FABRIC REPAIRS TO JERVAULX ABBEY, EAST WITTON, NORTH YORKSHIRE

ARCHAEOLOGICAL OBSERVATION, INVESTIGATION AND RECORDING



Ed Dennison Archaeological Services Ltd 18 Springdale Way Beverley East Yorkshire HU17 8NU

FABRIC REPAIRS TO JERVAULX ABBEY, EAST WITTON, NORTH YORKSHIRE

ARCHAEOLOGICAL OBSERVATION, INVESTIGATION AND RECORDING

Report no: 2018/570.R01

Version: Final

Date: February 2021

Author: Ed Dennison & Shaun Richardson

Ed Dennison Archaeological Services Ltd 18 Springdale Way Beverley On behalf of East Yorkshire HU17 8NU

Mr I Burdon Jervaulx Farms Park House Jervaulx, Ripon North Yorkshire HG4 4PH

ARCHAEOLOGICAL OBSERVATION, INVESTIGATION AND RECORDING DURING FABRIC REPAIRS TO JERVAULX ABBEY, EAST WITTON, NORTH YORKSHIRE

CONTENTS

EXECUTIVE SUMMARY

1	INTRODUCTION	1
2	BACKGROUND INFORMATION	1
3	RECORDING METHODOLOGY	3
4	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	6
5	ARCHAEOLOGICAL AND ARCHITECTURAL RECORDING	9
6	DISCUSSION AND CONCLUSIONS	24
7	REFERENCES	25
8	ACKNOWI EDGEMENTS	25

Appendices

- 1 EDAS Photographic Catalogue
- 2 List of Material held at Park House and scanned by EDAS
- 3 EDAS Written Scheme of Investigation

LIST OF FIGURES

Figure 1: General location

Figure 2: Detailed location

Figure 3: Areas of fabric repair

Figure 4: 1972 photographs

Figure 5: 1972 photographs

Figure 6: 1994 English Heritage surveys

Figure 7: Areas 4 and 6 elevations

Figure 8: Area 9 plan and elevations

Figure 9: Area 12 plan

Figure 10: Area 13 plan and elevations

Figure 11: Area 14 elevation

Figure 12: Area 15 plan and elevation

LIST OF PLATES

- Plate 1: Area 1: Lay brothers' infirmary, east internal elevation of west aisle wall, looking W (photo 1/250).
- Plate 2: Area 1: Lay brothers' infirmary, west external elevation of west aisle wall, looking SE (photo 1/253).
- Plate 3: Area 2: Lay brothers' rear-dorter, south external elevation of south wall, before clearance, looking NE (photo 1/257).
- Plate 4: Area 2: Lay brothers' rear-dorter, east return of south end of west wall, showing column base, after clearance, looking NW (photo 2/453).
- Plate 5: Area 2: Lay brothers' rear-dorter, north external elevation, piers and east return of west wall, looking SE (photo 2/465).
- Plate 6: Area 2: Lay brothers' rear-dorter, west pier in north wall, during repair, looking S (photo 3/576).
- Plate 7: Area 2: Lay brothers' rear-dorter, east end of north wall, after clearance, looking E (photo 2/463).
- Plate 8: Area 2: Lay brothers' rear-dorter, east end of north wall, during repair, looking E (photo 3/578).
- Plate 9: Area 2: Lay brothers' rear-dorter, east return to west wall, after repair, looking SE (photo 6/666).
- Plate 10: Area 3: Lay brothers' guest house, east internal elevation of west wall (north part), after clearance, looking W (photo 2/466).
- Plate 11: Area 3: Lay brothers' guest house, west wall, during repair, looking NW (photograph courtesy Peter Pace).
- Plate 12: Area 4: Lay brothers' quarters (frater), west internal elevation of east wall (south end), before clearance, looking E (photo 1/278).
- Plate 13: Area 4: Lay brothers' quarters (frater), west internal elevation of east wall (south end), after clearance, looking E (photo 3/580).
- Plate 14: Area 6: Monks' frater, west internal elevation of east wall (south end), after clearance, looking E (photo 4/191).
- Plate 15: Area 6: Monks' frater, west internal elevation of east wall (south end), after repair, looking SE (photograph courtesy Peter Pace).
- Plate 16: Area 6: Monks' frater, east external elevation of east wall, north of misericord, after clearance, looking W (photo 4/188).
- Plate 17: Area 6: Monks' frater, east external elevation of east wall, north of misericord, after repair, looking SW (photograph courtesy Peter Pace).
- Plate 18: Area 7: Warming house, remains of dorter stairs, before clearance, looking NE (photo 1/298).
- Plate 19: Area 8: Misericord, west internal elevation of east wall, looking E (photo 1/301).

- Plate 20: Area 9: Monks' dorter, west internal elevation of east wall (south part), before clearance, looking E (photo 1/319).
- Plate 21: Area 9: Monks' dorter, window in west internal elevation of east wall (south part), after clearance, looking SE (photo 3/556).
- Plate 22: Area 9: Monks' dorter, fireplace and window in west internal elevation of east wall (south part), after clearance, looking E (photo 2/477).
- Plate 23: Area 9: Monks' dorter, window sill in west internal elevation of east wall (south part), looking S (photo 2/485).
- Plate 24: Area 9: Monks' dorter, pier base in west internal elevation of east wall (south end), after clearance, looking N (photo 2/482).
- Plate 25: Area 9: Monks' dorter, east external elevation of east wall (south end), after clearance, looking W (photo 3/551).
- Plate 26: Area 9: Monks' dorter, pier base and west internal elevation of east wall (south end), after consolidation, looking N (photograph courtesy Peter Pace).
- Plate 27: Area 9: Monks' dorter, pier base and west internal elevation of east wall (south end), after repair, looking NE (photo 4/185).
- Plate 28: Area 9: Monks' dorter, south internal elevation of north wall, looking N (photo 1/309).
- Plate 29: Area 9: Monks' dorter, south external elevation of south wall, looking N (photo 1/326).
- Plate 30: Area 9: Monks' dorter, pier at south end of east internal elevation of west wall, looking W (photo 1/307).
- Plate 31: Area 10: Chapel interior, looking E (photo 1/359).
- Plate 32: Area 11: Abbots' lodging, east internal elevation of west wall (north end), showing doorway into garderobe, looking W (photo 1/342).
- Plate 33: Area 12: Staircase between abbots' lodging and monks' rere-dorter, after clearance, looking N (photo 2/504).
- Plate 34: Area 12: Staircase between abbots' lodging and monks' rere-dorter, after repair, looking N (photo 3/557).
- Plate 35: Area 12: Staircase between abbots' lodging and monks' rere-dorter, east elevation of wall to the east, after repair, looking W (photo 3/562).
- Plate 36: Area 13: Meat kitchen, north internal elevation of south wall, before clearance, looking S (photo 1/330).
- Plate 37: Area 13: Meat kitchen, north internal elevation of south wall, showing fireplace, looking SE (photo 4/176).
- Plate 38: Area 13: Meat kitchen, south external elevation of south wall, showing corbelling for fireplace, looking W (photo 4/179).
- Plate 39: Area 13: Meat kitchen, east internal elevation of west wall, before clearance, looking W (photo 1/336).
- Plate 40: Area 14: Monks' rere-dorter, north internal elevation of south wall (upper level), during clearance, looking SW (photo 2/491).
- Plate 41: Area 14: Monks' rere-dorter, north internal elevation of south wall (upper level), showing chimney flue from meat kitchen and cut line of former rere-dorter roof, looking SW (photo 2/493).
- Plate 42: Area 14: Monks' rere-dorter, north internal elevation of south wall (upper level), after clearance, showing possible lancet windows either side of chimney and cut line of former rere-dorter roof, looking S (photo 3/563).
- Plate 43: Area 14: Monks' rere-dorter, south internal elevation of drain, looking SW (photograph courtesy Peter Pace).
- Plate 44: Area 14: Monks' rere-dorter, south internal elevation of drain, looking E (photo 3/567).
- Plate 45: Area 14: Monks' rere-dorter, south internal elevation of drain, western arch after repair, looking S (photo 7/619).
- Plate 46: Area 14: Monks' rere-dorter, north external elevation of drain, looking SW (photo 6/650).

- Plate 47: Area 15: Infirmarers' lodging, west external elevation of west wall, before clearance, looking E (photo 6/642).
- Plate 48: Area 15: Infirmarers' lodging, west external elevation of west wall (north end), after repair, looking SE (photo 7/616).
- Plate 49: Area 16: Vestry, south internal elevation of north wall, before clearance, looking NE (photo 1/390).
- Plate 50: Area 16: Vestry, south internal elevation of north wall, during repair, looking NE (photograph courtesy Peter Pace).
- Plate 51: Area 16: Chapter house, interior, looking E (photo 1/381).
- Plate 52: Area 16: Parlour, interior, looking E (photo 1/380).
- Plate 53: Area 18: Abbey church, lay brothers' quire, south external elevation of south wall (central part), before clearance, looking NW (photo 1/368).
- Plate 54: Area 18: Abbey church, lay brothers' quire, south external elevation of south wall (west part), during clearance, looking NW (photo 1/402).
- Plate 55: Area 18: Abbey church, lay brothers' quire, south external elevation of south wall, (west part) during clearance, showing base of window base, looking W (photo 2/473).
- Plate 56: Area 18: Abbey church, lay brothers' quire, north internal elevation of south wall (west part) during clearance, showing doorway opening, looking SE (photo 2/475).
- Plate 57: Area 18: Abbey church, lay brothers' quire, north internal elevation of south wall (west part), during repair, looking SW (photograph courtesy Peter Pace).
- Plate 58: Area 18: Abbey church, lay brothers' quire, north internal elevation of south wall (west part), after repair, looking SW (photograph courtesy Peter Pace).
- Plate 59: Area 19: Abbey church, north transept, west internal elevation of east wall, looking E (photo 1/394).
- Plate 60: Area 19: Abbey church, central crossing platform, before repair, looking SE (photo 5/615).
- Plate 61: Area 19: Abbey church, central crossing platform, after repair, looking NW (photo 7/613).
- Plate 62: Area 19: Abbey church, presbytery, south internal elevation of south wall, after repair, looking S (photo 7/612).
- Plate 63: Site entrance, *ex situ* stonework and embalming slab, after tree clearance, looking SW (photo 6/670).
- Plate 64: Area 9: Monks' dorter, fenced culvert against west internal elevation of east wall, looking E (photo 1/318).
- Plate 65: Area 14: Monks' rere-dorter, west end of drain showing new fencing, looking SE (photo 1/350).
- Plate 66: Area 14: Monks' rere-dorter, west end of drain showing older-type fencing, looking SE (photo 1/349).
- Plate 67: Area 15: Monks' infirmary, grills over open culvert of east-west drain, looking SE (photo 1/364).
- Plate 68: Area 12: Stairs between abbots' lodging and monks' rere-dorter, new fencing to top over drain, looking N (photograph courtesy Historic Property Restoration).
- Plate 69: Area 4: Lay brothers' dorter, dorter stairs to north external elevation, new fencing, looking E (photograph courtesy Historic Property Restoration).

EXECUTIVE SUMMARY

In June 2019, Ed Dennison Archaeological Services (EDAS) Ltd were commissioned by Peter Gaze Pace (architect), on behalf of the owner, Mr Ian Burdon, to undertake a limited programme of archaeological and architectural observation, investigation and recording during various fabric repairs to Jervaulx Abbey, East Witton, North Yorkshire (NGR SE 1716 8573 centred). The work, which was made a condition of Scheduled Monument Consent, was defined by an EDAS 'Written Scheme of Investigation'. The fieldwork was carried out at intervals between July 2019 and November 2020, and was funded by Natural England.

The piecemeal nature of the architectural recording means that any conclusions are limited. The primary aim was to produce an account of the repairs so as to inform future management strategies, and this has been achieved. The localised nature of the interventions, which were largely confined to vegetation clearance and the stabilisation with occasional rebuilding, resetting or repointing of historic fabric, and the mortaring and soft capping of corework to prevent water egress, means that few significant archaeological or historical observations were made. However, the work has emphasised the extent to which some lower surviving sections of the abbey's ruins, for example, the east wall of the lay brothers' quarters or the staircase between the abbots' lodging and monks' rere-dorter, have been rebuilt, perhaps during the 18th or 19th centuries. The vegetation clearance also showed that the extent to which many walls incorporate ex situ architectural fragments has also been underestimated by previous investigations.

1 INTRODUCTION

- 1.1 In June 2019, Ed Dennison Archaeological Services (EDAS) Ltd were commissioned by Peter Gaze Pace (architect), on behalf of the owner, Mr Ian Burdon, to undertake a limited programme of archaeological and architectural observation, investigation and recording during various fabric repairs to Jervaulx Abbey, East Witton, North Yorkshire (NGR SE 1716 8573 centred).
- 1.2 The scope of the archaeological work was defined by a Written Scheme of Investigation (WSI) produced by EDAS on behalf of the owner (see Appendix 3). In summary, the project involved a limited drawn survey of those parts of the complex to be affected by the fabric repairs, augmented by a detailed photographic survey and written description. The resulting report therefore provides a detailed record of those parts of the abbey complex which were stabilised or consolidated during this latest phase of fabric repairs. The archaeological fieldwork was undertaken at intervals between July 2019 and November 2020, and was funded by Natural England as part of their Higher Stewardship Scheme, through Mr Burdon.

2 BACKGROUND INFORMATION

Site Location and Designations

- 2.1 Jervaulx Abbey is located on the southern side of Wensleydale, 5km south-east of Middleham, some 200m south of the River Ure (see figures 1 and 2). It is situated on raised level ground between the southern slope of the dale and the floodplain of the Ure. To the north of the abbey ruins there is a natural hill known as Mark Hill and to the east heavily undulating land formed by glacial action known as Wind Hills.
- 2.2 The ruins are a Grade 1 Listed Building, first listed on 15th February 1967 (National Heritage List for England 1130961). The complex is also a Scheduled Monument, first scheduled on 8th February 1915 (NHLE 1020493).

Scheduled Monument Consents

- 2.3 A Scheduled Monument Consent (SMC) for the current phase of repairs was given by the Secretary of State for Digital, Culture, Media and Sport, advised by Historic England, on 3rd September 2018 (ref S00200865).
- A number of conditions were attached to this consent, some of which were relevant to the archaeological recording, as follows:
 - (i) the works to which this consent relates shall be carried out to the satisfaction of the Secretary of State, who will be advised by Historic England. At least 2 weeks' notice (or such shorter period as may be mutually agreed) in writing of the commencement of work shall be given to Dr Keith Emerick, Inspector of Ancient Monuments, Historic England, 37 Tanner Row, York, YO1 6WP in order that an Historic England representative can inspect and advise on the works and their affect in compliance with this consent;
 - (iv) original material shall be reused wherever possible;

- (v) any replacement material shall be of a type, texture and colour which matches the original material;
- (vi) any replacement stone shall be of a suitable size, and laid in courses to match the original courses and joint widths;
- (vii) all pointing and mortar work shall be in a mixture and finish to match the existing in composition, colour, texture and style;
- (viii) care shall be taken that fittings do not rust so as to stain the brickwork/masonry;
- (x) equipment and machinery shall not be used or operated in the scheduled area in conditions or in a manner likely to result in damage to the monument or ground disturbance other than that which is expressly authorised in this consent;
- (xi) any works to which this consent relates shall be carried out under the archaeological supervision of suitably qualified archaeological contractors [to be agreed in advance by the Secretary of State as advised by Historic England] who shall be given at least 2 weeks' notice (or such shorter period as may be agreed) in writing of the commencement of work. No works shall commence until the named archaeologist has confirmed in writing to Historic England that he is willing and able to undertake the agreed supervision;
- (xii) a report on the archaeological recording shall be sent to: Peter Rowe, Principal Archaeologist, North Yorkshire County Council (the County Historic Environment Record) and to Dr Keith Emerick, Inspector of Ancient Monuments at Historic England within 3 months of the completion of the works (or such other period as may be mutually agreed);
- (xiii) the archaeological contractor shall complete and submit an entry on OASIS (On-line Access to the Index of Archaeological Investigations http://oasis.ac.uk/england/) prior to project completion, and shall deposit any digital project report with the Archaeology Data Service, via the OASIS form, upon completion.
- 2.5 EDAS confirmed their appointment to the project to Historic England, in accordance with condition xi above, on 25th June 2019.
- 2.6 A second SMC, for repairs of unsound steps to the altar in the abbey's presbytery, was also given by the Secretary of State for Digital, Culture, Media and Sport, advised by Historic England, on 8th June 2020 (ref S1020493-15052020). This did not require any archaeological monitoring or recording.

Written Scheme of Investigation

2.7 A "Written Scheme of Investigation" (WSI), detailing the scale and scope of the archaeological project, was produced by EDAS in June 2019, just prior to the start of work (see Appendix 3). This was approved and accepted by Historic England on 8th July 2019. In the event, changes to some elements of the repair works meant that not all the elements included in the WSI were carried out.

Nature of the Repairs

- 2.8 Details of the proposed fabric repairs were itemised in a Condition Report and Schedule of Works, and a Specification of Repairs, both produced in 2018 by the project architect (Pace 2018a & 2018b).
- 2.9 The localised repair works concentrated on the lower parts of the ruins, mostly to smaller discrete areas (see figure 3). Initial work consisted of pruning or cutting back small trees and vegetation, protecting and replanting specimens, and the judicious pruning of larger trees by a specialist arboriculturist. The repairs mainly involved the rebuilding, stabilisation and resetting of loose or unstable stonework. the repointing of historic fabric, and the mortaring and soft capping of exposed corework to prevent future water egress. Some wall alignments, particularly those of the main abbey church, had been extensively dismantled during the Dissolution and are now represented by many ex-situ moulded stones arranged in a mostly loose fashion, much bound together only by vegetation. Some of these areas were subject to clearance and further investigation, and repair, stabilisation and consolidation was only carried out if necessary; in several instances, such areas were left alone and further vegetation planted or encouraged. Other minor works. such as fencing around open drains or steps, were also carried out to ensure the safety of the general public when visiting the site.
- 2.10 The proposed repair works were categorised in order of priority. Priority A works were seen as being essential (i.e. work required within the next two years), priority B works were seen as being desirable (five to ten years), and priority C works were aspirational (10-20 years) (Pace 2018b). As is usual with such projects, some of the Priority A works were found to be more involved or complex than originally thought, which meant that priorities had to be changed during the course of the project. For example, none of the planned below-ground investigations were carried out, and all repairs were concentrated on the standing ruins.

3 RECORDING METHODOLOGY

Aims and Objectives

- 3.1 In accordance with the approved WSI (see Appendix 3), the aims and objectives of the archaeological and architectural survey work were to:
 - enhance any existing survey drawings, and produce new records where necessary, of those areas which were subject to repair and consolidation work;
 - (ii) undertake archaeological monitoring and recording during any groundworks associated with project;
 - (iii) produce a survey report and archive, appropriate to and commensurate with the results obtained.
- 3.2 All the archaeological and architectural recording was undertaken in accordance with current Chartered Institute for Archaeologists and Historic England guidelines (ClfA 2019 & 2014; Historic England 2016 & 2015). The work mostly equated to a Level 2 photographic and descriptive record, although more detailed recording of some elements were required, resulting in a Level 3 analytical record, as defined by Historic England (2016, 25-27).

Documentary Research

3.3 No new documentary research was undertaken as part of the project. However, existing readily-available information, such as a detailed survey report of the abbey environs produced by English Heritage (1999), was collated and summarised as appropriate, so as to provide a context for the project.

Collation of Existing Survey Material

3.4 Prior to the start of any site work, the extent and coverage of any existing archaeological survey data had to be established. Previous repair works carried out between the 1980s and 2000 had generated many survey drawings, mostly in the form of stone-by-stone elevation drawings, but also in the form of 'as built' records. Over 1,000 such records are held by Historic England in the National Archive in Swindon, but little sorting and cataloguing has been carried out, and so they could not be easily consulted. However, it was determined that the current owners had copies of many of these and other drawings, which had been supplied to them by Martin Stancliffe Architects when the architect retired. These were examined and collated by EDAS in June-July 2018. The drawings date from between c.1984 to c.2002, and were housed in 12 rectangular cardboard tubes (see Appendix 2). The drawings relevant to the current repair programme were then extracted for scanning, and subsequently returned to the owners, and the resulting scans were used to inform both the specification of repairs and the archaeological survey work.

Archaeological and Architectural Survey of the Historic Fabric

- 3.5 Discussion with the project architect, Peter Gaze Pace, and Natural England established that the archaeological recording should be 'low key', and should comprise the enhancement of existing elevation drawings where appropriate (e.g. where the removal of vegetation revealed previously unrecorded fabric), and photographic and written records. The level and detail of the archaeological recording for each of the Priority A and B repair and consolidation works was set out in the approved WSI (see Appendix 3), based on the archaeological implications of the proposed interventions although, as noted above, changing priorities during the project meant that not all these works were carried out.
- 3.6 The archaeological and architectural fieldwork was carried out at intervals between July 2019 and November 2020. For the majority of those elevations for which the implications of the proposed works were assessed as being 'minor', only a photographic and descriptive record was made, i.e. no new stone-by-stone elevation drawings were produced. However, where the implications were considered to be more significant (e.g. 'medium'), existing stone-by-stone elevation drawings (where available) were enhanced to produce new 1:50 scale elevations, using hand measurement and electronic measurement as required, in addition to photographic and descriptive records. The new survey work took place after vegetation removal, and either before scaffolding was erected or from the erected scaffolding. These new elevation drawings showed all remaining significant architectural detail such as openings (blocked or unblocked), constructional detail, fixtures and fittings etc. All drawings and other records were produced according to established guidelines (Historic England 2016, 8-10 & 19-21). A total of ten new stone-by-stone elevation drawings and four plans were produced.

- 3.7 Prior to any of the works commencing, a photographic survey was made of all those areas which were scheduled to be affected, so as to show their appearance and condition prior to any intervention. Additional photographs were then taken once work had been completed, to produce an 'as-built' record. The photographic survey took account of the guidelines produced by Historic England (2016, 17-21; 2015), and each photograph was provided with a graduated scale, subject to access. The colour photographs were taken in jpeg format using a digital SLR camera with 12 mega-pixel resolution. General photographs were taken, as far as was possible, at both right angles and at an angle to the relevant elevation, whilst more detailed close-up photography recorded any significant details. All photographs have been clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and are cross referenced to date and image numbers. A total of 283 colour digital photographs were taken (see Appendix 1).
- 3.8 Certain areas to be affected by the works, especially the low surviving boundary walls of the abbey church, contained large quantities of *ex situ* moulded stones. It is assumed that these had been placed here during various clearance and restoration works to the site over a long period of time. Nevertheless, it was thought possible that some stones, if they had been gathered from the area immediately adjacent to the wall section where they are now located, might have provided information on either the original architectural form of that part of the church, or how it was demolished or dismantled or had decayed. However, this level of recording was not required to be done as part of the current works, and so no detailed recording of any of this *ex situ* stonework was undertaken, apart from the taking of general photographs when the vegetation was removed.
- 3.9 A detailed architectural description of those parts of the abbey's elevations subject to repair and consolidation work was produced, augmented by the drawn and photographic record.

Below-ground Archaeological Recording

3.10 A small amount of below-ground excavations were also proposed as part of the repair and consolidation project, and the requirement for archaeological monitoring and investigation, and the methodology to be employed, was fully outlined in the WSI (see Appendix 3). In the event however, changed priorities within the project meant that none of this work was carried out as part of the current phase of repairs.

Reporting and Archive

- 3.11 This report forms a basic written record of the archaeological and architectural recording undertaken at the abbey, prepared from the sources of information set out above, analyses the results and places them within their historical, archaeological and landscape contexts where possible. Copies of the final report were supplied for distribution to the landowner, Historic England and the North Yorkshire HER, as electronic documents in pdf format. A hard copy was also included within the site archive. A further copy has been uploaded to Historic England's Online Access to the Index of Archaeological Investigations (OASIS) database, together with other relevant project information.
- 3.12 The archive relating to the project has been ordered and indexed according to the standards set by Historic England and the ClfA (2020) (EDAS site code JAF 19). It is planned to deposit it with the local registered museum (Richmondshire

Museum), but at the time of writing this report, confirmation that they were willing to accept the archive had not been received.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 The existing Scheduled Monument description (Historic England 2019) provides a good overall account of the history and importance of the abbey complex, as follows:

"The monument includes standing ruins, earthwork and buried remains of the Cistercian Abbey of Jervaulx. These include the core abbey buildings and the majority of the outer precinct in which remains of fishponds, water management features and further monastic structures survive. Also included in the monument are remains of pre-monastic agricultural activity, the site of a 16th century grand house with associated gardens, a 19th century ice house and designed landscape features, and World War II ammunition stores.

Jervaulx Abbey was originally founded at Fors. 20km further west in Wensleydale by a community of Savigniac monks who by 1149 had become members of the Cistercian order. The site at Fors proved unsuitable and was abandoned in 1154 and two years later the community was re-established at the current site on land donated by Conan son of Alan Earl of Brittany and Richmond. Few of the abbey's own records survive but it is known that, by the second half of the 13th century, the abbey had substantial economic interests in the region. These included at least 16 cattle ranches in Wenslevdale and the Forest of Richmond, large flocks of sheep (possibly as many as 10,000 head) and the rights to free warrening of rabbits in East Witton. The abbey also had interests in the mining and smelting of iron ore and in the production of salt. In 1307 it was granted the right to hold a weekly market and a twice-yearly fair at East Witton and in 1535 had a fulling mill at East Witton. In 1380 there were 16 monks at Jervaulx and at the Dissolution in 1537 there were 25 or 26. Jervaulx Abbey was suppressed in 1537 after the then Abbot, Sedbergh, was arrested for involvement in the ill-fated Pilgrimage of Grace, which had attempted to reverse the religious and political changes of the Reformation.

