THE BATH HOUSE,
LANGTONS GARDENS,
BILLET LANE,
HORNCHURCH,
LONDON BOROUGH OF HAVERING
RM11 1XL

HISTORIC BUILDING RECORDING, ARCHAEOLOGICAL EXCAVATION AND MONITORING

LOCAL PLANNING AUTHORITY:
LONDON BOROUGH OF HAVERING

MAY 2016
REPORT NO. R12482

PRE-CONSTRUCT ARCHAEOLOGY

The Bath House, Langtons Gardens, Billet Lane, Hornchurch, London Borough of Havering, RM11 1XL

Historic Building Recording, Archaeological Excavation and Monitoring

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Site Code: LTG15

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Client: London Borough of Havering

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1 NON-TECHNICAL SUMMARY

1.1 Pre-Construct Archaeology Limited (hereafter PCA) was commissioned by Borras Construction on behalf of the London Borough of Havering to undertake a programme of historic building recording, archaeological excavation and monitoring, prior to, and during conservation works associated with the repair and restoration of the bath within the bath house/gazebo at Langtons Gardens, Hornchurch, London Borough of Havering. The recording work was carried out on the advice of Nigel Oxley, Historic Buildings and Landscapes Officer for the London Borough of Havering.

1.2 Langtons is a grade II listed house, which was built in the early 18th century on the foundations of an older house. John Massu purchased the house in 1797. His family were originally Hugenot refugees and had become wealthy silk merchants in the City of London. Massu modernised Langtons and added the two storey canted wings that project on each side of the south front. Between 1797 and 1812 a number of changes were made the landscape and the layout of the site. It is widely believed that John Massu made these changes in line with advice from the notable landscape architect Humphry Repton. Repton appears to have designed the serpentine lake with the bath house/gazebo at langtons. The bath house/gazebo is listed Grade II and is described as 'a single storey 18th century gazebo with a canted wooden front'. It remains a notable landscape feature and is located to the south-east of the house.

1.3 Varco Williams and his daughter gave Langtons to Hornchurch Urban District Council in 1929 under the condition that the building must be kept as it was and was to be used for council purposes and that the six acres of grounds remain open to the public. The council offices were based in Langtons House until 1965, when the council was abolished and Havering London Borough Council, based in Romford, was created.

1.4 The bath house/gazebo has had a chequered history. It was ruinous in the 1970s, having lost its roof. At that time it was covered in graffiti and generally in a poor state of repair. The Borough of Havering carried out a programme of restoration works in 1989 and in 2011 the western (gazebo) room of the bath house/gazebo with the canted front was restored to its present condition, although the bathing room was not included in these works.

1.5 In 2013, Havering Council received a grant from the Heritage Lottery Fund (HLF) and the Big Lottery Fund for the restoration of Langtons Gardens. The bath in the bath house is being restored as part of a wider programme of restoration and conservation at Langtons Gardens. At the start of the recording, the walls of the bath structure had suffered tree root damage and were in a deteriorating condition. The conservation works have addressed this situation and following the completion of the conservation works, the bath house will be opened to the public.

1.6 The bath house was built in the late 18th/early 19th century as part of Humpry Repton's landscape garden design for Langtons House with a serpentine lake. The two room bath house has a timber canted façade to the gazebo room which faces west overlooking the lake. The bath lies in the room to the east. The roof of the building and the partition wall between the two rooms had been replaced in the late 20th century The area between the bath structure and the walls of the bathing room was archaeologically excavated and showed that the bath structure cut through 17th/18th century made ground. The monitoring of the dismantling of the bath structure showed that the Portland Stone slabs lining the bath were joined using tongues and grooves and metal ties. The floor was covered with differently coloured marble tiles with the central area replaced with brick and ceramic floor tiles. The bath had two U-shaped notches cut into the top of its Portland Stone elevations. These presumably took lead pipes and were used for the inlet or over flow of water. The bath had a plug on its south side set into its floor.

2 INTRODUCTION

2.1 Background

2.1.1 PCA was commissioned by Borras Construction on behalf of London Borough of Havering to undertake a programme of historic building recording and archaeological excavation, prior to, and during conservation works associated with the repair and restoration of the bath in the bath house at Langtons Gardens, Billet Lane, Hornchurch RM11 1XL.

2.1.2 The building recording and excavation works were undertaken at the request of Nigel Oxley, Historic Buildings and Landscape Officer for the London Borough of Havering.

