooms, and the original layout was lost.

With the demolition of the brick wing complete, the exposed western elevation of the central range is now a grave concern, as if the made-ground beneath the brick wing had subsided then the central range could now be under threat. The client, Steven Spry, is commissioning a further full structural survey of the remaining Hamsterley Hall but it is recommended that the structural stability of the Hall from an archaeological and historical point of view is kept under close scrutiny, or it is highly likely that the remainder of the Hall will degrade to the point of collapse within a couple of years.

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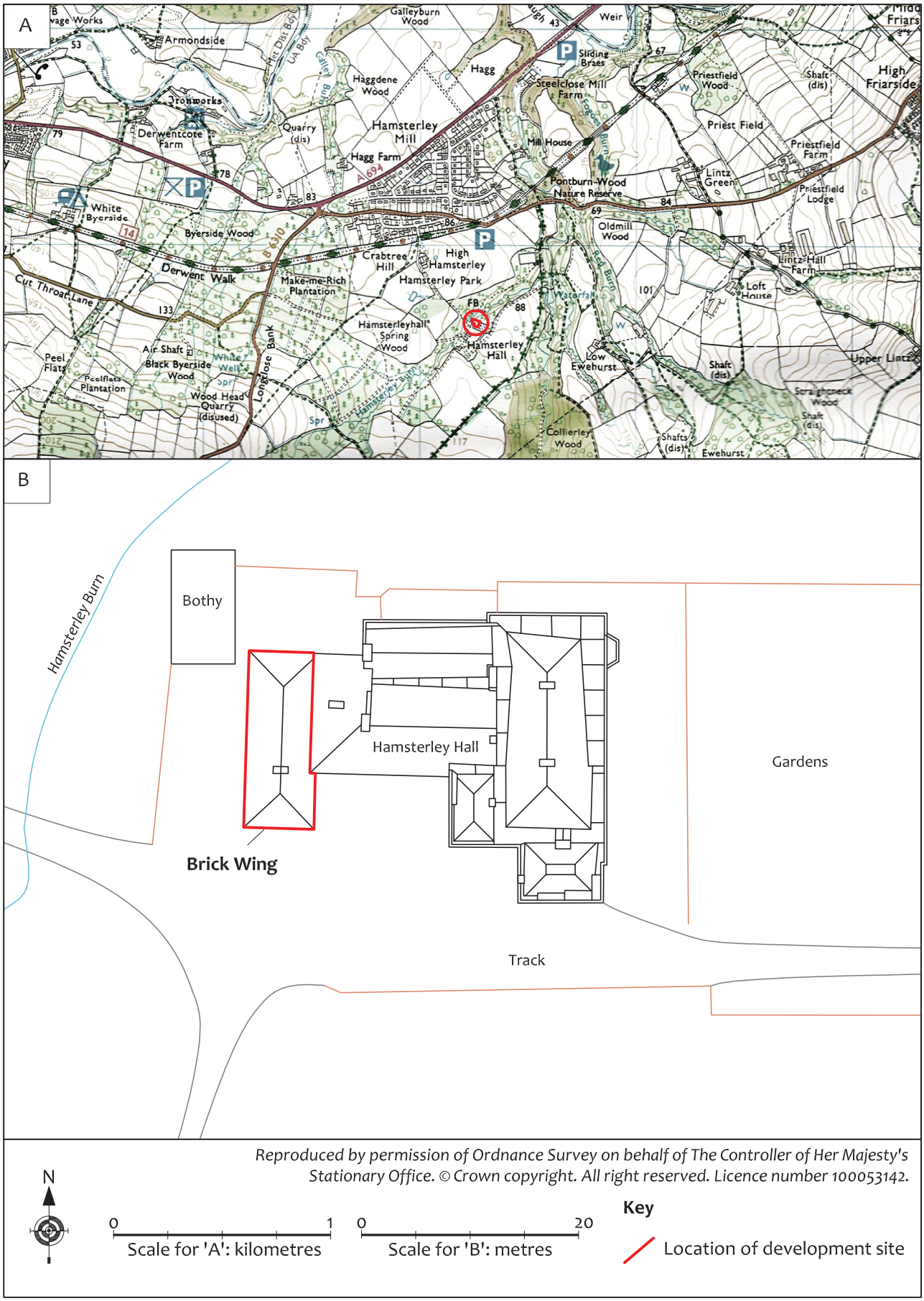

Figure 1. Location of Site.
A: Extract from 1:25000 Ordnance Survey Explorer Map 307, B: Plan of site at 1:500 (on A4)

1. The Project

Plate 1. *View of the western elevation of the brick wing of Hamsterley Hall, looking east, prior to demolition and showing the severe collapse north of the main door (photo reference: HHH13J017).*

1.1 Location (*Figure 1*)

1.1.1 Hamsterley Hall is located at Hamsterley, County Durham NE39 1NJ (NGR NZ 14257 55637). The Hall itself lies within the Hamsterley Hall estate and is a Grade II* Listed Building and is thought to have been originally constructed in the 18th century. The grounds are accessed off the B6310 Burnopfield to Hamsterley Mill road, past the Old Lodge. The track extends ¾ mile, forking to the west after the Handley Cross Bridge before running up to the remains of the formal gardens in front of the Hall.

1.1.2 This report deals primarily with the archaeological recording of the western brick wing of the Hall through its controlled demolition.

1.1.3 The underlying solid geology of the area is Westphalian Coal Measures and shales, with the drift geology being boulder clay, overlain in turn by clay-rich earths (Countryside Commission 1998). The Hall stands on a plateau of made-ground, dropping off sharply to the north and west, with the ground floor of the Hall resting at approximately 93m OD.

1.2 Circumstances of the Project

1.2.1 In June 2013, Vindomora Solutions was commissioned by the client and owner of Hamsterley Hall, Steven Spry, to produce a Written Scheme of Investigation and subsequent scheme of emergency building recording for the recording and monitoring of the western brick wing of Hamsterley Hall which had suffered catastrophic collapse of the north and west elevations. Subsequently, the eastern elevation also suffered a major collapse and a scheme for the controlled demolition of the wing was approved by English Heritage and Natural England on severe health and safety grounds, as well as to attempt to avoid potential damage to the earlier central range of the Hall to which the brick wing was attached. The level of recording necessary was equivalent to a Level

Plate 2. *Eastern elevation, showing outward collapse of window and door (photo reference HHH13J007).*

4 Building Survey as set out in *Understanding Historic Buildings – a guide to good recording practice* (English Heritage 2006): however, the level of recording attainable was severely restricted by the lack of physical access to the building on health and safety grounds.

1.2.2 The initial visit to the site to assess the damage was undertaken on the 15th June 2013. The external photographic survey was undertaken on the 10th July, and the watching brief during demolition between the 19th-22nd July. Durham County Record Office was visited on the 22nd July in an attempt to find information on the construction date of the brick wing, and the Peoples' Collection at Beamish Museum was accessed on the 31st July 2013.

1.2.3 A risk assessment was undertaken on the 10th July (Appendix 2), with continuous assessment throughout the watching brief, which was undertaken under a strict health and safety regime following guidelines outlined by CDM Regulations 2007, the Health and Safety Act of 1974 and all its subsequent amendments. All Vindomora Solutions fieldwork projects are undertaken in accordance with the Federation of Archaeological Managers and Employers' 2008 *Health and Safety in Field Archaeology Manual*.

1.2.4 This project deals with the recording and phasing of the western brick wing of the Hall, *rather than with the Hall as a whole*, though reference to the overall relationship of the brick wing with the main hall is of course integral to the discussion of the wing's historic fabric.

1.3 Written Scheme of Investigation

1.3.1 The Written Scheme of Investigation (WSI) was prepared by Vindomora Solutions in July 2013 and approved by Lee McFarlane, Senior Archaeology Officer and David Sparkes, Principal Conservation

Officer for Durham County Council, as well as English Heritage and Natural England. The WSI can be viewed in Appendix 4.

1.4 Documentary Search

1.4.1 Durham County Record Office was visited on the 22nd July, attempting to find information **directly relevant** to the west brick wing, rather than the Hall as a whole. Historic mapping was examined, along with photographs, plans, local authority records, public records, antiquarian records, indexes and solicitor business records. The *Peoples' Collection* at Beamish Museum was also examined on the 31st July.

Plate 3. *Northern elevation of brick wing, showing catastrophic collapse (photo reference HHH13J002).*

1.5 Initial Photo Survey Methodology

1.5.1 The photographic survey of the brick wing was undertaken on 10th July 2013 by Tony Liddell of Vindomora Solutions. Photography was undertaken using bracketed black and white film (Canon EOS 500N with a Sigma 28-80mm lense), digital .jpg format (Canon PowerShot A810 HD and Canon 350D with Canon 18-55mm lense, alternating with Tamron 55-200mm DII lense) and digital RAW format (Canon 350D with Canon 18-55mm lense). Colour control shots were also taken using a standard photographic RYGB calibration card during the survey.

1.5.2 The photographic record can be seen in Appendix 1, and relates to the images used within this report as well as within the project's archival material. All images have been prefixed with the project code, followed by 'J' for .jpg format, 'R' for RAW format and 'F' for film photography.

1.5.3 The photographs were taken in mind with the aim for basic rectification, using elevation drawings supplied by Jane Darbyshire and David Kendall Architects in .pdf form on the 17th July 2013. These files were converted to vector format and scaled in AutoCAD, allowing the imagery taken during the photographic survey to be rectified.

1.5.4 Standard PPE was utilised for health and safety purposes, and on the instruction of the client's CDM coordinator, the building was not entered, and a minimum of 10 metres distance was kept from the base of the walls.

1.6 Watching Brief/Controlled Demolition

1.6.1 The controlled demolition took place between Friday 19th July and Monday 22nd July 2013. The structural recording was undertaken primarily via photography with the aid of the SkyJack and Forric Construction's operator. Photography was undertaken using black and white film (Canon EOS 500N with a Sigma 28-80mm lense) and digital RAW format (Canon 350D with Canon 18-55mm lense) of important features or items of interest for inclusion in the final project archive, with digital .jpg format (Canon PowerShot A810 HD and Canon 350D with Canon 18-55mm lense, alternating with Tamron 55-200mm DII lense) being used for working shots. Where possible, a graded scale was used but for the vast majority of the recording, getting close enough to place a scale was not possible.

1.6.2 The photographic record can be seen in Appendix 1, and relates to the images used within this report as well as within the project's archival material. All images have been prefixed with the project code, followed by 'J' for .jpg format, 'R' for RAW format and 'F' for film photography.

1.6.3 Where possible, architectural fragments were retained for paletting (brick and stone) and internal features were also measured, photographed and retained. Appendix 3 shows a list of retained material. Samples of 5 different types of brick were retained, along with a sample of lime mortar.

1.6.4 Hi-viz, steel toecapped shoes and a hard hat were utilised throughout the watching brief, along with safety goggles, a P2 dust mask and MP1 work gloves.

1.7 Professional Standards

1.7.1 Institute for Archaeologists Standards: All work undertaken will be in accordance with the following standards:

- *Archaeologists' Code of Conduct* (2010);
- *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* (2008);
- *Standard and Guidance for an archaeological watching brief* (2008).

1.7.2 English Heritage: The following English Heritage standards/guidance will also be adhered to:

- *Measured and Drawn - Techniques and practice for the metric survey of historic buildings* (second edition, 2009);
- *Conservation Principles - Policies and Guidance* (2008);
- *Understanding Historic Buildings - A guide to good recording practice* (2006).

1.8 North East Regional Research Framework

1.8.1 Key Research Priorities within the North East Regional Research Framework covered by this project are *PM5. Landscapes and mansions of the 18th century* and *Pmiv: Chronology*.

1.9 Archive

1.9.1 A full archive has been compiled in line with the specification and current UKIC and English Heritage Guidelines, and will be deposited with Bowes Museum forthwith. The project code is HHH-13 for **H**amsterley **H**all **H**amsterley 20**13**. Vindomora Solutions support the **O**nline **A**cces**S** to the **I**ndex of Archaeological Investigation**S** project (OASIS). As a result, this report will be made available to the project under the unique identifier **vindomor1-154874**.

1.10 Acknowledgements

1.10.1 Vindomora Solutions would like to thank Steven and Bill Spry for commissioning the scheme of works and the ground team from Forric Construction for tackling the demolition in a timely and safe manner. Thanks must also go to Lee McFarlane of Durham County Council for her support during this project, and also thanks must be extended to Jane Darbyshire and David Kendall Architects for supplying the existing elevation drawings for use in this report.

2. Historical Background

2.1 Hamsterley Hall Overview

2.1.1 According to the Hall's Listed Building Description (ID 438623), the Hall dates originally from the early 18th century, given by Sir John Swinburne to his younger brother, R.H. Swinburne in 1762 who then proceeded to enlarged it in 1769. In 1806 the property was sold to Anthony Surtees, whose son, Robert Smith Surtees acquired the estate in 1838. Robert practiced law in London until he inherited Hamsterley Hall, upon which point he abandoned the capital and devoted his life to writing, hunting and shooting, producing many novels, books and articles in his lifetime. His daughter Eleanor inherited the Hall and estate in 1864: she married John Gage Prendergast Vereker in 1885. The Verekers remained in residence until 1975.

2.1.2 The Hall incorporates a number of early 19th century alterations, and in 1932 S.R. Vereker imported 17th century architectural fragments from Beaudesert, Staffordshire. The Listing was undertaken in 1951 and describes a Lakeland slate roof in general across the Hall: the current roof is of specific Westmorland slate type.

2.1.3 The initial occupation of the Hall seems to differ from source to source, citing 14th century, 17th century and 18th century, though the latter seems to be the most likely based on the architectural features still visible on external elevations. Internal inspection of the main Hall (not covered by the scope of this emergency recording project) would be required to potentially establish early phasing and building remains.

2.1.4 Records indicate that in 1932, some of the Hall was demolished (ND/De 294). Which parts these were is unknown, but may present an explanation for early brickwork being used in later building phases.

2.1.5 Recent history: The Gibson family bought the Hall from the Gort estate in 1975/6 and occupied a few rooms in the Hall, with the west wing and bothy falling into disrepair. In 1977 planning permission was granted for the Hall for Change of Use from a single dwelling to a hotel/restaurant, but by 1979 the Listed status of the Hall was upgraded from Grade 2 to Grade 2*: records from the same year describe the Hall as being in dangerous disrepair. The client purchased a large area of the estate in 2007, and the Hall was put on the English Heritage Buildings at Risk list, before Planning Permission (ref. 1/2010/0143) was sought in 2010 for the restoration of the property through enabling development. The planning permission was refused, and appealed in November 2011 and March 2012, with the appeals being dismissed.

2.2 The Brick Wing

2.2.1 In direct reference to the brick wing, the Listed Building description reads "a plainer 2-storey brick wing with varied windows and rear pedimented doorcase. Hipped roofs; ridge chimneys."

2.2.2 The earliest map evidence found was "Plan of Hamsterley in the Parish of Medomsley of County of Durham", 1779 (Plate 4 overleaf). The plan shows the Hall as a block plan, with the western wing clearly already in place. Examination of historical Ordnance Survey maps show no change in the structure of the wing.

2.2.3 According to Pevsner (1983), the brick wing is simply described as "the early 18th century house, brick with a hipped roof".

2.2.4 A search of planning documents for Hamsterley Hall produced a file dated 1970, including a photograph of the western elevation of the brick wing (Plate 5 overleaf). The brick wing seems to be in good working order: its worth a note that by 1979 the wing was described as in poor state of repair.

2.2.5 Overall, there seems very little direct reference to the brick wing of Hamsterley Hall in the historic record currently available, though the evidence that does exist suggests that the wing may have been part of R.H. Swinburne's alterations of 1769.