Following the Dissolution, the buildings were stripped of anything of value and the church blown up. The estate was then leased to Lancelot Harrison for 21 years and in 1544 was granted to the Earl of Lennox who held it until the death of his wife in 1577. Recent survey work has indicated that during the tenure of the Lennoxes a grand house and ornate gardens were built partly into some of the standing abbey ruins. However, this house had a short life span and was no longer in existence by 1627. After 1577 the crown held the estate until 1603. The estate was then granted to the Bruce family, who later received the title of the Earldom of Ailesbury. Jervaulx seems to have been one of the Bruce family's lesser estates and a map dated 1627 shows that it was subdivided into a number of separate parcels of land and rented out. This seems to have remained the case until the early 19th century. In 1804 the old hall at Jervaulx was converted to be an occasional residence and administrative centre for the Ailesbury estates in west In the years between 1805 and 1807 the abbey ruins were systematically cleared and exposed and, following the fashion of the time, became a central feature of a designed landscape laid out over the former abbey precinct and beyond.

The earliest remains currently identified in the monument are of pre-monastic agricultural activities. Earthwork remains of field boundaries and cultivation terraces have been identified in the western area of the monument and on Mark

Hill. Two tracks pre-dating the abbey survive as terraces extending east to west across the south eastern part of the monument adjacent to the monastic precinct boundary. These are thought to be the remains of the early route from Masham to Middleham. Remains of a building, possibly a dwelling, have been identified 30m south-east of the monastic reservoir.

The monument is dominated by the standing ruins of the main abbey buildings some of which survive to their original height. The ruins are Listed Grade I. The remains demonstrate that Jervaulx followed the usual layout of a monastic house, with an east to west orientated church forming the north range of a four-sided complex known as the cloister, the remaining sides containing accommodation for lay and monastic brethren, and domestic and administrative functions. The east cloister range contained the chapter house and parlour, the south range kitchens and refectory, and the west side cellars and stores. On the first floor of the east and west sides of the cloister, and projecting to the south, were the dormitories for the monks and lay brothers respectively. Surrounding the cloister, in an area known as the inner court, was a further range of buildings essential for the economic and social functions of the abbey. These included an infirmary, abbots lodgings and a meat kitchen, all located to the south-east of the cloister and guest lodgings and lay brothers infirmary which lay to the west of the cloister.

The abbey church was comprehensibly destroyed in 1537 and only the south western corner of the nave survives to any height. The remainder of the plan of the church is however clearly demonstrated by low walls made up of reused decorated stonework which was piled up in the early 19th century as part of the clearance work. The south-western wall of the monks dormitory, the meat kitchen and parts of the infirmary complex still stand to their full medieval height. In these structures, the scale and detail of the windows and internal features such as fireplaces and roof and floor supports can be clearly seen. The remainder of the abbey ruins generally only survive to ground floor level. Throughout the ruins there is evidence of alterations and rebuilding that took place over the four centuries that the abbey was in use and of the modifications that took place as part of the 19th century landscaping.

Beyond the inner court lay the outer precinct which contained structures necessary for the wider economic functions of the abbey such as gardens, a bake house, workshops, smithies, stables and stores. The precinct was defined by a boundary which is identifiable along almost its entire course save the north-western corner. On the western and southern sides its line is followed by the modern A168 road, it then crosses the field south of Abbey Hill House and then extends northwards across Jervaulx Park to rise up over the northern side of Mark Hill. From here the precinct boundary extends west along the top of slope which extends down to the river flood plain to the north. In the north-western corner of the precinct, the line of the boundary has been disturbed by the construction of Jervaulx Hall and its survival is currently unknown. For most of its length the precinct boundary survives as an earthen bank which in places measures up to 10m in width and 1m in height. Along the northern stretch on Mark Hill and in the south eastern corner, south of Abbey Hill House, there are stone footings for a precinct wall visible in the ground surface. Although the original form of the boundary is currently unknown, in common with similar monastic houses elsewhere it is likely to have been a substantial wall or fence. This served to secure the monastic precinct but also clearly demonstrated the size and prestige of the abbey. Remains of at least nine monastic buildings have been identified within the outer precinct. These include three building platforms located on terraces cut into the rising ground in the western half of the precinct to the south of the building known as The Old

Gatehouse but shown as 'The Monastery' on the Ordnance Survey Map. There are medieval ruins incorporated into The Old Gatehouse, but it is thought that the bulk of the medieval stonework was added to an existing ruin in the 19th century to create a landscape feature. The building is unlikely to have been a medieval gatehouse as it is in an inappropriate position although its original nature and function is currently unclear. The Old Gatehouse is a Listed Building Grade I and parts of it are in domestic occupation.

Although no evidence of gatehouses has yet been identified, the monastic road pattern suggests that the main entrance and gatehouse were located near the current entrance to Jervaulx Hall. There were likely to have been other entrances in the south east corner of the precinct south of Abbey Hill House and in the north east corner near the ice house. In common with other monastic houses, the abbey was served by a complex water management system. The water supply to the abbey complex was provided from a reservoir located in the south-west corner of the precinct. This was created by building a dam across a small natural valley. The dam still survives as a substantial earthwork 80m long, 18m wide and 3m in height. Water was fed to the inner court where it ran through a stone-lined conduit which passed the kitchens and ran below both the lay brothers and monks dormitories where it flushed the latrines. Water from the reservoir also supplied a set of at least three fishponds which were located to the south of the main claustral ranges.

To the north of the abbey there is the site of a mill which was fed by water from the reservoir and also from channels from the River Ure to the north-west, although no trace of these now survive. At the mill site there is a ruined structure of medieval appearance, however, it is thought that the bulk of the standing fabric was added to existing foundations of a medieval water mill as part of the 19th century landscaping. The outflow from the mill ran through a leat extending eastward along the southern edge of the flood plain. This joined with other channels in the area north of the ice house to carry water away from the abbey.

The post-Dissolution grand house was built in the south-eastern corner of the inner court and seems to have incorporated some of the standing abbey buildings. The southern part of the house survives as a series of earthworks defining a rectangle measuring 25m by 30m whilst remains of the northern part have been obscured by later landscaping. Detailed survey has identified that the house lay at the centre of a series of at least 14 formal garden compartments, some containing remains of internal features, and separated by terracing and paths. The monastic fishponds were modified and turned into a series of water features still supplied from the reservoir to the south-west. Earthwork remains of structures associated with the 16th century gardens, such as pavilions and gazebos positioned to afford views over the gardens, have also been identified. At the eastern side of the gardens, to the east of the monastic precinct boundary, there was an embankment to divide the formal area from the, presumably, wilder parkland to the east. Remains of further buildings of this period, tentatively interpreted as a coach house, survive as earthworks in the field to the south of Mark Hill. The house was demolished by 1627 and a map of that date shows the area of the precinct outside the core abbey buildings was divided into fields and enclosures, remains of which survive throughout the monument as low earthworks.

The 19th century landscaping started in the early part of the century with the clearing of the abbey ruins. Over the following years further works were undertaken including building a stock-proof ditch, known as a ha ha, along the southern and western sides of the abbey ruins, and the construction of various

grottoes, a gazebo on Mark Hill and a decorative arched gateway leading from the Hall into the abbey ruins. Formal gardens were laid out to the north of the abbey ruins, a wide expanse of open sward replaced the former agricultural units, and The Old Gatehouse and the mill were romanticised by the addition of decorated medieval stonework. All of these improvements were in keeping with the fashion of the time. The mid-19th century also saw the building of the ice house although this was primarily as a functional element of the estate. The ice house is a brick-lined beehive shaped structure partly covered by an earthen mound and is located just within the eastern boundary of the monument. It is Listed Grade II.

In the 1940s a series of military stores for munitions or fuel were built along side the track crossing the parkland, hidden from enemy view by tree cover. These were small ditched enclosures supported by sandbags, which now only survive as earthworks. A brick building associated with these remains stands on the fence line south of Abbey Hill and footings for other structures have also been identified".

- 4.2 Much of the above information comes from a detailed survey report of the complex produced by English Heritage (1999). Some excavations were carried out by John Claridge in 1805 and Lord Ailesbury, the then owner of the site and the estate. ordered that the whole of the abbey should be uncovered. Although some plans and other drawings were produced, his work was not what would be expected today; he uncovered several elaborately tiled floors (of which little now remains), and stacked recovered moulded and carved stones along the exposed wall foundations. Further, more scientific work was undertaken by St. John Hope and Harold Brakspear in 1905 and their account contains a detailed description of the ruins and a phased plan of the complex (Hope & Brakspear 1911); surprisingly, this plan appears to be the only one to show the whole of the complex. Various guidebooks have been produced over the years, some of the earlier ones providing useful photographic evidence for the state of the ruins (e.g. Innes-Smith 1972; see figures 4 and 5), and the current example is an excellent production (Davies no date). The current owners, the Burdon family, have instigated major repairs over many years, with some phases grant aided by English Heritage/Historic England, and others financed by the family. This current scheme represents the latest phase of works designed to preserve the remains and improve the visitor experience.
- 4.3 Although much of the recent repair and consolidation work has been accompanied by archaeological and architectural surveys, primarily the production of rectified and photogrammetric surveys, the availability and apparent survival of the survey drawings is patchy. It is understood that a large body of material is held at Historic England archives, but this has not been catalogued and is not readily-available for consultation (see above). However, as stated above, EDAS were able to access and collate some survey material held by Mr Burdon (see Appendix 2), which was used to inform the specification of repairs and the archaeological survey work.

5 ARCHAEOLOGICAL AND ARCHITECTURAL RECORDING

Introduction

Those parts of the abbey complex subject to the archaeological and architectural recording are described below in a logical sequence, using individual identification numbers but cross-referencing to the numbering system used by Pace in his Condition Report and Schedule of Works, and Specification of Repairs (Pace 2018a & 2018b); the areas concerned are marked on Hope and Brakspear's plan of the abbey, and identifiers and terms used follow those provided on this plan (see

- figure 3). As has already been noted above, the scope and priority of the repairs was changed during the course of the project. However, prior to the start of the works, EDAS photographed all those parts of the abbey complex which were scheduled to be repaired, and these have been included below for the sake of completeness.
- In the following text, reference should be made to the survey plans, elevations and plates, and the photographic record which appears as Appendix 1; digital photographs are referenced in the following text in square brackets, the numbers before the stroke representing the date on which the photograph was taken and the number after indicating the image number, e.g. [2/032]. Finally, in the following text, 'modern' is taken to mean dating to after c.1945.

Area 1: Lay Brothers' Infirmary (Pace Area 1a)

- 5.3 The 13th century lay brothers' infirmary lies close to the present entrance into the abbey ruins. This north-south aligned aisled hall was 13.5m wide, but of uncertain length as the south side has been cut by the early 19th century ha-ha which runs along the south side of the ruins. The aisles were separated from the central part by arcades carried on octagonal columns with deeply moulded bases, of which four remain visible on either side. The previous excavations uncovered the west wall and a fifth pair of pillars (Hope & Brakspear 1911, 343-344).
- 5.4 The only substantial fragment of wall to survive represents part of the east wall of the west aisle, measuring a maximum of c.2m long by c.3.2m high. Prior to the conservation works, the wall was overhung by an adjacent tree. Much of the north, south and east elevations are formed by exposed core. However, small sections of facing stone survive to the lower parts of the north and south elevations [1/251, 1/252, 1/254], and to the upper part of the east elevation, which returns to the east at its south end [1/250] (see plate 1); this upper section contains an inserted fireplace, and Hope and Brakspear note that the base of the wall contains the remnants of an inserted chimney breast (1911, 344), although this was not immediately evident at the time of the watching brief. The west elevation retains its facing stone [1/253] (see plate 2).
- 5.5 The repair and conservation works here involved the securing of a few loose core stones to the south end of the surviving wall section, and removing the overhanging branches. The visible columns were also reset and secured with stainless steel pins, to prevent them toppling over.

Area 2: Lay Brothers' Rere-dorter (Pace Area 1b)

- 5.6 This structure is aligned east-west, and is bisected by the east-west line of the main drain which runs through the abbey complex. All four walls survive but, prior to the conservation works, they were all quite overgrown [1/255-1/262] (see plate 3). The north side is represented by an open arcade of four arches having square pillars with chamfered angles, and the south side was similar although of three partially-blocked arches with more rounded pillars. The end walls were solid, but that to the east had doorways inserted at the ends of the open arcades (Hope & Brakspear 1911, 342-343). Overall, the structure measures just over 14m long by 7m wide. Much of the vegetation was removed to facilitate repairs, although some was left in place to parts of the south wall.
- 5.7 The current repair works concentrated on the north and west walls of the reredorter (see figure 3). After vegetation clearance, the former arched opening at the

west end of the south wall was revealed, the jambs formed by semi-circular ashlar piers set on substantial chamfered jambs [2/453, 2/455] (see plate 4). At the south end of the west wall, there were the remains of a semi-circular respond, formerly located at the north end of the west arcade of the lay brothers' infirmary; the southwest angle has a moulded base. The internal (east) elevation of the south end of the west wall had loose rubble stacked against it, and there was also loose rubble stacked along the top of the wall [2/454]. The external (west) elevation of the same wall retains its facing stone [2/456].

- 5.8 The four arches on the north side of the rere-dorter were originally supported on the returns of the east and west walls and three intermediate piers, although the eastern pier is now not visible above ground [2/464, 2/465] (see plate 5). The return to the west wall end is c.1.50m square. Its north (external) side is built from large, roughly squared stones, and there were loose stones piled on the top [2/457]. The east side had loose stones stacked against it, and there is a chamfered jamb to the south-east corner, rebated to the north side [2/458]. The south side is inset approximately half way along its length, which represents the internal angle of the return [2/459]. The western of the three piers in the north wall is c.1m square, and rises from a chamfered plinth. It is built from large pieces of ashlar, but had some ex situ fragments placed on top, including what might be a small piscina [2/460, 2/461] (see plate 6). The central pier is similar although without the ex situ stones on top [2/462]. The north end of the east wall has a chamfered plinth visible to the base of the east side, but otherwise appears to have been much rebuilt and had loose stone stacked against it [2/463] (see plate 7).
- 5.9 The walls and piers were repaired by resetting any dislodged stones, with minor rebuilding to the corners, repointing with well recessed mortar, and filling voids with soil to support new soft cappings so that they could re-vegetate [3/574-3/579; 6/664-6/666] (see plates 8 and 9).

Area 3: Lay Brothers' Kitchen and Guest House (Pace Area 1c)

- 5.10 Only low parts of the west wall of the kitchen and guest house of the lay brothers' complex now survive, and these were completely covered with vegetation prior to any repair work [1/263-1/265].
- After vegetation clearance, the northern section of the west wall could be seen to survive to a greater height than the south part. The internal (east) elevation of the northern section is built from large pieces of ashlar, although the courses have subsided towards their southern end [2/466] (see plate 10). There is also collection of *ex situ* moulded fragments placed on the top of the wall [2/467]. The external (west) elevation is similar to the east elevation, although the upper course has been dislodged [2/468, 2/469]. The southern half of the wall is very low, generally no more than one or two courses in height [2/470]. It returns to the west at the south end; there are the remains of a chamfered plinth along the north side of the return, and this projection might once have formed an external buttress [2/471]. Both sections of the wall were subject to minor re-pointing and consolidation, including the core, and soil and soft capping was also added [6/667] (see plate 11).

Area 4: Lay Brothers' Quarters (Pace Area 2) (see figure 7)

5.12 This north-south aligned building range comprised the lay brothers' quarters. It was the earliest part of the abbey to have been built, apparently for housing the lay brothers who had charge of the building before the convent was moved from its

original site at Fors (Hope & Brakspear 1911, 341). It was over 61.5m (13 bays) long by 8.9m wide, and originally stood two stories high. At ground floor level the full length of the building was vaulted, and a line of round pillars run down the centre of the range. The north end of the range housed a probable parlour (with external doors on either side), the centre formed a cellarium or storage area, and there was a frater (dining room) at the south end, occupying the southern five bays; the long east and west walls contained a variety of windows, doorways and hatches, and the main drain which runs through the lay brothers' rere-dorter to the west passes under the ninth bay from the north end. The first floor contained the dorter from which the rere-dorter or latrines to the west could be reached, although little of this now remains, and there was an external flight of steps at the north end (the night stairs) which provided access into the lay brothers' quire in the church (Davies no date, 6-7).

The East Wall

- 5.13 Prior to the conservation works, the top of the east wall of the building was covered with vegetation, which increased significantly further to the south, so that the internal south elevation was largely obscured [1/281, 1/283-1/285, 1/288, 1/289, 1/292].
- It was initially proposed to undertake repairs to several sections of the east and west walls, but in the event work was confined to the south-east corner of the frater (see figure 3). After clearance, the lower courses of stonework were exposed. At the south end of the east external elevation, the majority of the stone appeared to have been neatly piled here, rather than forming part of the historic structure, for a distance of c.3.00m [1/279, 3/581, 3/582] (see elevation 4/2 on figure 7). The corresponding internal west elevation appeared more original [1/278; 3/580] (see elevation 4/1 on figure 7; plates 12 and 13). Both exposed elevations were drawn at a scale of 1:50; as far as could be ascertained, these sections of the elevations were not covered by the stone-by-stone elevation drawings produced by LUAU in June 1998 (scans 12 and 13), although some parts were surveyed by English Heritage in May 1994 (scan 14). Only minor consolidation and repointing work, with well recessed pointing, was undertaken.

North, South and West Walls

5.15 Both elevations of the north wall [1/294, 1/295], the east internal elevation of the west wall [1/266-1/274] and both elevations of the south wall [1/276, 1/277, 1/280] were photographed before planned clearance. The east side of the west wall had been surveyed by both LUAU in June 1998 (scan 12) and Oxford Archaeology North in July 2002 (scan 11), while the south wall elevations had been partially surveyed by Oxford Archaeology North in July 2002 (scan 10), and by English Heritage in May 1994 (scan 14). In the event, no conservation works were undertaken on these areas, although a single metal tie-rod was inserted over the steps of the lay brothers' night stairs, from the north face of the north wall into the south wall of the lay brothers' quire, to deter public access up the steps [7/624]; this was subsequently replaced with a more robust barrier (see 'Other Works' below).

Area 5: Monks' Kitchen (Pace Area 13a)

5.16 The monks' kitchen lies immediately adjacent to the central part of the lay brothers' quarters, on its east side, forming the west end of the south cloister range. It measured 12m east-west by 6m north-south, and had a large fireplace in the south

wall, and a hatch in the east wall through which food could be passed to the monks' frater or dining room located immediately to the east (Hope & Brakspear 1911, 340).

5.17 The largely vegetated east internal elevation of the west wall [1/296, 1/297, 1/354] and the south internal elevation of the north wall [1/355, 1/356] were photographed before planned clearance. In the event, no clearance or subsequent conservation works were undertaken on these areas.

Area 6: Monks' Frater (Pace Area 13b) (see figure 7)

- 5.18 The north-south aligned monks' frater or dining hall measures 30.4m long by 9.1m wide, and was placed on the south side of the cloister, between the kitchen to the west and the warming house and misericord to the east. Apart from the doorway in the centre of the north side, off the cloister, and a serving hatch from the kitchen at the north end of the west wall, little remains of the building apart from low footings. The space would have contained benches along the east and west walls, with tables in front, and a high table on a dais at the north end (Hope & Brakspear 1911, 339).
- 5.19 The culverted line of the main east-west drain through the abbey complex runs under the frater and through the adjacent open court area to the east [1/357]; the open east end of the drain adjacent to the west wall of the monks' dorter has recently had a grating placed over it [1/358]. It was initially proposed to investigate the culverted section of the drain, but in the event no works were undertaken. Vegetation was cleared from a 5m long section at the south end of the east wall of the frater, prior to repairs. On the west internal elevation, the remains were very low, comprising only three courses (1.00m) high, and the newly exposed stonework was drawn at a scale of 1:50 (see elevation 6/1 on figure 7) [4/191] (see plate 14); this section of walling was also shown in a 1972 photograph (Innes-Smith 1972, 14) (see figure 4 top). The corresponding section of the east elevation of the wall, either side of the misericord's north wall, was also photographed after clearance [4/188-4/190] (see plate 16). The stonework of both faces was then repointed and reset as necessary, and soil and soft capping was inserted along the top of the wall (see plates 15 and 17).

Area 7: Monks' Warming House (Pace Area 13c)

5.20 A pile of stones and loose masonry at the north-east corner of the monks' warming house, representing the remains of the later dorter stairs but now heavily vegetated, was photographed before planned clearance [1/298] (see plate 18). In the event, no clearance or subsequent conservation works were undertaken in this area.

Area 8: Misericord (Pace Area 12a)

5.21 The misericord was built at the end of the 15th century, between an extension to the monks' dorter to the east and the monks' frater to the west. It represents further evidence for the relaxation of the Cistercian rules, by which meat, originally only reserved for the sick in the infirmary, was allowed to be prepared and eaten by the rest of the community on three days a week (Davies no date, 22). The space measures 11m long by 6.4m wide, and was arranged in the same way as a domestic hall. Screens at the east end divided off a separate storage space with a lavatory or washing place at its south end, and there was a large fireplace in the

centre of the north wall, and a probable pantry off the north-east corner. The south wall had external buttresses, with windows in the two central bays and a wider, oriel-type window at the west end. The floor above contained a chamber with a urinal in the north-east corner (Hope & Brakspear 1911, 335).

5.22 The vegetated north end of the west internal elevation of the north wall, representing the external face of the monks' frater (Area 6, see above) was photographed before planned clearance [1/299]; this short section of wall is illustrated in a photograph in the 1972 guidebook (Innes-Smith 1972, 15) (see figure 4 bottom). The remains are less extensive than shown in 1972, but they were stabilised and repaired as part of the south end of the east wall of the monks' frater described above. Both sides of the east wall of the misericord, now only a few courses high, were also photographed before planned clearance work [1/301, 1/302] (see plate 19); both these elevations had been surveyed by English Heritage in June 1994 (scan 26). In the event, no subsequent conservation work was undertaken here.

Area 9: Monks' Dorter (Pace Area 7) (see figure 8)

5.23 The north-south aligned monks' dorter is the tallest and largest surviving part of the abbey, and was of two floors. The northern part is of early 12th century date while the rest is late 12th century; externally, the later fabric is marked by a 'bold' plinth surmounted by a roll, and each bay is marked by a wide pilaster buttress. The large ground floor open space (named by Hope and Brakspear as the 'dorter subvault') measures 29.5m long by 9.4m wide, and is divided into six bays by a row of octagonal pillars down the centre - the space was sub-divided by partitions and the east wall contains a number of fireplaces which were inserted in the 15th century. Two large arches were inserted across the south end in the 13th century. carried by semi-circular columns in the east and west walls and a central column, which opened out into a single storey extension which has a wide fireplace in its south wall. The dorter or dormitory was at first floor level, again later sub-divided by partitions, and this originally extended much further to the north over the parlour, chapter house and vestry which lie on the east side of the cloister; it would have measured 52.7m by 15.8m wide in total. This upper level was accessed by the night stairs in the south transept of the church and the day stairs running down to the adjacent warming house. The surviving southern half of the dorter contains nine lancet windows in the west wall, as well as a large arched opening which forms the access to the day stairs (Davies no date, 17-18; Hope & Brakspear 1911, 320-323).

East Wall

5.24 Prior to the commencement of the conservation works, the west (internal) elevation of the east wall was covered with vegetation [1/314, 1/315, 1/317, 1/319, 1/321-1/323] (see plate 20). The east-west aligned main drain runs under the central part of the dorter, and below the east and west walls. The southern section of this wall face is shown in an 1972 photograph with much less vegetation (Innes-Smith 1972, 22) (see figure 5 top), and the whole of the elevation was surveyed by English Heritage in May 1994 to produce a stone-by-stone drawing (scan 25) (see figure 6 top). The vegetation was cleared from the southern part of the wall, immediately to the west of the meat kitchen, for a distance of c.9.20m (see figure 3); the exposed fabric was drawn in elevation and plan at a scale of 1:50 (see plan 9/1 and elevation 9/2 on figure 8), enhancing the previous English Heritage elevation drawing.