2.2 Site Location and Description

2.2.1 Hornchurch stands on high ground, at a distance of three and a half miles from the Thames and is situated at approximately twelve miles east north-east of the city of London. Hornchurch is located in gentle rolling chalk downland and gravel beds. It is bounded on two sides by rivers, to the west by the river Rom, which continues as the Beam, and flows south to the Thames, forming Hornchurch's boundary with Romford and Elm Park, and to the east by the river Ingrebourne (also known at different times as the Bourne, Ingerburn or Haveringeseth), also flowing south to the Thames, forming Hornchurch's eastern boundary and dividing Hornchurch from Upminster and Rainham (BHA 2012).

2.2.2 Langtons Gardens are located to the north of the High Street (A124) in Hornchurch and to the west of Billet Lane at NGR TQ5382287486. The bath house (or gazebo) is situated within the grounds of the grade II listed Langtons House, and lies at a short distance to the south-east of the house and along the northern bank of the ornamental 'Oxbow' lake. The bath house is a small detached brick built single storey building with pitched roof and an ornate canted end elevation to the west. The bath house lies adjacent to The Billet Art Centre and to The Hermitage, both of which front onto Billet Road. The buildings and gardens at Langtons are owned by the London Borough of Havering, and are presently in use by the local authority, as a public park and a popular wedding venue.

2.3 Geology and Topography

2.3.1 The superficial deposit geology for the area is the Black Park Gravel Member – sand and gravel formed up to 2 million years ago in the Quaternary Period in a local environment previously dominated by rivers. This overlies the bedrock geology of the London Clay Formation consisting of clay, silt and sand formed approximately 34-56 million years ago in the Palaeogene Period. At this point the local environment would have been previously dominated by deep seas (BGS 2016 online).

2.3.2 Hornchurch Village grew up on the gravel terrace, which marks the extent of an ice sheet of the last Ice Age; today the Romford / Emerson Park / Upminster push-pull railway line runs through the glacier's terminal moraine at Hornchurch Cutting, which is now a Site of Special Scientific Interest due to its geological importance (Butler Hegarty 2012).

2.3.3 Hornchurch stands on high ground, at a distance of three and a half miles from the Thames and is situated at approximately twelve miles east-north-east of the city of London. Hornchurch is located in gentle rolling chalk downland overlying natural gravel beds. It is bounded on two sides by rivers, to the west by the River Rom, which continues as the Bream, and flows south to the Thames, forming Hornchurch's boundary with Romford and Elm Park, and to the east by the river Ingrebourne (also known at different times as the Bourne, Ingerburn or Haveringeseth) also flowing south to the Thames, forming Hornchurch's eastern boundary and dividing Hornchurch from Upminster and Rainham. (Butler Hegarty 2012). The site lies within the London Borough of Havering, which once formed a large ancient parish in the county of Essex.

2.4 Designations

2.4.1 The Langtons Gardens site include four individually designated buildings, the house, the gazebo(/bath house), the stable block and the orangery, all added as a group to the national list in 1978. All are Grade II listed and have particular group value. Langtons House and Gardens are situated at the core of the Langtons Conservation Area and the bath house lies within an Archaeological Priority Area (APA) as well as an Archaeological Priority Zone, as designated by the London Borough of Havering (Butler Hegarty Architects, 2012). Archaeological Priority Areas (APAs) are known archaeological sites of importance; Archaeological Priority Zones (APZs) are wider areas of archaeological landscape which may contain specific individual hotspots and are likely to contain other yet unknown sites awaiting future identification, often as a result of the development process over time.

Listed Building Designations at Langtons Gardens

Langtons House. Grade II (BILLET LANE 1. 5017 Hornchurch Langtons TQ 58 NW 10/9 19.1.78 II GV 2). C18 origin, but much of the house of early C20 date in C18 style; late C18 wings. Main part of the house neo-Georgian; 3 storeys, 5 bays, red brick with moulded brick bands between ground and 1st and 1st and 2nd storeys, with a modillion cornice and parapet. Central wood columned porch of late C18 character. Projecting flanking wings 2 storeys, stock brick with red brick dressings, canted bayed fronts with one sash window on each face. Oval windows in parapet with stone coping. Single storey C18 red brick wing to south; 5 bays, stone coping to the parapet. Entrance front modern. Interior has some late C18 features in ground floor rooms. (Illustrated in C T Perfect's 'Ye olde Village of Hornchurch').