Plate 4. *Extract from the "Plan of Hamsterley in the Parish of Medomsley of County of Durham", 1779, showing the western brick wing in place.*

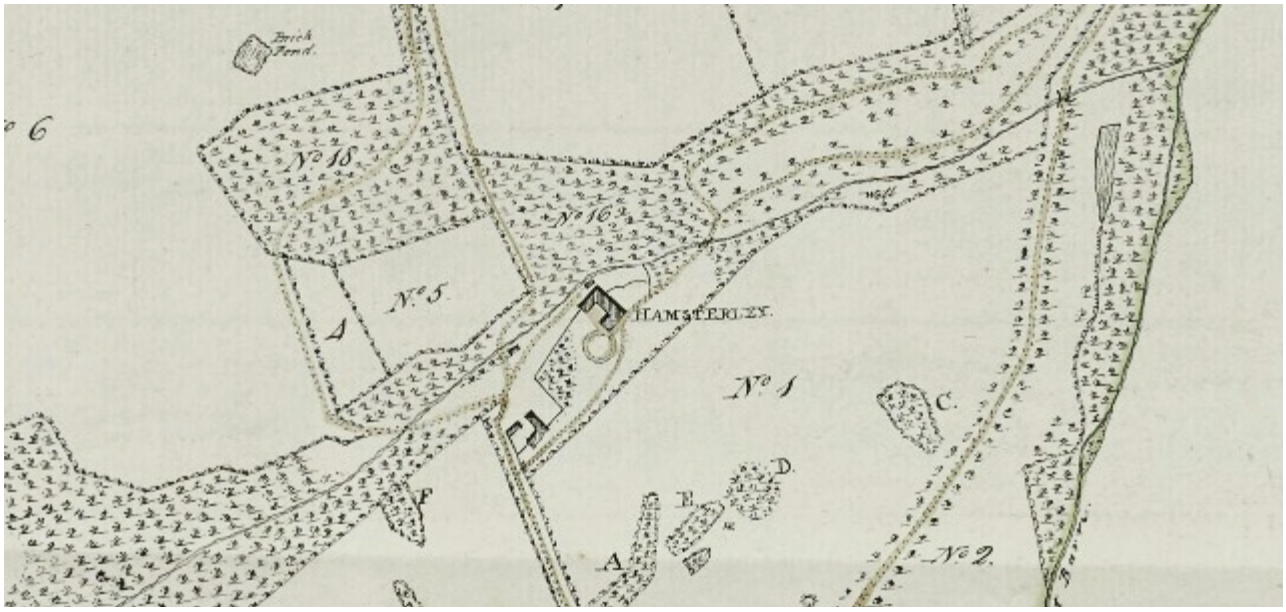

Plate 5. *Photograph of the western elevation of the brick wing, 1970, courtesy of Durham County Council Planning Department.*

3. Pre-Demolition Photographic Survey & Observations

3.1 Northern Elevation (Figure 2 & 3)

3.1.1 The northern elevation suffered the greatest loss of fabric through collapse of all four elevations, in terms of area lost. The area lost was 51.5% of the elevation fabric, including the majority of the architectural features including the door and windows. A fraction of the stone jamb of the ground floor door was still *in-situ*, as was a section of the ground floor window sill. However, both architectural elements were broken. The elevation measured at 6.2m wide and 6.78m tall from floor height to the eaves.

Plate 6. *Northern elevation of brick wing, showing remnants of Window 02 and Door 01 (photo reference HHH13J031).*

3.1.2 Roof: Unfortunately, due to the steep angle and the inability to get far enough north without dropping in height (as well as the SkyLift's inability to reach this spot), the roof in this area was not observed. However, there is no reason to suppose that the roof in this elevation was any different to the rest of the structure, having been re-roofed potentially within the last 20 years, and finished with Westmorland Slate. For a full description of the southern elevation roof, please refer to Section 3.3.

3.1.3 Wall fabric: Three phases of brickwork were observed within the wall fabric of this elevation. The earliest phase was hand-made brick (Type 01, see Section 5.1) for a height of 4.7m. The second phase was again of hand-made brick (Type 02, see Section 5.2), a further 2.08m tall, with a third phase of Type 01 up to the eaves, likely to be a late repair. The wall is constructed in English Garden Wall bond.

3.1.4 Window 01: Window 01 was a victim of the initial collapse of the elevation. The only record of the window lies in the elevation drawings produced by Jane Darbyshire and David Kendall Architects for the client's 2010 planning application. This elevation can be seen in *Figure 2*. The window in question has been illustrated similar in structure to the mezzanine level windows shown on the western elevation, with stone lintel (1.43m long by 0.23m tall), stone sill (1.43m long by 0.16m tall) and a wooden inset frame. If this window was of the same construction it would have been a 16-pane vertical sash window, set in a sash box. From the drawing it is impossible to ascertain a date from the window, so again parallels must be drawn with the similar windows on the western elevation.

3.1.5 Window 02: Window 02 is depicted on the original elevation as a 24-pane sash window. Originally, the window was 2.16m tall and 1.2m wide, with a further 0.18m wide stone surround, likely of pre-1774 Georgian style as if the elevation drawing is correct it shows an exposed sash box. If the window had been built after 1774, the construction would have been governed by the 1774 Building Act, and the box would have been hidden behind the brick wall. No evidence of external shuttering was observed.

3.1.6 Door 01: Unfortunately, little is known about the door in the northern elevation, save that the lintel was 1.75m tall by 0.87m wide, and set in a stone surround 0.18m thick.

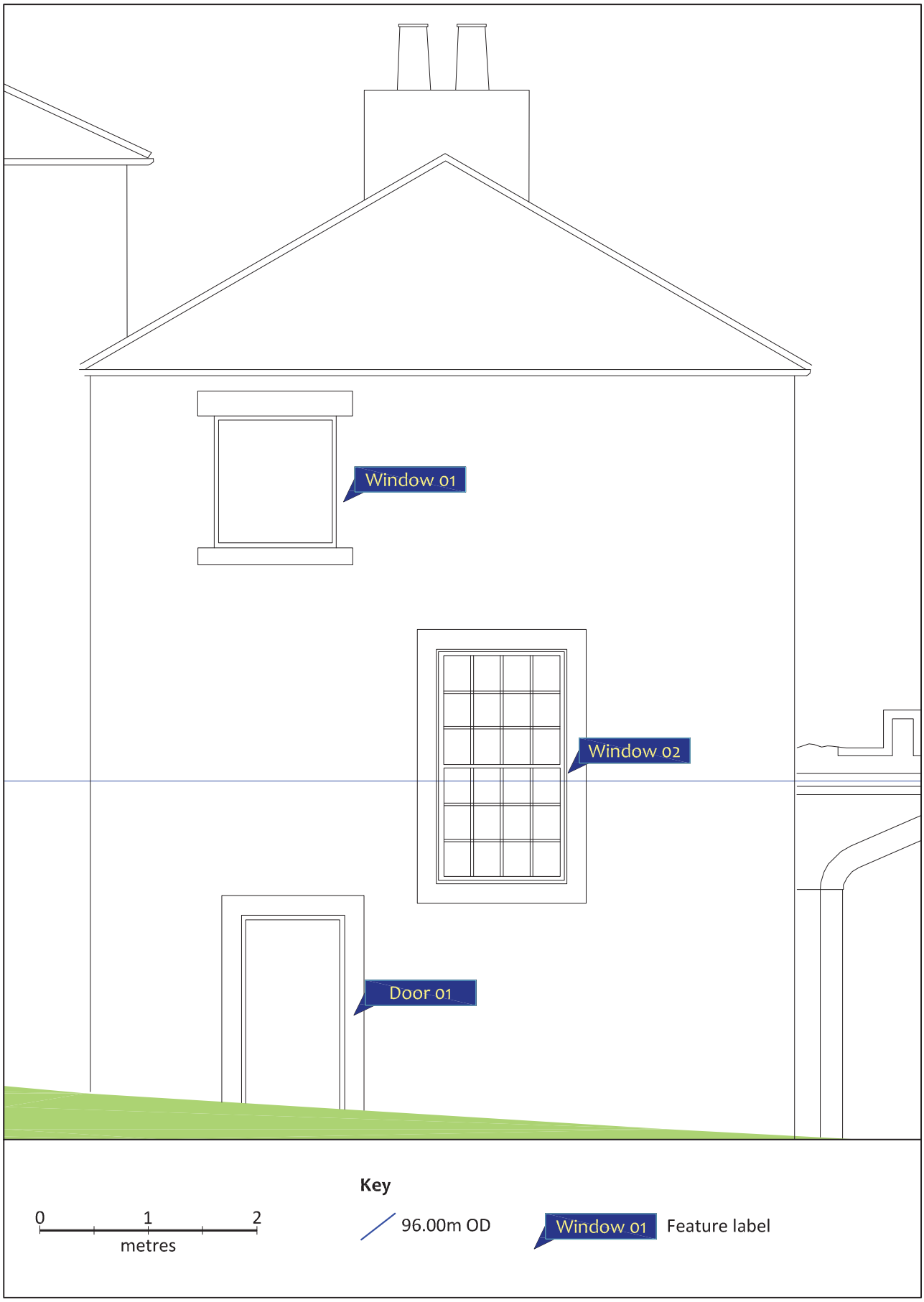

Figure 2. Northern elevation, after Jane Darbyshire & David Kendall Architects

Figure 3. Northern elevation, showing rectified photograph of elevation

3.2 Western Elevation (Figure 4)

3.2.1 The western elevation suffered a central collapse, losing 6.4% of the elevation fabric, including the majority of Window 07. The elevation measured at 16.23m wide and 6.78m tall from floor height to the eaves.

3.2.2 Roof: The roof was observed to be hipped and of Westmorland slate, with a modern sandstone chimney 5m from the building's southern end. For a full description of the roof, please refer to Section 4.2.

3.2.3 Wall fabric: Three phases of brickwork were observed within the wall fabric of this elevation. The earliest phase was hand-made brick (Type 01, see Section 5.1) for a height of 4.7m. The second phase was again of hand-made brick (Type 02, see Section 5.2), a further 2.08m tall, with a third phase of Type 01 up to the eaves, likely to be a late repair. This latter phase was not present in the last 2m of the southern end of the elevation, suggesting further that this later phase was either a later repair, or was perhaps part of the second phase of building, if they ran out of Type 02 bricks. The wall is constructed in English Garden Wall bond.

3.2.4 Door 02 (Plate 7): Potentially late Georgian Classical (Tuscan) style open pedimented (with modillions) timber doorcase, with semi-circular fanlight -suggesting mid 18th century or later- with decorated capitals and triangular hood (with decorated cornice). Hardwood, Victorian 4 panelled door.

3.2.5 Window 03: Vertical sash window (presumed from original elevations), now boarded up. Visible lintel 1.4m long by 0.30m tall, and sill 1.45m long and 0.12m tall. This window was built into phase 2 of the structure's brickwork, and does not replace an earlier window of a different size. Georgian style, circa 1770.

3.2.6 Window 04 (Plate 8): Duplicate of Window 03. Collapse in brickwork on southern base. Boarded up.

3.2.7 Window 05: Duplicate of Window 03, boarded up.

3.2.8 Window 06 (Plate 9): Window 06 was one of three potentially identical windows in this elevation, alongside Windows 07 and 08. The sill, jambs and heads were sandstone: the

Plate 7. *Western elevation of brick wing, showing detail of Door 02 (photo reference HHH13J023).*

Plate 8. *Western elevation of brick wing, showing detail of Window 04 (photo reference HHH13J020).*

Plate 9. *Western elevation of brick wing, showing detail of Window 06 (photo reference HHH13J024).*

Plate 10. *Western elevation of brick wing, showing detail of Window 08 (photo reference HHH13J027).*

recessed sill measured 1.55m long by 0.13m high, and the jambs, each made of four sections of stone were 0.20m wide. The head of the window was a Georgian-Gothic ogee arch (0.63m high): this coupled with the irregular brickwork surrounding the window suggested that this window was a later addition to the building, potentially replacing earlier windows in the mid-late 1800s. The window was boarded up (though the elevations provided by Jane Darbyshire and David Kendall Architects suggest a 20-pane horizontal sash window), and a metal bar noted running horizontally along near the base of the window, suggestive of potential exterior shuttering, now gone. The height of the head was 95.62m OD and the sill 93.82m OD.

3.2.9 Window 07: Very little remained of this window, bar the sill and the southern jamb, as the rest had been destroyed during the initial collapse. From the dimensions of the hole left along with the remaining architectural fragments, it is likely to have been the same type as Window 06. The height of the sill was 93.82m OD.

3.2.10 Window 08 (Plate 10): Window 08 was the same construction as Window 06, barring the lack of metal bar and differing numbers of stone blocks making up the jambs. The northern jamb in this window also showed the remains of potential hinge-holes for external shuttering. This window was noted as being in immediate danger of collapse due to the pressure buildup on the stonework and obvious warping of coursing. The height of the head was 95.62m OD and the sill 93.82m OD.

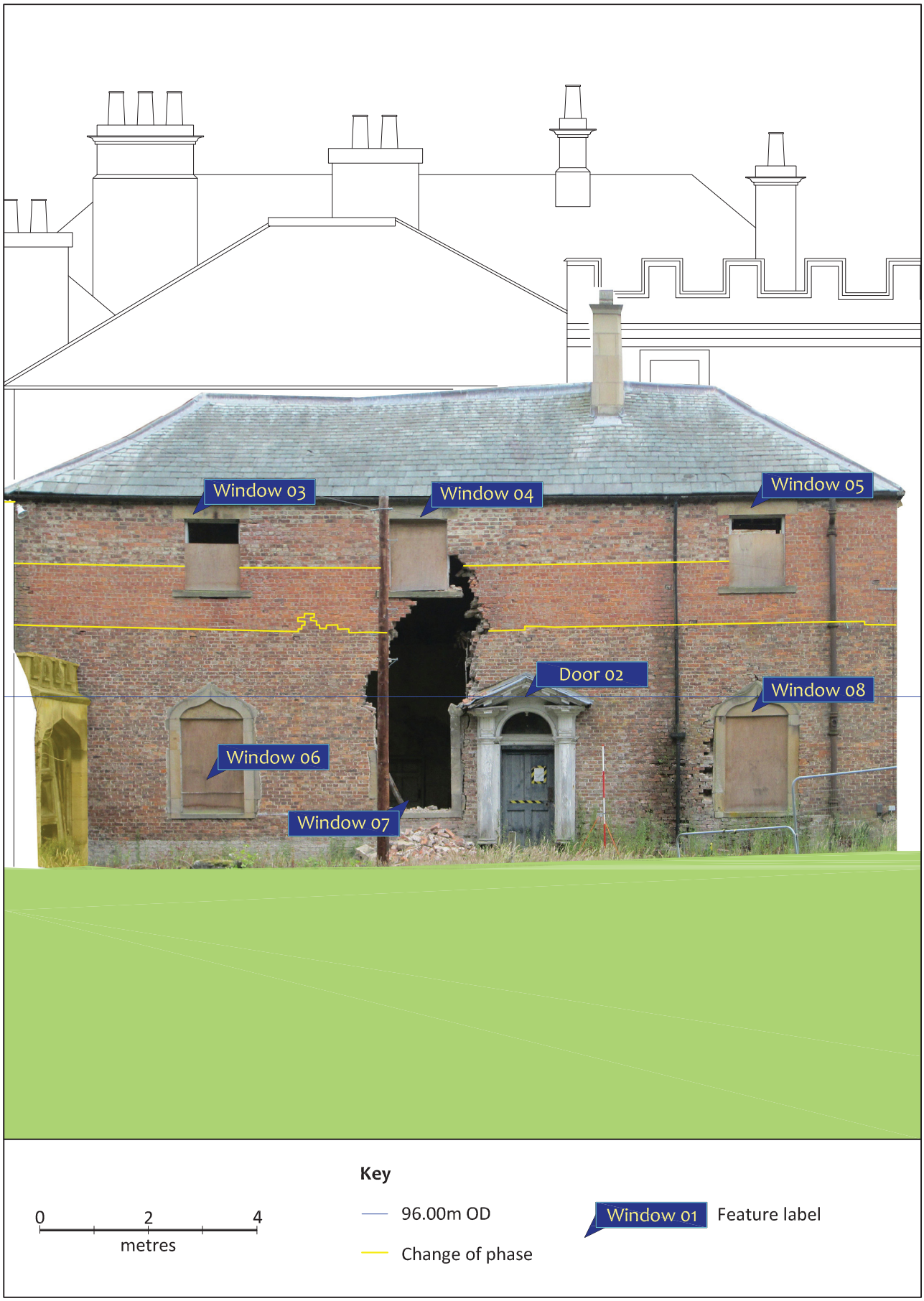

Figure 4. Western elevation, showing rectified photograph of elevation

3.3 Southern Elevation (Figure 5)

3.3.1 The southern elevation was the only elevation of the brick wing that did not suffer a collapse before the beginning of the demolition works, though stress fractures were clearly visible up the eastern side, and the wall was visibly bulging outwards.