- 5.25 At the north end of the cleared area, the wall was seen to be built of coursed squared stone, up to 1.50m in height, and it contained the remains of a window base 1.30m wide [3/555, 3/556] (see plate 21). A short distance to the south was a 1.20m wide fireplace which had a flat lintel, chamfered to the soffit. chamfering and the jambs were poorly matched, and it is possible that the lintel has been brought here from elsewhere when the fireplace was inserted; the lintel contained a significant crack [2/477, 2/479] (see plate 22). To the south of the fireplace, the stepped and chamfered base of another window opening was exposed [2/478, 2/480]. The opening itself was 1.60m wide, with splayed jambs to the interior and exterior, narrowing to 0.9m wide. The sill preserved three small holes to the former interior side, presumably once housing vertical iron standards to which glazing may have been attached [2/485-2/487] (see plate 23). To the south of the window opening, a large semi-circular, moulded and chamfered column base projects from the wall face [2/481-2/484; 3/550] (see plate 24), mirroring that surviving to the west wall of the dorter (see plate 30); these are the 13th century column bases which formed arched openings into the southern extension mentioned above. The wall line is visible to the immediate south of the pier for only a short distance (0.55m), but in plan only, and then it appears to return to the east.
- 5.26 Following clearance, it was seen that the wall did indeed return to the east. The remains of a chamfered plinth projected from the front (south) face of the wall, but it was generally in poor condition [3/549]. After 1.90m, it returned to the north once more, to form what had once been the external eastern wall face of the dorter, before the adjacent meat kitchen was built; when this was built, a small space of uncertain function (perhaps a store room) was created off the south-west corner of the meat kitchen, which was entered by a 0.80m wide doorway in the south wall (see elevation 9/3 on figure 8). The external eastern wall face rises for a maximum height of 1.70m from a chamfered plinth, above which there is a moulded string or roll [3/551] (see elevation 9/4 on figure 8; and plate 25); it is clearly butted by the wall of the meat kitchen to the north and the chapel extension to the south [3/552-3/554]. As noted above, Hope and Brakspear note that the late 12th century fabric of the dorter is marked by a 'bold' plinth (1911, 321).
- 5.27 As part of the repairs, part of the west face of the wall was dismantled and rebuilt, other loose stones were reset, and soft capping added [4/185; 6/659-6/662] (see plates 26 and 27). This replaced the previous soft capping evident in one of the 1972 guidebook photographs (see figure 5 top).

North, South and West Walls

5.28 Both elevations of the north wall of the monks' dorter [1/309, 1/310] (see plate 28), both elevations of the heavily vegetated south wall [1/325, 1/326] (see plate 29) and the east internal elevation of the west wall [1/303-1/308] (see plate 30) were photographed before planned clearance. In the event, no clearance or subsequent conservation works were undertaken on these areas. However, a short section of stonework on the south side of the south wall of the dorter's southern extension, effectively the back of a fireplace, created a trip hazard for visitors, and so an earth ramp was created and later re-turfed to remove this obstacle. A large fracture running through the southern central pier base was also stitched with a stainless steel pin.

Area 10: Chapel (Pace Area 12b)

- 5.29 The chapel is associated with the abbots' lodging, and is a detached structure to its west, to the south of the meat kitchen. It is of 14th century date and measures 8.8m long (east-west) by 3.9m wide. It was privately accessed by a high level pentice which ran south from the first floor entrance on the west side of the lodgings before tuning west into the chapel. When it was built, the east wall of the southern ground floor extension to the dorter was demolished and extended 3.6m to the east to form a vestibule which was separated from the main body of the chapel by a wooden screen. The chapel had two windows in the south wall, and a tall east window, probably of three lights. The external walls are buttressed with angle buttresses at the corners. The altar at the east end is raised on a platform of two steps, and the altar block remained in 1911 (Hope & Brakspear 1911, 333-334).
- 5.30 Prior to the start of the conservation works, both elevations of the south wall, and the north-east and north-west corners, were obscured by vegetation at a lower level [1/359-1/363] (see plate 31). In the event, no clearance or subsequent conservation works was undertaken here.

Area 11: Abbots' Lodging (Pace Area 10)

- 5.31 The north-south aligned abbots' lodging dates from the 14th century, and it probably represents a rebuilding of part of the earlier infirmary complex. It measures 12.6m long by 5.3m wide. The ground floor space comprised an undercroft or cellar, and there are three lancet windows in the south wall with views over the surrounding park. Off the north-west corner was a private garderobe, the walls of which were found by excavation, and this also continued to first floor level. The upper floor formed the hall, and this had a large window in the south wall and a fireplace in the west wall with an external chimney breast; access was originally via an external staircase against the west wall. The external staircase against the east wall, most obviously visible by a sloping roof scar, provided an access to the adjacent infirmary. Alterations in the 15th century included the demolition of the garderobe and the original external western stairs, and the blocking of the wide doorway, which suggest that the upper floor was then used as a hall for the infirmary (Davies no date, 20-21; Hope & Brakspear 1911, 332-333).
- 5.32 Prior to the start of the conservation works, both elevations of the east wall were partly obscured by vegetation at a lower level [1/337, 1/338, 1/340]. Both sides of the east and west walls had previously been recorded by English Heritage in October 1985 (scans 1 to 4). It had been proposed to undertake some repairs to the east wall, but in the event, no works were undertaken. However, the east wall of the garderobe and its doorway at the north end of the west wall [1/342] (see plate 32) had the dense vegetation removed and several gaps in the jamb infilled, so as to prevent people climbing on the ruins [4/184].

Area 12: Stairs between Abbots' Lodging and Monks' Rere-dorter (see figure 9)

5.33 Hope and Brakspear's plan depicts a wide curving flight of steps at the north end of the meat kitchen's serving place, on the east side of the kitchen and approximately in the centre of the south side of the monks' rere-dorter (see figure 3). This is described as curving up to the space between the abbots' hall and the monks' rere-dorter, across which there must have been a passage to the top of the

south steps to the infirmary (which rise against the east wall of the abbots' lodging) by which food was taken to the infirmary and the abbots' hall (Hope & Brakspear 1911, 336).

- 5.34 Prior to the start of the conservation works, this curving staircase was overgrown with vegetation [1/344, 1/345], although it has evidently been cleared in the past as a photograph appears in the current guide book (Davies no date, 20). After clearance, the staircase was revealed to be in a poor structural condition, with many of the steps slipping or partly collapsed. The presence of re-used masonry (see below), and its general appearance, and the fact that it blocks one of the pointed arches forming the south wall of the rere-dorter, implies that it is a postmonastic structure, perhaps largely an 18th or 19th century re-build, although this would contradict Hope and Brakspear's interpretation. It is also noticeable that the staircase appears to butt the adjacent walls. It may therefore be a later rebuild of the earlier stairs. A later date is also implied by the fact that there are no other rounded or curving stairs within the monastic complex. If it is a post-monastic structure, it could possibly be associated with the short-lived country house, built by the Earl of Lennox after 1544 and demolished by 1627, which occupied an area between the abbots' lodging and the monks' infirmary, and incorporated some of the ruins (English Heritage 1999, 20-21).
- 5.35 A plan of the staircase was drawn at 1:20 scale, after clearance and prior to repair (see plan 12/1 on figure 9). The structure comprises seven steps, all arranged as winders originating at the staircase's south-east corner; the stonework here is noticeably better cut and built than the rest of the staircase. Some of the steps incorporate re-used masonry, including what appear to be several voussoirs, whilst ex situ fragments had been placed at the head of the staircase to prevent people climbing on to the wall adjacent to the deep drop to the immediate north (Mr I Burdon, pers. comm.) [2/504, 2/505] (see plate 33). To the north of the steps can be seen the western-most of the surviving arches, partially blocked, of the south wall of the monks' rere-dorter, perhaps partially reconstructed on the stair-side.
- 5.36 The staircase was repaired as part of the conservation works, being re-pointed and some of the stones reset or replaced [3/557-3/559] (see plate 34). Vegetation was also removed from the rere-dorter arch to the north, and the voussoirs repointed and pinned where necessary, leaving some open joints for bat roosts. The section of 15th century wall to the immediate east of the steps was heavily overgrown, and so this was also cleared and the facing stone and core work reset, stabilised and repaired [3/560, 3/562] (see plate 35).

Area 13: Meat Kitchen (Pace Area 11) (see figure 10)

5.37 The meat kitchen was built in the 15th century, following the relaxation of the monks' rule which forbade the eating of meat, and the remains form one of the best surviving examples in the country with most of the walls, apart from the south side, surviving to their original height. The space is almost square, measuring 9m east-west by 8.6m north-south. There are two large fireplaces, one to the north wall and another to the west wall - the back of the latter has been broken through, and there are also two baking ovens projecting outwards in a block to the west. The north fireplace contains a four-centred recess on its west side for washing up, supplied by a water pipe brought through a square hole in the angle. There are also serving hatches in both the east and west walls of the meat kitchen - the western one served the monks while the two on the east side served the infirmary and the abbots' lodging - a covered space on the north side of the east wall formed a serving place. The south wall also contains a fireplace with a large shelved

- cupboard with a four-centred head to its east (Davis no date, 21-22; Hope & Brakspear 1911, 335-336).
- 5.38 The fireplaces in the north and west walls are well illustrated in one of the 1972 guidebook photographs (Innes-Smith 1972, 16) (see figure 5 bottom). Much of the meat kitchen has been the subject of previous survey work, to produce stone-bystone drawings. In May 1994 English Heritage surveyed the east external elevation of the east wall and either end of the south external elevation of the south wall (scans 17 and 21), the north internal elevation of the south wall (scan 23) (see figure 6 bottom), the west internal elevation of the east wall (scan 22), both sides of the west wall (scans 18, 19 and 20), as well as the returns of the large fireplace in the west wall (scan 17).

South Wall

- 5.39 Prior to the start of the conservation works, both sides of the meat kitchen's low south wall were obscured by vegetation at a lower level [1/330, 1/331] (see plate 36). Following limited clearance, the large fireplace to the west of centre of the north face of the wall became visible. It was 4.45m wide to the front, and a maximum of 1.25m deep, and it had a raised lip with a rounded profile to the front, whilst the base was formed by flagstones [4/175-4/178] (see plate 37). The surviving upper part of the elevation suggests that the flue rose between two large windows. A plan and elevation was drawn at 1:50 scale (see plan 13/1 and elevation 13/2 on figure 10), enhancing the previous 1994 survey (scan 23).
- 5.40 Following clearance to the corresponding south external elevation of the wall, in the narrow passage between the meat kitchen and the chapel, it could be seen that, to achieve the required depth for the fireplace, the wall face had been corbelled out in a series of steps; four corbelled courses survived in all, although there were remnants of further courses at a higher level to the west. The corbelling commenced at 0.30m above the current ground level and continued to at least 2.70m, by which point it projected c.0.25m from the wall face [4/179-4/183] (see plate 38). A section of the south elevation and a profile of the corbelling was produced at 1:50 scale (see elevation 13/3 on figure 10).
- 5.41 Both elevations of the wall were subject to re-pointing with recessed mortar, some stones were re-set, and the exposed core work was stabilised [6/655-6/658]. On the top of the south face, a course of *ex situ* stones were also mortared in.

West wall

5.42 Prior to the start of the conservation works, both elevations of the west wall were obscured by significant vegetation at a lower level [1/332, 1/333, 1/336] (see plate 39). Both elevations had been recorded by English Heritage in May 1994 (scan 18 west face, scan 20 east face). Some minor clearance of the vegetation was started at the base of the east internal elevation [6/651-6/654], during which nesting birds were discovered, so clearance and further work was stopped. In the event, no clearance or subsequent conservation works were undertaken in this area.

Area 14: Monks' Rere-dorter (Pace Area 8) (see figure 11)

5.43 The east-west aligned late 12th century monks' rere-dorter lies on the north side of the meat kitchen; it measures 25.2m long by 5.7m wide, and it connected with the

- monks' dorter to the west. The south side of the building spans the deeply-channelled east-west drain, which is 0.7m wide, with 4.5m high walls to either side.
- 5.44 The ground floor was occupied by a hall, entered from the ground floor of the monks' dorter to the west. Its north wall contained a series of seven arches carried on square pillars, of which only the first and fifth remain for a few courses in height. These arches opened into a broad aisle, which had a wide fireplace in the centre of the north wall and a doorway at the east end; there was an open court on the north side of this aisle. The south side of the space is represented by the north wall of the drain, which terminates one bay short at the west end. The wall forming the south side of the drain, effectively the south side of the rere-dorter, is pierced by a row of seven pointed arches which ventilated the drain; the western four arches were blocked by the later meat kitchen to the south, and their remains can be seen through the north wall fireplace in one of the 1972 guidebook photographs (Innes-Smith 1972, 16) (see figure 5 bottom). The upper storey was the rere-dorter proper, and there was a row of wooden seats over the drain, the scant evidence for which can be seen in what remains of the east wall. Hope and Brakspear suggest that the ground floor hall and aisle originally formed the infirmary complex, but when the new structures were built to the east in the 13th century, the aisle was pulled down and the corresponding arches in the north wall were built up; the arches and their blocking were revealed by excavation (Davies no date, 18; Hope & Brakspear 1911, 323-324). The remains of the north wall of the north aisle, as well as the north face of the north drain wall, were surveyed by English Heritage in May 1994, to produce stone-by-stone elevation drawings (scans 15 and 16).

South Wall

- 5.45 Prior to the start of the conservation works, the north side of the monks' rere-dorter south wall had a covering of ivy to the upper part of the north-east corner [1/327, 1/328; 2/489, 2/491, 2/499] (see plate 40). As this was removed, using a hoist, a number of photographs were taken of the upper part of the wall from the hoist, although the drain below meant that it was not possible to get close enough to the wall face to take any detailed measurements. As a result, it was not possible to enhance or add to the previous survey of this part of the wall produced by English Heritage in May 1994 (scan 24) (see figure 11 top). The highest part of the wall, effectively the south side of the north wall of the adjacent meat kitchen, was seen to be faced with coursed squared stone; a projection to the centre forms the chimney flue from the fireplace in the north wall of the meat kitchen [2/493-2/496] (see plate 41). To the west of the chimney, a large stone is set within the squared stones, interrupting the coursing; its purpose is unclear. Below the larger stone, a horizontal cut line where the former leaded roof of the rere-dorter has been removed is visible: this continues across the elevation either side of the chimney flue. Below this cut line, the rest of the upper part of the wall comprises exposed core, as shown on the previous survey drawing [3/565]. To the east side, there is what appears to be a rectangular socket framed by dressed stones set within the core work [2/492]. There is a similar feature to the west, just beyond the centre of the wall, although this one appears more like a small former window rather than a socket; both features have been blocked internally [2/501; 3/563, 3/564] (see plate 42). Hope and Brakspear (1911, 324) note that these two features are 'two little lancets'. Further to the west again, there is a possible larger blocked window opening.
- 5.46 At a lower level, below the core work, the northern wall face steps out by c.0.5m to the north and becomes squared and coursed stonework [2/502] (see plate 43). This section of the wall represents the internal face of the 13th century monks'

rere-dorter drain and, as stated above, a long row of lavatory seats was supported on the arches which pierce this wall (Davies no date, 18). Much of this c.4.5m high wall face was due to be repointed, and so use was made of the contractor's ladders to produce a stone-by-stone elevation drawing at 1:50 scale (see elevation 14/1 on figure 11), to significantly enhance and add to that previously produced by English Heritage (scan 24).

- 5.47 The wall contains five two-centred arched recesses, the western four blocked internally by the adjacent meat kitchen to the south, with the partial blocking of the eastern arch brought forward due to the steps to the south (see Area 12 above): there were once seven arches in total, although the easternmost two examples have largely collapsed. The recesses are set at c.3m centres, and the base of each is set 0.50m above the bottom of the drain; where the drain was cleared, it was seen to comprise large, neatly-cut flagstones. The sides of each recess rise vertically for 0.80m to meet chamfered springers for the arch, which is built of squared voussoirs; the apex of each arch is set c.2.30m above the recess. A number of simple masons' marks survive to the voussoirs of the arches. The remainder of the wall is built of neatly squared and coursed masonry, set with a lime mortar [3/567] (see plate 44). No evidence could be seen for the row of wooden seats over the arches, and Hope and Brakspear note that any remaining evidence is confined to the east wall, as noted above. The narrow width of the drain meant that it was not possible to get any detailed photographs of individual arches, apart from the westernmost one [3/566; 7/619] (see plate 45). The arches and the wall face generally were subject to minor re-pointing using recessed mortar.
- 5.48 Prior to the start of the conservation works, the north elevation of the drain's north wall was obscured by vegetation at a lower level [1/347, 1/348, 1/372; 6/649, 6/650] (see plate 46), as were the exposed sections of the north side of the reredorter's north wall [1/373, 1/374]. In the event, no vegetation clearance or subsequent conservation works was undertaken in these areas.

Area 15: Monks' Infirmary (Pace Area 9) (see figure 12)

- 5.49 The monks' infirmary comprised a number of separate buildings at the east side of the abbey complex. It catered for the temporary accommodation of the sick as well as providing permanent housing for the infirm and those unable to meet the initially strict rigorous monastic life. The infirmary may have originally been sited in the hall under the monks' rere-dorter (see Area 9 above), but all the other existing buildings to the east date from the late 13th century. The main infirmary was a two storeyed east-west aligned building, effectively an eastward continuation of the adjacent monks' rere-dorter, with a chapel on the north side, garderobes at the east end, a detached kitchen block to the south (no longer visible), and a garden to the north-east; in the 15th century a detached infirmarers' lodging was also built to the north (Hope & Brakspear 1911, 325-332; Davies no date, 18-20). The ruins have been made more complicated by the fact that part of this area was remodelled to form the abbots' lodging, and then other elements were incorporated into a late 16th century post-Dissolution house built by the Earl of Lennox (English Heritage 1999, 20-21). The east ends of the north and south elevations of the north wall of the infirmarers' lodging building were surveyed by English Heritage in August/September 1994 (scans 8 and 9).
- 5.50 The south side of the main infirmary building is crossed by the culverted east-west drain which runs through the abbey complex. A section is exposed to the east of the building, covered by a grate [1/364]. It was initially proposed to investigate this

- culverted section, and undertake any necessary repairs, but in the event no work was undertaken.
- 5.51 Current repairs were restricted to the west wall of the 15th century infirmarers' lodging (see figure 3). Vegetation was initially cleared from the outer faces of the low south-west corner [6/640, 6/642-6/644, 6/647] (see plate 47). The stonework thus exposed on the external west face was seen to differ on either side of the remains of a moulded door jamb which lay in the centre of the elevation (see plan 15/1 and elevation 15/2 on figure 12). This jamb represents part of the passage leading from the base of the infirmary stairs before it turns west to run for a distance of 25m towards the parlour and cloister (see figure 3). This former passage was formed by open arcades on low walls, the capping stones of the latter being worked externally as a plinth. At irregular intervals along both walls were blocks of foundation for buttresses to strengthen the arcade, perhaps for a later upper storey, and there was a slightly wider porch at either end (Hope & Brakspear 1911, 326). To the north of the door jamb, positioned in the centre of the west face of the west wall of the lodging, the wall rose from a chamfered plinth, and stood only a single course (0.60m maximum) high; this section represents the internal elevation of the eastern porch. The jamb itself had sections of a moulded arch stacked on top of it, but these were all ex situ [6/645]. To the south of the jamb (i.e. within the passage leading to the base of the infirmary stairs), the wall rose from a stepped plinth, and survived to a height of two courses (1.10m maximum high). There was an area of stone paving to the immediate west, edged by flat kerbstones, representing part of the floor of the passage. This paving returned to the west, shortly before the point where the main wall was butted by a later, low, east-west wall. The core work above the north end of the wall was subsequently consolidated [7/616] (see plate 48).
- 5.52 Some minor vegetation clearance was also undertaken to the remaining part of the south side of the west end of the infirmarers' lodging's north wall [6/646], and at the south side of the east end of the south wall [6/648]. There were also some loose stone slates on the small roofed stricture at the east end of the infirmarers' lodging [1/351, 1/352], although it is not thought that they were replaced.

Area 16: Vestry, Chapter House and Parlour (Pace Area 6)

- 5.53 The vestry lies on the south side of the church's south transept. This measures only 2.7m wide and was originally a passage before the east end was later closed off. There are three segmental arches on the north side (only two now fully formed), built against the earlier wall of the transept, the central one having a door giving access into the south transept of the church. In the centre of the south wall is a 'barrow-hole', created to help with the building of the chapter house to the south, after which it was blocked up (Hope & Brakspear 1911, 316-317). The internal elevations of the longer north and south walls were surveyed by York Archaeological Trust to produce stone-by-stone drawings (unknown date) (scan 6), and also by English Heritage in July 1984 (scan 29). Prior to the start of the conservation works, the internal walls were partly covered with vegetation [1/390-1/392] (see plate 49). Some minor clearance of vegetation and limited ground reduction work was undertaken on the south side of the north wall, and the exposed stonework was subsequently re-pointed [4/187] (see plate 50).
- 5.54 The chapter house lies in the centre of the east cloister range, as would be expected, between the vestry to the north and the parlour to the south. It was built in the early 13th century, probably replacing an earlier smaller space, and was used for meetings, readings and discussions concerning the running of the abbey

complex. It measures 14.6m long by 10.9m wide and the interior lies lower than the external ground level, and the monks would have sat on the stone benches placed around the walls. The vaulted roof is divided into four bays divided into three aisles by two rows of three octagonal columns (five remaining), each cut from a single block of stone. At the east end are five grave slabs of former abbots, with a further three slabs at the entrance (Hope & Brakspear 1911, 317-319; Davies no date, 14-15). Both elevations of the north and south walls were surveyed in 1986 (contractor unknown) to produce stone-by-stone drawings (scans 7 and 27). Prior to the start of the conservation works, the internal walls were partly covered with vegetation [1/381-1/389] (see plate 51). They were due to be investigated, followed by minor repointing as necessary in addition to some repairs to a fractured column. In the event, no clearance or subsequent conservation works were undertaken.

5.55 The parlour lies to the south. It is also predominately of early 13th century date, and measures 9.4m long by 3.8m wide, divided into three bays (Hope & Brakspear 1911, 320). The internal elevations of the south, east and west walls were surveyed by York Archaeological Trust (date unknown) (scan 28), and the north wall by English Heritage in July 1984 (scan 29). Prior to the start of the conservation works, the tops of the walls were partly covered with vegetation [1/312, 1/313, 1/375-1/380] (see plate 52). The walls were due to be investigated and followed by minor repointing as necessary, but in the event no repairs or conservation work was undertaken.

Area 17: Cloisters (Pace Area 5)

5.56 Prior to the start of the conservation works, the west side of the cloisters was affected by overhanging tree branches [1/365-1/367]. No conservation works were undertaken in this area.

Area 18: Abbey Church - Lay Brothers' Quire (Pace Area 3)

- 5.57 The lay brothers' quire represents the west end of the abbey church. As the name implies, this area was reserved for the lay brothers, rather than the monks who occupied the main body of the church, and their access was via a doorway at the west end of the south wall and the night stairs placed at the north end of the lay brothers' dorter. The late 12th century doorway is the most complete architectural feature to survive in the church, although the quire as a whole was only constructed once the main part of the church was complete. Like the rest of the church, the lay brothers' quire has a central nave and north and south aisles; overall, the nave is 49.5m long by 19.m wide and the aisles were divided from the nave by a screen wall (Hope & Brakspear 1911, 313-315). The ornate roundheaded south-west doorway providing access from the dorter stairs into the quire was surveyed by Lancaster University Archaeology Unit in 1988 (scan 5), and a photograph appears in the 1972 quidebook (Innes-Smith 1972, 6).
- 5.58 The conservation works in this area concentrated on the eastern end of lay brothers' quire southern wall, which was leaning badly due to tree roots and other vegetation growing into the fabric (see figure 3). This wall contained large quantities of *ex situ* fragments stacked against it [1/368-1/371, 1/397-1/401] (see plate 53), presumably resulting from the post-Dissolution demolition of the churchit is said that gunpower was even used. In his 1805 excavations of the site, John Claridge stacked the stones he uncovered along the wall lines, and many were placed adjacent to where they were found and so give an indication as to how the aisles were vaulted (Davies no date, 8-9).

5.59 Vegetation clearance started at the west end of the south wall [1/402-1/404] (see plate 54). This part of the wall was relatively free from stacked *ex situ* material, and stood to a maximum of c.1.50m in height. The south side is built of ashlar, and clearance revealed the double chamfered base of a window to the upper part [2/472, 2/473, 2/476] (see plate 55). At the west end of this wall section, one side of a simple doorway opening was revealed, rebated to the former interior [2/474]; the purpose of this doorway is unknown, but it presumably lead into a small space under the dorter stairs, and it is shown in this position on Hope and Brakspear's plan (see figure 3). The north elevation of this section of the south wall is also built of ashlar [2/475] (see plate 56). The wall was repaired as part of the conservation works. The facing stone was dismantled and rebuilt to correct the lean, whilst the core work and capping was also consolidated to prevent water egress [3/568-3/573] (see plates 57 and 58).

Area 19: Abbey Church - Presbytery and Transepts (Pace Area 4)

- 5.60 The raised edges of the platform forming the central crossing [5/615-5/620] were dismantled and reset, but as no archaeological condition was placed on this work, no recording was undertaken; Hope and Brakspear (1911, 311) note that this platform "has been so tampered with that it is difficult to discriminate the original work" although there is a plain coffin slab in the centre. The platform was however photographed after the repairs were complete [7/613] (see plates 60 and 61).
- 5.61 The north and south walls of the presbytery, and the east wall of south transept, were covered with vegetation, and clearly had quantities of *ex situ* fragments stacked against them [1/393-1/396; 4/186] (see plate 59). Loose stones along the south wall of the presbytery and a portion of the east wall of the south transept were reset and remortared [6/635, 6/636], and the repairs were photographed on completion [7/612, 7/614, 7/615, 7/621] (see plate 62).