Gazebo at Langtons. Grade II (BILLET LANE 1. 5017 Hornchurch Gazebo at Langtons TQ 58 NW 10/9B 19.1.78 II GV 2). C18. Single storey canted wooden front with round headed entrance and flat-headed sash windows in angled faces (bottom halves of sashes removed). Wooden band under windows modillion cornice and parapet.

Stable block at Langtons. Grade II (BILLET LANE 1. 5017 Hornchurch Stable block at Langtons TQ 58 NW 10/9C 19.1.78 II GV 2). Mid C18. Two storeys red brick, sashed windows in cased frames spaced 4-3-4 (several windows blind and painted in imitation of glazing and those in south bay obliterated at some time). Door in centre of ground floor in semi-circular headed recess. Windows originally symmetrically arranged on the facade, now several blocked or converted to doors. Dentilled wooden eaves cornice; centre 3 bays project slightly with pediment of stock brick with red dressings to oculus. Tiled roof with modern or restored C18 style octagonal wooden glazed lantern with modillion cornice, shaped lead domed roof with pillar and vane.

Orangery at Langtons Grade II (BILLET LANE 1. 5017 Hornchurch Orangery at Langtons TQ 58 NW 10/9A 19.1.78 II GV 2). Probably late C18. Front of wood, divided into 5 bays by pilasters, 3/4 Doric columns to centre. Doric entablature across whole front with triglyphs and dentils. Windows with glazing bars. Rear wall brick.

3 PLANNING BACKGROUND

3.1 Legislation and Planning Guidance

3.1.1 National legislation and guidance relating to the protection of historic buildings and structures within planning regulations is defined by the provisions of the Town and Country Planning Act 1990. In addition, local planning authorities are responsible for the protection of the historic environment within the planning system and policies for the historic environment are included in relevant regional and local plans.

3.2 National Policy- National Planning Policy Framework

3.2.1 Statutory protection for historically important buildings and structures is derived from the Planning (Listed and Conservation Areas) Act 1990. Guidance on the approach of the planning authorities to development and historic buildings, conservation areas, historic parks and gardens and other elements of the historic environment is provided by the National Planning Policy Framework (NPPF), which was adopted on 27 March 2012.

3.2.2 The requirement for archaeological work is in accordance with NPPF Paragraph 141. The purpose of the work was to complete an appropriate level of historic building recording of the affected structures and their setting. This was to pay specific attention to those elements where demolition/conversion and/or alteration were proposed. The work was to be undertaken to a standard that would allow the future interpretation of the buildings within the context for which they were originally designed as well as later uses. An archive and report was to be created as a result of the survey.

3.3 Regional Policy - The London Plan

3.3.1 Havering's planning policies operate within the broad framework of The London Plan, produced by the Mayor of London (published 2015). The broad objectives of the plan are:

• To ensure that London is a city that meets the challenges of economic and population growth.

• To ensure that London becomes a world leader in improving the environment.

3.3.2 Chapter 2 of The London Plan, 'London's Places', sets out specific policies for areas of London which have distinctive parts to play in the capital's development. Havering is defined as one of the "Outer London" sub regions, where:"...town centres and neighbourhoods play a vital role in the life and prosperity of the capital".

3.3.3 Policy 7.8 describes the importance of caring for and highlighting historic assets due to their intrinsic value, and promotes the process of "identify, record, interpret, protect" where historic assets are concerned in new development. It notes that, given the enormous cultural benefits the city enjoys from historic buildings, parks and monuments, they should be affected only by the highest quality of sensitive modern architectural interventions, after careful consideration. Likewise, modification of historic buildings due to environmental concerns should not be undertaken without full consideration of potential damage to the historic asset.

3.4 Local Policy – Havering Core Strategy

3.4.1 The London Borough of Havering adopted policies concerning the preservation of archaeological remains in its Core Strategy and Development Control Policies Development Plan Document adopted 2008. This is further supported by the Heritage Supplementary Planning Document adopted 2011.

3.4.2 Havering's Core Strategy and Development Control Policy Document clearly states a vision for the role of heritage in the Borough: Core Policy 18 (CP18) deals with Heritage, and states that wherever sites of historical importance are concerned, new development must "preserve or enhance their [the historic site's] character or appearance". This may be carried out through design consideration, or indirectly through developer contributions. CP18 proceeds to outline the benefits of valuing

historic sites, in terms of social economic returns. It points out that Havering is rich in protected historic sites and buildings, and that archaeological interest is of particular concern, given that around half of the borough comprises Areas of Archaeological Potential.