3.3.2 Roof: The roof was observed to be hipped and of Westmorland slate, with a modern sandstone chimney 5m from the building's southern end. For a full description of the roof, please refer to Section 4.2.

3.3.3 Wall fabric: Three phases of brickwork were observed within the wall fabric of this elevation. The earliest phase was hand-made brick (Type 01, see Section 5.1) for a height of 4.2m. The second phase was again of Type 02, (see Section 5.2), this time stretching to the eaves. Toward the eastern side of the wall, 4 courses of Type 01 could be seen on top of phase 2, suggesting repair work. The wall is constructed in English Garden Wall bond.

3.3.4 Window 09 (Plate 11): Window 09 was boarded up, not allowing visual access to the frame structure, though the elevations provided by Jane Darbyshire and David Kendall Architects suggest a 4-pane leaded window (with the leading at 45° creating a 'diamond' effect, likely a Victorian affectation). The window surround was of sandstone, with the lintel measuring 1.55m long and 0.19m tall and a narrower recessed sill measuring 1.55m long and 0.13m tall. Of notable interest with this window was the match in dimensions for the jams and sill with those of Windows 06-08 in the western elevation: Window 09 is basically the same design without the Georgian-Gothic arched head. Both jams also bore evidence of a double horizontal steel bar, now removed.

3.3.5 Window 10: This window is essentially a duplicate of Window 09, set 0.20m below the aforementioned. The height of the head was 95.21m OD and the sill 93.77m OD.

3.3.6 Window observations: Examining the setting for Windows 09 and 10 proved interesting, as potentially the remains of an earlier lintel or sill 1.65m long and 0.09m tall was seen directly above Window 10, with the gap between that lintel and Window 09 set with flat-faced sandstone blocks. Coupled with the irregular nature of the wall brickwork, as well as the presence of the earlier lintel/sill (with brickwork aligned normally to the earlier feature), both Windows look like a later likely Victorian addition to the elevation, replacing an earlier window(s).

Plate 11. *Southern elevation of brick wing, showing detail of Windows 09 and 10 (photo reference HHH13J012).*

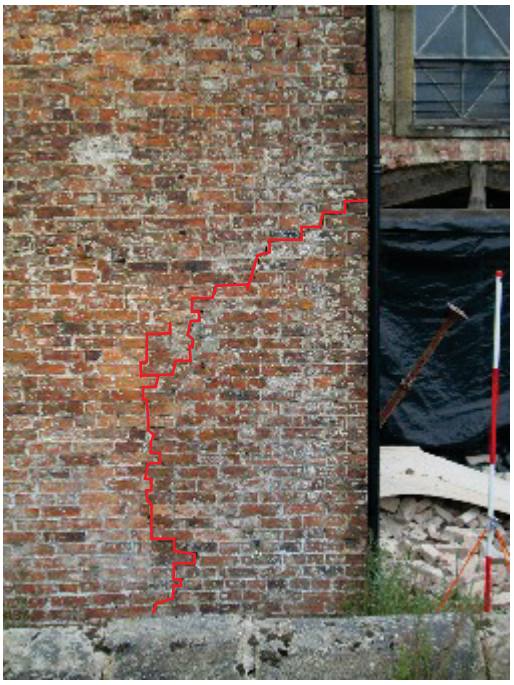

Plate 12. *Southern elevation of brick wing, showing detail of stress fractures, marked in red (photo reference HHH13J013).*

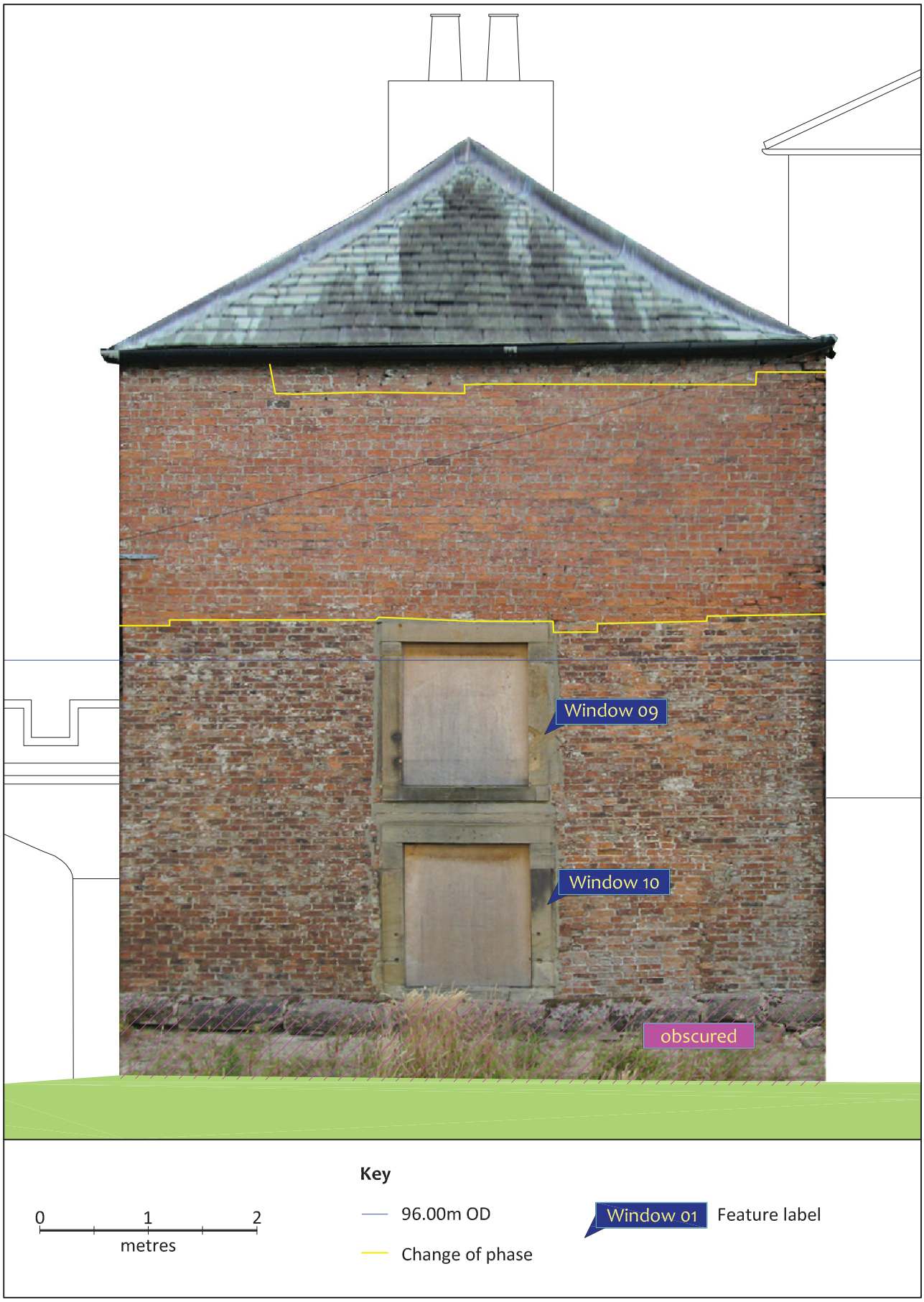

Figure 5. Southern elevation, showing rectified photograph of elevation

3.3.7 Structural sinking (Plate 12): Stress cracking was especially notable on the southeastern base corner.

3.4 Eastern Elevation (Figures 6 and 7)

3.4.1 On the initial site visit in June, this elevation was observed to be intact, but visibly bulging outwards, especially around the upper floor window. By the time of the initial photographic survey in July 2013, the central section had collapsed, taking with it the window and door and removing 28% of the elevation fabric.

3.4.2 Roof: The roof was observed to be hipped and of Westmorland slate, with a modern sandstone chimney 5m from the building's southern end. For a full description of the roof, please refer to Section 4.2.

3.4.3 Wall fabric: Three phases of brickwork were observed within the wall fabric of this elevation. The earliest phase was hand-made brick (Type 01, see Section 5.1) for a height of 4.7m. The second phase was again of Type 02, (see Section 5.2), this time stretching to the eaves. Toward the southern side of the wall, 4 courses of Type 01 could be seen on top of phase 2, suggesting repair work. The wall is constructed in English Garden Wall bond.

3.4.4 Window 11 (Plate 13): Vertical sash window (presumed from original elevations), now boarded up. Duplicate of Window 03 on the western elevation. Visible lintel 1.4m long by 0.30m tall, and sill 1.45m long and 0.12m tall. Georgian style, circa 1770.

3.4.5 Blocked 01 (Plate 14): A small square opening, recently blocked. No detail discernable. 0.89m x 0.80m.

3.4.6 Door 03 (Plate 14): This door would have been an internal door joining the brick wing to the central range via an adjoining room, as seen in Plate 15 overleaf. No details of the door were visible, barring a stone sill.

3.4.7 Scar 01: Scar 01 marks the old line of the roof belonging to the former room that adjoined the main range to the brick wing. It is uncertain when the adjoining room

Plate 13. *Eastern elevation of brick wing, showing detail of Window 11 (photo reference HHH13J003).*

Plate 14. *Eastern elevation of brick wing, showing detail of Blocked 01, Door 03 and Scar 01 (photo reference HHH13J003).*

Plate 15. *Photograph from 1970, courtesy of Durham County Council Planning Department.*

was built and also when it was demolished, but the photograph of 1970 (Plate 15) suggests its construction of brick Type 01 (Section 5.1), 30 courses high of English Garden Wall bond, complete with the Westmorland gabled slate roof. The wall face also contained 3 recessed ogee arched windows, gutter cornice, brick course and Gothic finials. The scar is set at 19° and apart from the blocked door and opening in the south elevation of the main central range is all that remains of the joining extension.

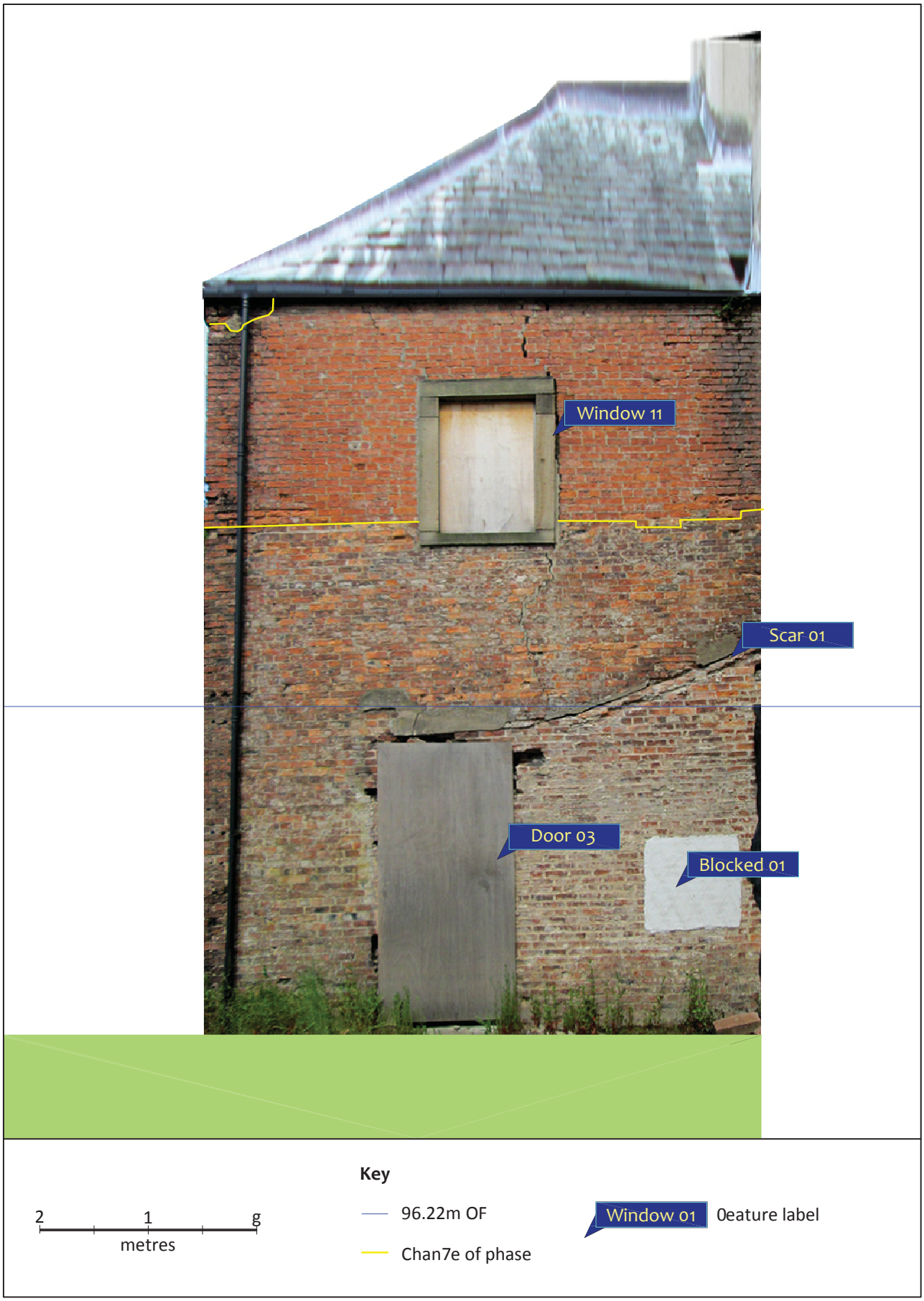

Figure 6. Eastern elevation, pre-collapse

Figure 7. Eastern elevation

4. Watching Brief/Demolition

4.1 Overview

4.1.1 The controlled demolition began on Friday 19th July 2013 with visual assessment of the structure by Forric Construction. The structure was deemed to be highly unsafe due to breaches in the north, west and eastern elevations, and the visible signs of pressure bulging the southern elevation, specifically on its southeast and southwest bases to approximately 3m height. The western elevation was designated as a 'no-go' zone, with the very real possibility of the wall coming down on any plant and operators working on that side, with the northern elevation also inaccessible safely due to the working space required by the SkyJack and JCB 535 plant being used by Forric. The decision was made to begin work on the roof of the southern hips, monitored by Tony Liddell of Vindomora Solutions and Alan Salkilld of BSG Ecology.

Plate 16. *Work beginning on the southern gable (photo reference HHH13J054).*

4.1.2 Once the roof was removed from the southern hips, the roof on the eastern elevation was then stripped, followed by the same length of material removed down the western elevation: further stripping was not possible at this point due to the health and safety considerations of the western elevation wall collapsing.

4.1.3 Once the roof was stripped, the roofing timbers were cut by hand, and then pushed inwards by the JCB 535. Unfortunately, as expected, this reduction in weight on the southern end of the building further destabilised the standing structure, and the decision was made to bring the structure down to floor height of the second floor using the mechanical excavator, rather than put operators at risk.

4.1.4 Unfortunately, as the southern end wall was demolished by the JCB, this caused further collapse of the eastern elevation, which in turn caused issues with the stability of the remaining southern wall, so the wall was taken down to the ceiling of ground floor level at this stage, taking care to avoid damage to the fireplaces on the south-facing internal walls of the second and ground floors.

4.1.5 Day #2, Saturday 20th July, saw further stripping of the roof on the western elevation, now that the southern wall was at sufficiently safe height to avoid putting operators of the plant at risk. The internal chimney stack was also demolished by the JCB, as the stonework was too heavy to remove manually without manoeuvring the plant into a dangerous location. With the chimney down and the weight of the roof lessened, the pressure was released on the western elevation, causing further collapse of the central area around the previous collapse. The roofing timbers were cut by hand and pushed inwards as per the method used in the southern elevation, but the unstable weight of the roof caused the roof to collapse inwards, taking with it the majority of the western elevation to ground floor height. The collapse and stress of rubble and timber building up inside the remaining floorplan caused further stress fractures to appear on the southern wall, as well as the southern edges of the western and eastern elevations. Most of the remainder of

the day was then spent removing timber and rubble from the remaining building in an attempt to relieve internal pressure, while also removing architectural elements from the walls by hand.