Other Works

- 5.62 Two trees at the south-west corner of the current entrance into the abbey complex, near the south side of the lay brothers' infirmary, were completely cut back, thus making the very large number of *ex situ* architectural fragments here, including the embalming slab, more visible and recognisable [6/668-6/672] (see plate 63).
- 5.63 The fencing which protects the open sections of the main east-west drain running through the abbey complex was either renewed or strengthened before or during the current phase of repairs. In many cases, the drain was culverted under the buildings, although an open channel runs through the lay brothers' rere-dorter (Area 2). New fencing had been erected against the west internal elevation of the lay brothers' quarters east wall (Area 4) [1/291], and against the east internal elevation of the monks' dorter's east wall (Area 9) [1/318], in advance of the main phase of work (see plate 64). Similar fencing had also been erected around the open drain at the west end of the monks' rere-dorter (Area 14) [1/350], and there is some older-style fencing just to the west [1/349] (see plates 65 and 66). New grills had previously been installed over the drain as it passed through the infirmary range (Area 15) [1/364] (see plate 67), and also against the east internal elevation of the monks' frater (Area 6) [1/358].
- 5.64 Once the stairs between the abbots' lodging and the monks' rere-dorter had been stabilised, new fencing was also erected around the top to prevent unauthorised access into and across the drain immediately to the north (see plate 68). Finally, a

single metal tie-rod over the steps of the lay brothers' dorter stairs (Area 4), placed to deter public access up the steps [7/624], was replaced with a more robust structure (see plate 69).

6 DISCUSSION AND CONCLUSIONS

- 6.1 The limited nature of the archaeological and architectural investigation and recording carried out during the most recent phase of fabric repairs to Jervaulx Abbey means that any discussion and conclusions are restricted to a few important points.
- 6.2 The primary aim of the architectural recording was to produce an account of the repairs undertaken so as to inform future management strategies, and this has been achieved. The localised nature of the interventions, and the reduction and re-prioritisation of the work as originally planned, meant that the repairs were largely confined to vegetation clearance and the stabilisation with occasional rebuilding, resetting and repointing of historic fabric, and the mortaring and soft capping of corework to prevent water egress. Consequently, little significant new archaeological or historical information was recorded. However, the information that was gained has emphasised the extent to which some lower surviving sections of the abbey's ruins, for example, the east wall of the lay brothers' quarters (Area 4 - the outer parlour, the central cellarium, and the frater), or the staircase between the abbots' lodging and monks' rere-dorter (Area 12), have been rebuilt, perhaps during the 18th or 19th centuries. The vegetation clearance also showed that the extent to which many walls incorporate ex situ architectural fragments has also been underestimated.
- Although not especially relevant to this project, one area of the abbey's history which deserves further investigation would be the extent to which the ruins in general, and specifically those in the south-east part of the complex (Area 11 the abbots' lodging and Area 15 the monks' infirmary), were incorporated into the short-lived country house and gardens constructed by the Earl of Lennox in the second half of the 16th and early 17th centuries.
- Allied to this, it is curious that there does not appear to be any up-to-date metrically accurate plan of the abbey ruins, and there is no record of one ever having been done. Such a survey would be extremely beneficial, both to the understanding of the existing remains and also to plan and progress future repair, conservation and management strategies. The plan that is currently used by the present guidebook, visitor interpretation and this survey report is that produced by Hope and Brakspear in 1905 and published in 1911 (see figure 3). While this is an excellent and informative piece of work, it is of its time, and it shows both excavated and upstanding section of walls. In addition, it does not adequately record the building nuances, such as the presence of blocked openings and other features, or even butt joints, that would be expected in a large and complex monument of this type.
- 6.5 It also became clear during the initial stages of this project that considerable sums of public money have been spent on previous recording of the abbey ruins, largely through photogrammetric survey, by organisations such as English Heritage, Lancaster University Archaeological Unit, York Archaeological Trust, Oxford Archaeology North and the University of York, from at least 1984 through to at least 2002. Such work was mostly commissioned to inform previous repair and consolidation projects. However, there do not appear to be any corresponding architectural descriptions or interpretations of these surveys, although it is possible that some material is held in Historic England archives. This material clearly

represents a valuable resource, but there appears to be no catalogue or even central depository for this material. As a result, there is a very real danger of the previous records being lost, future work being duplicated at public expense, and future repair strategies being ill-informed. A number of scans of that material held by the present owner were made by EDAS prior to this current phase of work (see Appendix 2), and have been referenced in the report above.

7 REFERENCES

Secondary Sources

ClfA (Chartered Institute for Archaeologists) 2020 Standard and Guidance for the Creation, Complication, Transfer and Deposition of Archaeological Archives

ClfA (Chartered Institute for Archaeologists) 2019 Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures

ClfA (Chartered Institute for Archaeologists) 2014 *Standard and Guidance: Archaeological Watching Brief* (now updated June 2020)

Davies, S (no date) Privately Owned Jervaulx Abbey Guide Book

English Heritage 1999 *Jervaulx Abbey, North Yorkshire: Survey Report* (English Heritage Archaeological Investigation Report Series AI/4/1999)

Historic England 2019 *Jervaulx Cistercian Abbey, site of post-Dissolution grand house and gardens and World War II storage structures* (NHLE 1020493) (Scheduled Monument Description)

Historic England 2016 Understanding Historic Buildings: a Guide to Good Recording Practice

Historic England 2015 Digital Image Capture and File Storage: Guidelines for Best Practice

Hope, W H St J & Brakspear, H 1911 'Jervaulx Abbey'. *Yorkshire Archaeological Journal* vol 21, 303-344

Innes-Smith, R 1972 *Jervalux Abbey* (1972 guidebook produced by English Life Publications)

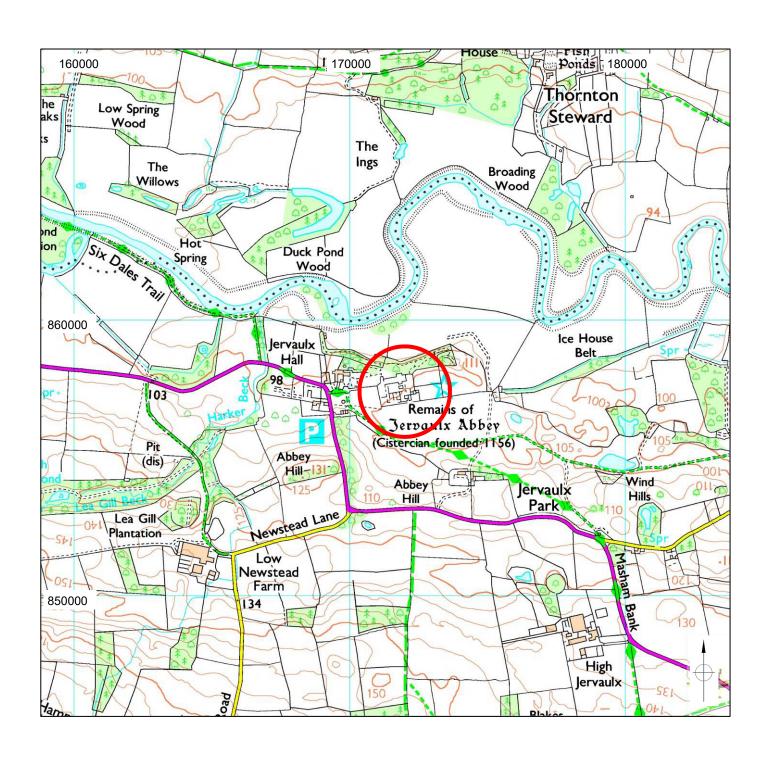
Pace, P G 2018b *Jervaulx Abbey: Specification for Fabric Repairs* (unpublished report for Ian Burdon and Natural England - August 2018)

Pace, P G 2018a *Jervaulx Abbey: Condition Report and Schedule of Works* (unpublished report for Ian Burdon and Natural England - June-August 2018)

8 ACKNOWLEDGEMENTS

8.1 The archaeological recording work was commissioned by project architect Peter Gaze Pace, on behalf of the owner, Mr Ian Burdon, with funds provided by Natural England as part of their Higher Stewardship Scheme. The fabric repairs were carried out by Historic Property Restoration. EDAS would like to thank all individuals and organisations for their help and co-operation in carrying out the

work, particularly Peter Pace, Mr Ian Burdon and Peter Hixon and Daran Deighton of HPR. The archaeological recording was undertaken by Shaun Richardson of EDAS, assisted by Richard Lamb, and the final report and other drawings were produced by Ed Dennison, who retains responsibility for any errors or inconsistencies.

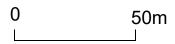




© Crown copyright and Database rights Ordnance Survey Licence 100013825 (2021).

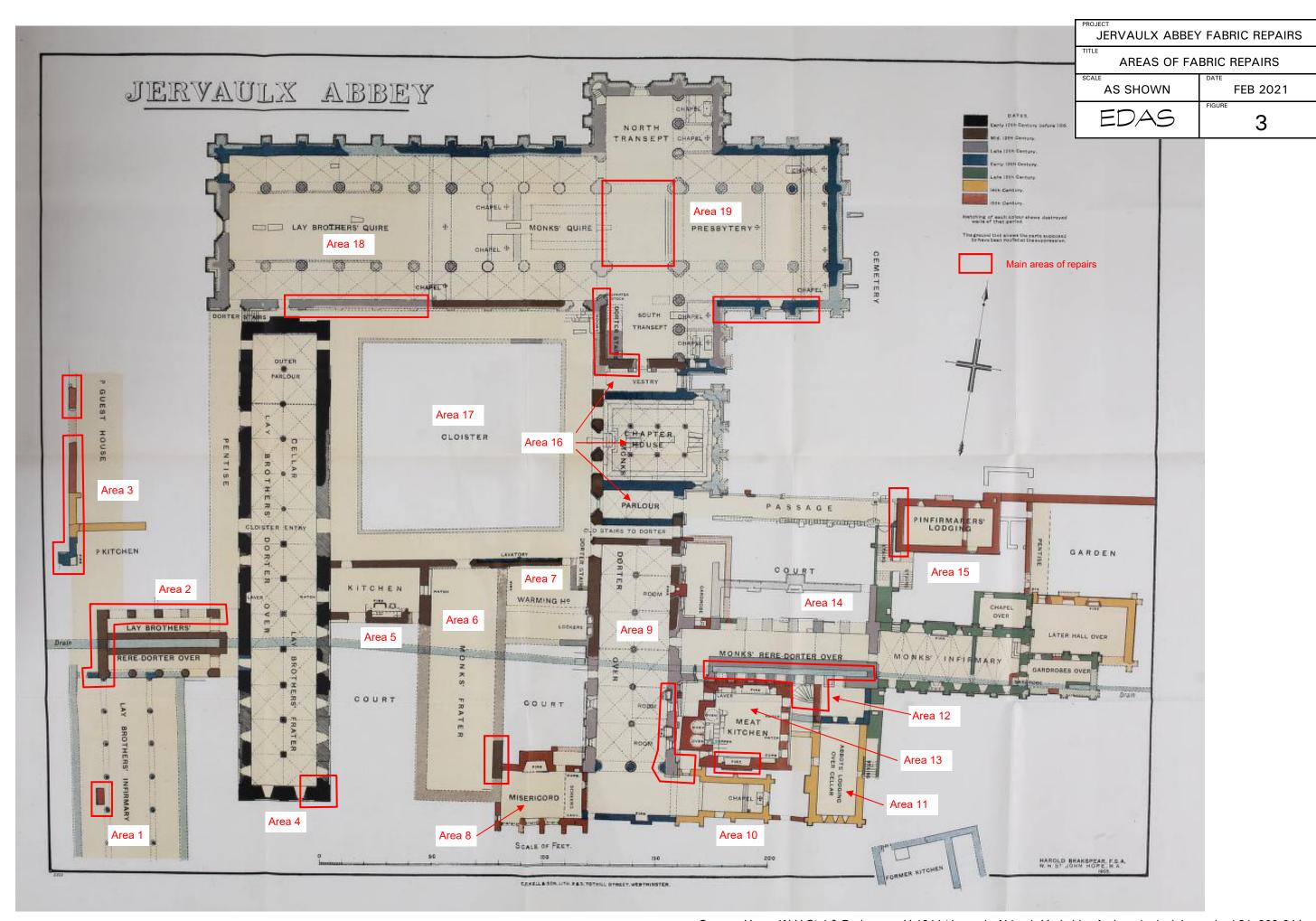
JERVAULX ABBEY FABRIC REPAIRS TITLE GENERAL LOCATION		
EDAS	FIGURE 1	

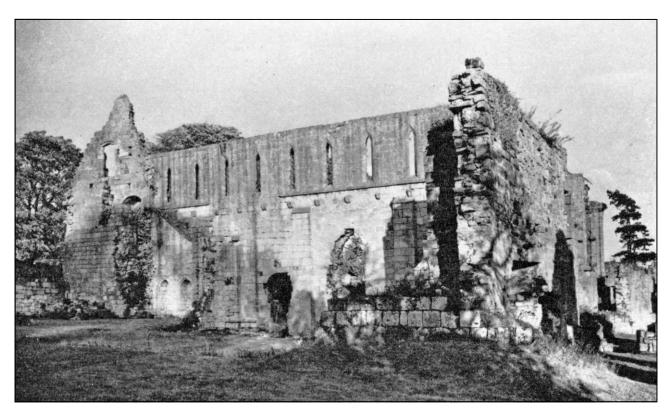




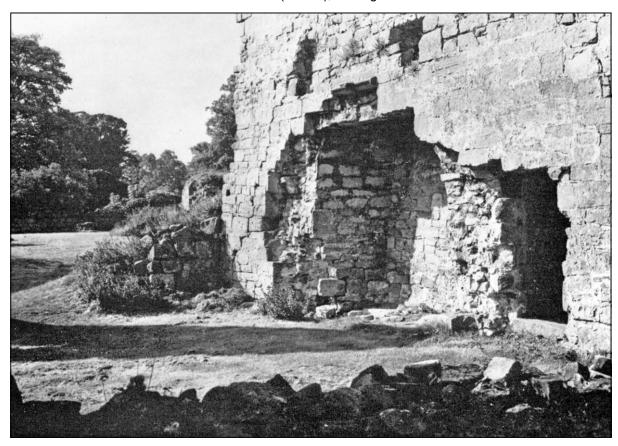
© Crown copyright and Database rights Ordnance Survey Licence 100013825 (2021).

JERVAULX ABBEY FABRIC REPAIRS TITLE DETAILED LOCATION		
EDAS	FIGURE 2	





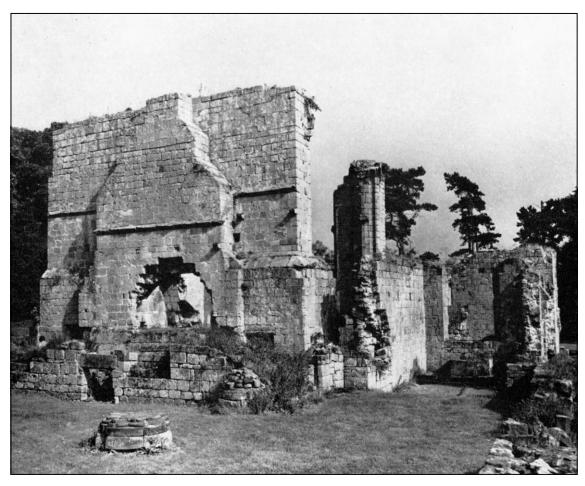
Area 6: Monks' frater, showing surviving section of west elevation of east wall, against north wall of the misericord (Area 8), looking NE.



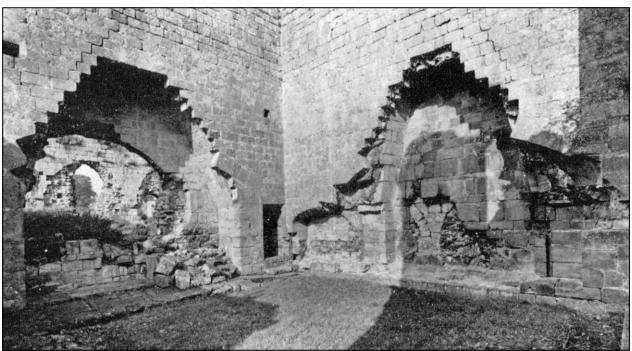
Area 6: Monks' frater, showing surviving section of east elevation of east wall, against north wall of the misericord (Area 8), looking NW.

Source: Innes-Smith, R 1972 *Jervalux Abbey* (1972 guidebook produced by English Life Publications).

JERVAULX ABBEY FABRIC REPAIRS	
1972 PHOTOGRAPHS	
NTS	FEB 2021
EDAS	FIGURE 4



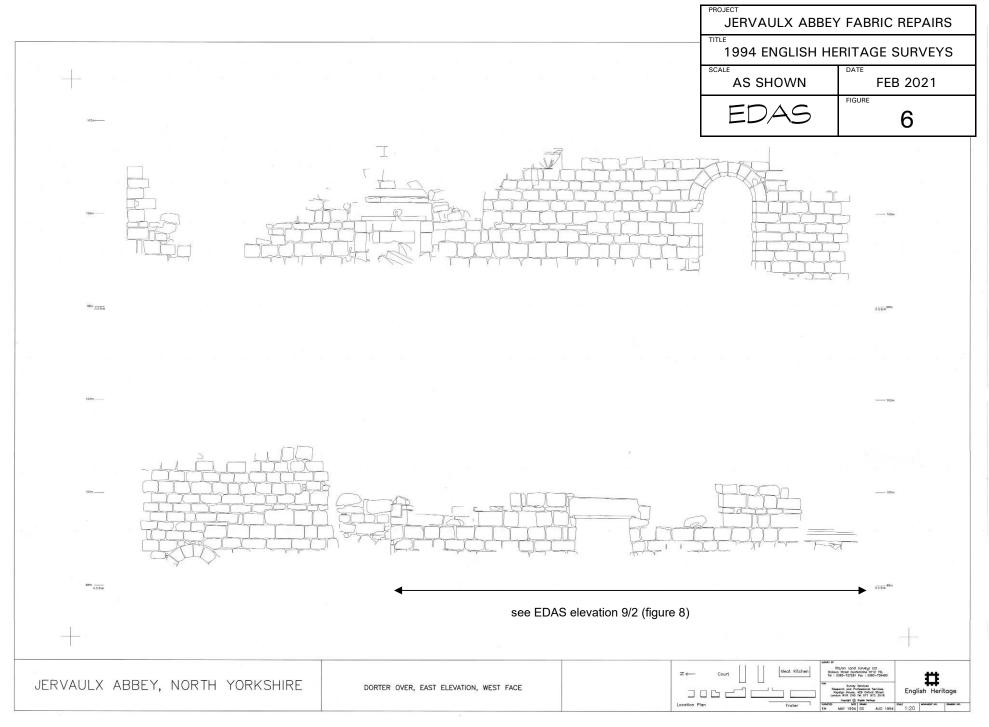
Area 9: Monks' dorter, showing fireplace, window and pier base in west internal elevation of east wall (south part), with west wall of meat kitchen (Area 13) behind and chapel (Area 10) to right, looking NE.



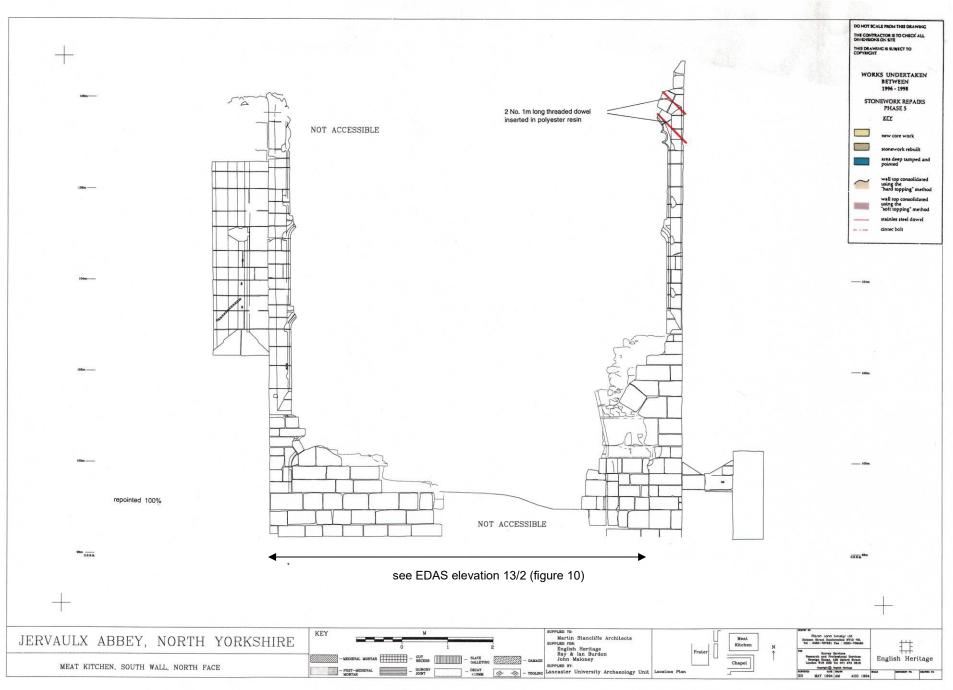
Area 13: Meat kitchen, showing fireplaces in north and west internal walls, looking NW.

Source: Innes-Smith, R 1972 *Jervalux Abbey* (1972 guidebook produced by English Life Publications).

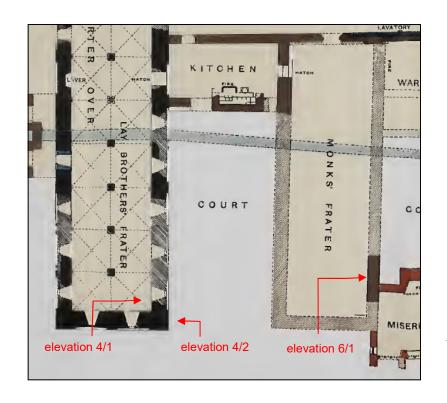
JERVAULX ABBEY FABRIC REPAIRS	
1972 PHOTOGRAPHS	
NTS	FEB 2021
EDAS	FIGURE 5

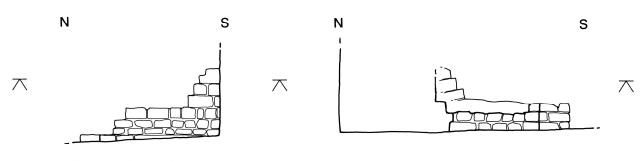


Area 9: Monks' dorter, west internal elevation of east wall (English Heritage May 1994).



Area 13: Meat kitchen, north internal elevation of south wall (English Heritage 1994).