3.4.3 Havering's Policy DC70 is concerned with Archaeology and Ancient Monuments, and states that: "The Council will ensure that the archaeological significance of sites is taken into account when making planning decisions and will take appropriate measures to safeguard that interest. Planning permission will only be granted where satisfactory provision is made in appropriate cases for preservation and recording of archaeological remains in situ or through excavation. Where nationally important archaeological remains exist there will be a presumption in favour of their physical preservation. Particular care will need to be taken when dealing with applications in archaeological 'hotspots' where there is a greater likelihood of finding remains. Planning permission will not be granted for development which adversely affects the three Ancient Monuments in the Borough or their settings."

4 METHODOLOGY

4.1 Aims and Objectives

4.1.1 The aim of the building recording and archaeological excavations was to provide a detailed record of both the historic fabric and buried archaeological remains that may be affected by the proposed conservation works, meeting nationally recognised standards as set out by English Heritage and ALGOA. The works were undertaken to a standard allowing the future understanding and interpretation of the building and below ground deposits. An archive and report is to be created as a result of the recording works.

4.2 On-Site Recording

4.2.1 The historic building survey was carried out on the 22nd October 2015 by an historic buildings archaeologist. The archaeological excavations within the bath house were completed prior to the removal of the stone bath lining and were carried out between the 2nd and 12th November 2015, while the archaeological monitoring, recording the removal of the stone lining and floor tiles, was completed between 1st and 10th February 2016.

4.2.2 A photographic survey including high quality digital images was undertaken recording all areas, historic structures, deposits and fabric to be affected by the proposals. A selection of these photographs have been included in this report (**Plates 1** to **42**) and **Figures 2** and **10** show the location and direction of the plates.

4.2.3 The historic building recording was undertaken in accordance with a Level 3 survey as set out in English Heritage (2006) *Understanding Historic Buildings: A Guide to Good Recording Practice*. This involved an English Heritage survey recording the extant remains of the bath in both plan and elevation.

4.3 Project Archive

4.3.1 A full and ordered archive including any written, drawn, survey, photographic records and archaeological finds will be completed in accordance with guidelines defined in CIfA (2014c); Taylor and Brown (2009) and UKIC and ADS guidelines for the preparation of archaeological archives for long term storage. The archive will be provisionally stored in Pre-Construct Archaeology's London Office in Brockley before being transferred to the appropriate depository (LAARC).

4.4 Guidance

4.4.1 All works were undertaken in accordance with standards set out in:

CIfA (2014a) *Standard and guidance for archaeological excavation*

CIfA (2014b) *Standard and guidance for the archaeological investigation and recording of standing buildings or structures*

English Heritage (now Historic England) (2005) *The Presentation of Historic Building Survey in CAD*

English Heritage (now Historic England) (2006) *Understanding Historic Buildings: A guide to good recording practice*

Historic England (2015) *Guidelines for Archaeological Projects in Greater London* Greater London Archaeological Advisory Service

5 HISTORIC BACKGROUND

5.1.1 **Context**

5.1.2 The construction of bath houses during the 18th century was an early manifestation of the western obsession with health. The popularity of bath houses sprang from the trend for coastal and sea bathing, considered a panacea for a multitude of aches and pains. Equally there was a growing concern that an over indulgent lifestyle could be the cause of ill health, which led to a fashion for spartan health and fitness regimes. This in turn manifested itself in a proliferation of bath houses and plunge pools within houses and gardens across the country, which would have been filled with cold water, believed to extend life expectancy. Like orangeries, bath houses were not just functional but often formed part of a landscaped garden, carefully and lovingly designed to create an aesthetic impression which would excite visitors touring the property (Thomas Ford & Partners, 2014).

5.1.3 These buildings, which covered or contained baths, or plunge pools, took many forms and were designed in every architectural style of their day, from rustic grottoes, to classical temples to gothic garden houses. It appears there was no set style, pattern or layout, the building might contain a single room, or two rooms adjacent, or two rooms on two storeys. Where there was more than one room, the second seems to have served as a changing room, or gazebo (i.e. a small building, especially one in the garden of a house, that gives a wide view of the surrounding area) or as a place for relaxing (and, presumably, recovering) after the enervating plunge into a tank of cold water. In the few examples where both survive, or are recorded, it seems that the interiors were rarely treated as a single entity in terms of their design. Baths were frequently, although not invariably, rectangular, and might be lined in marble or slate or stone or concrete. Of the surviving buildings, some have been much altered, some restored and many are either inaccessible or derelict (*ibid*).