4.1.6 Day #3, Sunday 21st July was spent primarily removing the remainder of the internal walling to make the structure safe enough to enter the main ground floor area, clearing the rubble and roofing timber out by hand and by machine. The primary aim was to allow for the safe recording and removal of an early cooking range against the western wall, as well as removal of remaining architectural fragments still at risk from collapse.

Plate 17. *The Forric Construction team planning their next move after the remaining roof collapsed.*

4.1.7 Day #4, Monday 22nd July was spent clearing up the remainder of the rubble and making the site safe, including grading down the remaining walls in the northwest corner of the building to make them safe and strong enough to help retain the Tudor stone arch on the northwest corner of the building. Architectural samples were also recorded and photography undertaken of the newly exposed western elevation of the Hall's early central range.

Plate 18. *The end of Day #4 of the watching brief, showing the western elevation of the central range exposed.*

4.2 The Roof

4.2.1 The roof followed standard Georgian hipped-roof construction, long axis aligned north-south with lead flashing and timber blocks sealing the roof against the western elevation of the earlier central range. The roof was constructed at a shallow pitch, with a hip angle measuring 27°.

4.2.2 Forric Construction began with the removal of the southern hips' slates (Westmorland slates, see Section 5.6) by hand, followed by the slats and felt. The slats were modern timber, and the slates held in place by aluminium nails. Coupled with the felt, it can be surmised that the building had been re-roofed within the last 20 years. As much as possible of the eastern side's slate, slats and felt was also removed by hand, along with as much of the western side's material. Unfortunately, the rest of the roofing material was not able to be saved.

Plate 19. *Southern face of the hipped roof, before demolition (photo reference HHH13J050).*

Plate 20. *Southern face of the hipped roof, during demolition (photo reference HHH13J068).*

4.2.3 From what was visible during the demolition works, nearly 50% of the common timber rafters had been replaced (potentially when the structure was re-roofed, as discussed in 4.2.2), though the ridge board and hip rafters may have been original. The timber was *Douglas Fir* and riddled with woodworm and rot. Examples observed post-demolition can be seen in Section 5.7. Internal ceiling joists appeared to have been painted white.

4.2.4 The extant chimney stack was of modern sandstone construction, presumably replaced at the same time as the roof. Unfortunately, due to the weight of the stonework, the blocks had to be removed via the mechanical plant rather than by hand.

4.3 External Wall construction

4.3.1 The walls of the brick wing appeared to have been built in a more solid form to what was usual for the original Georgian construction type, averaging a depth of 4 bricks deep (0.47m), rather than the usual 1 or 2. Two different types of brick were observed in the wall construction (in an English Garden Wall bond), with no evidence of external rendering and a lime mortar blend (Plate 21).

4.3.2 The walls were not keyed into the central range in any way, the wall collapse and subsequent demolition demonstrating that the wing was built *against* the central range using straight joints. This attests as to why the subsiding west wing had little immediate affect on the central range, and also why

Plate 21. *Thickness of wall construction (photo reference HHH13J168).*

the central range was not able to support the west brick wing. This also gives us definitive proof that the western brick wing was a later addition to the Hall, rather than contemporary with or earlier than the central range.

4.3.3 On the eastern elevation where the brick wall butted the existing stone range, the brick was observed to be only 1 course thick, internally and externally and infilled with sandstone chunks, river cobbles and general debris.

***Plate 22**. Rubble wall core (photo reference HHH13J138).*

4.3.4 Phasing: Three distinct phases of wall build were noted in the structure. Phase 1, the earliest build measured on average 4.3m high and consisted of a mottled red/black brick described in Section 5.1 as Type 01. This hand-made brick dates to the original construction date of the brick wing, with tentative evidence suggesting the year 1762 (Section 2.2.1). The second phase of construction is of a paler hand-made brick, Type 02 and was originally built up to the height of the eaves, based on the face observed on the western elevation. There is the suggestion for this phase being built in 1769, based on tentative evidence (Section 2.2.5). Phase 3 was once again built of Type 01 bricks, and appears to be an irregular height repair or additon on top of Phase 2. Whether this is indeed a distinct phase or whether it simply denotes running out of Type 02 bricks and then re-utilising some Type 01 bricks in the same phase of work is unknown. However, during demoliton of the eastern wall of the building, the lid off a Kiwi boot polish tin was found within the rubble wall core. The tin lid is of early 1940s design (the same design was used mid-late 1940s, but without the yellow inking due to Wartime inking shortages), potentially suggesting that the brick wing was repaired and/or potentially re-roofed during the Second World War period when prisoners of war were kept in the Hall.

4.4 The Second Floor (Figure 8)

4.4.1 Room 1: This room of the 2nd floor was destroyed by the original building collapse, removing all access to the floor as well as the vast majority of the floor itself. The room originally measured 5.5m wide by 10.15m long and based on the floor joist to ceiling rafter height, circa 2.8m tall and encompasses Phases 2 and 3 of the brick construction. It was accessed via Door 04 from Room 2 and had three windows: Window 01, Window 03 and Window 04. These windows are of Georgian sash style with internal shutters, dating to approximately 1770 (DDC 1970) which ties well into the theory that the Phase 2 heightening of the building was undertaken by R.H. Swinburne in 1769. One potential suggestion is that these windows originally fit into the ground floor walls (replaced by the ogee arched windows). This theory is discussed in Section 4.6.

4.4.2 Fireplace 01: Fireplace 01 was located on the north side of the south wall. Unfortunately, due to the way the building began to collapse once the southern roof was removed, this fireplace was not able to be examined in situ and the majority of its structure was lost during demolition works. However, sections of its cast-iron fire surround was rescued, and can be seen in Section 5.8. The fire surround was of classical design with fluted jambs and oval medallions in the corners, suggesting a Regency or early Victorian date.

Plate 23. *Room 2, showing Fireplace 02, and remnants of eastern wall (photo reference HHH13J079).*

4.4.3 Room 2: This room was accessed through Door 04 in its northeast corner (from Room 1) and from a stairwell on its eastern side from the first floor (Room 3). The room was 5.5m long and 4.6m wide, with an approximate height of 2.4m tall. Window 05 was set in its western wall and Window 11 in its eastern wall. Both were the same in structure as Windows 01, 02 and 03 and thus Georgian style sash windows. Unlike Room 1, Room 2 had easier access via the SkyJack plant, which allowed photography to be taken safely through the windows via zoom, and where possible through the roof itself. The demolition also removed the south, west and east walls of this room first, allowing orthogonal photographs to be taken of Fireplace 02 (set on the northern wall) and its associated chimney block. The walls were seen to be a mixture of bricks (Type 02) and stonework.

4.4.4 Fireplace 02 (Plate 24): This fire surround was constructed of plain stone, topped with a rounded

Plate 24. *Fireplace 02 (photo reference HHH13J098).*

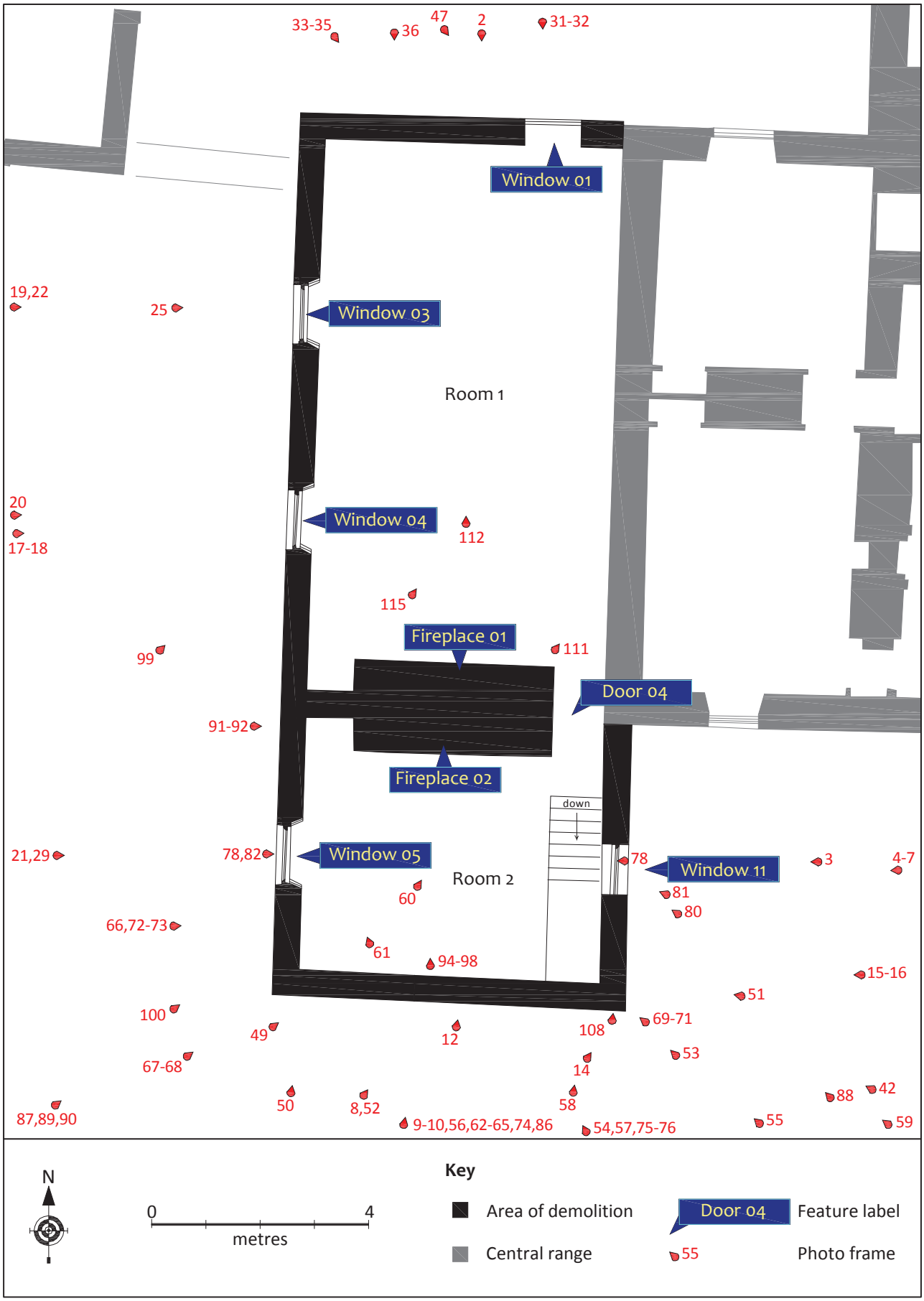

Figure 8. Second floor plan

***Plate 25**. The northern elevation of Room 2, showing Fireplace 02, the chimney and Door 04 (photo reference HHH13J094).*

brick arch. This fireplace was a nice example of a late 18th century hob grate, cast in iron, which again ties into the 2nd floor of the building being constructed 1769 onwards.

4.4.5 Chimney stack: The chimney stack, seen on Plate 25, showed the cut line of the original roof line (within the eastern sandstone stack) from before the upper storey was constructed. With the roof stripped away, the upper stonework of the chimney stack was revealed, showing us the construction of the early 18th century chimney. The stack on which Fireplace 02 was set was obviously a later addition, constructed when the upper storey was built, and was built of brick, as was the majority of the brickwork in the eastern section of the wall. However, the recessed wall to the west of the chimney stack was poorly constructed of loose stone and brick, badly mortared together, which began crumbling as soon as the wall face was uncovered.

4.4.6 Door 04: Door 4 was a simple timber framed door, that can be seen on Plate 25. No more information was able to be gained.

4.5 The First Floor (Figure 9)

4.5.1 The first floor simply consisted of one room, Room 3, in the southern section of the building, sandwiched between Room 2 above and Room 6 below.

4.5.2 Room 3: Very little evidence was gained from this room due to the nature of the collapse and then the subsequent demolition, as when material was demolished from the floor above, the ceiling in Room 3 collapsed, along with the floor. From the photographs taken through the collapsed eastern elevation suggested no features or furnishings with the room only accessible via the stairwell. Room 3 did contain Window 09 in its southern wall, a Georgian sash window as described in Section 3.3.4.

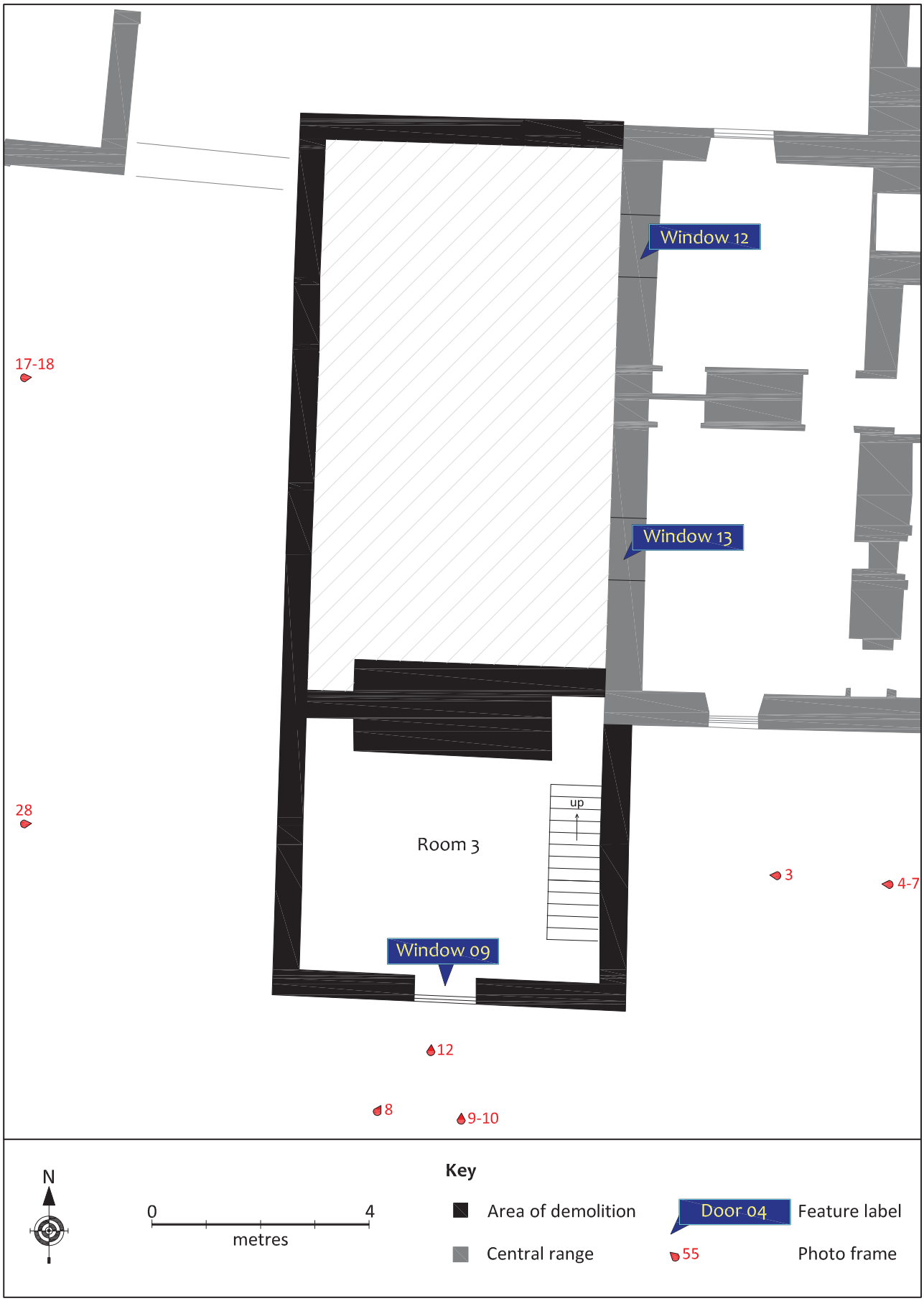

Figure 9. First floor plan

4.5.3 Staircase: The staircase led up to Room 2. The structure was only observed through the collapsed eastern elevation, and then in the debris of the demolition. The staircase was potentially late Victorian closed string style, though it may have been a lot later. An example of the balustrades used can be seen in Section 5.9.