Area 4: elevation 4/2

N s

Area 4: elevation 4/1

 $\overline{\wedge}$

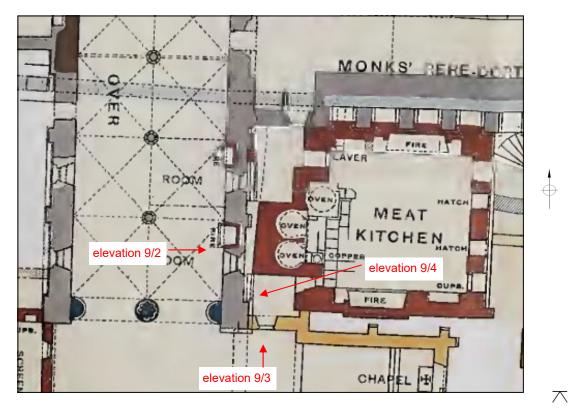
Area 6: elevation 6/1

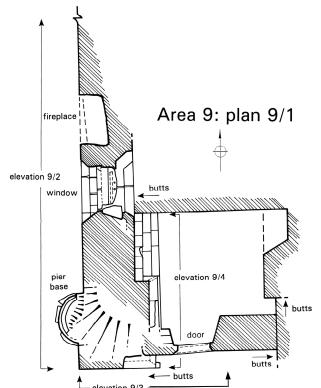
O 5m

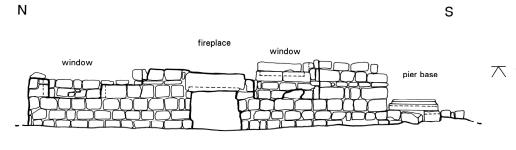
Area 4: Lay brothers' quarters (frater): elevation 4/1 - west internal elevation of east wall (south end) elevation 4/2 - east external elevation of east wall (south end)

Area 6: Monks' frater: elevation 6/1 - west internal elevation of east wall (south end)

JERVAULX ABBEY FABRIC REPAIRS	
AREAS 4 AND 6 ELEVATIONS	
AS SHOWN	FEB 2021
EDAS	FIGURE 7

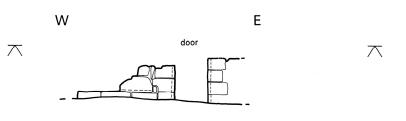




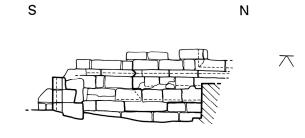


Area 9: elevation 9/2





Area 9: elevation 9/3

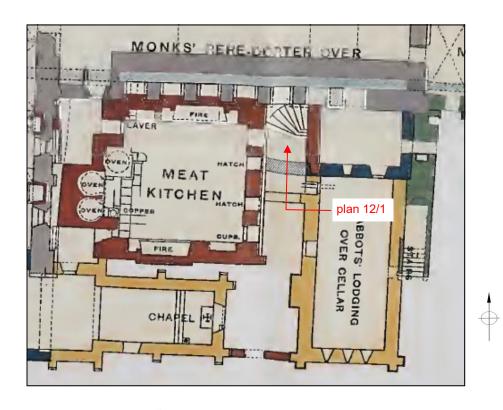


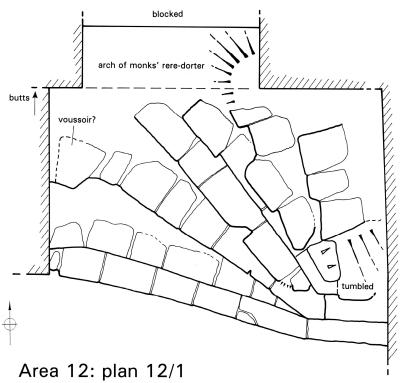
Area 9: elevation 9/4

Area 9: Monks' dorter:

elevation 9/2 - west internal elevation of east wall (south end) elevation 9/3 - south external elevation of south wall (west end) Elevation 9/4 - east external elevation of east wall (south end)

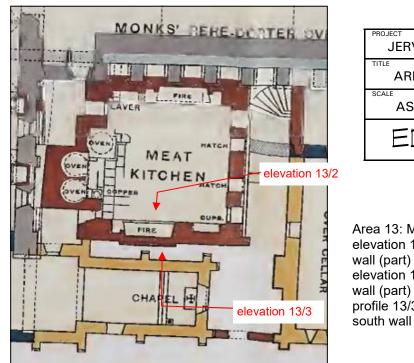
JERVAULX ABBEY FABRIC REPAIRS	
AREA 9 PLAN AND ELEVATIONS	
AS SHOWN	FEB 2021
EDAS	FIGURE 8





<u>O</u> 3m

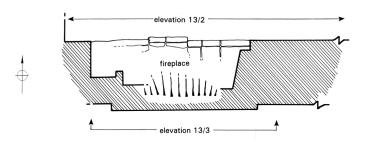
PROJECT JERVAULX ABBEY FABRIC REPAIRS	
TITLE	
AREA 12 PLAN	
AS SHOWN	FEB 2021
EDAS	FIGURE 9

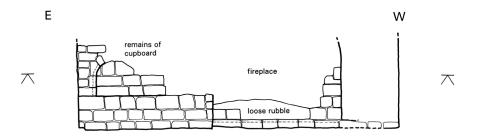


JERVAULX ABBEY FABRIC REPAIRS	
AREA 13 PLAN AND ELEVATIONS	
AS SHOWN	FEB 2021
EDAS	10

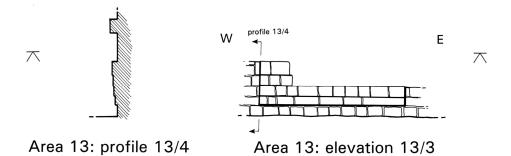
Area 13: Meat kitchen elevation 13/2 - north internal elevation of south wall (part) elevation 13/3 - south external elevation of south wall (part) profile 13/3 - corbelling of back of fireplace in

Area 13: plan 13/1

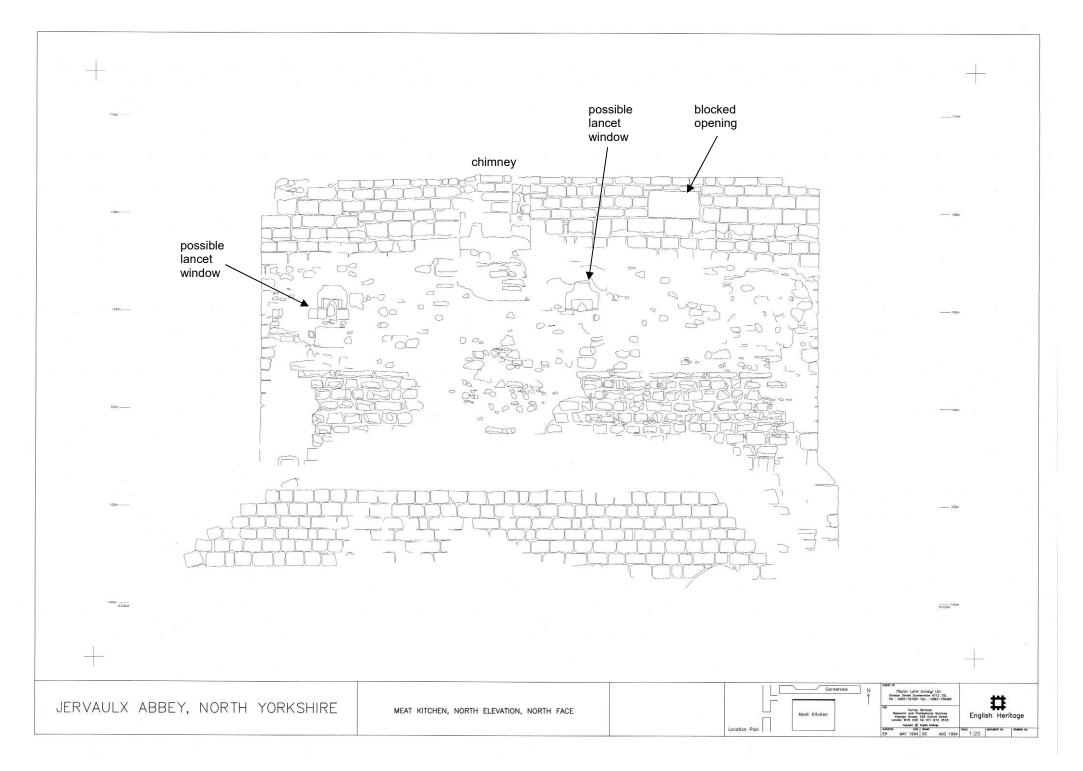




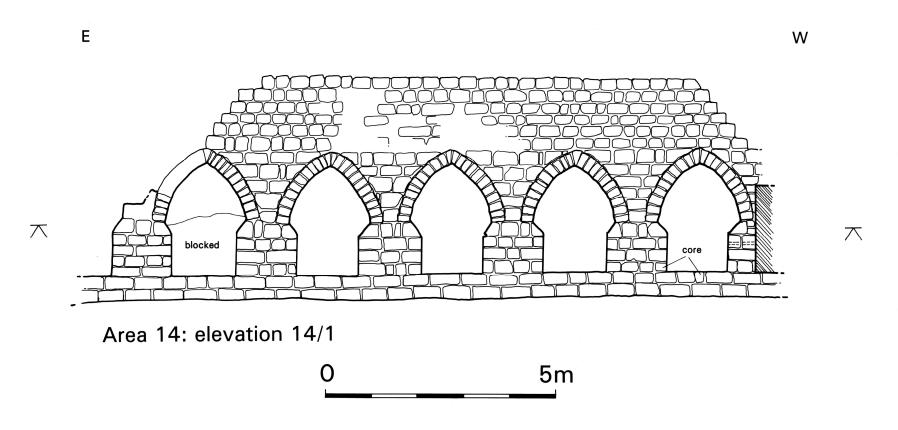
Area 13: elevation 13/2





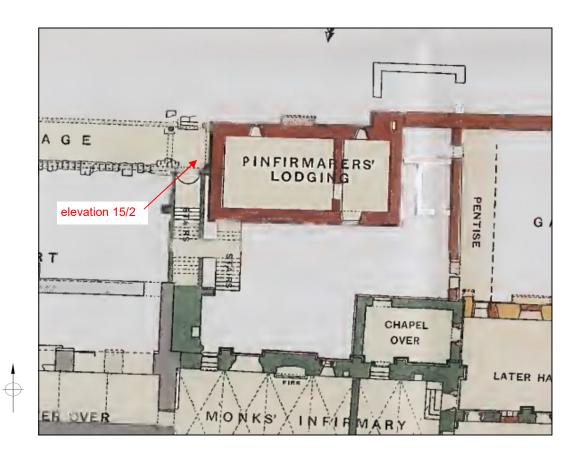


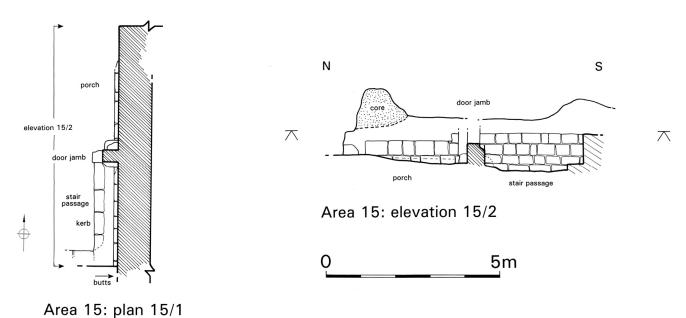
Area 14: Monks' rere-dorter, north interval elevation of south wall (English Heritage May 1994).



Area 14: Monks' rere-dorter elevation 14/1 - north internal elevation of south wall of drain

PROJECT	
JERVAULX ABBEY FABRIC REPAIRS	
AREA 14 ELEVATION	
AS SHOWN	FEB 2021
EDAS	FIGURE 11





Area 15: Monks' infirmary (infirmarers' lodgings) elevation 15/2 - west external elevation of west wall (east side of north-south passage).

JERVAULX ABBEY FABRIC REPAIRS	
AREA 15 PLAN AND ELEVATION	
AS SHOWN	FEB 2021
EDAS	12



Plate 1: Area 1: Lay brothers' infirmary, east internal elevation of west aisle wall, looking W (photo 1/250).



Plate 2: Area 1: Lay brothers' infirmary, west external elevation of west aisle wall, looking SE (photo 1/253).



Plate 3: Area 2: Lay brothers' rear-dorter, south external elevation of south wall, before clearance, looking NE (photo 1/257).



Plate 4: Area 2: Lay brothers' rear-dorter, east return of south end of west wall, showing column base, after clearance, looking NW (photo 2/453).



Plate 5: Area 2: Lay brothers' rear-dorter, north external elevation, piers and east return of west wall, looking SE (photo 2/465).



Plate 6: Area 2: Lay brothers' rear-dorter, west pier in north wall, during repair, looking S (photo 3/576).



Plate 7: Area 2: Lay brothers' rear-dorter, east end of north wall, after clearance, looking E (photo 2/463).



Plate 8: Area 2: Lay brothers' rear-dorter, east end of north wall, during repair, looking E (photo 3/578).



Plate 9: Area 2: Lay brothers' rear-dorter, east return to west wall, after repair, looking SE (photo 6/666).



Plate 10: Area 3: Lay brothers' guest house, east internal elevation of west wall (north part), after clearance, looking W (photo 2/466).



Plate 11: Area 3: Lay brothers' guest house, west wall, during repair, looking NW (photograph courtesy Peter Pace).



Plate 12: Area 4: Lay brothers' quarters (frater), west internal elevation of east wall (south end), before clearance, looking E (photo 1/278).



Plate 13: Area 4: Lay brothers' quarters (frater), west internal elevation of east wall (south end), after clearance, looking E (photo 3/580).



Plate 14: Area 6: Monks' frater, west internal elevation of east wall (south end), after clearance, looking E (photo 4/191).



Plate 15: Area 6: Monks' frater, west internal elevation of east wall (south end), after repair, looking SE (photograph courtesy Peter Pace).



Plate 16: Area 6: Monks' frater, east external elevation of east wall, north of misericord, after clearance, looking W (photo 4/188).



Plate 17: Area 6: Monks' frater, east external elevation of east wall, north of misericord, after repair, looking SW (photograph courtesy Peter Pace).



Plate 18: Area 7: Warming house, remains of dorter stairs, before clearance, looking NE (photo 1/298).



Plate 19: Area 8: Misericord, west internal elevation of east wall, looking E (photo 1/301).



Plate 20: Area 9: Monks' dorter, west internal elevation of east wall (south part), before clearance, looking E (photo 1/319).



Plate 21: Area 9: Monks' dorter, window in west internal elevation of east wall (south part), after clearance, looking SE (photo 3/556).



Plate 22: Area 9: Monks' dorter, fireplace and window in west internal elevation of east wall (south part), after clearance, looking E (photo 2/477).



Plate 23: Area 9: Monks' dorter, window sill in west internal elevation of east wall (south part), looking S (photo 2/485).



Plate 24: Area 9: Monks' dorter, pier base in west internal elevation of east wall (south end), after clearance, looking N (photo 2/482).



Plate 25: Area 9: Monks' dorter, east external elevation of east wall (south end), after clearance, looking W (photo 3/551).



Plate 26: Area 9: Monks' dorter, pier base and west internal elevation of east wall (south end), after consolidation, looking N (photograph courtesy Peter Pace).



Plate 27: Area 9: Monks' dorter, pier base and west internal elevation of east wall (south end), after repair, looking NE (photo 4/185).



Plate 28: Area 9: Monks' dorter, south internal elevation of north wall, looking N (photo 1/309).



Plate 29: Area 9: Monks' dorter, south external elevation of south wall, looking N (photo 1/326).



Plate 30: Area 9: Monks' dorter, pier at south end of east internal elevation of west wall, looking W (photo 1/307).



Plate 31: Area 10: Chapel interior, looking E (photo 1/359).



Plate 32: Area 11: Abbots' lodging, east internal elevation of west wall (north end), showing doorway into garderobe, looking W (photo 1/342).



Plate 33: Area 12: Staircase between abbots' lodging and monks' rere-dorter, after clearance, looking N (photo 2/504).



Plate 34: Area 12: Staircase between abbots' lodging and monks' rere-dorter, after repair, looking N (photo 3/557).



Plate 35: Area 12: Staircase between abbots' lodging and monks' rere-dorter, east elevation of wall to the east, after repair, looking W (photo 3/562).



Plate 36: Area 13: Meat kitchen, north internal elevation of south wall, before clearance, looking S (photo 1/330).



Plate 37: Area 13: Meat kitchen, north internal elevation of south wall, showing fireplace, looking SE (photo 4/176).



Plate 38: Area 13: Meat kitchen, south external elevation of south wall, showing corbelling for fireplace, looking W (photo 4/179).



Plate 39: Area 13: Meat kitchen, east internal elevation of west wall, before clearance, looking W (photo 1/336).



Plate 40: Area 14: Monks' rere-dorter, north internal elevation of south wall (upper level), during clearance, looking SW (photo 2/491).

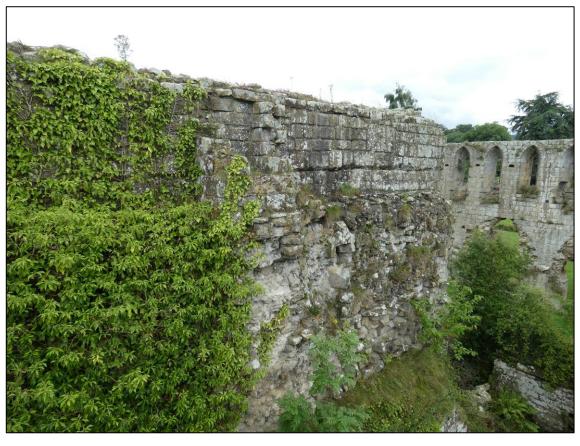


Plate 41: Area 14: Monks' rere-dorter, north internal elevation of south wall (upper level), showing chimney flue from meat kitchen and cut line of former rere-dorter roof, looking SW (photo 2/493).

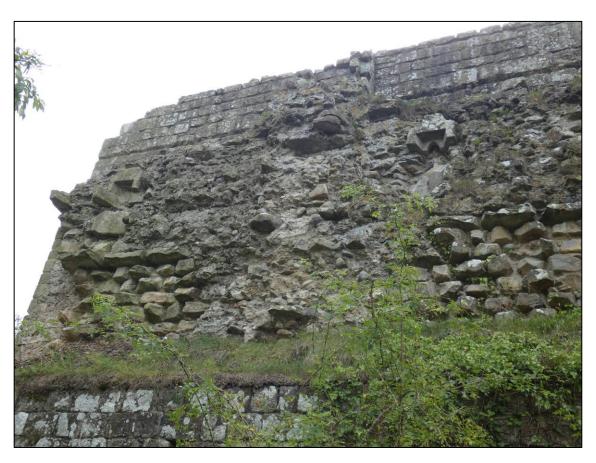


Plate 42: Area 14: Monks' rere-dorter, north internal elevation of south wall (upper level), after clearance, showing possible lancet windows either side of chimney and cut line of former rere-dorter roof, looking S (photo 3/563).



Plate 43: Area 14: Monks' rere-dorter, south internal elevation of drain, looking SW (photograph courtesy Peter Pace).



Plate 44: Area 14: Monks' rere-dorter, south internal elevation of drain, looking E (photo 3/567).



Plate 45: Area 14: Monks' rere-dorter, south internal elevation of drain, western arch after repair, looking S (photo 7/619).



Plate 46: Area 14: Monks' rere-dorter, north external elevation of drain, looking SW (photo 6/650).



Plate 47: Area 15: Infirmarers' lodging, west external elevation of west wall, before clearance, looking E (photo 6/642).



Plate 48: Area 15: Infirmarers' lodging, west external elevation of west wall (north end), after repair, looking SE (photo 7/616).



Plate 49: Area 16: Vestry, south internal elevation of north wall, before clearance, looking NE (photo 1/390).



Plate 50: Area 16: Vestry, south internal elevation of north wall, during repair, looking NE (photograph courtesy Peter Pace).



Plate 51: Area 16: Chapter house, interior, looking E (photo 1/381).



Plate 52: Area 16: Parlour, interior, looking E (photo 1/380).



Plate 53: Area 18: Abbey church, lay brothers' quire, south external elevation of south wall (central part), before clearance, looking NW (photo 1/368).



Plate 54: Area 18: Abbey church, lay brothers' quire, south external elevation of south wall (west part), during clearance, looking NW (photo 1/402).



Plate 55: Area 18: Abbey church, lay brothers' quire, south external elevation of south wall, (west part) during clearance, showing base of window base, looking W (photo 2/473).



Plate 56: Area 18: Abbey church, lay brothers' quire, north internal elevation of south wall (west part), during clearance showing doorway opening, looking SE (photo 2/475).



Plate 57: Area 18: Abbey church, lay brothers' quire, north internal elevation of south wall (west part), during repair, looking SW (photograph courtesy Peter Pace).



Plate 58: Area 18: Abbey church, lay brothers' quire, north internal elevation of south wall (west part), after repair, looking SW (photograph courtesy Peter Pace).



Plate 59: Area 19: Abbey church, north transept, west internal elevation of east wall, looking E (photo 1/394).



Plate 60: Area 19: Abbey church, central crossing platform, before repair, looking SE (photo 5/615).



Plate 61: Area 19: Abbey church, central crossing platform, after repair, looking NW (photo 7/613).



Plate 62: Area 19: Abbey church, presbytery, south internal elevation of south wall, after repair, looking S (photo 7/612).



Plate 63: Site entrance, ex situ stonework and embalming slab, after tree clearance, looking SW (photo 6/670).



Plate 64: Area 9: Monks' dorter, fenced culvert against west internal elevation of east wall, looking E (photo 1/318).



Plate 65: Area 14: Monks' rere-dorter, west end of drain showing new fencing, looking SE (photo 1/350).



Plate 66: Area 14: Monks' rere-dorter, west end of drain showing older-type fencing, looking SE (photo 1/349).



Plate 67: Area 15: Monks' infirmary, grills over open culvert of east-west drain, looking SE (photo 1/364).



Plate 68: Area 12: Stairs between abbots' lodging and monks' rere-dorter, new fencing to top over drain, looking N (photograph courtesy Historic Property Restoration).



Plate 69: Area 4: Lay brothers' dorter, dorter stairs to north external elevation, new fencing, looking E (photograph courtesy Historic Property Restoration).

APPENDIX 1 EDAS PHOTOGRAPHIC CATALOGUE

Jervaulx Abbey Fabric Repairs - Photographic Catalogue

- Film 1: Colour digital photographs taken 2nd July 2019 (pre-works)
- Film 2: Colour digital photographs taken 2nd August 2019
- Film 3: Colour digital photographs taken 3rd September 2019
- Film 4: Colour digital photographs taken 8th October 2019
- Film 5: Colour digital photographs taken 9th June 2020
- Film 6: Colour digital photographs taken 17th June 2020
- Film 7: Colour digital photographs taken 12th November 2020

Film	Frame	Subject	Scale			
1	250	Area 1: Lay brothers' infirmary, W aisle wall, E internal elevation, looking W				
1	251	Area 1: Lay brothers' infirmary, W aisle wall, S elevation, looking N	1m			
1	252	Area 1: Lay brothers' infirmary, W aisle wall, S elevation, looking N				
1	253	Area 1: Lay brothers' infirmary, W aisle wall, W external elevation, looking SE				
1	254	Area 1: Lay brothers' infirmary, W aisle wall, N elevation, looking S				
1	255	Area 2: Lay brothers' rear-dorter, S wall (E end), S external elevation, before clearance, looking N	1m			
1	256	Area 2: Lay brothers' rear-dorter, S wall, S external elevation, before clearance, looking N	1m			
1	257	Area 2: Lay brothers' rear-dorter, S wall, S external elevation, before clearance, looking NE	1m			
1	258	Area 2: Lay brothers' rear-dorter, interior showing drain, looking W	1m			
1	259	Area 2: Lay brothers' rear-dorter, N wall (W end), N external elevation, before clearance, looking S	1m			
1	260	Area 2: Lay brothers' rear-dorter, W wall, W external elevation, before clearance, looking SE	1m			
1	261	Area 2: Lay brothers' rear-dorter, W wall (N end), E return, N external elevation, before clearance, looking S	1m			
1	262	Area 2: Lay brothers' rear-dorter, N wall, N external elevation, before clearance, looking SE	1m			
1	263	Area 3: Lay brothers' guest house, W wall (S part), E internal elevation, before clearance, looking NW	2 x 1m			
1	264	Area 3: Lay brothers' guest house, W wall (N part), E internal elevation, before clearance, looking W				
1	265	Area 3: Lay brothers' guest House, W wall (N part), E external elevation, before clearance, looking W	1m			
1	266	Area 4: Lay brothers' quarters (cellarium), W wall, E internal elevation, looking NW	2 x 1m			
1	267	Area 4: Lay brothers' quarters (cellarium), W wall, E internal elevation, looking NW	2 x 1m			
1	268	Area 4: Lay brothers' quarters (parlour), W wall, E internal elevation, looking SW	2 x 1m			
1	269	Area 4: Lay brothers' quarters (cellarium), W wall, E internal elevation, looking SW	2 x 1m			
1	270	Area 4: Lay brothers' quarters (cellarium), W wall, E internal elevation, looking W	2 x 1m			
1	271	Area 4: Lay brothers' quarters (cellarium), W wall, E internal elevation, looking NW	2 x 1m			
1	272	Area 4: Lay brothers' quarters (frater), W wall, E internal elevation, looking SW	2 x 1m			
1	273	Area 4: Lay brothers' quarters (frater), W wall, E internal elevation, looking W	1m			
1	274	Area 4: Lay brothers' quarters (frater), W wall, E internal elevation, looking NW	2 x 1m			
1	276	Area 4: Lay brothers' quarters (frater), S wall, S internal elevation, looking S	2 x 1m			
1	277	Area 4: Lay brothers' quarters (frater), SE corner, internal elevations, looking SE	1m			
1	278	Area 4: Lay brothers' quarters (frater), E wall (S end), W internal elevation, before clearance, looking E	1m			
1	279	Area 4: Lay brothers' quarters (frater), E wall (S end), E external elevation, before clearance, looking W	1m			
1	280	Area 4: Lay brothers' quarters (frater), S wall, S external elevation, looking N	1m			
1	281	Area 4: Lay brothers' quarters (parlour), E wall (N end), W internal elevation, looking E	1m			
1	283	Area 4: Lay brothers' quarters (parlour and cellarium), E wall, W internal elevation, looking S				
1	284	Area 4: Lay brothers' quarters (parlour), E wall (N end), W internal elevation, looking NE	1m			
1	285	Area 4: Lay brothers' quarters (parlour and cellarium), E wall, W internal elevation, looking NE	2 x 1m			
1	288	Area 4: Lay brothers' quarters (cellarium), E wall, W internal elevation, looking E	2 x 1m			
1	289	Area 4: Lay brothers' quarters (frater), E wall, W internal elevation, looking NE	2 x 1m			