5.1.4 **Treatment**

5.1.5 Physicians would recommend hot or cold baths for a variety of ailments. Cold baths, such as the one at Langtons, worked by subjecting the body to a sudden shock of cold water, thus contracting the blood vessels and driving the blood away from the extremities. After the vessels had contracted, and with the aid of a brisk rubbing, the blood would rush back into the veins with renewed vigor improving elasticity and the operation of the heart. This is why baths were typically four and a half feet deep: it allowed the patient to descend the stairs rapidly and then 'take the plunge', to produce the sudden shock. The provision of a separate space to rest after this treatment, to drink tea or white wine whey, was common. Sometimes the patient was put to bed wet, to extend the benefits of the bath. Accordingly, the division of the Langtons bath house into a bathing chamber and separate garden room is consistent with its historical use (Graham 2014).

5.1.6 **Background**

5.1.7 The Langtons estate dates from the medieval period when, under the name of Langthom, it belonged to the Abbey at Stratford. Langtons House was built on the foundations of an older house in the early 18th century. The house was purchased in 1797 by John Massu, whose family, originally Huguenot refugees, had become wealthy silk merchants in the City of London. He set about modernising Langtons and added the two-storey flanking canted wings that project on the south front.

5.1.8 From 1797 to 1812, John Massu landscaped the grounds according to plans of Humphrey Repton. Repton created the serpentine lake with the bathhouse/gazebo and planted horse chestnuts to mask or frame the mid-18th century stables, to which he added an octagonal cupola. A shrubbery walk with serpentining paths was planted east of the house and a balancing shrubbery belt to the west are probably part of Repton's plan; the Cedar of Lebanon was planted as a central feature of the lawn.

5.1.9 The date when the bath house was first constructed, simply described in the listing as eighteenth century, remains unclear. The 1777 Chapman and Andre map of Essex

(**Figure 4**) shows the rural village of Hornchurch and the historic thoroughfares of the High Street, Upminster Road, North Street and Billet Lane. The estates at Langtons, Whit House and the manorial Horn Church Hall and Parsonage are also shown, but in little detail.

5.1.10 The bath house is not shown on the Parish of Hornchurch, dated 1812 (**Figure 5**), nor on the map of the Liberty of Havering, dated 1814 (**Figure 6**). The Langtons Estate can be seen in detail, stretching as far south as the High Street on the map of 1812. Langtons House is clearly depicted as is the stable block and a number of buildings to the west and north-west. No evidence of the bath house or a similar building adjacent to the ornamental lake is depicted.

5.1.11 The bath house first appears on the Tithe Map of the Parish of Hornchurch dated 1849 (**Figure 7**). It is shown adjoining a boundary that follows the line of the ornamental lake and within and to the south of a landscaped belt of trees. This evidence suggests that the bath house was built between 1814 and 1849.

5.1.12 This assertion is supported by the observations of Elizabeth Graham (2014), who maintains that the style of the building itself suggests a late eighteenth or nineteenth-century date. The canted bay at the front of the building hints at a late eighteenth or nineteenth-century origin. The flanking bays that frame the garden front of the main house are thought to date from the late eighteenth century, after 1797. It is possible that the bath house, while part of the same programme of improvement that reshaped the garden and the house in the late 18th/early 19th century, was built slightly later still. The typology of the bathing room itself is of little assistance, as large cold baths of this type were constructed from the seventeenth-century through to the twentieth century. However, a general trend towards the construction of compact bathrooms within the body of the house, starts to emerge during the nineteenth century, suggesting a late eighteenth-or early nineteenth century date for the construction of the bath house is more probable (Graham, 2014).

5.1.13 The bath house is shown on the Second Edition Ordnance Survey 6 inch map of 1897-8 (**Figure 8**) and again in more detail on the larger scale Ordnance Survey extract of 1912 (**Figure 9**).