4.6 The Ground Floor (Figure 10)

4.6.1 This floor consisted of three rooms, Room 4, Room 5 and Room 6. The floor was accessible from the outside via Door 01 on the northern elevation (Section 3.1.6), Door 02 on the western elevation (Section 3.2.4) and Door 03 (Section 3.4.6) on the eastern elevation, though the latter was originally an internal feature. Door 02 was the primary access/exit, with the door surround dated to the late Georgian period with a later Victorian door added. Internally, the floor was accessed through Doors 05 and 06, both from the main central range. Rooms 4 and 5 were divided by a potentially fairly modern stud wall, though due to the demolition/collapse, close inspection was impossible of this later feature. A blocked door and window were also noted on the central range elevation, south of Door 06. These are discussed in Section 4.7. The Ground floor also incorporated the first floor Room 3 above to form the first phase of the building's construction, suggesting a large hall (Room 4) with a small service 'wing' on the south of two floors. The internal walls were plastered (directly on the walls rather than on laths) and incised into the outline of stonework, and the floor was stone-slabbed.

4.6.2 Room 4: Room 4 measured 7.5m long by 5.5m wide, and contained Door 01 in its northern wall, Doors 05 and 06 in its eastern wall and potentially a further door through the southern stud wall. The room also contained Window 02 in its northern wall and Windows 06 and 07 in its western

***Plate 26**. Doors 05 and 06, with the stud wall on the right along with Window 15 (photo reference HHH13J038).*

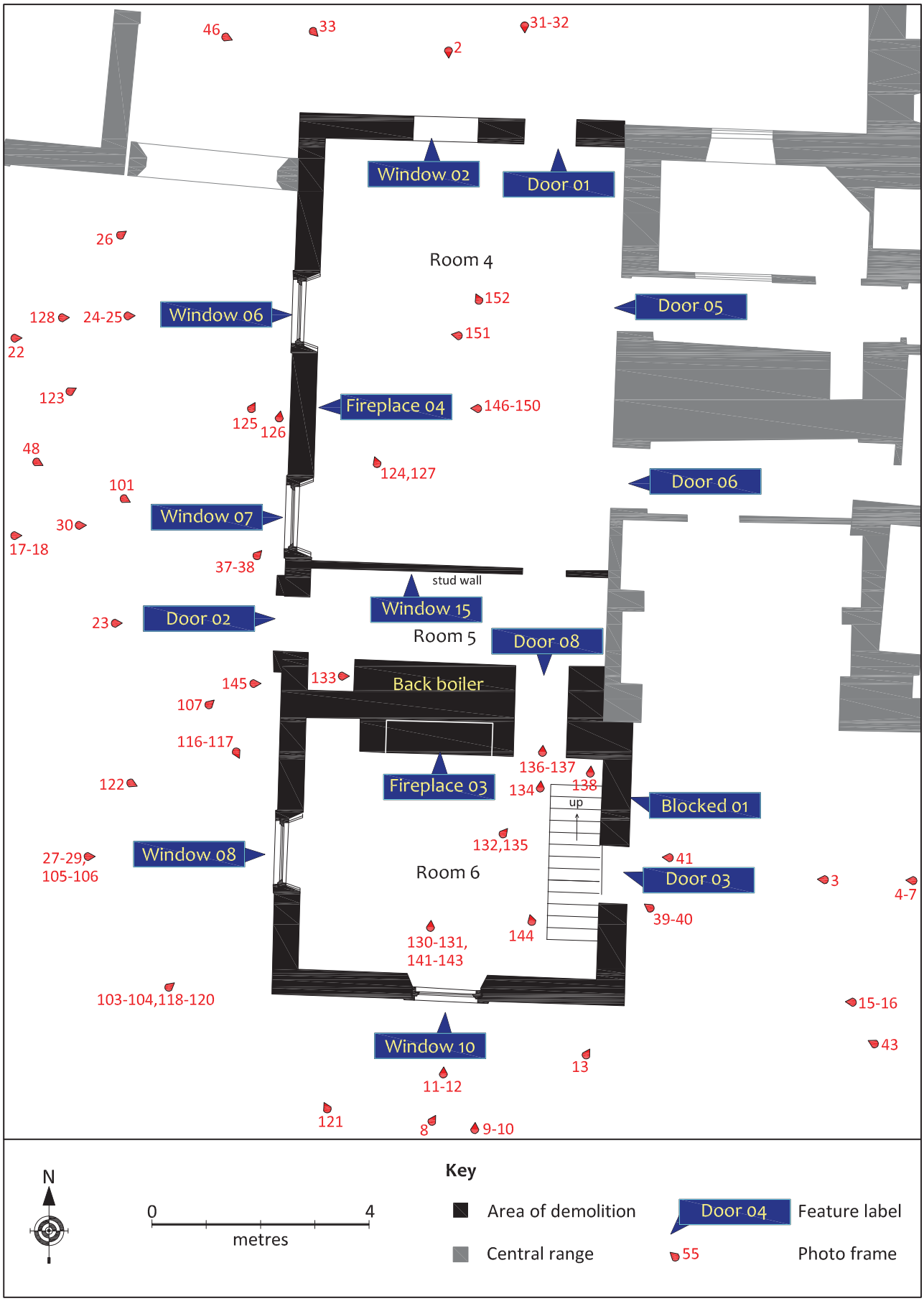

Figure 10. Ground floor plan

wall. Window 15 was also visible in the stud wall, though this was not able to be investigated further during the demolition procedure.

4.6.3 Window 02: As noted in Section 3.1.5, Window 02 was a victim of the original north face collapse, with very little remaining. However, the elevation drawings produced in 2010 by Jane Darbyshire and David Kendall Architects suggested a circa 1770 Georgian style 24-pane vertical sash window. This is likely to be the only original window from this original phase of the building's construction, as noted below.

4.6.4 Windows 06 and 07: Windows 06 and 07 are examples of Georgian-Gothic ogee-headed architecture, and due to the fragmented brickwork surrounding each, appear to be later insertions, likely at the time when the later storey was constructed. It seems likely that when the later storey was added, the windows from this level were added to the storey above, and the ground floor windows had the ogee-headed windows inserted, along with internal and external shutters in order to 'tie-in' the architectural style with the central range. It also seems likely that this is when the 'extension' was built onto the western elevation, tying into the main range, as the extension also demonstrated the same ogee architectural style.

4.6.5 Stud Wall and Window 15: A photograph of the plastered stud wall and window frame can be seen on the right of Plate 26. They appear to be modern built.

4.6.6 Door 05: Door 05 (Plate 28) was potentially originally an external door to the western elevation of the central range of the Hall. As the door surround has been inset with hand-made brick into the wall, it is likely to have been in use just prior to the brick wing being built in the early-mid 18th century. Evidence of this being an external door rests with the four baton holes in the brick, suggesting that the door once had a hood (unlikely on an internal door). Above the doorway is a brick-built semi-circular brick arch, and the door itself is a six-panelled door of late Georgian/early Regency design.

***Plate 27**. Window 06, internal photograph taken from Door 06 (photo reference HHH13J151).*

***Plate 28**. Door 05 (photo reference HHH13J161).*

***Plate 29**. Oven/fireplace 04 (photo reference HHH13J149).*

4.6.7 Door 06: Door 06 appears to have been a slightly later addition to the elevation, potentially replacing blocked Door 07 (see Section 4.7.4). The construction of the door appears to be the same as Door 05, though the craftmanship is rougher, especially in the formation of the brick arch. Notably, there is no evidence of a hood having existed over this door. The door itself, like Door 05, is a six-panelled door of late Georgian/early Regency design.

4.6.8 Oven/Fireplace 04: Fireplace 04 is actually an excellent example of a potentially Regency period cast iron 'hob' range. The 'oven' base (with door on the north side) was built of two mixed types of brick, Type 2 (Section 5.2) and Type 3 (Section 5.3), the latter being a good quality firebrick. The brick structure was set against the western wall of Room 4, just to the south of Window 06 and measured 2.15m long, 0.77m wide and 0.87m tall. The cast iron cooking range, set on the top of the brick structure was 0.03m thick and set with 7 pan grates, 4 large grates of 0.34m diameter set equidistantly across the front, and 3 small grates of 0.26m diameter across the back. Each grate contained a pan in varying but repairable condition. Excavation of the fire ashes revealed an iron key, the burnt pages of a novel (*Plain or Ringlets?* By R.S. Surtees, 1860: see Section 2.2.1) and two out of date hard hats.

***Plate 30**. Door 08 (photo reference HHH13J133).*

4.6.9 Room 5: Room 5 was originally part of Room 4 before the stud wall was put in place to divide them, creating essentially an entrance hall from Door 02 leading east to Door 08 and the doorway through the stud wall.

4.6.10 Door 08: Door 08 was an ornate painted stone arch, set in the southern wall. This arch formed a passageway (the rest of the passageway was brick)

***Plate 31**. Mechanism above the back boiler (photo reference HHH13J143).*

1.68m long through into Room 6 to the south. The door on the arch would have been held on an arched wooden frame, but the door was no longer present.

4.6.11 Back boiler (See Section 5.10): During the demolition of the chimney stack, it became apparent that a fireplace may once have been set in the southern wall but it had been removed and replaced with a back boiler. This back boiler held no maker's marks or stamps, making it awkward to date. The back boiler was still attached to a winding mechanism (presumably to move plates). However, two forms of brick were noted in the construction of the wall around the boiler, Type 4 and Type 5 (Section 5.4 and 5.5). These two brick types suggest a potential mid 1940s build, supporting the argument for addition and repair of the brick wing during this period.

***Plate 32**. The back boiler set in the wall (photo reference HHH13J145).*

4.6.12 Room 6: Room 6 measured 4.64m in width by 5.5m in length, and contained Door 03 in its eastern wall, Window 08 in its western wall and Window 10 in its southern wall. Its northern wall contained Fireplace 03 and brick-arched Door 08.

4.6.13 Staircase: From the lack of access to the room, the survey and monitoring scheme was unable to ascertain the position of the staircase in this room, though it seems like to have either been set in line with the staircase above, or at a right angle aligned east-west. The staircase led up to Room 3.

4.6.14 Window 08: Window 08 is an example of Georgian-Gothic ogee-headed architecture, and due to the fragmented brickwork surrounding the stone lintels appears to be a later insertion, likely at the time when the later storey was constructed. The window is of the same construction as Windows 06 and 07.

4.6.15 Window 10: No further information was ascertained about this window, which appears to be a late Georgian insertion with Victorian glasswork (see Section 3.3.4).

4.6.16 Door 08: On this side of the arch (see 4.6.10 for the north side) the complete structure is in brick, suggesting that the south side was not on 'show' and thus likely to be servants quarters. This suggests that the 3 rooms - Room 6, Room 3 and Room 2 are likely to be servants quarters, supported by the fireplace and range detailed below. There was no evidence of a door on this side of the arch, again supporting the idea that this room was 'lower class' than the northern rooms.

4.6.17 Fireplace 03: Fireplace 03 was set in the northern wall and was used to heat the back boiler set in the wall behind it. This was a twin-oven Georgian range, though it was noted that the fire grate had been bricked up and the (presumably) decorated iron doors previously removed.

4.6.18 Floor: The floor was contructed of poured concrete over packed rubble.

***Plate 33**. Brick arched Door 08 (photo reference HHH13J132).*

Plate 34. *Fireplace 03 (photo reference HHH13J130).*

4.7 The Exposed Elevation (Figures 11 and 12)

4.7.1 With the removal of the brick wing, a number of architectural features came to light within the western elevation of the stone central range that had been previously hidden by the later wing. Figure 11 records the features in plan, and Figure 12 shows a rectified image of the now exposed elevation.

4.7.2 Windows 12 and 13: These windows could be seen in the exposed elevation, roughly in line with the 1st floor as seen in Room 3, now blocked by brick (their location can be seen on Figure 9 and 12). The brick structure has also been broken by the insertion of the floor joists for the second story. From the shape of the blocked areas, these windows are likely to have been the same in size and shape as Windows 06-08 on the western elevation of the brick building - ogee headed Georgian Gothic in style.

4.7.3 Window 14: Window 14 was blocked with stone and more noticable from inside the opposing room within the the main stone range. The window opening measured approximately 1.5m by 1m, and had been covered with plaster on the ground floor.

4.7.4 Door 07: Door 7 was blocked with brick and almost completely covered by plaster on what would have been the inside of the brick wing. The door opening was more noticeable from inside the stone range. Of interest was the horizontal timber lintel that marked where the door had been, suggesting that this could have been an original door out of the western elevation of the central range. Of further interest is this door's positioning in comparison to Door 05. Unlike Door 06, this older door would have been equidistant with Door 05 from their respective wall returns, with the

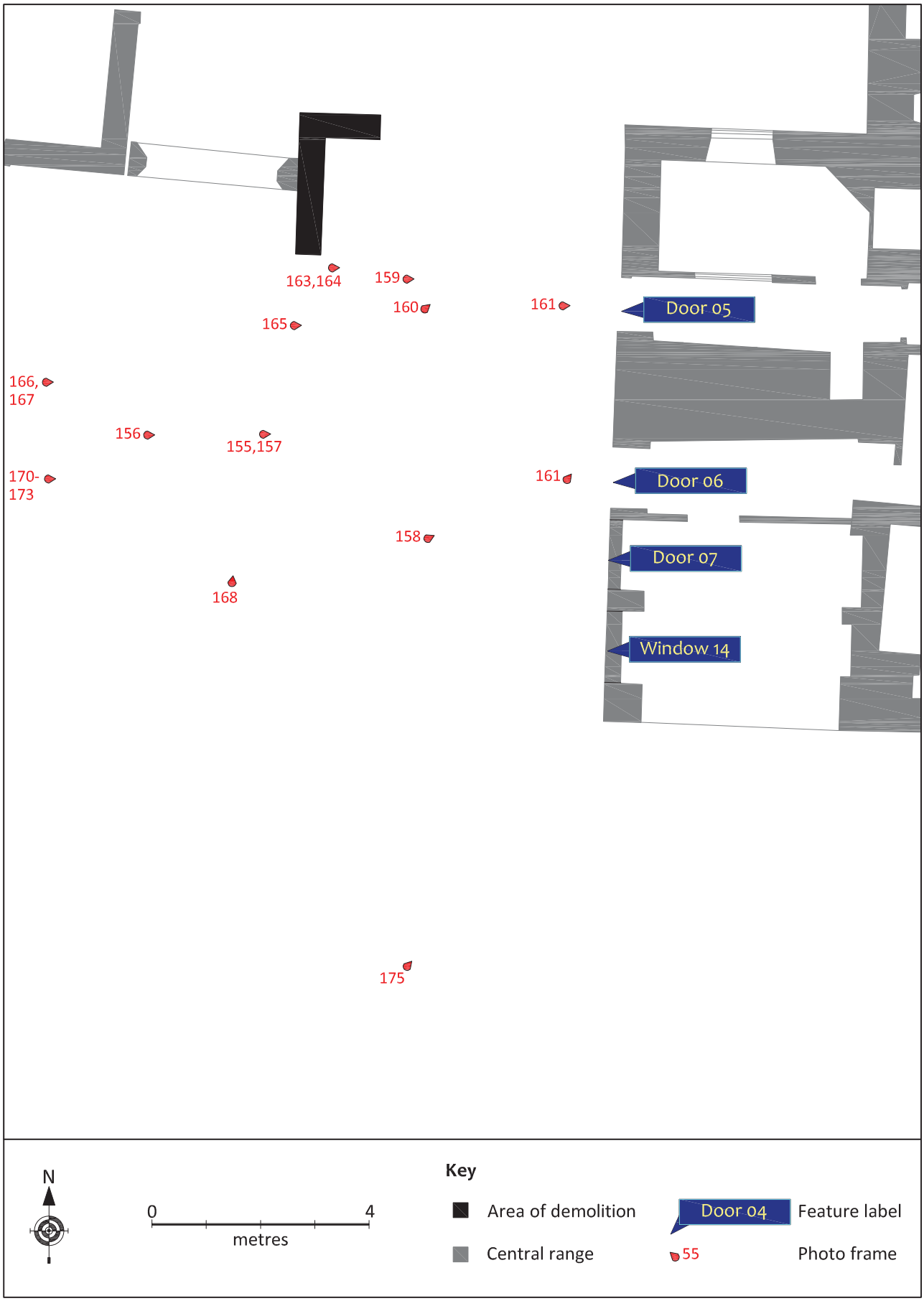

Figure 11. Ground floor plan, post-demolition

***Plate 35**. The old roof line from when the brick wing was single storey can be seen as a stain above the 2nd storey floor joist sockets (photo reference HHH13J166).*

blocked Door 07 being 2.8m from the southwestern corner of the central range, and Door 05 being the same from the northwestern corner. One aspect of Georgian architecture was the penchant for symmetry, which this arrangement would suit nicely.