			, ,				
1	291	Area 4: Lay brothers' quarters (frater), E wall, W internal elevation, new drain fencing, looking E	1m				
1	292	Area 4: Lay brothers' quarters (frater), E wall (S end), W internal elevation, before clearance, looking E Area 4: Lay brothers' quarters (parlour), N wall, S internal elevation, looking N					
1	294	Area 4: Lay brothers' quarters (parlour), N wall, S internal elevation, looking N					
1	295	Area 4: Lay brothers' quarters, N wall, N external elevation and dorter stairs, looking E					
1	296	Area 5: Monk's kitchen, S wall, S external elevation, looking NW					
1	297	Area 5: Monks' kitchen, S wall, N internal elevation, looking S					
1	298	Area 7: Warming house, remains of dorter stairs, before clearance, looking NE					
1	299	Area 8: Misericord, NW corner, internal elevations, before clearance, looking NW	1m 1m				
1	301	Area 8: Misericord, E wall, W internal elevation, looking E					
1	302	Area 8: Misericord, E wall, E external elevation, looking W					
1	303	Area 9: Monks' dorter, W wall (N end), E internal elevation, looking W	2 x 1m				
1	304	Area 9: Monks' dorter, W wall (N part), E internal elevation, looking SW	2 x 1m				
1	305	Area 9: Monks' dorter, W wall (centre), E internal elevation, looking W	2 x 1m				
1	306	Area 9: Monks' dorter, W wall (centre), E internal elevation, looking SW	2 x 1m				
1	307	Area 9: Monks' dorter, W wall (S end), E internal elevation, pier, looking W	1m				
1	308	Area 9: Monks' dorter, W wall, E internal elevation, looking N	2 x 1m				
1	309	Area 9: Monks' dorter, N wall, S internal elevation, looking N	2 x 1m				
1	310	Area 9: Monks' dorter, N wall, N external elevation, looking W	1m				
1	312	Area 16: Parlour, S wall, S external elevation, looking E	1m				
1	313	Area 16: Parlour, S wall, S external elevation, looking W	1m				
1	314	Area 9: Monks' dorter, E wall (N end), W internal elevation, looking E	2 x 1m				
1	315	Area 9: Monks' dorter, E wall (N end), W internal elevation, fireplace, looking E	2 x 1m				
1	317	Area 9: Monks' dorter, E wall (centre), W internal elevation, looking E	2 x 1m				
1	318	Area 9: Monks' dorter, E wall (centre), W internal elevation, new fencing to drain, looking E	1m				
1	319	Area 9: Monks' dorter, E wall (S part), W internal elevation, before clearance, looking E	2 x 1m				
1	321	Area 9: Monks' dorter, E wall (S part), W internal elevation, before clearance, looking SE	1m				
1	322	Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, before clearance, looking E	1m				
1	323	Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, before clearance, looking NE	1m				
1	325	Area 9: Monks' dorter, S wall, N internal elevation, looking S	1m				
1	326	Area 9: Monks' dorter, S wall, S external elevation, looking N	1m				
1	327	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), before clearance, looking SE	-				
1	328	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), before clearance, looking SW	-				
1	330	Area 13: Meat kitchen, S wall, N internal elevation, before clearance, looking S	2 x 1m				
1	331	Area 13: Meat kitchen, SW corner, internal elevations, before clearance, looking SW	- X IIII				
1	332	Area 13: Meat kitchen, W wall, W external elevation, looking NE	_				
1	333	Area 13: Meat kitchen, W wall, W external elevation, before clearance, looking W	1m				
1	336	Area 13: Meat kitchen, W wall, E internal elevation, before clearance, looking W	2 x 1m				
1	337	Area 11: Abbots' lodging, garderobe, E wall, W internal elevation, looking E	2 x 1m				
1	338	Area 11: Abbots' lodging, garderobe, E wall, W internal elevation, looking SE	2 x 1m				
1	340	Area 11: Abbots' lodging, E wall (S end), E external elevation, looking W	2 x 1m				
1	342	Area 11: Abbots' lodging, W wall (N end), east internal elevation, looking W	1m				
1	344	Area 12: Staircase between abbots' lodging and monks' rear-dorter, before clearance, looking N	1m				
1	345	Area 12: Staircase between abbots' lodging and monks' rear-dorter, before clearance, looking N					
1	347	Area 14: Monks' rear-dorter, N wall of drain, N internal elevation, looking S	1m				
1	348	Area 14: Monks' rear-dorter, N wall of drain, N internal elevation, looking E	1m				
1	349	Area 14: Monks' rear-dorter, N wall of drain, older fencing to W end, looking SE	1m				
1	350						
1	351	Area 15: Monks' infirmary, Infirmarers' lodging, roof, looking NE	1m -				
1	352	Area 15: Monks' infirmary, Infirmarers' lodging, roof, looking NE	-				
1	354	Area 5: Monks' kitchen, W wall, E internal elevation, looking W	1m				
1	355	Area 5: Monks' kitchen, N wall (W end), S internal elevation, looking N	1m				
1	356	Area 5: Monks' kitchen, N wall (E part), S internal elevation, looking NE	1m				
1	357	Area 6: Monks' frater, court, alignment of culverted drain, looking E	1m				
<u> </u>		1					

_	,					
1	358	Area 6: Monks' frater, court, grills over open culvert of drain on E side of court, looking	1m			
		E				
1	359	Area 10: Chapel, interior, looking E	1m 1m			
1	360	Area 10: Chapel, N wall, S internal elevation, looking NE				
1	361	Area 10: Chapel, S wall, N internal elevation, looking SE				
1	362	Area 10: Chapel, S wall, S external elevation, looking N				
1	363	Area 10: Chapel, E wall, E external elevation, looking NW	1m			
1	364	Area 15: Monks' infirmary, grills over open culvert of drain, looking SE	1m			
1	365	Area 17: Cloisters, trees, looking NW	-			
1	366	Area 17: Cloisters, trees to W side against E side of lay brothers' quarters, looking S	-			
1	367	Area 17: Cloisters, trees to W side against E side of lay brothers' quarters, looking N	-			
1	368	Area 18: Abbey church, lay brothers' quire, S wall, S external elevation (central part), before clearance, looking NW				
1	369	Area 18: Abbey church, S wall, S external elevation, looking NE	1m			
1	370	Area 18: Abbey church, S wall, S external elevation, ex-situ stonework, looking N	1m			
1	371	Area 18: Abbey church, S wall, S external elevation, ex-situ stonework, looking NE	1m			
1	372	Area 14: Monks' rear-dorter, N wall (W end), N external elevation, looking S	1m			
1	373	Area 14: Monks' rear-dorter, N wall (W end), S internal elevation, looking N	1m			
1	374	Area 14: Monks' rear-dorter, N wall fragment, looking N	1m			
1	375	Area 16: Parlour, N wall, S internal elevation, looking NE	1m			
1	376	Area 16: Parlour, N wall, S internal elevation, looking NW	1m			
1	377	Area 16: Parlour, N wall, S internal elevation, looking N	1m			
1	378	Area 16: Parlour, S wall (E end), N internal elevation, looking SE	1m			
1	379	Area 16: Parlour, S wall, N internal elevation, looking E	1m			
1	380	Area 16: Parlour, interior, looking E	1m			
1	381	Area 16: Chapter house, interior, looking E	1m			
1	382	Area 16: Chapter house, interior, looking SE	1m			
1	383	Area 16: Chapter house, interior, looking E	1m			
1	384	Area 16: Chapter house, W wall, E internal elevation, looking SE	1m			
1	385	Area 16: Chapter house, N wall, S internal elevation, looking NE	1m			
1	386	Area 16: Chapter house, N wall, S internal elevation, benches, looking E	1m			
1	387	Area 16: Chapter house, E wall, W internal elevation, altar, looking E	1m			
1	388	Area 16: Chapter house, S wall, N internal elevation, looking SE				
1	389	Area 16: Chapter house, interior, looking W	1m			
1	390	Area 16: Vestry, N wall, S internal elevation, before clearance, looking NE	1m			
1	391	Area 16: Vestry, N wall, S internal elevation, before clearance, looking W	1m			
1	392	Area 16: Vestry, S wall, N internal elevation, looking W	1m			
1	393	Area 19: Abbey church, presbytery, S wall, N internal elevation, looking SE	1m			
1	394	Area 19: Abbey church, north transept, E wall, W internal elevation, looking NE	1m			
1	395	Area 19: Abbey church, north transept, E wall, W internal elevation, looking NE	1m			
1	396	Area 19: Abbey church, north transept, E wall, W internal elevation, looking E	1m			
1	397	Area 19: Abbey church, S wall, N internal elevation, looking SE	1m			
1	398	Area 19: Abbey church, lay brothers' quire, S wall, N internal elevation, prior to	1m			
'		clearance, looking SW	''''			
1	399	Area 19: Abbey church, lay brothers' quire, S wall, N internal elevation, footings of	1m			
		chapel, looking SE				
1	400	Area 19: Abbey church, lay brothers' quire, column bases on N side, looking NW	1m			
1	401	Area 19: Abbey church, lay brothers' quire, column base on S side, looking W	1m			
1	402	Area 19: Abbey church, lay brothers' quire, Column base on 3 side, looking W	-			
'	.02	clearance, looking NW				
1	403	Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, during	_			
'		clearance, looking NW				
1	404	Area 19: Abbey church, lay brothers' quire, S wall, S external elevation, before	1m			
ļ .		clearance, looking W	'''			
		, · · 3				
2	453	Area 2: Lay brothers' rear-dorter, W wall (S end), E return, after clearance, looking NW	2 x 1m			
2	454	Area 2: Lay brothers' rear-dorter, W wall (S end), E internal elevation, after clearance,	2 x 1m			
1 -		looking W				
2	455	Area 2: Lay brothers' rear-dorter, W wall (S end), E return, pier base, after clearance,	2 x 1m			
		looking NW				
2	456	Area 2: Lay brothers' rear-dorter, W wall (S end), W external elevation, after clearance,	2 x 1m			
		looking E				
2	457	Area 2: Lay brothers' rear-dorter, W wall (N end), W external elevation, after clearance,	2 x 1m			
		looking E				

wall, after clearance, looking SE 2							
459 Area 2: Lay brothers' rear-dorter, N wall (N end), E Internal elevation, after clearance, looking S 1m 1m 2 460 Area 2: Lay brothers' rear-dorter, N wall, W pier, after clearance, looking S 1m 2 461 Area 2: Lay brothers' rear-dorter, N wall, W pier, ex-situ fragment (possible picina?), looking S 2 462 Area 2: Lay brothers' rear-dorter, N wall, central pier, after clearance, looking S 1m 2 463 Area 2: Lay brothers' rear-dorter, N wall, E end, after clearance, looking E 1m 2 464 Area 2: Lay brothers' rear-dorter, N wall, N external elevation, piers and returns, after clearance, looking S: ear-dorter, N wall, N external elevation, piers and returns, after clearance, looking S: ear-dorter, N wall, N external elevation, piers and E return to W 2x 1m 465 Area 2: Lay brothers' guest house, W wall (N part), E internal elevation, after 2x 1m 466 Area 3: Lay brothers' guest house, W wall (N part), ex-situ fragments, after clearance, looking SE 467 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after 2x 1m 468 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after 2x 1m 469 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after 2x 1m 469 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after 470 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after 471 Area 3: Lay brothers' guest house, W wall (S part) W external elevation, after 472 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after 474 Area 9: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, we 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, we 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, we 475 Area	2	458		1m			
2 460 Area 2: Lay brothers' rear-dorter, N wall, W pier, ex-situ fragment (possible picina?), looking S 2 462 Area 2: Lay brothers' rear-dorter, N wall, well, central pier, after clearance, looking S 2 463 Area 2: Lay brothers' rear-dorter, N wall, E end, after clearance, looking SE 3 464 Area 2: Lay brothers' rear-dorter, N wall, E end, after clearance, looking SE 4 Area 2: Lay brothers' rear-dorter, N wall, N external elevation, piers and returns, after clearance, looking SE 4 Area 2: Lay brothers' rear-dorter, N wall, N external elevation, piers and returns, after clearance, looking SE 4 Area 2: Lay brothers' rear-dorter, N wall, N external elevation, piers and returns, after clearance, looking SE 4 After 3: Lay brothers' rear-dorter, N wall, N external elevation, piers and E return to W wall, after clearance, looking SE 4 After 3: Lay brothers' guest house, W wall (N part), E internal elevation, after clearance, looking SE 5 After 3: Lay brothers' guest house, W wall (N part), we sternal elevation, after clearance, looking SE 6 After 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 6 After 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 7 After 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 8 After 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 9 After 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 9 After 3: Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking SE 9 After 3: Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 1 After 3: Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, will will will will will will will wil	2	459	Area 2: Lay brothers' rear-dorter, W wall (N end), E internal elevation, after clearance,				
481 Area 2: Lay brothers' rear-dorter, N wall, W pier, ex-situ fragment (possible picina?), looking S 2	2	460					
2 462 Area 2: Lay brothers' rear-dorter, N wall, central pier, after clearance, looking SE 1m 2 464 Area 2: Lay brothers' rear-dorter, N wall, N external elevation, piers and returns, after clearance, looking SE 2 465 Area 2: Lay brothers' rear-dorter, N wall, N external elevation, piers and returns after clearance, looking SE 2 466 Area 2: Lay brothers' grear-dorter, N wall, N external elevation, piers and E return to W wall, after clearance, looking SE 2 466 Area 3: Lay brothers' guest house, W wall (N part), E internal elevation, after clearance, looking SW 2 467 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SW 2 468 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 470 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 471 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking E 2 472 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 2 473 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 3 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 3 Area 3: Lay brothers' guest house, W wall (W part), S external elevation, after clearance, looking SE 3 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking SE 3 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, with a function of the control of			Area 2: Lay brothers' rear-dorter, N wall, W pier, ex-situ fragment (possible picina?),				
2 463 Area 2: Lay brothers' rear-dorter, N wall, E end, after clearance, looking E 2 x 1m clearance, looking S 4rea 2: Lay brothers' rear-dorter, N wall, N external elevation, piers and returns, after clearance, looking S 4rea 2: Lay brothers' guest house, W wall (N part), E internal elevation, piers and E return to W wall, after clearance, looking SE 4rea 3: Lay brothers' guest house, W wall (N part), E internal elevation, after clearance, looking SE 4rea 3: Lay brothers' guest house, W wall (N part), E internal elevation, after clearance, looking SE 4rea 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 4rea 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 4rea 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 4rea 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 4rea 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 5rea 4rea 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking SE 5rea 4rea 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 5rea 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 6rea 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking E 5rea 4rea 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, after clearance, looking E 5rea 4rea 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, freplace and window, after clearance, looking E 5rea 4rea 19: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 5rea 4rea 19: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 5rea 4r							
2							
clearance, looking S 485 Area 2: Lay brothers' guest house, W wall (N part), E internal elevation, after clearance, looking SE 2 466 Area 3: Lay brothers' guest house, W wall (N part), ex-situ fragments, after clearance, looking W 2 467 Area 3: Lay brothers' guest house, W wall (N part), ex-situ fragments, after clearance, looking SE 2 488 Area 3: Lay brothers' guest house, W wall (N part), ex-situ fragments, after clearance, looking SE 2 489 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 470 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 471 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 2 472 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 473 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, after downway opening, during clearance, looking SE 3 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, with a elevation, after clearance, looking SE 4 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, was elevation, after clearance, looking SE 3 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, was elevation, after clearance, looking SE 4 477 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 4 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking SE 4 480 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 4 481 Area 9: Monks' dorter, E wall (S end), W internal elevation,							
wall, after clearance, looking SE 2 466 Area 3: Lay brothers' guest house, W wall (N part), E internal elevation, after clearance, looking W 160 Area 3: Lay brothers' guest house, W wall (N part), ex-situ fragments, after clearance, looking SE 160 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 469 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 470 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 2 471 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 2 472 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 473 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking E 2 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, after clearance, looking E 3 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, 1 m doorway opening, during clearance, looking SE 3 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, 2 477 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 3 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 3 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking SE 3 480 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 3 480 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 3 480 Area 9: Monks' dorter, E	2	464	clearance, looking S				
clearance, looking W 467 Area 3: Lay brothers' guest house, W wall (N part), ex-situ fragments, after clearance, looking SW 468 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 469 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 470 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 2 471 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 2 472 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 473 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 2 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S elevation, after clearance, looking SE 2 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 2 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, ex-situ stonework, looking W 2 477 Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, ex-situ stonework, looking W 2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking E 2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 2 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 2 480 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 3 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 3 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after cl	2	465	wall, after clearance, looking SE	2 x 1m			
2	2	466		2 x 1m			
2 468 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 469 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking SE 2 470 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 2 471 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, return to W at S end., after clearance, looking SE 2 472 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W brothers' quire, S wall (W part), S external elevation, after clearance, looking W part), window base, during clearance, looking W part), window base, during clearance, looking E 3 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking E 4 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 4 786 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, ex-situ stonework, looking W 4 Area 19: Mohks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 4 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 4 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E 4 481 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 4 482 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 4 483 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 4 484 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 4 485 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking S 4 Area 14: Monks' rere-dorter, S wall, N	2	467	Area 3: Lay brothers' guest house, W wall (N part), ex-situ fragments, after clearance,	1m			
2 469 Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after clearance, looking E 2 470 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 3 471 Area 3: Lay brothers' guest house, W wall (S part) W external elevation, return to W at S end. after clearance, looking SE 4 472 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 473 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S elevation, after clearance, looking W 2 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 4 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, ex-situ stonework, looking W 4 476 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 4 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, interplace, after clearance, looking E 4 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E 4 481 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 4 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 4 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 4 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 4 485 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 4 486 Area 9: Monks' dorter, E wall (S end), W internal elevation, window sill, after clearance, looking S 4 A	2	468	Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after	2 x 1m			
2 470 Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after clearance, looking SE 2 471 Area 3: Lay brothers' guest house, W wall (S part) W external elevation, return to W at S end, after clearance, looking SE 2 472 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 473 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S elevation, after clearance, looking W 3 Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S elevation, after clearance, looking S 4 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 4 Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, ex-situ stonework, looking W 4 Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, ex-situ stonework, looking W 4 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 4 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking E 4 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 4 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking S 4 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 4 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 5 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 6 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 6 Area 9: Monks' dorter, E wall (S end), W internal elevation, window sill, after clearance, looking S 6 Area 9: M	2	469	Area 3: Lay brothers' guest house, W wall (N part), W external elevation, after	2 x 1m			
2 471 Area 3: Lay brothers' guest house, W wall (S part) W external elevation, return to W at S end, after clearance, looking SE 2 472 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 473 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S elevation, after clearance, looking E 2 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 2 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, es-situ stonework, looking W 4 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking E 2 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 2 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, pier base, after clearance, looking E 2 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 485 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 486 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 487 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 488 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking S 489 Area 9: Monks' dorter, E wal	2	470	Area 3: Lay brothers' guest house, W wall (S part), W external elevation, after	2 x 1m			
2 472 Area 19: Abbey ohurch, lay brothers' quire, S wall (W part), S external elevation, after clearance, looking W 2 473 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S elevation, after clearance, looking E 2 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 2 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, ex-situ stonework, looking W 2 477 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking E 2 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 3 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E 4 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 4 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 5 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 6 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 7 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 8 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 8 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 8 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 9 Area 14: Monks' rere-dorter, S wall, N internal elevation, during clearance, looking S 1 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), possi	2	471	Area 3: Lay brothers' guest house, W wall (S part) W external elevation, return to W at	1m			
2 473 Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W part), window base, during clearance, looking W 2 474 Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S elevation, after clearance, looking E 2 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 2 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, ex-situ stonework, looking W 3 477 Area 9: Mohok's dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 2 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 3 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E 4 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 4 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 4 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 4 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 4 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 4 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking N 4 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking S 4 Area 9: Monks' dorter, E wall (S end), W internal elevation, window sill, after clearance, looking S 4 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 4 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 4 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, lo	2	472	Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, after	1m			
474 Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S elevation, after clearance, looking E 475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, ex-situ stonework, looking W 477 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 485 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking N 486 Area 9: Monks' dorter, E wall (S end), W internal elevation, window sill, after clearance, looking S 487 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 488 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 489 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 490 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), possible E lancet window, during clearance, looking S 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	473	Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation (W	1m			
475 Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, doorway opening, during clearance, looking SE 476 Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, ex-situ stonework, looking W 2 477 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 2 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 2 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E 2 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 2 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 485 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking E 486 Area 9: Monks' dorter, E wall (S end), W internal elevation, window sill, after clearance, looking E 487 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 489 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 490 Area 11: Abbots' lodging, interior, looking S 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), chimney and roof cut line, looking SW	2	474	Area 19: Abbey church, lay brothers' quire, S wall (W part), doorway opening through S	1m			
476 Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, ex-situ stonework, looking W 477 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, window, after clearance, looking SE 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 485 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking S 486 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 487 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 488 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 489 Area 14: Monks' rere-dorter, S wall, N internal elevation, during clearance, looking SW 490 Area 11: Abbots' lodging, interior, looking S 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 492 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), possible E lancet window, during clearance, looking SW Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	475	Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation,	1m			
2 477 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after clearance, looking E 2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 2 479 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 2 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E 2 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 2 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 485 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking E 3 486 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 3 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 487 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking E 489 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 490 Area 11: Abbots' lodging, interior, looking S 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), possible clearance, looking SW 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	476	Area 19: Abbey church, lay brothers' quire, S wall (W part), S internal elevation, ex-situ	1m			
2 478 Area 9: Monks' dorter, E wall (S part), W internal elevation, after clearance, looking SE 2 x 1m looking E 2 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 2 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, window, after clearance, looking SE 2 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 485 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking E 2 486 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 2 486 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 2 487 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 2 488 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking E 3 489 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 4 490 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), possible clearance, looking SW 4 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), possible E lancet window, during clearance, looking SW 4 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	477	Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after	2 x 1m			
2 480 Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance, looking E 2 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 2 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 485 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking E 2 486 Area 9: Monks' dorter, E wall (S end), W internal elevation, window sill, after clearance, looking S 2 486 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 2 487 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking E 3 489 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 4 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), possible E lancet window, during clearance, looking S 4 492 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	478		2 x 1m			
480 Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E 2 481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 2 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking E 2 485 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 2 486 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 2 487 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking E 489 Area 14: Monks' rere-dorter, S wall, N internal elevation, during clearance, looking SW 2 490 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 4 492 Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S 4 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW			Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace, after clearance,				
481 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking SE 2 482 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 2 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking E 2 485 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 2 486 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 2 487 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking E 2 489 Area 14: Monks' rere-dorter, S wall, N internal elevation, during clearance, looking SW 2 490 Area 11: Abbots' lodging, interior, looking S 2 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 2 492 Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S 3 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	480	Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance,	2 x 1m			
looking N 483 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance, looking N 484 Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base detail, after clearance, looking E 485 Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance, looking S 486 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S 487 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking E 488 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking E 489 Area 14: Monks' rere-dorter, S wall, N internal elevation, during clearance, looking SW 490 Area 11: Abbots' lodging, interior, looking S 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 492 Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	481	Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance,	1m			
looking N 2	2	482		2 x 1m			
clearance, looking E 2	2	483	looking N	2 x 1m			
looking S 2	2	484	clearance, looking E	1m			
2 487 Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking E 1m 2 489 Area 14: Monks' rere-dorter, S wall, N internal elevation, during clearance, looking SW - 2 490 Area 11: Abbots' lodging, interior, looking S - 2 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 2 492 Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S 2 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	485	Area 9: Monks' dorter, E wall (S part), W internal elevation, window sill, after clearance,				
2 489 Area 14: Monks' rere-dorter, S wall, N internal elevation, during clearance, looking SW - 2 490 Area 11: Abbots' lodging, interior, looking S - 2 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 2 492 Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S 2 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	486	Area 9: Monks' dorter, E wall, W elevation, window sill, after clearance, looking S	1m			
2 490 Area 11: Abbots' lodging, interior, looking S - 2 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 2 492 Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S 2 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW		487		1m			
2 491 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during clearance, looking SW 2 492 Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S 2 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW				-			
clearance, looking SW Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW			Area 11: Abbots' lodging, interior, looking S				
2 492 Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible E lancet window, during clearance, looking S 2 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	491	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), during				
2 493 Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	2	492	Area 14: Monks' rere-dorter, S wall (E end), N internal elevation (upper level), possible				
	2	493	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and				
roof cut line, looking SW	2	494	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and	-			

2	495	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney, looking S	-			
2	496	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), chimney and roof cut line, looking SW	-			
2	497	General view towards monks' dorter, looking W				
2	498	General view towards monks' infirmary, looking E				
2	499	Area 14: Monks' rere-dorter, S wall (E end), N internal elevation, during clearance, looking S				
2	501	Area 14: Monks' rere-dorter, S wall (E end), N internal elevation, possible E lancet window, looking SW	-			
2	502	Area 14: Monks' rere-dorter, view into drain from above	-			
2	503	Area 11: Abbots' lodging, interior, looking S	- 0 4			
2	504	Area 12: Staircase between abbots' lodging and monks' rear-dorter, after clearance, looking N	2 x 1m			
2	505	Area 12: Staircase between abbots' lodging and monks' rear-dorter, after clearance, looking NE	2 x 1m			
3	549	Area 9: Monks' dorter, E wall (S end), S internal elevation, after clearance, looking N	2 x 1m			
3	550	Area 9: Monks' dorter, E wall (S end), W internal elevation, pier base, after clearance,	2 x 1m			
		looking SE				
3	551	Area 9: Monks' dorter, E wall (S end), E external elevation, after clearance, looking W	2 x 1m			
3	552	Area 9: Monks' dorter, E wall (S end), E external elevation, butt joints, looking NW	1m			
3	553	Area 9: Monks' dorter, E wall (S end), E return, N internal elevation, looking S	2 x 1m			
3	554	Area 9: Monks' dorter, E wall (S end), E return, N internal elevation, looking S	1m			
3	555	Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking E	2 x 1m			
3	556	Area 9: Monks' dorter, E wall (S part), W internal elevation, window, after clearance, looking SE	2 x 1m			
3	557	Area 12: Staircase between abbots' lodging and monks' rear-dorter, after repair, looking N	2 x 1m			
3	558	Area 12: Staircase between abbots' lodging and monks' rear-dorter, after repair, looking NE				
3	559	Area 12: Staircase between abbots' lodging and monks' rear-dorter, after repair, looking N	1m			
3	560	Area 12: Staircase between abbots' lodging and monks' rear-dorter, wall to E, W elevation, after repair, looking E	1m			
3	562	Area 12: Staircase between abbots' lodging and monks' rear-dorter, wall to E, E elevation, after repair, looking W	2 x 1m			
3	563	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), after clearance, looking S	-			
3	564	Area 14: Monks' rere-dorter, S wall (W part), N internal elevation (upper level), looking S	-			
3	565	Area 14: Monks' rere-dorter, S wall, N internal elevation (upper level), after clearance, looking S	-			
3	566	Area 14: Monks' rere-dorter, S wall, N internal elevation of drain, western arch, looking S	1m			
3	567	Area 14: Monks' rere-dorter, view along drain, looking E	-			
3	568	Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, during repair, looking W	2 x 1m			
3	569	Area 19: Abbey church, lay brothers' quire, S wall (W part), S external elevation, window base, during repair, looking NW	1m			
3	570	Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, during repair, looking SW	2 x 1m			
3	571	Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, during repair, looking SW				
3	572	Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, during repair, looking SE	2 x 1m			
3	573	Area 19: Abbey church, lay brothers' quire, S wall (W part), N internal elevation, during repair, looking SE	2 x 1m			
3	574	Area 2: Lay brothers' rear-dorter, W wall (N end), internal E elevation, during repair, looking NW				
3	575	Area 2: Lay brothers' rear-dorter, W wall (N end), E return, during repair, looking SW	2 x 1m			
3	576	Area 2: Lay brothers' rear-dorter, N wall, W pier, during repair, looking S	1m			
3	577	Area 2: Lay brothers' rear-dorter, N wall, central pier, during repair, looking S	1m			
3	578	Area 2: Lay brothers' rear-dorter, N wall (E end), during repair, looking E	1m			