5.1.14 After years of neglect the building was in a ruinous condition during the 1970s, when it was roofless and the windows and door openings were boarded up. Council records show that the gazebo/bath house was restored in 1989 after neglect and vandalism had caused serious damage and left the building in a poor state of repair. Subsequent works included the restoration of the interior of the western (canted) room in 2011.

6 HISTORIC BUILDING SURVEY

6.1 Introduction

6.1.1 The following text provides descriptive information about the historic structures and fabric recorded at the time of the survey. For ease of reference each of the two principal internal rooms within the bath house have been given an identifying letter (A and B; **Figure 3**), while the Portland stone slabs that comprise the bath structure, have each been individually numbered, cross-referenced to their cardinal location (e.g. West 1, North 3 etc; **Figure 12**). Whilst the bath house is orientated slightly askew to the cardinal points, for ease of reference the long elevations are referred to as either north or south (the canted end to the west). The location of the bath house, its internal spaces and the bath structure is shown on **Figures 1**, **2**, **10** to **14**.

6.2 General Description

6.2.1 This small brick building contains two rooms: a cant ended gazebo (B) at the west end and a plunge pool (A) to the rear (east) (**Figure 3**). The façade (west) features a round headed entrance and flat headed sash windows set at angles around the canted front section, creating the effect of a Serlian window (**Plates 1** and **3**). It has a shallow pitched roof covered with modern pan tiles. Internally, the building is divided in two rooms (A and B) by a modern 20th century brick built central partition wall (which presumably replaces an earlier wall). The interior of the gazebo (B) was restored in 2011 and now contains a new marble floor, sash and case windows, central jib door, simple egg and dart cornice and a central light fitting (**Plate 6**). The bathing room (B) is much plainer in its decor with simple modern plastered elevations, a modern egg and dart cornice and a modern ceiling (**Plates 7** to **10**). Until recently the bathing room also had a suspended timber floor, added as part of the 1989 renovations. This had recently been removed.

6.2.2 The plunge pool, lying central to the bathing room was in a state of disrepair and was until the 1980s backfilled with earth and rubble. The removal of this backfill revealed the detail of the bath's stone lining and floor composition and produced an assemblage of discarded Carrara marble fragments, which originally formed the internal floor surface to the bathing room.

6.2.3 The north elevation to the bath house was built blind and in red brick, with some purple headers laid to decorative effect in Flemish bond (**Plate 4**). The bricks measured *c.*210-220x100x60mm and showed signs of diagonal/horizontal kiss marks, both features suggestive of a late 18th or early 19th century date. This brick dimension conforms to legislation to standardise brick size in 1775. The wall to the bathing room (A) was interrupted by the insertion of modern ceramic in-wall ventilators, presumably added to counter damp issues (**Plate 7**).

6.2.4 The eastern elevation retains some original brickwork, corresponding with that described above, which appears to have been re-pointed in recent years (**Plate 5**). The gable above the door opening is however a later addition, built during the renovation works and the later addition of the present low pitched roof. A scar near the north-eastern corner suggests the former presence of adjoining brickwork, perhaps a corner buttress (as seen on the opposite corner) or a boundary wall (**Plate 4**). The door opening is correctly built with queen closers and a simple rough brick segmental arch of two brick-on-edge courses (**Plate 5**). The door architrave has an ovolo detail while the door appears to have been re-used with glazing inserted into the two uppermost panels. The glazed door light above and the architrave are modern.

6.2.5 The western elevation is clearly the principal elevation built with a decorative canted timber front comprising a tall central round headed window with a nine light lower sash, flanked by simpler six light sashes in flat headed openings, creating the effect of a Serlian window (**Plates 1** and **3**). The canted front is built off a decorative stone sill and includes a panelled apron, with integral central jib door below window level, a dentil course above and a plain parapet with cornice. This canted section is flanked by a pair of original brick built piers. The uppermost courses of the piers have been rebuilt and

topped with a plain modern concrete coping slab.

6.3 Bathing Room (A) Interior

6.3.1 The interior of the bathing room comprised plain plastered elevations (in modern plaster; **Plate 7**) with a simple replacement egg and dart cornice (**Plate 8**) to a re-plastered modern ceiling. Evidence of a former modern suspended floor is present at the base of the walls in the form of empty sockets for floor joists within the brickwork and the height of the internal plaster finish (**Plate 9**). The internal wall between the bathing room (A) and the gazebo (B) is a modern construction, built using lightweight construction blocks, with a damp proof membrane at the base. This wall is built off an earlier brickwork foundation (further exposed during the excavations, see section 7). The eastern end wall had also seen some later improvements, with the addition of a damp proof membrane and under-pinning or rebuilding of the internal courses, in Fletton brickwork. The northern and southern flank walls appear to be less altered, the southern wall also incorporating a shallow out-set plinth at the base of the wall.