4.7.5 Roofline: The roofline of the brick wing's 2 storey block is marked on the new western elevation by roof joist sockets in the stonework and by lead flashing and wooden blocks that joined the old brick wing roof to the western structure.

4.7.6 Old roofline: The old roofline (for when the structure was a single storey) can potentially be seen 5.35m from the ground as a stain on the side of the elevation. If this is indeed the line of the old roof, then it means that the ogee windows would have been removed from the main western elevation of the stone range when the brick wing was originally built.

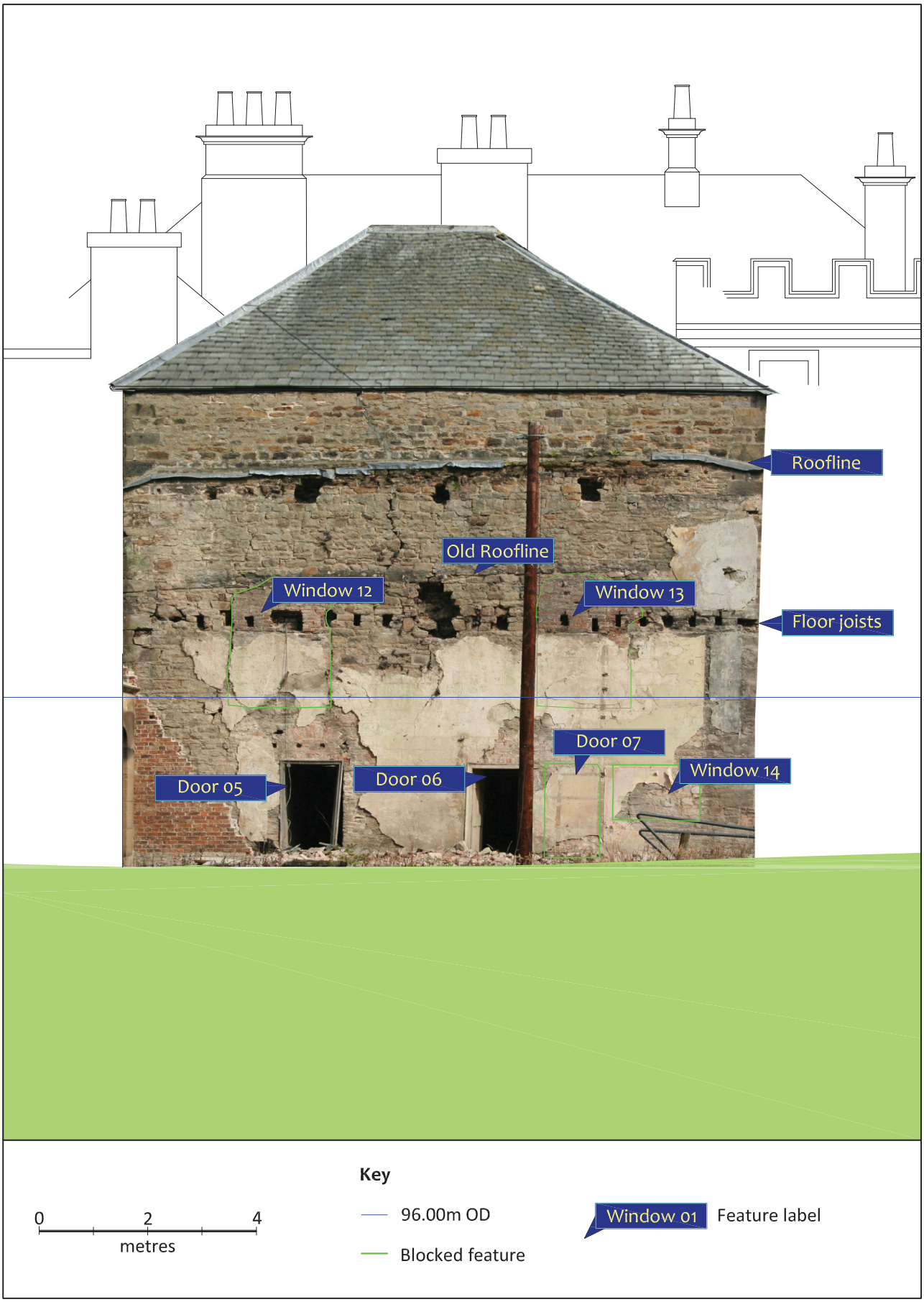

Figure 12. Western elevation, showing rectified photograph of elevation

5. Observed Materials

5.1 Brick Type 01

5.1.1 Hand-made brick, some narrower than others. Mottled red/black with multiple air pockets. Dimensions 0.215m x 0.10m x 0.05-0.07m. Likely dating from 1762 or pre-1762 construction.

***Plate 36**. Brick type 01 (photo reference HHH13J182).*

5.2 Brick Type 02

5.2.1 Hand-made brick, red, some narrower than others. Dimensions 0.215m x 0.10m x 0.055-0.065m. Likely dating from 1769 or post-1769 construction.

***Plate 37**. Brick type 02 (photo reference HHH13J183).*

5.3 Brick Type 03

5.3.1 Firebrick, fine grained, pale brown. Dimensions 0.235m x 0.115m x 0.06m. Found in base for potential Regency period 'hob' range in Room 4.

***Plate 38**. Brick type 03 (photo reference HHH13J180).*

5.4 Brick Type 04

5.4.1 Machine-made brick stamped with 'BUTE'. The Bute Brickworks was based at High Spen, and produced the same bricks for Chopwell Colliery in 1947. Dimensions 0.23m x 0.11m x 0.08m. Found in the later walls surrounding the back boiler in Room 5.

***Plate 39**. Brick type 04 (photo reference HHH13J181).*

5.5 Brick Type 05

5.5.1 Machine-made brick stamped with 'PELTON'. This brick type may originate from Pelton Fell brickworks (closed in 1975) but this is uncertain. Found in the later walls surrounding the back boiler in Room 5.

***Plate 40**. Brick type 05 (photo reference HHH13J189).*

5.6 Westmorland Slate

5.6.1 Westmorland slate roofing material, ranging in size and shape. Maximum size observed 0.70m x 0.60m x 0.08m).

***Plate 41**. Westmorland slate example (photo reference HHH13J190).*

5.7 Roofing timber

5.7.1 The remains of the original roofing materials were constructed of Douglas Fir, but were riddled with rot and woodworm.

Plate 42. *Timber example (photo reference HHH13J187).*

5.8 Remnants of Fireplace 01

5.8.1 The remains of the cast iron fire surround from Room 1. The fire surround was of classical design with fluted jambs and oval medallions in the corners, suggesting a Regency or early Victorian date.

Plate 43. *Fireplace 01 (photo reference HHH13J177).*

5.9 Ballustrade

5.9.1 An example of one of the staircase's ballustrades. The striped effect is from hazard tape being wound around the shaft.

Plate 44. *Ballustrade example (photo reference HHH13J179).*

5.10 Back boiler

5.10.1 The back boiler was possibly installed in the 1940s, replacing the fireplace that had once been set on the southern wall of Room 5.

Plate 45*. The back boiler (photo reference HHH13J178).*

6. Conclusions

6.1 Conclusions

6.1.1 On the 19th-22nd July 2013, Forric Construction undertook the controlled demolition of the western brick wing of Hamsterley Hall (Grade 2*) after the structure had begun to subside a month earlier. The work was undertaken with the consent of English Heritage, Natural England and Durham County Council.

6.1.2 A scheme of archaeological recording was put in place, a photographic survey undertaken before the demolition began and then continuous monitoring of the demolition scheme. Rectified external elevations of the existing walls were produced, along with floor plans and a general phasing of the brick wing was established.

6.1.3 The recording process was severely hampered by the poor condition of the building, which essentially meant that access could not be granted to the interior of the structure until the roof and walls were taken down to a safe level. During the demolition it was deemed that the ground floor walls, apart from the northwest corner were dangerously unsafe and we taken down to ground level under full archaeological watching brief conditions.

6.1.4 Three phases of building were observed in the walls of the brick wing. The first phase is likely to date from before 1762 when Sir John Swinburne gave the Hall to his younger brother, R.H. Swinburne. Certainly, by 1779, an estate plan shows the brick wing in place. The second phase, built of a different brick type, added a second storey to the brick wing and is likely to have taken place when Swinburne enlarged the Hall in 1769 or soon afterward. The primary architectural period discernable for the initial construction and addition of the second storey is Georgian and Georgian-Gothic. The third phase may date from repair work undertaken during the 1940s, the evidence for this date being a 1940s Kiwi boot polish tin lid found in the wall core and a number of stamped bricks being found along with a back boiler of the same period. A fourth phase of work, this time on the roof rather than the brickwork, saw the roofing materials being replaced within the last 20 years.

6.1.5 During demolition (and earlier evidence from the collapsing walls) it was found that the brick wing was not keyed into the main stone range. Instead, it was adjoined via straight joints, for want of a better phrase almost 'tacked on' to the stone Hall. As such, once the weight of the roof was removed the remaining walls became extremely unstable. This physical relationship between the brick wing and the Hall also shows us that the brick wing was a later addition to the Hall, built after the stone range.

6.1.6 The newly exposed western elevation of the central stone range also presented further evidence of the brick wing's later addition, in the form of two blocked up ogee-arched windows which would have been bricked up before the addition of the single storey brick wing as the roof-line (showing as a dark stain on the exposed elevation) lay above the level of the windows. The exposed elevation also presented evidence of a blocked up door which would have presented a symmetrical elevation alongside the northernmost surviving ground floor door, which also presented evidence of once being external as it bore the marks of once including a door hood.

6.1.7 Architectural fragments were kept and put into storage on site, along with surviving metalwork. The brickwork was heaped into one large pile, ready for hand-cleaning and subsequent paletting. The exposed western elevation of the central range is now a grave concern, as if the made-ground beneath the brick wing had subsided then the central range could now be under threat. The client, Steven Spry, is commissioning a further full structural survey of the remaining Hamsterley Hall but it is recommended that the structural stability of the Hall from an archaeological and historical point of view is kept under close scrutiny, or it is highly likely that the remainder of the Hall will degrade to the point of collapse within a couple of years.

6.1.8 With reference to the potential original usage of the brick wing, the study of the building poses many questions, especially concerned with the likelihood of these rooms being service related. In the Georgian period, service rooms tended to be positioned in the rear corner of large houses with access to the cellars beneath, with the addition of large extensions for service areas not being built until the Victorian period.

6.1.9 Certainly, with the presence of the large 'hob' range in Room 4 it is likely that this was a large kitchen for the Hall - whether it was a support kitchen for a main kitchen in the Hall is unknown: without the examination of potential kitchen areas within the Hall itself it is impossible to determine whether or not Room 4 replaced a kitchen in use within the central range, or simply working in a 'support' capacity for larger events, or even simply provided food for the servants. The stone arch of Door 08 suggests a 'grander' room, denoting a more high status working area than the rooms accessed through the door to the south: the other side of the arched corridor had a simple brick arch, denoting lower status. On this side of the door, Room 6's use was likely as a back kitchen or scullery, a theory supported by the presence of the cooking range, with the rooms above being servants' sleeping quarters and living areas, again supported by the types of fireplace *in-situ*.

6.1.10 To conclude, it is likely that the layout and presented usage of the wing before demolition represented the Victorian re-use of the rooms, and the original layout was lost: this latter theory is supported by the insertion of the Victorian fireplaces in Rooms 1 and 2. This gives us the picture of a busy Victorian kitchen area supporting the main house, with the servants living above the main kitchen area. Earlier features had been preserved, including the grand entrance and windows presenting a high status external appearance to any visitors to the Hall during this period.

7. Bibliography and Sources

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Appendix 1: Photographic Survey

Key to digital (.jpg format) images

Frame #: digital filename of the photograph as found on the archive disk
Label: label used on photographic location figures
Facing: direction the photograph was taken in
Description: brief description of photograph content

Frame #	Label	Facing	Description
HHH13J001	1	NW	Hamsterley Hall from the parking area
HHH13J002	2	S	Northern elevation of brick wing, showing collapse
HHH13J003	3	W	Eastern elevation of brick wing, before collapse
HHH13J004	4	W	Eastern elevation of brick wing, after collapse
HHH13J005	5	W	Eastern elevation of brick wing, after collapse
HHH13J006	6	W	Eastern elevation of brick wing, after collapse
HHH13J007	7	W	Eastern elevation of brick wing, after collapse
HHH13J008	8	N	Southern elevation of brick wing
HHH13J009	9	N	Southern elevation of brick wing
HHH13J010	10	N	Southern elevation of brick wing
HHH13J011	11	N	Southern elevation of brick wing, window detail
HHH13J012	12	N	Southern elevation of brick wing, window detail
HHH13J013	13	N	Southern elevation of brick wing, SE corner damage
HHH13J014	14	N	Southern elevation of brick wing, SE corner damage
HHH13J015	15	W	Eastern elevation of brick wing, after collapse
HHH13J016	16	W	Eastern elevation of brick wing, showing pressure bulge
HHH13J017	17	E	The Hall from the west
HHH13J018	18	E	The Hall from the west
HHH13J019	19	E	Window detail
HHH13J020	20	E	Window detail with collapse
HHH13J021	21	E	Window detail
HHH13J022	22	E	Northern end of western elevation
HHH13J023	23	E	Door detail
HHH13J024	24	E	Ogee arch window detail
HHH13J025	25	E	Southern end of western elevation
HHH13J026	26	E	The Tudor arch
HHH13J027	27	E	Ogee arch window detail
HHH13J028	28	E	Ogee arch window detail
HHH13J029	29	E	Southern end of western elevation
HHH13J030	30	E	Ground floor, western elevation (external)
HHH13J031	31	S	View through collapse, northern elevation
HHH13J032	32	S	View through collapse, northern elevation
HHH13J033	33	SE	View through collapse, northern elevation
HHH13J034	34	SE	View through collapse, northern elevation
HHH13J035	35	SE	View through collapse, northern elevation
HHH13J036	36	S	Internal roof detail
HHH13J037	37	E	Ground floor internal, through collapse
HHH13J038	38	E	Ground floor internal, through collapse
HHH13J039	39	NW	Ground floor through collapse in eastern elevation
HHH13J040	40	NW	Ground floor through collapse in eastern elevation

Frame #	Label	Facing	Description
HHH13J041	41	W	Ground floor through collapse in eastern elevation
HHH13J042	42	NW	2nd floor through collapse in eastern elevation
HHH13J043	43	NW	Southeast corner of wing
HHH13J044	44	-	Colour check
HHH13J045	45	-	Colour check
HHH13J046	46	SE	North elevation, window detail
HHH13J047	47	SE	2nd floor joist sockets
HHH13J048	48	E	Detail through collapse on western elevation
HHH13J049	49	NE	Chimney stack
HHH13J050	50	NE	Roof
HHH13J051	51	NW	Roof
HHH13J052	52	NE	Roof
HHH13J053	53	NW	Working shot on roof
HHH13J054	54	NW	Working shot on roof
HHH13J055	55	NW	Working shot on roof
HHH13J056	56	NW	Working shot on roof
HHH13J057	57	NW	Working shot on roof
HHH13J058	58	N	Working shot on roof
HHH13J059	59	W	Working shot on roof
HHH13J060	60	NE	Roof detail
HHH13J061	61	N	Roof detail
HHH13J062	62	N	Roof with modern slats
HHH13J063	63	N	Roof with modern slats
HHH13J064	64	N	Exposed roof
HHH13J065	65	N	Working shot on roof
HHH13J066	66	E	Exposed roof
HHH13J067	67	NE	Exposed roof
HHH13J068	68	NE	Exposed roof
HHH13J069	69	NW	Exposed roof
HHH13J070	70	NW	Exposed roof
HHH13J071	71	NW	Exposed roof
HHH13J072	72	E	Exposed roof
HHH13J073	73	E	Exposed roof
HHH13J074	74	N	Cutting the rafters
HHH13J075	75	N	Cutting the rafters
HHH13J076	76	N	Cutting the rafters
HHH13J077	77	N	Cutting the rafters
HHH13J078	78	W	2nd floor through collapse
HHH13J079	79	E	2nd floor through collapse
HHH13J080	80	NW	2nd floor through collapse
HHH13J081	81	NW	2nd floor through collapse
HHH13J082	82	E	2nd floor through collapse
HHH13J083	83	NW	General view
HHH13J084	84	N	General view
HHH13J085	85	NW	Building collapse
HHH13J086	86	N	Demolished east and south upper elevations
HHH13J087	87	NE	Demolished east and south upper elevations
HHH13J088	88	N	Demolished east and south upper elevations
HHH13J089	89	NE	Demolished east and south upper elevations
HHH13J090	90	NE	Demolished east and south upper elevations