3	579	Area 2: Lay brothers' rear-dorter, E wall (N end), during repair, looking SW	1m		
3	580	Area 4: Lay brothers' quarters (frater), E wall (S end), W internal elevation, after	2 x 1m		
		clearance, looking E			
3	581	Area 4: Lay brothers' quarters (frater), E wall (S end), E external elevation, after	2 x 1m		
		clearance, looking W			
3	582	Area 4: Lay brothers' quarters (frater), E wall (S end), E external elevation, after			
		clearance, looking W			
4	175	Area 13: Meat kitchen, S wall, N internal elevation, fireplace, after clearance, looking S	2 x 1m		
4	176	Area 13: Meat kitchen, S wall, N internal elevation, fireplace, after clearance, looking	2 x 1m		
		SE			
4	177	Area 13: Meat kitchen, S wall, N internal elevation, fireplace, after clearance, looking S	1m		
4	178	Area 13: Meat kitchen, S wall, N internal elevation, fireplace step, after clearance,	1m		
		looking S			
4	179	Area 13: Meat kitchen, S wall, S external elevation, corbelling for fireplace, looking W	2 x 1m		
4	181	Area 13: Meat kitchen, S wall, S external elevation, corbelling for fireplace, looking E	1m		
4	182	Area 13: Meat kitchen, S wall, S external elevation, corbelling for fireplace, looking E	1m		
4	183	Area 13: Meat kitchen, S wall, S external elevation, corbelling for fireplace, looking E	1m		
4	184	Area 11: Abbots' lodging, E wall (N end), doorway, looking NE	1m		
4	185	Area 9: Monks' dorter, E wall (S end), W internal elevation and pier base, after repair,	1m		
7	100	looking NE	''''		
4	186	Area 19: Abbey church, S transept, W wall, W external elevation, looking NE	1m		
4	187	Area 16: Vestry, N wall, S internal elevation, after clearance, looking NW	1m		
4	188	Area 6: Monks' frater, E wall, E external elevation, N of misericord, after clearance,	1m		
7	100	looking W	''''		
4	189	Area 6: Monks' frater, E wall, E external elevation, N of misericord, after clearance,	1m		
7	103	looking W	''''		
4	190	Area 6: Monks' frater, E wall, E external elevation, N of misericord, after clearance,	1m		
7	130	looking W	''''		
4	191	Area 6: Monks' frater, E wall (S end), W internal elevation, after clearance, looking E	1m		
7	131	Area 6: Monks Trater, E wall (S end), W Internal elevation, after clearance, looking E			
5	615	Area 19: Abbey church, central crossing platform, before repair, looking SE	1m		
5	616	Area 19: Abbey church, central crossing platform, before repair, looking NE	1m		
5	617	Area 19: Abbey church, central crossing platform, NW corner, before repair, looking SE	1m		
5	618	Area 19: Abbey church, central crossing platform, before repair, looking S	1m		
5	619	Area 19: Abbey church, central crossing platform, before repair, looking W	1m		
5	620		1m		
5	020	Area 19: Abbey church, central crossing platform, before repair, looking NW			
6	635	Area 19: Abbey church, presbytery, S wall, S internal elevation, looking SE	1m		
6	636	Area 19: Abbey church, presbytery, S wall, S internal elevation, looking SW	1m		
6	640	Area 15: Infirmarers' lodging, W wall, W external elevation, before clearance, looking	2 x 1m		
0	040	SE	2 X IIII		
6	640		2 x 1m		
6	642	Area 15: Infirmarers' lodging, W wall, W external elevation, before clearance, looking E			
6	643	Area 15: Infirmarers' lodging, NW corner, external elevations, before clearance, looking SE	2 x 1m		
6	644	Area 15: Infirmarers' lodging, N wall, N external elevation, looking S	1m		
6					
6	645	Area 15: Infirmarers' lodging, W wall, W external elevation, ex-situ moulded arch	1m		
6	646	segments on door jamb, looking SE	2 v 1 m		
6	646	Area 15: Infirmarers' lodging, N wall, S internal elevation, looking N	2 x 1m		
6	647	Area 15: Infirmarers' lodging, W wall, E internal elevation, looking W	2 x 1m		
6	648	Area 15: Infirmarers' lodging, S wall (E end), S external elevation, looking N	1m		
6	649	Area 14: Monks' rear-dorter, N wall of drain (E end), N external elevation, looking S	1m		
6	650	Area 14: Monks' rear-dorter, N wall of drain, N external elevation, looking SW	2 x 1m		
6	651	Area 13: Meat kitchen, W wall, E internal elevation, during clearance, looking W	1m		
6	652	Area 13: Meat kitchen, W wall, E internal elevation, during clearance, looking W	1m		
6	653	Area 13: Meat kitchen, W wall, E internal elevation, during clearance, looking NW	1m		
6	654	Area 13: Meat kitchen, W wall, E internal elevation, during clearance, looking S	1m		
6	655	Area 13: Meat kitchen, S wall, N internal elevation, fireplace, after repair, looking SE	1m		
6	656	Area 13: Meat kitchen, S wall, N internal elevation, fireplace, after repair, looking SE	1m		
6	657	Area 13: Meat kitchen, S wall, S external elevation, corbelling for fireplace, after repair,	1m		
		looking NW			
6	658	Area 13: Meat kitchen, S wall, S external elevation, corbelling for fireplace, after repair,	1m		
		looking NE			
	·				

6	659	Area 9: Monks' dorter, E wall (S part), W internal elevation, fireplace and window, after	1m		
		repair, looking E			
6	660	Area 9: Monks' dorter, E wall (S end), W internal elevation, after repair, looking SE			
6	661	Area 9: Monks' dorter, E wall (S end), W internal elevation, after repair, looking NE	1m		
6	662	Area 9: Monks' dorter, E wall (S part), E external elevation, after repair, looking N	1m		
6	664	Area 2: Lay brothers' rear-dorter, E wall (N end), after repair, looking SE	1m		
6	665	Area 2: Lay brothers' rear-dorter, N wall, piers, after repair, looking SW	1m		
6	666	Area 2: Lay brothers' rear-dorter, W wall (N end), E return, after repair, looking SE	1m		
6	667	Area 3: Lay brothers' guest house, W wall, after repair, looking N	1m		
6	668	Site entrance, ex-situ stonework, after tree clearance, looking SW	1m		
6	669	Site entrance, ex-situ stonework, after tree clearance, looking SE	1m		
6	670	Site entrance, ex-situ stonework and embalming slab, after tree clearance, looking SW	1m		
6	671	Site entrance, ex-situ stonework, after tree clearance, looking NE	1m		
6	672	Site entrance, ex-situ stonework, after tree clearance, looking E			
7	612	Area 19: Abbey church, presbytery, S wall, S internal elevation, after repair, looking S	1m		
7	613	Area 19: Abbey church, central crossing platform, after repair, looking NW	1m		
7	614	Area 19: Abbey church, presbytery, S wall, S internal elevation, after repair, looking SW	1m		
7	615	Area 19: Abbey church, presbytery, SW corner, internal elevations, after repair, looking SE	1m		
7	616	Area 15: Infirmarers' lodging, W wall, W external elevation (north end), after repair, looking SE			
7	619	Area 14: Monks' rere-dorter, S wall of drain, S internal elevation, western arch, after repair, looking S			
7	621	Area 19: Abbey church, presbytery, S wall, S internal elevation, after repair, looking NE 1			
7	624	Area 4: Lay brothers' dorter, N wall, dorter stairs with single bar in place, looking E	1m		
	024	Alea 4. Lay biothers doiter, it wall, doiter stalls with single bar in place, looking L	1111		

APPENDIX 2 LIST OF MATERIAL HELD AT PARK HOUSE AND SCANNED BY EDAS

SUMMARY CATALOGUE OF JERVAULX ABBEY MATERIAL HELD AT PARK HOUSE

On the 26th June 2018, Shaun Richardson of Ed Dennison Archaeological Services (EDAS) Ltd visited Mr & Mrs Burdon, of Park House, to view the collection of material they hold regarding repairs undertaken at Jervaulx Abbey. The material was formerly held by Martin Stancliffe Architects, and was passed to Mr & Mrs Burdon when the architect retired; the dated drawings date from between c.1984 to c.2002. A small amount of material is included which does not relate to Jervaulx.

The material consists of 12 rolls of drawings, housed in 11 large rectangular cardboard tubes and one smaller black cylindrical cardboard tube. All of the large tubes are labelled 'JVX' but are otherwise identical, and so in order to identify the tubes for future reference and to make sure that any drawings that were removed for scanning were returned to the correct tube, Shaun Richardson numbered the 11 large tubes with a small number to the top, from 1 to 11.

Small Black Cylindrical Cardboard Tube - bears Historic Property Restoration Ltd stamp

Tube contains c.25 tightly rolled A3 paper prints of elevations done from stereophotographic plots by English Heritage and annotated in colour by Lancaster University Archaeology Unit. They appear to be reduced from original plots made at 1:50 scale, and to relate to Phase 5 of the repairs, dating from between c.1996 to 1998.

The drawings cover the Meat Kitchen, the Cloister's south wall, the Infirmary, the Later Hall Over and the Garderobe Court Area.

Cardboard Tube No.1 - marked 'JVX'

Tube contains c.20 A0/A1 film elevations done at a scale of 1:20 by the Photogrammetric Unit, Institute of Advanced Architectural Studies, York in 1984 and 1994. The elevation include both the original photographs at scale and the plots made from them.

The drawings cover the Abbot's Lodging, Chapter House, Meat Kitchen and Parlour areas.

Cardboard Tube No.2 - marked 'JVX'

Tube contains c.50 A0/A1 film elevations, plans and other drawings done by Martin Stancliffe Architects relating to repairs undertaken at Studley Royal Stables in c.1990. Some of the drawings are in poor or damaged condition, the film having been either torn or crushed at the edges.

Cardboard Tube No.3 - marked 'JVX'

Tube contains c.35 film elevations of varying scales and sizes, some made from photogrammetric plots, some drawings by Martin Stancliffe Architects and some related to Phase 4 repairs (1994).

The drawings include the Monks' Dorter and a small amount of the Lay Brothers' Frater.

Cardboard Tube No.4 - marked 'JVX'

Tube contains c.20 A0 film prints, some elevation plots and some drawings done by Martin Stancliffe Architects. They are all at a scale of 1:20, some dating from 1989, and some are

in poor condition with the ends having been crushed. All are prints of originals which were hung in a plan cabinet.

The drawings cover the Infirmary.

Cardboard Tube No.5 - marked 'JVX'

Tube contains an assortment of c.30 film plots, tracings, and working drawings by Martin Stancliffe Architects. The drawings are mostly at a scale of 1:20, and A1/A0 size.

The drawings appear to mostly cover the Monks Dorter, but there are also some paper copies of the scaled photographs from which the Chapter House plots were made.

Cardboard Tube No.6 - marked 'JVX'

Tube contains c.25 elevation plots and drawings on film, mostly at a scale of 1:20 and A0/A1 size. There are a small number of copies of Phase 1 repair film drawings from 1985 covering the Chapter House / Parlour Walls film elevations, made by York Archaeological Trust / English Heritage. The remainder of the drawings date from 1986 and appear to relate mostly to the Infirmary.

Cardboard Tube No.7 - marked 'JVX'

Tube contains c.20 A3 film copies of consolidation proposal drawings made by Martin Stancliffe Architects dating to June 1995 as part of the Phase 5 repairs.

Cardboard Tube No.8 - marked 'JVX'

Tube contains a roll of c.20 A1 paper prints of Meat Kitchen elevations with biro annotations, numbered stones etc. There is also a quantity of tightly rolled A2/A3 paper prints made either by Lancaster University Archaeology Unit in 1998 (Phase 6 repairs) or Oxford North in 2002 (Phase 6 repairs). Their labelling suggests that that they may be copies of figures from deposited archive reports. They mostly cover the Lay Brothers Frater and Dorter.

Cardboard Tube No.9 - marked 'JVX'

Tube contains c.15 A0/A1 film elevations done at a scale of 1:20, dating to between 1995 to 1997, and produced by either Lancaster University Archaeology Unit, the Institute of Advanced Architectural Studies, York or English Heritage. NB Included with the Jervaulx drawings is an A1 photogrammetric plot of the rear elevation of Fountains Hall, at Fountains Abbey.

The drawings cover the Meat Kitchen. Cloister and Dorter.

Cardboard Tube No.10 - marked 'JVX'

Tube contains a roll of A4 drawings by Martin Stancliffe Architects relating to Phase 3 repairs undertaken to the Infirmary in 1987. There are also c.20 A0/A1 film elevations done at a scale of 1:20 in 1986, by either York Archaeological Trust or English Heritage.

Cardboard Tube No.11 - marked 'JVX' and also labelled 'WEL 11 Not Checked (as requested by GJH)'

Tube contains c.8 A0/A1 film elevations done at a scale of 1:20, c.2 A2 film elevations done at 1:50 and a quantity of perspective sketches by Martin Stancliffe Architects showing

conservation proposals. The film elevations were done either by Lancaster University Archaeology Unit or English Heritage and dated to 1994.

The drawings cover the Cloister walls, Misericord and Dorter.

LIST OF MATERIAL SCANNED FOR 2019-20 FABRIC REPAIRS

All are stone by stone drawings unless otherwise stated.

Abbot's Lodging

- 1 x A0 film plot of W elevation of E wall at 1:20 (1987) = Scan004
- 1 x A0 film plot of E elevation of E wall at 1:20 (1987) = Scan002
- 1 x A0 film plot of W elevation of W wall at 1:20 (1987) = Scan003
- 1 x A0 film plot of E elevation of W wall at 1:20 (1987) = Scan001

Church

- 1 x A3 paper plot of very W end of S wall at 1:50 (1988) showing S face of quire arch = Scan005
- 1 x A1 film plot at 1:20 (1984) showing N elevation of S wall of Vestry = Scan006
- 1 x A1 film plot at 1:50 (1986) showing N elevation of S wall of Vestry = Scan007

Infirmarer's Lodging

- 1 x A3 paper plot, reduced from 1:50 (1994) showing N & S elevations of N wall = Scan008
- 1 x A1 film plot (1994) showing N & S elevations of N wall = Scan009

Lay Brothers Frater / Dorter

- 1 x A3 paper plot at 1:50 (2002) showing S wall, N and S elevations = Scan010
- 1 x A2 paper plot (two pieces joined together) at 1:100 (2002) showing W internal elevation (but indicated as E elevation on accompanying location plan) = Scan011
- 1 x folded A1 paper plot, reduced from 1:50 (1998) showing internal? elevations of E and W walls = Scan012
- 1 x A2 paper plot, reduced from 1:50 (1998) showing internal? elevation = Scan013
- 1 x A0 film plot at 1:20 (1994) (crushed at edges) showing parts of E and S walls = Scan014

Monks Reredorter Over

- 1 x A3 paper plot, reduced from 1:50 (1994) showing N elevation of N wall (upper part?) = Scan015
- 1 x A3 paper plot, reduced from 1:50 (1994) showing various small returns in Garderobe court area = Scan016

Meat Kitchen

- 1 x A3 paper plot, reduced from 1:50 (1994) showing various small returns to W elevation of W wall, including chimney haunches = Scan017
- 1 x A3 paper plot, reduced from 1:50 (1994) showing W elevation of W wall = Scan018
- 1 x A0 film plot at 1:20 (1994) showing W elevation of W wall = Scan019
- 1 x A3 paper plot, reduced from 1:50 (1994) showing E elevation of W wall = Scan020
- 1 x A3 paper plot, reduced from 1:50 (1994) showing E elevation of E wall (including very N end?) = Scan021
- 1 x A3 paper plot, reduced from 1:50 (1994) showing W elevation of E wall (including very N end?) = Scan022
- 1 x A3 paper plot, reduced from 1:50 (1994) showing various small returns to N elevation of S wall, including W end = Scan023
- 1 x A0 film plot at 1:20 (1994) showing N elevation of N wall = Scan024
- 1 x A0 film plot at 1:20 (1994) showing W elevation of E wall of Dorter Over = Scan025

Misericord

1 x A1 film plot at 1:20 (1994) showing E & W elevations of E wall = Scan026

- Parlour, south side of Chapter House

 1 x A1 film plot at 1:20 (1984) showing S elevation of N wall = Scan027

 1 x A1 film plot at 1:20 (1984) showing N elevation of S wall and E & W walls = Scan028

 1 x A0 film plot at 1:20 (1984) showing photographs to scale from which plots obtained all internal elevations of Parlour = Scan029

APPENDIX 3 EDAS WRITTEN SCHEME OF INVESTIGATION

WRITTEN SCHEME OF INVESTIGATION FOR A LIMITED PROGRAMME OF ARCHAEOLOGICAL AND ARCHITECTURAL OBSERVATION, INVESTIGATION AND RECORDING DURING FABRIC REPAIRS AT JERVAULX ABBEY, EAST WITTON, NORTH YORKSHIRE

1 INTRODUCTION

- 1.1 This Written Scheme of Investigation (WSI) details the work involved in a limited programme of archaeological and architectural observation, investigation and recording to be carried out during fabric repairs at Jervaulx Abbey, East Witton, North Yorkshire (NGR SE 1716 8573 centred).
- 1.2 The archaeological and architectural work has been requested by the project architect, Peter Gaze Pace, on behalf of the owner, Mr Ian Burdon. The work is being funded by Natural England, through Mr Burdon. This document has been produced by Ed Dennison Archaeological Services Ltd (EDAS), and details the work EDAS will carry out as part of the project. Its content has been approved by the relevant parties.

2 SITE LOCATION AND DESIGNATIONS

- 2.1 The ruins of Jervalux Abbey are a Grade 1 Listed Building, first listed on 15th February 1967 (National Heritage List for England 1130961). The complex is also a Scheduled Monument, first scheduled on 8th February 1915 (NHLE 1020493).
- 2.2 The abbey complex is located on the southern side of Wensleydale, 5km southeast of Middleham, some 200m south of the River Ure. It is situated on raised, level ground between the southern slope of the dale and the floodplain of the Ure. To the north of the abbey ruins there is a natural hill known as Mark Hill and to the east heavily undulating land formed by glacial action and known as Wind Hills.

3 ARCHAEOLOGICAL INTEREST

3.1 The Scheduled Monument description provides a good overall account of the history and importance of the complex, as follows:

"The monument includes standing ruins, earthwork and buried remains of the Cistercian Abbey of Jervaulx. These include the core abbey buildings and the majority of the outer precinct in which remains of fishponds, water management features and further monastic structures survive. Also included in the monument are remains of pre-monastic agricultural activity, the site of a 16th century grand house with associated gardens, a 19th century ice house and designed landscape features, and World War II ammunition stores.

Jervaulx Abbey was originally founded at Fors, 20km further west in Wensleydale by a community of Savigniac monks who by 1149 had become members of the Cistercian order. The site at Fors proved unsuitable and was abandoned in 1154 and two years later the community was re-established at the current site on land donated by Conan son of Alan Earl of Brittany and Richmond. Few of the abbey's own records survive but it is known that, by the second half of the 13th century, the abbey had substantial economic interests in the region. These included at least 16 cattle ranches in Wensleydale and the Forest of Richmond, large flocks of sheep (possibly as many as 10,000 head) and the rights to free warrening of rabbits in East Witton. The abbey also had interests in the mining and smelting of iron ore and in the production of salt. In 1307 it was granted the right to hold a weekly

market and a twice-yearly fair at East Witton and in 1535 had a fulling mill at East Witton. In 1380 there were 16 monks at Jervaulx and at the Dissolution in 1537 there were 25 or 26. Jervaulx Abbey was suppressed in 1537 after the then Abbot, Sedbergh, was arrested for involvement in the ill-fated Pilgrimage of Grace, which had attempted to reverse the religious and political changes of the Reformation.

Following the Dissolution, the buildings were stripped of anything of value and the church blown up. The estate was then leased to Lancelot Harrison for 21 years and in 1544 was granted to the Earl of Lennox who held it until the death of his wife in 1577. Recent survey work has indicated that during the tenure of the Lennoxes a grand house and ornate gardens were built partly into some of the standing abbey ruins. However, this house had a short life span and was no longer in existence by 1627. After 1577 the crown held the estate until 1603. The estate was then granted to the Bruce family, who later received the title of the Earldom of Ailesbury. Jervaulx seems to have been one of the Bruce family's lesser estates and a map dated 1627 shows that it was subdivided into a number of separate parcels of land and rented out. This seems to have remained the case until the early 19th century. In 1804 the old hall at Jervaulx was converted to be an occasional residence and administrative centre for the Ailesbury estates in west Yorkshire. In the years between 1805 and 1807 the abbey ruins were systematically cleared and exposed and, following the fashion of the time, became a central feature of a designed landscape laid out over the former abbey precinct and beyond.

The earliest remains currently identified in the monument are of pre-monastic agricultural activities. Earthwork remains of field boundaries and cultivation terraces have been identified in the western area of the monument and on Mark Hill. Two tracks pre-dating the abbey survive as terraces extending east to west across the south eastern part of the monument adjacent to the monastic precinct boundary. These are thought to be the remains of the early route from Masham to Middleham. Remains of a building, possibly a dwelling, have been identified 30m south-east of the monastic reservoir.

The monument is dominated by the standing ruins of the main abbey buildings some of which survive to their original height. The ruins are Listed Grade I. The remains demonstrate that Jervaulx followed the usual layout of a monastic house, with an east to west orientated church forming the north range of a four-sided complex known as the cloister, the remaining sides containing accommodation for lay and monastic brethren, and domestic and administrative functions. The east cloister range contained the chapter house and parlour, the south range kitchens and refectory, and the west side cellars and stores. On the first floor of the east and west sides of the cloister, and projecting to the south, were the dormitories for the monks and lay brothers respectively. Surrounding the cloister, in an area known as the inner court, was a further range of buildings essential for the economic and social functions of the abbey. These included an infirmary, abbots lodgings and a meat kitchen, all located to the south-east of the cloister and guest lodgings and lay brothers infirmary which lay to the west of the cloister.

The abbey church was comprehensibly destroyed in 1537 and only the south western corner of the nave survives to any height. The remainder of the plan of the church is however clearly demonstrated by low walls made up of reused decorated stonework which was piled up in the early 19th century as part of the clearance work. The south-western wall of the monks dormitory, the meat kitchen and parts of the infirmary complex still stand to their full medieval height. In these structures, the scale and detail of the windows and internal features such as

c:ledas/jervaulx.570/WSI page 2

fireplaces and roof and floor supports can be clearly seen. The remainder of the abbey ruins generally only survive to ground floor level. Throughout the ruins there is evidence of alterations and rebuilding that took place over the four centuries that the abbey was in use and of the modifications that took place as part of the 19th century landscaping.

Beyond the inner court lay the outer precinct which contained structures necessary for the wider economic functions of the abbey such as gardens, a bake house, workshops, smithies, stables and stores. The precinct was defined by a boundary which is identifiable along almost its entire course save the north-western corner. On the western and southern sides its line is followed by the modern A168 road, it then crosses the field south of Abbey Hill House and then extends northwards across Jervaulx Park to rise up over the northern side of Mark Hill. From here the precinct boundary extends west along the top of slope which extends down to the river flood plain to the north. In the north-western corner of the precinct, the line of the boundary has been disturbed by the construction of Jervaulx Hall and its survival is currently unknown. For most of its length the precinct boundary survives as an earthen bank which in places measures up to 10m in width and 1m in height. Along the northern stretch on Mark Hill and in the south eastern corner, south of Abbey Hill House, there are stone footings for a precinct wall visible in the ground surface. Although the original form of the boundary is currently unknown, in common with similar monastic houses elsewhere it is likely to have been a substantial wall or fence. This served to secure the monastic precinct but also clearly demonstrated the size and prestige of the abbey. Remains of at least nine monastic buildings have been identified within the outer precinct. These include three building platforms located on terraces cut into the rising ground in the western half of the precinct to the south of the building known as The Old Gatehouse but shown as 'The Monastery' on the Ordnance Survey Map. There are medieval ruins incorporated into The Old Gatehouse, but it is thought that the bulk of the medieval stonework was added to an existing ruin in the 19th century to create a landscape feature. The building is unlikely to have been a medieval gatehouse as it is in an inappropriate position although its original nature and function is currently unclear. The Old Gatehouse is a Listed Building Grade I and parts of it are in domestic occupation.

Although no evidence of gatehouses has yet been identified, the monastic road pattern suggests that the main entrance and gatehouse were located near the current entrance to Jervaulx Hall. There were likely to have been other entrances in the south east corner of the precinct south of Abbey Hill House and in the north east corner near the ice house. In common with other monastic houses, the abbey was served by a complex water management system. The water supply to the abbey complex was provided from a reservoir located in the south-west corner of the precinct. This was created by building a dam across a small natural valley. The dam still survives as a substantial earthwork 80m long, 18m wide and 3m in height. Water was fed to the inner court where it ran through a stone-lined conduit which passed the kitchens and ran below both the lay brothers and monks dormitories where it flushed the latrines. Water from the reservoir also supplied a set of at least three fishponds which were located to the south of the main claustral ranges.