Frame #	Label	Facing	Description
HHH13J091	91	E	Exposed roof
HHH13J092	92	E	Exposed roof
HHH13J093	93	N	General shot
HHH13J094	94	N	Exposed chimney stack and wall
HHH13J095	95	N	Exposed chimney stack and wall
HHH13J096	96	N	Exposed chimney stack and wall
HHH13J097	97	N	Exposed chimney stack and wall
HHH13J098	98	N	Exposed chimney stack and wall
HHH13J099	99	NE	Western elevation, further collapse
HHH13J100	100	NE	Chimney stack collapse
HHH13J101	101	SE	General view
HHH13J102	102	NE	Uh oh
HHH13J103	103	NE	Ogee-arch window, ground floor western elevation
HHH13J104	104	NE	Ogee-arch window, ground floor western elevation
HHH13J105	105	E	Ogee-arch window, ground floor western elevation
HHH13J106	106	E	Ogee-arch window, ground floor western elevation
HHH13J107	107	NE	Door detail, ground floor western elevation
HHH13J108	108	N	Cleaning the dangerous rubble
HHH13J109	109	SE	View from the north elevation, no roof
HHH13J110	110	SW	View from the north elevation, no roof
HHH13J111	111	NE	Roofline lead flashing
HHH13J112	112	N	Internal wreckage
HHH13J113	113	N	Internal wreckage
HHH13J114	114	N	Internal wreckage
HHH13J115	115	N	Internal wreckage
HHH13J116	116	SE	Hand-deconstruction of ogee arch window
HHH13J117	117	SE	Hand-deconstruction of ogee arch window
HHH13J118	118	NE	Hand-deconstruction of ogee arch window
HHH13J119	119	NE	Hand-deconstruction of ogee arch window
HHH13J120	120	NE	Hand-deconstruction of ogee arch window
HHH13J121	121	N	General view
HHH13J122	122	SE	Headless window
HHH13J123	123	NE	Hand-deconstruction of ogee arch window
HHH13J124	124	NW	Hand-deconstruction of ogee arch window
HHH13J125	125	NE	Hand-deconstruction of ogee arch window
HHH13J126	126	N	Hand-deconstruction of ogee arch window
HHH13J127	127	NW	Hand-deconstruction of ogee arch window
HHH13J128	128	E	Hand-deconstruction of ogee arch window
HHH13J129	129	NW	Internal wreckage
HHH13J130	130	N	Cooking range
HHH13J131	131	N	Cooking range
HHH13J132	132	NE	Brick arch
HHH13J133	133	E	Stone arch
HHH13J134	134	N	Brick arch
HHH13J135	135	NE	Brick arch
HHH13J136	136	N	Brick arch
HHH13J137	137	N	Brick arch
HHH13J138	138	N	Wall core
HHH13J139	139	N	Stone arch doorframe
HHH13J140	140	E	Bolt on doorframe for stone arch

Frame #	Label	Facing	Description
HHH13J141	141	N	Mechanism attached to back boiler
HHH13J142	142	N	Mechanism attached to back boiler
HHH13J143	143	N	Mechanism attached to back boiler
HHH13J144	144	N	Cooking range demolition
HHH13J145	145	E	Back boiler in situ
HHH13J146	146	NW	Main cooking range
HHH13J147	147	W	Main cooking range
HHH13J148	148	W	Main cooking range
HHH13J149	149	W	Main cooking range
HHH13J150	150	NW	Main cooking range, pan detail
HHH13J151	151	NW	Internal wreckage and rear of window
HHH13J152	152	NW	Internal wreckage and rear of window
HHH13J153	153	N	Stone flagged floor
HHH13J154	154	NW	Plaster detail
HHH13J155	155	E	Exposed elevation, door detail
HHH13J156	156	E	Exposed elevation, door detail
HHH13J157	157	E	Exposed elevation, door detail
HHH13J158	158	E	Exposed elevation, door detail
HHH13J159	159	E	Exposed elevation, door detail
HHH13J160	160	E	Exposed elevation, door detail
HHH13J161	161	E	Exposed elevation, door detail
HHH13J162	162	E	Exposed elevation
HHH13J163	163	E	Exposed elevation
HHH13J164	164	E	Exposed elevation
HHH13J165	165	E	Exposed elevation
HHH13J166	166	E	Exposed elevation
HHH13J167	167	E	Exposed elevation
HHH13J168	168	N	Tudor arch and remaining support wall
HHH13J169	169	N	Tudor arch and remaining support wall
HHH13J170	170	E	General view of the Hall.
HHH13J171	171	E	General view of the Hall.
HHH13J172	172	E	General view of the Hall.
HHH13J173	173	E	General view of the Hall.
HHH13J174	174	SE	General view of the Hall.
HHH13J175	175	NE	General view of the Hall.
HHH13J176	176	-	Cooking range door
HHH13J177	177	-	Fireplace fragments
HHH13J178	178	-	Back boiler
HHH13J179	179	-	Balluster
HHH13J180	180	-	Brick Type 03
HHH13J181	181	-	Brick Type 04
HHH13J182	182	-	Brick Type 01
HHH13J183	183	-	Brick Type 03
HHH13J184	184	-	Fireplace
HHH13J185	185	-	Fireplace
HHH13J186	186	-	Timber
HHH13J187	187	-	Timber
HHH13J188	188	-	Timber
HHH13J189	189	-	Brick Type 05
HHH13J190	190	-	Westmorland slate

Frame #	Label	Facing	Description
HHH13J191	191	-	Brick marked 'Pelton'

Key to digital (.cr2 format) images

Frame #: digital filename of the photograph as found on the archive disk
Facing: direction the photograph was taken in
Description: brief description of photograph content

Frame #	Facing	Description
HHH13R001	W	Eastern elevation, showing collapse
HHH13R002	W	Eastern elevation, showing collapse
HHH13R003	W	Eastern elevation, showing collapse
HHH13R004	W	Eastern elevation, showing roof scar detail
HHH13R005	W	Eastern elevation, showing roof scar detail
HHH13R006	W	Eastern elevation, showing roof scar detail
HHH13R007	W	Eastern elevation, showing collapse
HHH13R008	W	Eastern elevation, showing collapse
HHH13R009	W	Eastern elevation, showing collapse
HHH13R010	N	Southern elevation
HHH13R011	N	Southern elevation
HHH13R013	N	Southern elevation, window detail
HHH13R014	N	Southern elevation, window detail
HHH13R015	N	Southern elevation, window detail
HHH13R016	S	Northern elevation, no scale
HHH13R017	S	Northern elevation, no scale
HHH13R018	S	Northern elevation, no scale
HHH13R019	E	Western elevation, showing collapse
HHH13R020	E	Western elevation, showing collapse
HHH13R021	E	Western elevation, showing collapse
HHH13R022	E	Western elevation, door detail
HHH13R023	E	Western elevation, door detail
HHH13R024	E	Western elevation, door detail
HHH13R025	E	Western elevation, window detail
HHH13R026	E	Western elevation, window detail
HHH13R027	E	Western elevation, window detail
HHH13R028	E	Western elevation, window detail
HHH13R029	E	Western elevation, window detail
HHH13R030	E	Western elevation, window detail
HHH13R031	E	Western elevation, collapse + window detail
HHH13R032	E	Western elevation, collapse + window detail
HHH13R033	E	Western elevation, collapse + window detail
HHH13R034	S	Northern elevation, showing collapse
HHH13R035	S	Northern elevation, showing collapse
HHH13R036	S	Northern elevation, showing collapse
HHH13R037	E	Western elevation, showing collapse
HHH13R038	S	Northern elevation, showing collapse
HHH13R039	S	Northern elevation, showing collapse
HHH13R040	S	Northern elevation, showing collapse
HHH13R041	-	Colour test
HHH13R042	-	Colour test
HHH13R043	E	Upper floor, external west elevation, window detail

Frame #	Facing	Description
HHH13R044	E	Upper floor, external west elevation, window detail
HHH13R045	NE	Upper floor, external west elevation, window detail
HHH13R046	NE	Upper floor, external west elevation, window detail
HHH13R047	W	Exposed roof
HHH13R048	W	Exposed roof
HHH13R049	W	2nd floor through collapse
HHH13R050	W	2nd floor through collapse
HHH13R051	N	General shot
HHH13R052	N	General shot
HHH13R053	N	General shot
HHH13R054	NE	2nd floor through window
HHH13R055	E	Roof exposed
HHH13R056	E	Roof exposed
HHH13R057	NW	Removing the roof
HHH13R058	NW	Removing the roof
HHH13R059	E	Removing the roof
HHH13R060	E	Ogee-headed sash window
HHH13R061	N	Ground floor kitchen range
HHH13R062	N	Brick arch
HHH13R063	N	Brick arch
HHH13R064	W	Cast-iron 'hob' range
HHH13R065	-	Brick Type 02
HHH13R066	-	Brick Type 01
HHH13R067	-	Brick Type 04
HHH13R068	-	Brick Type 03
HHH13R069	-	Ballustrade
HHH13R070	E	Exposed western elevation of central range
HHH13R071	E	Exposed western elevation of central range
HHH13R072	E	Exposed western elevation of central range

Key to black and white film photographs

Frame #: digital filename of the photograph as found on the archive disk
Label: label used on the archive clearfile folders
Facing: direction the photograph was taken in
Description: brief description of photograph content

Frame #	Label	Facing	Description
HHH13F001	1	W	Eastern elevation, showing collapse
HHH13F002	2	W	Eastern elevation, showing collapse
HHH13F003	3	W	Eastern elevation, showing collapse
HHH13F004	4	W	Eastern elevation, showing roof scar detail
HHH13F005	5	W	Eastern elevation, showing roof scar detail
HHH13F006	6	W	Eastern elevation, showing roof scar detail
HHH13F007	7	W	Eastern elevation, showing collapse
HHH13F008	8	W	Eastern elevation, showing collapse
HHH13F009	9	W	Eastern elevation, showing collapse
HHH13F010	10	N	Southern elevation
HHH13F011	11	N	Southern elevation

Frame #	Label	Facing	Description
HHH13F012	12	N	Southern elevation
HHH13F013	13	N	Southern elevation, window detail
HHH13F014	14	N	Southern elevation, window detail
HHH13F015	15	N	Southern elevation, window detail
HHH13F016	16	S	Northern elevation, no scale
HHH13F017	17	S	Northern elevation, no scale
HHH13F018	18	S	Northern elevation, no scale
HHH13F019	19	E	Western elevation, showing collapse
HHH13F020	20	E	Western elevation, showing collapse
HHH13F021	21	E	Western elevation, showing collapse
HHH13F022	22	E	Western elevation, door detail
HHH13F023	23	E	Western elevation, door detail
HHH13F024	24	E	Western elevation, door detail
HHH13F025	25	E	Western elevation, window detail
HHH13F026	26	E	Western elevation, window detail
HHH13F027	27	E	Western elevation, window detail
HHH13F028	28	E	Western elevation, window detail
HHH13F029	29	E	Western elevation, window detail
HHH13F030	30	E	Western elevation, window detail
HHH13F031	31	E	Western elevation, collapse + window detail
HHH13F032	32	E	Western elevation, collapse + window detail
HHH13F033	33	E	Western elevation, collapse + window detail
HHH13F034	34	S	Northern elevation, showing collapse
HHH13F035	35	S	Northern elevation, showing collapse
HHH13F036	36	S	Northern elevation, showing collapse
HHH13F037	37	E	Western elevation, upper floor window detail. Sun flare
HHH13F038	38	E	Western elevation, upper floor window detail. Sun flare
HHH13F039	39	SE	Chimney detail
HHH13F040	40	E	Western elevation, upper floor window detail. Sun flare
HHH13F041	41	N	Southern elevation, modern roof slats
HHH13F042	42	N	Southern elevation, rafters exposed
HHH13F043	43	W	Eastern elevation, rafters exposed
HHH13F044	44	W	2nd floor through collapse
HHH13F045	45	E	Roof, rafters exposed
HHH13F046	46	E	Roof, rafters exposed
HHH13F047	47	E	Roof, rafters exposed
HHH13F048	48	N	2nd floor chimney detail
HHH13F049	49	N	Ground floor oven detail
HHH13F050	50	N	Ground floor oven detail
HHH13F051	51	N	Brick arch detail
HHH13F052	52	N	Brick arch detail
HHH13F053	53	N	Brick arch detail
HHH13F054	54	NE	Brick arch detail
HHH13F055	55	NE	Brick arch detail
HHH13F056	56	NE	Brick arch detail
HHH13F057	57	W	Ground floor range
HHH13F058	58	W	Ground floor range
HHH13F059	59	W	Ground floor range
HHH13F060	60	W	Ground floor range, pot detail
HHH13F061	61	N	Tudor arch and remaining brick support wall

Frame #	Label	Facing	Description
HHH13F062	62	N	Tudor arch and remaining brick support wall
HHH13F063	63	N	Tudor arch and remaining brick support wall
HHH13F064	64	E	Exposed western elevation of central range, door detail
HHH13F065	65	E	Exposed western elevation of central range, door detail
HHH13F066	66	E	Exposed western elevation of central range, door detail
HHH13F067	67	E	Exposed western elevation of central range, door detail
HHH13F068	68	E	Exposed western elevation of central range, door detail
HHH13F069	69	E	Exposed western elevation of central range, door detail
HHH13F070	70	E	Exposed western elevation of central range
HHH13F071	71	E	Exposed western elevation of central range
HHH13F072	72	E	Exposed western elevation of central range

Appendix 2: Risk Assessment

Risk Identified	Level	Action
Slip and trip	HIGH	Be aware of surroundings
Aerial debris - eyes	HIGH	Safety goggles
Aerial debris - inhalation	HIGH	Respirator mask
Aerial debris - crush	HIGH	Do not enter building or get close enough to crash radius
Lone working	HIGH	No lone working allowed
Impact from Plant	HIGH	PPE at all times
Falling from height	HIGH	No climbing on building, only use SkyJack with operator
Travel	LOW	Less than 10 minutes travel time
Leptospirosis	MEDIUM	Wash hands before eating
Salmonellosis	MEDIUM	Wash hands before eating
Toxoplasmosis	LOW	Wash hands before eating
Asbestos	MEDIUM	No working on site if asbestos found

Appendix 3: Architectural Fragments

Feature	Notes
Door 01	Stonework broken
Door 02	Timber rotten, disposed of
Door 03	Nothing of worth
Door 04	Nothing of worth
Door 05	NA
Door 06	NA
Door 07	NA
Door 08	Stone arch retained by client
Window 01	Nothing retained
Window 02	Sill retained by client
Window 03	Lintel and sill retained
Window 04	Lintel and sill retained by client
Window 05	Lintel and sill retained by client
Window 06	Retained in entirety by client
Window 07	Sill retained by client
Window 08	Retained in entirety by client
Window 09	Lintel and sill retained by client
Window 10	Lintel, jambs and sill retained by client
Window 11	Stonework broken
Window 12	NA
Window 13	NA
Window 14	NA
Window 15	Nothing retained
Fireplace 01	Fragmented, sections retained by client
Fireplace 02	Fireplace ironwork retained by client
Fireplace 03	Ovens retained by client
Fireplace 04	Cast iron top + pans retained by client

Appendix 4: Written Scheme of Investigation

Introduction

On the 15th June 2013, Tony Liddell of Vindomora Solutions attended a site meeting at Hamsterley Hall, County Durham (NGR NZ 14257 55637) with the client Steven Spry to assess and cost for emergency archaeological building recording on the collapsing rear brick wing of the building. Substantial damage (likely due to the subsidence of the made-ground upon which the Hall is built) was observed on the west and north walls, with stress damage and further potential damage observed on the rest of the brick structure.