To the north of the abbey there is the site of a mill which was fed by water from the reservoir and also from channels from the River Ure to the north-west, although no trace of these now survive. At the mill site there is a ruined structure of medieval appearance, however, it is thought that the bulk of the standing fabric was added to existing foundations of a medieval water mill as part of the 19th century

landscaping. The outflow from the mill ran through a leat extending eastward along the southern edge of the flood plain. This joined with other channels in the area north of the ice house to carry water away from the abbey.

The post-Dissolution grand house was built in the south-eastern corner of the inner court and seems to have incorporated some of the standing abbey buildings. The southern part of the house survives as a series of earthworks defining a rectangle measuring 25m by 30m whilst remains of the northern part have been obscured by later landscaping. Detailed survey has identified that the house lay at the centre of a series of at least 14 formal garden compartments, some containing remains of internal features, and separated by terracing and paths. The monastic fishponds were modified and turned into a series of water features still supplied from the reservoir to the south-west. Earthwork remains of structures associated with the 16th century gardens, such as pavilions and gazebos positioned to afford views over the gardens, have also been identified. At the eastern side of the gardens, to the east of the monastic precinct boundary, there was an embankment to divide the formal area from the, presumably, wilder parkland to the east. Remains of further buildings of this period, tentatively interpreted as a coach house, survive as earthworks in the field to the south of Mark Hill. The house was demolished by 1627 and a map of that date shows the area of the precinct outside the core abbey buildings was divided into fields and enclosures, remains of which survive throughout the monument as low earthworks.

The 19th century landscaping started in the early part of the century with the clearing of the abbey ruins. Over the following years further works were undertaken including building a stock-proof ditch, known as a ha ha, along the southern and western sides of the abbey ruins, and the construction of various grottoes, a gazebo on Mark Hill and a decorative arched gateway leading from the Hall into the abbey ruins. Formal gardens were laid out to the north of the abbey ruins, a wide expanse of open sward replaced the former agricultural units, and The Old Gatehouse and the mill were romanticised by the addition of decorated medieval stonework. All of these improvements were in keeping with the fashion of the time. The mid-19th century also saw the building of the ice house although this was primarily as a functional element of the estate. The ice house is a bricklined beehive shaped structure partly covered by an earthen mound and is located just within the eastern boundary of the monument. It is Listed Grade II.

In the 1940s a series of military stores for munitions or fuel were built along side the track crossing the parkland, hidden from enemy view by tree cover. These were small ditched enclosures supported by sandbags, which now only survive as earthworks. A brick building associated with these remains stands on the fence line south of Abbey Hill and footings for other structures have also been identified".

- 3.2 Much of the above information comes from the detailed survey report of the complex produced by English Heritage (1999).
- 3.3 The Burdon family have instigated major repairs over many years, with some phases grant aided by English Heritage, and others financed by the family. All previous repairs have concentrated on the urgent high level works, and have been carried out with scrupulous care and use of compatible materials, and areas completed over 30 years ago are in excellent condition.
- 3.4 Although some of the recent repair and consolidation work has been accompanied by archaeological and architectural surveys, primarily the production of rectified and photogrammetric surveys, but apparently with no accompanying descriptions

or photographs, the availability and apparent survival of the survey drawings is patchy. It is understand that a large body of material is held at Historic England archives, but this has not been catalogued and is not readily available for consultation. However, EDAS have investigated those surveys currently held by Mr Burdon, previously held Martin Stancliffe Architects, which date from between c.1984 to c.2002. The material consists of 12 rolls of drawings (both film and paper copies), housed in cardboard tubes. Some of this material was borrowed and scanned by EDAS, to inform the current phase of repairs.

4 SCHEDULED MONUMENT CONSENT

- 4.1 As noted above, Jervaulx Abbey is a Scheduled Monument, and Scheduled Monument Consent for the current phase of repairs was given by the Secretary of State for Digital, Culture, Media and Sport, advised by Historic England, on 3rd September 2018 (ref S00200865).
- 4.2 A number of conditions were attached to consent, some of which related to the repairs and the archaeological monitoring, as follows:
 - (iv) original material shall be reused wherever possible;
 - (v) any replacement material shall be of a type, texture and colour which matches the original material;
 - (vi) any replacement stone shall be of a suitable size, and laid in courses to match the original courses and joint widths;
 - (vii) all pointing and mortar work shall be in a mixture and finish to match the existing in composition, colour, texture and style;
 - (viii) care shall be taken that fittings do not rust so as to stain the brickwork/masonry;
 - (x) equipment and machinery shall not be used or operated in the scheduled area in conditions or in a manner likely to result in damage to the monument or to ground disturbance other than that which is expressly authorised in this consent;
 - (xi) any works to which this consent relates shall be carried out under the archaeological supervision of a suitably qualified archaeological contractor [to be agreed in advance by the Secretary of State as advised by Historic England] who shall be given at least 2 weeks' notice (or such shorter period as may be agreed) in writing of the commencement of work. No works shall commence until the named archaeologist has confirmed in writing to Historic England that they are willing and able to undertake the agreed supervision;
 - (xii) a report on the archaeological recording shall be sent to: Peter Rowe, principal Archaeologist, North Yorkshire County Council, the County Historic Environment Record, and to Dr Keith Emerick, Inspector of Ancient Monuments at Historic England within 3 months of the completion of the works (or such other period as may be mutually agreed);
 - (xiii) the archaeological contractor shall complete and submit an entry on OASIS (On-line Access to the Index of Archaeological Investigations -

http://oasis.ac.uk/england/) prior to completion, and shall deposit any digital project report with the Archaeology Data Service, via the OASIS form, upon completion.

5 NATURE OF THE CURRENT REPAIR PROGRAMME

- 5.1 Details of the current phase of repairs are itemised in a Condition Report and Schedule of Works, and a Specification of Repairs, both produced in 2018 by the project architect (Pace 2018a & 2018b).
- The majority of current repair works concentrate on the lower parts of the ruins, mostly to the smaller isolated areas. The works will consist of partial rebuilding of loose unstable stonework, some pruning/cutting back of small trees and vegetation, protecting and replanting specimens, and judicious pruning by an arborist. Some areas, such as the main Abbey Church, were extensively dismantled during the Dissolution and are marked by the placing of many moulded stones arranged in a mostly loose fashion, much bound together only by vegetation. Such areas will be subject to further investigation by the contractors, to so that any decisions for additional consolidation, if required, can be made. In some instances, it is possible the areas will be left alone or even further vegetation planted/ encouraged. Further details of the proposed repair works are discussed below.

6 PROGRAMME OF ARCHAEOLOGICAL AND ARCHITECTURAL OBSERVATION, INVESTIGATION AND RECORDING

Aims and Objectives

- 6.1 The aims and objectives of the archaeological and architectural survey work associated with the proposed rebuilding, repair and consolidation project at Jervaux Abbey are to:
 - enhance any existing survey drawings, and produce new records where necessary, of those areas which are to be subject to repair and consolidation work;
 - (ii) undertake archaeological monitoring and recording during any groundworks associated with project;
 - (iii) produce a survey report and archive, appropriate to and commensurate with the results obtained.
- All archaeological and architectural recording will be undertaken in accordance with current Chartered Institute for Archaeologists guidelines (ClfA 2014a & 2014b). It is envisaged that a Level 2 survey will be produced, with some elements of a Level 3 survey, as defined by Historic England (2016, 25-29).

Documentary Research

6.3 No new documentary research will be undertaken as part of the project. However, existing readily-available information, such as that produced by English Heritage (1999), will be collated and summarised as appropriate, so as to provide a context for the project.

Pre-Intervention Architectural/Architectural Survey

6.4 Discussion with the project architect and Natural England has established that the architectural/archaeological survey work should be 'low key' and relatively minimal,

and should comprise the enhancement of existing drawings (where possible and subject to access) (e.g. where vegetation removal reveals previously unrecorded fabric or structural information), and the production of photographic and written records. For those elevations subject to repair which have not been previously surveyed or recorded, as a general rule, only a photographic and descriptive record will now be made, i.e. no new stone-by-stone elevation drawings will be produced. However, it is possible that some new stone-by-stone drawings will be needed, e.g. where important new information is revealed by the consolidation work, or where the existing records are inadequate or not to scale etc.

6.5 The following table details the recording work that will be undertaken:

Location as given	Summary of proposed work	Archaeological	Available records &			
by Pace	Cammary or proposed from	implications	recording to be done			
Category A works						
Area 1(a): the Lay Brothers Infirmary	Secure few loose core stones to S end of standing wall. Remove branches from wall top.	Minor.	No existing drawings. Photographs & written description only.			
Area 1(b): the Lay Brothers Rere- Dorter	Remove vegetation, re-set dislodged stones, and repoint. Some minor rebuilding to NW & SW corners.	Minor.	No existing drawings. Photographs & written description only.			
Area 1(c): the Lay Brothers Infirmary: Kitchen and Guest House	Remove vegetation, undertake minor consolidation.	Minor	No existing drawings. Photographs & written description only.			
Area 2: the Lay Brothers Outer Parlour, Cellar, Frater with Dorter Over	West wall (internal E elevation): remove woody vegetation and undertake minor consolidation.	Minor.	Stone-by-stone elevation drawing exists (July 2002) (Pace p.27 - Scan 11). Photographs & written description only.			
	South wall: remove vegetation to both faces, partly rebuild SE corner.	Medium.	Stone-by-stone elevation drawings of both faces exist (July 2002) (Pace p.28-29 - Scans 10 & 14), but are incomplete. Update existing elevation drawings, with photographs & written descriptions.			
	East wall (internal W elevation): remove vegetation, undertake consolidation work, pin fracture to column & replace drain fence with metal park fencing.	Minor. The drain fence appears to have been replaced with metal park fencing recently.	Stone-by-stone elevation exists (June 1998) (Pace p.30 - Scan 13). Photographs & written description only.			
	North wall: repoint small area of open joints.	Minor.	No existing drawings. Photographs & written description only.			
Area 13a: Kitchen	Remove vegetation and consolidate open joints.	Minor.	No existing drawings. Photographs & written description only.			
Area 13c: Warming House	Consolidate pile of stones.	Minor.	No existing drawings. Photographs & written description only.			
Area 12a: Misericord	Remove vegetation and consolidate/rebuild NW corner. Rebuild low E wall.	Medium.	Stone-by-stone elevations of both faces of the E wall exists (June 1994) but may be incomplete (Pace p.31 - Scan 26). Update existing elevation drawings, with photographs & written descriptions.			
No 7: Monks Dorter: basement and first floor	West wall: Remove excess vegetation and repoint.	Minor.	No existing drawings. Photographs & written description only.			

c:ledas/jervaulx.570/WSI page 7

	I	1	T =
	North wall: Remove excess vegetation and repoint.	Minor.	Photographs & written description
	East wall: pin fireplace lintel, take down and rebuild S end of wall and SE corner.	Medium.	Stone-by-stone elevation of the W face exists (August 1994), but may be incomplete (Pace p.32 - Scan 25). Update existing elevation drawing of area to S of fireplace only, and also produce new plan. Also photographs & written descriptions.
	South wall: Limited removal of vegetation and repointing.	Minor.	No existing drawings. Photographs & written description only.
No 11: Meat Kitchen	North wall: Remove vegetation to upper N face, E end and repoint.	Medium.	Stone-by-stone elevation of the N face exists (August 1994), but appears to be incomplete (Pace p.33 - Scan 24). Update existing elevation drawing of upper level as far as is practical. Also photographs & written description.
	South wall: Remove vegetation and rebuild 8m length, and also SW corner.	Medium.	Stone-by-stone elevation of N face and SW corner already exist (August 1994), but appear to be incomplete (Pace p.34-38 & 40 - Scans 18 & 23). Update existing elevation drawings, with photographs & written descriptions.
	West wall: Remove vegetation.	Medium.	Stone-by-stone elevation of W wall already exists (August 1994), but is incomplete to the base (Pace p.34-38 - Scan 20). Update existing elevation drawing, with photographs & written descriptions.
No 10: Abbots Lodging	East wall: Remove vegetation, grout and point.	Medium.	Stone-by-stone elevations of E and W faces exist (October 1985), but are incomplete (Pace p.42-44 - Scans 2 & 4). Update existing elevation drawings, with photographs & written descriptions.
Staircase between Abbots Lodging No. 10 and Monks Rere Dorter No 8	Remove vegetation, level, reset and repoint stairs and arch stones behind.	Medium.	No existing drawings. Photographs & written descriptions. Make new plan of stairs at 1:50. Potential groundworks.
No 8: Monks Rere Dorter	Repoint and consolidate.	Minor.	No existing drawings. Photographs & written description.
Garderobe (adjacent Dorter no 7)	Improve fence to drain.	Minor.	None - work appears to have been already undertaken.
Infirmary lodging.	Replacement of slipped roof slates.	Minor.	Photographs and written description.
Category B Works		1	1
Area 13a: Kitchen	Consolidate open joints	Minor.	Photographs & written description only.

Area 13b: Monks	Investigate drain banks to determine	Uncertain. If	Monitoring of excavation,
Frater	condition of retaining walls.	excavation along the line of the drain, then implications would be medium to major.	recording of any archaeological deposits exposed.
Area 13c: Warming House	Investigate drain and banks.	Uncertain. If excavation along the line of the drain, then implications would be medium to major.	Monitoring of excavation, recording of any archaeological deposits exposed.
No 7: Monks Dorter: Basement and First Floor	Investigate stonework behind vegetation to E external wall face.	Medium?	No existing drawings. Previously unrecorded stonework may need recording through new drawings, as well as photographs & written description.
No 12b: Chapel	Investigate vegetation on S wall, consolidate NE & NW corner stonework.	Minor.	No existing drawings. Photographs & written description only.
Staircase between Abbots Lodging No. 10 and Monks Rere Dorter No 8	Lift and consolidate the steps.	Medium.	No existing drawings. Photographs & written description. Make new plan of stairs at 1:50 prior to lifting, as per Category A works. Any groundworks will also require recording.
Garderobe Adjacent Dorter no 7	Investigate vegetation and minor consolidation.	Minor.	Photographs & written description only.
Area 5: the Cloisters	Investigate N wall, prune back weeping willow tree, check column base stability.	Minor.	Photographs & written description only.
Area 3: the Abbey Church: Lay Brothers Quire	Investigation of boundary wall and minor consolidation.	Medium? Large quantity of ex situ moulded stones in the wall which are unrecorded.	General photographs & written description only.
Area 4: The Abbey Church: Presbytery	Investigation of boundary wall and consolidation of up to 20m of S wall. Grout and secure column bases.	Medium? Large quantity of ex situ moulded stones in the wall which are unrecorded.	General photographs & written description only.
Parlour No 6	Investigate vegetation, minor repointing.	Minor.	Photographs & written description only.
Chapter House No 6	Investigate vegetation, minor repointing, secure fractured column.	Minor.	Photographs & written description only.
Vestry No 6	Investigate vegetation.	Minor.	None.
The Monks Infirmary No 9	Investigate the S wall and drain.	Minor.	None - work appears to have already been undertaken.
Precinct Wall	Grout and point wall top and isolated joints.	Minor.	Photographs & written description only.

Where required, existing stone-by-stone elevation drawings will be enhanced to produce new 1:50 scale elevations, using hand measurement and electronic measurement as required. It may not be possible to enhance some existing drawings, e.g. if they are not to scale. Recording work will take place after vegetation removal, and either before scaffolding or using the temporary scaffolding erected for the repairs. These new elevation drawings would show all

- remaining significant architectural detail such as openings (blocked or unblocked), constructional detail, fixtures and fittings etc. All drawings would be produced according to established guidelines (e.g. Historic England 2016, 13-17).
- 6.7 Certain areas to be affected by the works, especially the low surviving boundary walls of the Abbey Church, contain large quantities of *ex situ* moulded stones. It is assumed that these have been placed here during clearance and restoration works to the site over a long period of time. Nevertheless, it is possible that some, if they were gathered in the area immediately adjacent to the wall section where they are now located, might provide information on either the original architectural form of that area or how it was demolished, dismantled and/or decayed. However, EDAS will not undertake any detailed recording of any of this *ex situ* stonework other than a general photographic record if vegetation is removed. Additionally, EDAS will not record either the original or new location of any of this stonework, should the client or contractor decide to relocate it for any reason during the course of the conservation works.
- The photographic survey will take account of the photographic guidelines produced by Historic England (2016, 17-21), and each photograph will normally be provided with a graduated scale (either a 2m or 1m ranging pole or 0.5m photographic rod). The photographs will be taken with a digital SLR camera with a minimum of 12 mega-pixel resolution. General photographs will be taken, as far as is possible, at right angles and at an angle to the elevation being photographed, whilst more detailed, close-up photographs will record significant details, subject to practicalities and access. Flash lighting will be used where necessary. All photographs will be clearly numbered and labelled with the subject, orientation, date taken and photographer's name, and will be cross referenced to film and frame numbers. Photographs will be produced in jpeg format only.
- 6.9 A detailed architectural description of the buildings will be produced, augmented by the drawn and photographic record.

Architectural/Architectural Survey during Development

- 6.10 Depending on the results of the architectural survey work, additional architectural recording may be undertaken during the remaining phases of the project, to record any remaining features of interest that might be uncovered or exposed by the works, e.g. during phases of taking down and rebuilding historic fabric. Close liaison with the building contractors will be maintained, to ensure that visits are optimised, both in terms of time and number; given the amount of work already completed, only a small number of visits is expected. Recording will be achieved through a combination of digital photography, scale drawings (enhancing the above-mentioned survey drawings as appropriate) and written descriptions as judged adequate by EDAS.
- 6.11 Any below-ground excavations associated with the proposed works, e.g. to investigate drains or to provide new foundation works, will be undertaken under strict and direct archaeological supervision, to ensure the proper identification and recording of any archaeological and architectural material that might be uncovered.
- 6.12 EDAS will view and monitor these groundworks as they are being excavated; given the fact that the site is a Scheduled Monument, it is assumed that all excavation will be done by hand. Where structures, features or finds of archaeological or architectural interest are exposed or disturbed, EDAS will be allowed time to clean, assess, and quickly hand excavate, sample and record the remains as necessary

- and appropriate. Work will not be carried out in the immediate vicinity of any identified remains until identified remains have been recorded, and EDAS has given explicit permission for operations to recommence at that location.
- 6.13 The actual areas of ground disturbance, and any features of archaeological interest, will be accurately located on a site plan and recorded by a combination of digital photography, scale drawings (enhancing the pre-intervention floor plan as appropriate) such as plans and sections at 1:50, 1:20 and 1:10 scales as appropriate, and written descriptions as judged adequate by EDAS, using appropriate proforma record sheets and standard archaeological recording systems. No specialist architectural or archaeological analyses, e.g. the analysis of paint, mortar, stucco, etc and/or dendrochronological dating of timbers, radiocarbon dating etc, will be carried out, unless previously agreed with the project architect.

Modifications

6.14 The programme of recording work outlined above may be modified in accordance with EDAS's professional judgement, insofar as the overall provisions and objectives of this WSI would not be changed. Any variations in the recording project would be discussed and agreed in advance with the project architect.

General Comments

6.15 The architectural and archaeological recording work should not unduly delay the overall programme of site works, and much can be achieved through liaison and co-operation with the building contractor. However, the client should ensure that EDAS and any appointed sub-contractors have sufficient time and resources to ensure compliance with all elements of this WSI. It is likely that the recording work will be accomplished through a number of separate site visits, with some elements being determined by the speed at which the repairs and groundworks are carried out. Access to the site will therefore be afforded to EDAS and their appointed sub-contractors at all reasonable times.

7 UNEXPECTED SIGNIFICANT OR COMPLEX DISCOVERIES

- If, in the professional judgement of the archaeologist(s) on site, unexpectedly significant or complex discoveries are made that warrant more recording than is covered by this WSI, immediate contact will be made with the project architect. This will allow appropriate amendments to be made to the scope of the recording work, in agreement with all parties concerned; these amendments might, for example, include the requirement to sample additional archaeological and/or environmental deposits, and/or detailed excavation of specific structures or human burials. The possibility of temporarily halting work for unexpected discoveries will be discussed with the project architect in advance of the development and, if required, sufficient time and resources will be made available to ensure that proper recording is made prior to any removal.
- 7.2 If human remains are encountered during the course of the groundworks, and if they are required to be removed to facilitate the development, they will be removed under the conditions of a Ministry of Justice burial licence, to ensure that they are treated with due dignity. The preferred option would be for them to be adequately recorded before lifting, and then carefully removed for scientific study, and long-term storage with an appropriate museum; however, the burial licence may specify reburial or cremation as a requirement.

7.3 The terms of the Treasure Act (1996) will be followed with regard to any finds which might fall within its purview. Any such finds will be removed to a safe place, and reported to the local coroner as required by the procedures laid down in the Code of Practice. Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft. A finds recovery and conservation strategy will also be discussed and agreed with the project architect in advance of the project commencing.

8 REPORTING AND ARCHIVING

- 8.1 EDAS will obtain the site owner's consent for the deposition of any finds resulting from the project in the local registered museum; some of these finds might include architectural fragments/items as well as the more usual range of archaeological material (e.g. bone, pottery and other artefacts). EDAS would contact the museum at the start of the project to determine their requirements for the transfer and deposition of the project archive, and the name of the recipient museum will be included in the project report. EDAS will also adhere to any specific conservation, transfer and deposition requirements which the museum might impose; these are likely to include charges for the storage and long-term curation of the site archive.
- 8.2 On completion of the fieldwork, any samples taken will be processed and all finds cleaned, identified, assessed, spot dated, marked (if appropriate) and properly packaged and stored in accordance with the requirements of national guidelines. The level of post-excavation analysis would be appropriate to the quality and quantity of the finds recovered, and specialists would be consulted as necessary.
- 8.3 A fully indexed field archive would be prepared, following the guidance produced by Historic England. The archive will comprise primary written documents, plans, sections and photographs from both the pre-intervention building recording and the subsequent watching brief work, and an index to the archive would also be prepared. Subject to the agreement of the site owner, the site archive will be deposited with any finds in the appropriate registered museum.
- 8.4 Within twelve weeks of the completion of all the site work (or longer if agreed with Historic England), a report detailing the recording and subsequent watching brief work will be produced. The final report will include the following (as appropriate):
 - A non-technical summary;
 - Site code/project number;
 - Planning reference number and SMR casework number;
 - Dates of fieldwork visits:
 - National Grid reference;
 - A brief account of the project plan, research objectives, survey methodology, procedures and equipment used;
 - A summary of the historical and archaeological background to the site;
 - The results of the architectural and archaeological survey work, and an account of the overall form and development of the site and of the evidence supporting any interpretation, in the context of the known architecture/archaeology of the area;
 - Conclusions, including an assessment of the importance of the findings in relation to the other remains on the site and in the region as a whole;
 - Recommendations for any further specialist analysis / work relating to the recorded finds, and the need for further post-excavation and publication work;
 - A bibliography and list of sources consulted;
 - A location plan, with scale;

- Various plans showing the areas monitored;
- Survey plans and section drawings, showing ground level, Ordnance Datum and vertical and horizontal scales;
- Selected illustrative material, including general site photographs and photographs of any significant archaeological deposits or architectural material artefacts that are encountered;
- Specialist artefact and environmental reports, as necessary;
- Appendices containing a copy of this methods statement, together with the details of any departures from that design, survey data and photographic registers and catalogues.

Appropriate drawn records would be produced as reduced A4 or A3 size paper copies within the body of the report; full scale drawings would be included within the site archive.

- 8.5 Copies of the final report will be supplied for distribution to all interested parties, including the site owner, either as pdf or hard copies (or both) as required. A hard copy of the final report will also be included within the site archive.
- 8.6 EDAS also subscribe to English Heritage's OASIS (Online Access to Index of Archaeological Investigations) project, and all EDAS projects are fully OASIS compliant. Prior to the start of any fieldwork, an OASIS online record will be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form will be subsequently completed; this will include an uploaded pdf version of the entire report.

9 MONITORING

9.1 The archaeological recording work may be monitored by the project architect, and appropriate site meetings and liaison will be arranged as necessary.

10 HEALTH AND SAFETY

- 10.1 All recording work on site will be carried out with due regard for all Health and Safety considerations, and Health and Safety will take priority over archaeological matters. As some of the recording work will be carried out at the same time as the main contractor's work, EDAS and their sub-contractors will also have regard for any constraints or restrictions imposed by the main contractor.
- 10.2 EDAS would comply with the Health and Safety at Work Act of 1974 while undertaking the work. A full copy of their Health and Safety Policy is available on request. The site is privately owned and EDAS would indemnify the landowner in respect of their legal liability for physical injury to persons or damage to property arising on site in connection with the recording brief, to the extent of EDAS's Public Liability Insurance Cover (£5,000,000).

11 REFERENCES

CIFA (Chartered Institute for Archaeologists) 2014a Standard and Guidance: Archaeological Watching Brief

CIFA (Chartered Institute for Archaeologists) 2014b Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures

English Heritage 1999 *Jervaulx Abbey, North Yorkshire: Survey Report* (English Heritage Archaeological Investigation Report Series Al/4/1999)

Historic England 2016 Understanding Historic Buildings: A Guide to Good Recording Practice

Pace, P G 2018b *Jervaulx Abbey: Specification for Fabric Repairs* (unpublished report for lan Burdon and Natural England)

Pace, P G 2018a *Jervaulx Abbey: Condition Report and Schedule of Works* (unpublished report for Ian Burdon and Natural England)

E Dennison, EDAS June 2019