On the 8th July 2013, the client informed Vindomora Solutions that a further collapse had occurred on the south-east corner (stress had forced a window to collapse) and that Natural England had approved a scheme of controlled demolition of the brick wing, under archaeological supervision and with the approval of English Heritage.

On Tuesday 9th July, the client expressed concern over the continued degradation of the standing structure, and it was agreed with David Sparkes (Principal Conservation Officer) and Lee McFarlane (Senior Archaeology Officer) of Durham County Council that the initial photographic survey of the site would be undertaken on Wednesday 10th July as an emergency recording measure.

This document details a Written Scheme of Investigation (WSI) to undertake the scheme of emergency archaeological building recording on the brick wing (equivalent to English Heritage Level 4 as set out in *Understanding Historic Buildings – a guide to good recording practice*, English Heritage 2006 and *Recording Historic Buildings*, RCHME 1996) prior to demolition taking place and the subsequent monitoring of demolition works.

Anticipated Programme of Works

Due to the current unstable state of the structure, initial photographic recording took take place on the morning of Wednesday 10th July 2013. If further photographic recording needs to be undertaken pre-demolition, this will be timetabled in. Demolition is due to take place between 19th-21st July 2013, though as of 11th July 2013 David Sparkes expressed concern over the degrading structure and suggested the possibility of accelerating the process. A basic background history search will be undertaken at Durham County Record Office after the site recording has taken place, to add context to the fieldworks' findings. The report will be provided in draft form for approval within 15 working days of completion of fieldwork, unless a differing timetable is agreed upon in the meantime.

Basic Background History

Hamsterley Hall is a Grade II* Listed Building (Listed on the 6th June 1951). The Listed Building description is as follows:

> "House. Early C18 much enlarged 1769 (rainwater heads) for R.H. Swinburne; early C19 alterations; c.1932 incorporation of C17 fragments from Beaudesert, Staffordshire, for S.R. Vereker. Coursed squared sandstone with ashlar dressings, quoins and plinth; rear wing English garden wall brick, with rendered plinth; Lakeland slate roof. Irregular plan; Gothic style. Garden front 2 storeys, 4 wide bays: 2-storey, 4-light mullioned-and-transomed square bay at left. 2 central bays of ground floor and third bay of first floor have similar windows of 5 and 4 lights, all double-chamfered; fourth ground-floor window a Gothic anted bay under parapet, with quatrefoil and drip mould above; 2 ogee-headed sash windows

above 5-light second-bay window. Gothic-style windows have patternec glazing bars; C17 windows all have leaded casements with heraldic panels. Projecting battlemented parapet above gutter cornice. Hipped roof has corniced ridge chimneys. Left return has early C18 12-panel door in large shell-hooded doorcase with much fine carving, imported from elsewhere. Right rear wing has C17 door and window incorporated in inner return to yard, with Gothic-style windows on first and second floors in plain stone surrounds; breaking forward at left of this a plainer 2-storey brick wing with varied windows and rear pedimented doorcase. Hipped roofs; ridge chimneys. Early C20 Gothic-style conservatory on left return of main ridge. Interior: C18 staircase hall has enriched dado rail and 6-panel doors in architraves under ornamental overdoors; (similar doors throughout front range). Ramped handrail on fat stick balusters and fluted newels; shaped tread ends. Gothic stair window has scalloped pointed surround on panelled pilasters. Ogee-arched first-floor arcade, Gothic arcaded cornice; palmette-and-acanthus ceiling roses. Morning room has Greek key dado rail, Gothic white marble chimney piece, similar Gothic ceiling patterns. Dining room walls of arcaded panels formed by clustered pilasters supporting cusped arches, with pinnacles on pilasters; C15 stone chimney piece from Crosby Hall; ceiling Gothic-panelled and grained. Drawing room entirely panelled with stucco Gothic arches under arcaded frieze, but with some classical detail. First floor west room has C17 panelled interior inserted and grand fireplace with panels of perspective rooms and Renaissance decoration; high-relief fruit and flower garlands. Rear wing interior incorporates C17 chimney piece, moulded beams and closed-string stair with wide handrail, fat turned balusters and moulded square finials and pendants in principal ground-floor room. Battlemented wall at rear, with Tudor-arched door, links to 2-storey, 3-bay brick outbuilding.

Sources: Conyers Surtees, Records of the Family Surtees, Newcastle 1925, p.233.
C. Hussey, 'Hamsterley Hall, Durham' in Country Life, Oct.21st.1939, pp.418-22"

Capability and Staffing

Vindomora Solutions was formed in July 2012 by Tony Liddell. Tony has worked in the heritage industry since graduating in 1994 with small forays into technical authorship and digital media archiving and well as the mainstay field archaeology, survey and presentation. Vindomora Solutions specialise in providing field archaeological services, research, survey and presentation, as well as publishing, photography, multimedia and website design and maintenance. This project will be managed on a day-to-day basis by Tony Liddell B.Sc. (Hons). Further staff may assist in this project: all will have a minimum of a bachelor's degree in archaeology and a minimum of two years *relevant* field experience.

Professional Standards

All work undertaken will be in accordance with the Institute for *Archaeologists' Code of Conduct* (2010) and their *Standard and Guidance for the archaeological investigation and recording of standing buildings or structures* (2008) and *Standard and Guidance for an archaeological watching brief* (2008).

The following English Heritage standards/guidance will also be adhered to: *Measured and Drawn - Techniques and practice for the metric survey of historic buildings* (second edition, 2009) *Conservation Principles - Policies and Guidance* (2008) and *Understanding Historic Buildings - A guide to good recording practice* (2006).

Insurance

Vindomora Solutions currently holds insurance to the value of:

Professional Indemnity:	£250,000
Public Liability:	£5,000,000
Employers' Liability:	£10,000,000

Health and Safety

All work on site will abide by the Health and Safety Act of 1974 and all its subsequent amendments. All fieldwork projects are undertaken in accordance with the SCAUM 2007 manual *Health and Safety in Field Archaeology*. All field personnel will wear the required personal protection equipment, and a Risk Assessment (incorporating continuous assessment) will be produced prior to the works beginning.

Health and Safety on this site is of particular note, as due to the extreme instability of the structure in question the recording work must be done at a safe distance and entry into the building will be impossible until after the controlled demolition takes place. With this in mind, the following Tasks and Methodology is deemed most appropriate:

Tasks

The aims and objectives of this project are:

- To undertake a building survey of the affected area (limited by Health and Safety considerations) to Level 4 'Recording Historic Buildings: A Descriptive Specification' (RCHM 1991) standards where feasible to do so;
- To produce rectified elevation drawings where feasible to do so;
- To monitor all the controlled demolition of the brick wing and record any architectural features of interest that are revealed during the process;
- Once the demolition has been completed, to record the standing elevations of the main house;
- To produce a background history as well as a descriptive account of the architectural elements of the targeted wing, along with a discussion of phasing and the wing's physical relationship with the rest of the building.
- Production of the report;
- Production of the archive.

Fieldwork Methodology

Specific items of note are:

- Durham County Council: David Sparkes of Durham County Council will be first point of contact and will be informed of the timetable of works before the fieldwork takes place with reasonable access being afforded to David Sparkes and Lee McFarlane (Senior Archaeology Officer, DCC) and representatives from English Heritage in order to monitor the archaeological scheme. Regular communication will be upheld between Vindomora Solutions, the client and Durham County Council to ensure all goals are been kept;
- Plan: A block plan of the structure will be undertaken at an appropriate scale (1:50, 1:20 or 1:10 as appropriate) on archival draughting film. The locations of all features of interest within and without the structure will be annotated on the plan, along with the photograph locations, as detailed below. The extent of the detail of the plan (by floor) will depend on the health and safety aspects

of recording during the demolition process, and Vindomora Solutions will abide by guidelines put in place by the on-site Health and Safety Officer.

- Initial Photographic Record: The structure was recorded externally, using a 2m ranging pole for scale if deemed safe to place the rod. When the structure has been demolished, the remaining elevations of the main house will then be photographed. Items of architectural/archaeological interest will be recorded using detailed shots. Colour digital photography included a colour control frame using a RYGB scale. This was repeated if deemed necessary in any change of lighting conditions. All main photographs were orthogonal where possible, unless angled shots provided more information and will be tied into plan of the structure. The photographic record was undertaken using 3 formats:

  Digital JPG: for potential working shots and a general record (16MP);
  Digital RAW: for a data archive (minimum 8MP);
  Black and White Negative: for a negative archive + control set of photographs.

- Filenaming: All photographs will be named using an 8/9-digit filename, prefixed with HHH13 (**H**amsterley **H**all **H**amsterley 2013), followed by 'F' (black and white **F**ilm), 'R' (**R**AW digital format) or 'J' (**J**PG digital format). A full photo register will be supplied in the finished report as an appendix. All digital photographs will be supplied in the archive on an archival quality DVD.

- Rectified Elevations: Where possible, the elevation photographs will be rectified utilising scaled elevations to be provided by the client, Steven Spry. If rectification is not possible (due to health and safety considerations preventing adequate orthogonal photography) then the imagery will be montaged using Serif PhotoPlus X6 software.

- Written Record: The structure will be recorded on pro-forma record sheets, with the following data recorded as a minimum. The precise location including an 8-figure National Grid Reference (centre of structure) will be provided. The date of the record and the names of the recorders will be included. A summary statement describing the structure's type or purpose, materials and dates will be included, along with a short account of the structure's plan, form, age and development sequence. This will also include a description of the relationship of the brick structure with the central range.

- Watching Brief: The watching brief will monitor the controlled demolition of the structure and will record a daily diary, alongside a photographic record. Architectural fragments will be examined (including brick dimensions and manufacture) and if necessary hand-cleaned and recorded photographically with an appropriate graduated metric scale. These fragments can then be tied in to the previous photographic survey where possible.

- Background Research: Basic historic background research will be undertaken at Durham County Record Office.

- Human Remains: In the event of human remains being uncovered, the Human Remains Contingency will come into force. Appropriate details can be found in the relevant Contingency paragraph;

- Artefact Recovery: During and post-excavation, all artefacts recovered during the groundworks will be stored in appropriate conditions and materials. All staff have working experience following *First Aid for Finds* (2nd edition) and *UKIC's Conservation Guidelines* No.2. Should complex on-site conservation be required, a qualified expert will be called in to assist and package the object. At the end of each working day, artefacts recovered will be stored off-site, unless this goes against the wishes of the client. At the end of the fieldwork, the assemblage will then be assessed and the decision made (following recommendations within *Management of Archaeological Projects*, English Heritage 1991), in consultation with Durham County Council and the client whether or not specialist analysis is required. All find work will be undertaken in line with the IfA *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials* (2008);

- Artefact Ownership: It is recommended that all artefacts are sent to the Bowes Museum for deposition and curation. Prior to the fieldwork taking place, a written form will be sent to the client, in which he will declare whether or not he wishes to retain any artefacts found during groundworks (in which case he will need to provide adequate details of land ownership). In the event that the client opts for museum deposition, the necessary contact will be made with the appropriate museum.
- Treasure Trove: In the event of treasure trove being uncovered, the Treasure Trove Contingency will come into force. Appropriate details can be found in the relevant Contingency paragraph;
- Services: Vindomora Solutions is not responsible for the detection of services within the demolition area. The detection and mitigation of services lies within the responsibility of the client;

The Report

The final report will be issued to the client once Durham County Council and English Heritage have approved it: the report will be submitted to Durham County Council in draft form within fifteen working days of completion of the fieldwork. The client will receive one bound copy of the final report and one digital copy, as will Durham County Council, English Heritage and Natural England. At a minimum, the final report will include:

- Each page and paragraph numbered within the report, and appropriate photographs and illustrations cross-referenced;
- Appropriate reference numbers (NGR 8-figure grid reference; Planning application number (if assigned); Durham County Council reference (if assigned); OASIS reference; Vindomora Solutions project reference number; Project code; Vindomora Solutions Ordnance Survey licence number);
- A concise, non-technical summary of the results;
- Basic details of site diary including date of works carried out;
- Basic description of the nature and extent of the demolition works;
- A basic summary of the historical and archaeological background of the site;
- Basic written description of the site location and underlying geology;
- A location plan of the development at a minimum scale of 1:10,000 along with a general location of the site at 1:25,000 along with a plan showing the extent of the demolition at a recognisable planning scale and located with reference to the national grid;
- Plan of the demolition area at an appropriate scale locating photographs and features of interest;
- A selection of appropriate photographs illustrating a descriptive and analytical text produced from the initial survey and the watching brief. This will include a discussion over the phasing of the brick wing and its relationship with the rest of the Hall (including reference to the plan layout of the floors), a discussion of any key architectural features and materials, all illustrated by relevant photographs;
- Areas of damage to main Hall structure (or attached battlemented wall etc) observed as a result of brick wing collapse;
- Where possible, rectified elevations or at the very least orthogonal photographic scaled montages of the major elevations, with features of interest annotated;
- A conclusion, stating the nature of the material subject to demolition and the architectural and archaeological significance of features uncovered during the initial survey and during the watching brief phase, as well as discussion over the significance of the destruction of the brick wing in relation to the remaining Listed structure;
- Appendices including photographic index and an index of architectural fragments/features;

- NOTE: The report will adhere to standards and informational content required by a Level 4 survey, as outlined in *Understanding Historic Buildings – a guide to good recording practice* (English Heritage 2006) and *Recording Historic Buildings* (RCHME 1996) where it is possible to do so, based on Health and Safety restrictions within the recording procedure.

The Archive

A copy of the final report will be deposited with the Historic Environment Record (HER) and the site archive within Bowes Museum. The archive will be deposited within 3 months of the completion of the final report.

- All archiving will be carried out in compliance with *IfA Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* (2009), Appendix 3 of MAP2 (English Heritage 1991) and the Guidelines for the Preparation of Archaeological Archives for Long Term Storage (UKIC 1990);
- Vindomora Solutions is registered with the **O**nline **A**cces**S** to the **I**ndex of Archaeological Investigation**S** Project (OASIS). An OASIS form will be completed for this project and a copy of the report attached. After validation by the HER, the project file will become publicly accessible. The project identifier is **vindomor1-154874**.

Specific Contingencies

Potential specific contingencies recognised for this project are but not limited to, the following (please note that if these contingencies come into play, they will incur further charges for Vindomora Solutions' services):

- Human Remains: In the event that human remains are found during the monitoring works, all groundworks will cease and the client, County Archaeologist and coroner informed. The necessary permissions and licences required under the Burial Act of 1857 and current Ministry of Justice legislation would be procured. However, it must be noted that the process of gaining the licence from the Ministry of Justice can take up to 20 working days, which would result in considerable stoppage time. Excavation of the human remains would be undertaken by suitably experienced archaeologists and in liaison with the client and County Archaeologist the remains can be analysed by a suitable specialist before re-interment of the remains takes place. Examples of specialists to be used are (please note that different individuals/organisations may be utilised depending on availability):

Human remains	-	Malin Holst, York Osteoarchaeological Services Ltd

- Specialist Finds Analysis/Conservation: At the end of the work on site, assessment of the artefact assemblage will be undertaken and a decision made whether or not specialist analysis is required, or specialist conservation in the case of certain artefact types. Examples of specialists to be used are (please note that different individuals/organisations may be utilised depending on availability):

Medieval and post-medieval ceramics	-	Jenny Vaughn, Northern Counties Archaeology
Post-medieval clay pipe & glass	-	Jenny Vaughn, Northern Counties Archaeology
Post-medieval brick and CBM	-	Alan Williams, Alan Williams Archaeology

- Treasure Trove: In the event that any artefacts covered by the provisions of the Treasure Act of 1996 are uncovered, then appropriate procedures will be adhered to.

- Publication: Durham County Council may require publication in a local journal. All publication work can be undertaken in-house by Vindomora Solutions.

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Written Scheme of Investigation 064-13-HS (Revision 3)
Produced by Tony Liddell, Vindomora Solutions
Friday, July 12th, 2013