6.3.2 The bath or plunge pool lies centrally within A and is rectangular in plan measuring 4 feet and 4 inches in depth (1.3-1.34m), which is the standard depth for an 18th-century bath (Graham, 2014) and 5 x 8 feet (2.44 x 1.46-1.5m) in plan. The supporting brick superstructure or 'brick box' around the stone lined bath is visible at the surface (**Plates 9** and **10**). It comprises at least two courses (1 brick thick) of brickwork laid in an irregular bond, comprising both full and half bricks, laid on bed. The bricks typically measured 210-220x60x100mm, which is similar in dimension to the bricks in the flank walls. The uppermost courses were laid flush with the level of the stone lining. Mortar on their upper faces show they were covered by a floor, specifically Carrara marble tiles and an over-sailing marble kerb or nosing.

6.3.3 The brick box, like the stone lining it surrounds, had deformed, noticeably bowing south along the length of the northern side, and less so along the southern long side. The sides of the bath are now out of 'square', particularly that to the north, which has moved southwards into the void of the bath. This is particularly evident at its mid section due to the effects of tree roots on its north side. A similar, but not so obvious deflection is present in the opposite southern long wall. The shorter eastern and western end walls appear to be less effected by movement, the latter additionally buttressed by the short, steep, flight of stone steps into the bath from the west.

6.3.4 The bath is lined with high quality Portland stone, of which all of the original stone survives, although some of the larger slabs used in the lower side walls are now badly cracked (**Figure 12**; **Plates 12** to **18**). Each of two long side walls comprise an upper, narrower band of three stone slabs at the surface, overlying two larger stone slabs which butt together about the central axis of the wall. A moulded out-set plinth or plinth, also in Portland stone and measuring up to 100mm in height, extends the circuit of the bath. The narrower uppermost slabs measure between 0.82-0.86m in length, 0.3m in depth and 50-80mm thick, held in place and braced to each other by iron 'staples' set into the top of the stone slabs and bridging the joint between the two (**Plate 11**). Evidence of these fixings was observed within both the long side walls and in the edging structure containing the western steps. The deformation of the central upper slab in the north side may have, in part, been due to the failure of one of these fixings.

6.3.5 Both of the larger stone slabs that comprise the main area of the northern elevation were badly cracked, the eastern (N1) effected by a large diagonal crack from top to base and the west slab (N2) by two visible adjoining cracks (**Figure 12**; **Plates 12** and **13**). The narrower upper stones (N3 to N5) were not affected by cracking (any pressure relieved through movement) nor was the plinth. The latter was formed from two sections of unequal length and was shaped with an ogee moulding to the top. The plinth used to extend around the base of the western steps, as seen by a rebate of the same height cut into the base of the lower step. This section of plinth has since been lost.

6.3.6 The western elevation comprised two tall narrow stone slabs (W1 and W2) on each side of the western steps (**Figure 12**; **Plate 14**). Their form, dimension and relationship

with the plinth show that the steps are an original feature. The upper of the two steps is inset into the side of the bath and includes a prominent half-round nosing to the tread. No such feature is present on the lower step, which is simpler and projects out for 0.26m from the western end wall.

6.3.7 The composition of the south wall of the bath closely mirrors that of the north wall, with an upper tier of three narrower slabs (S3 to S5) overlying a pair of larger slabs and a plinth (**Figure 12**; **Plates 15** to **17**). In common with the corresponding slabs in the north wall, both of the larger stone slabs included large cracks, with a double conjoined crack to the western slab (S2) and a horizontal and vertical crack to (S1). The plinth was in two sections that joined roughly in about the centre of the south wall. A feature, in the form of a small U-shaped cut taken out of the top of the stone lining was present at the west end of the south wall (**Plate 20**). This original feature was presumably cut to house a lead spout used to either fill the bath or alternatively as an overflow.

6.3.8 The eastern end wall conforms with the general design of a narrow upper stone lining (E2) overlying a much larger single slab (E1) and a single length of plinth (**Figure 12**; **Plate 18**). The larger slab (E1) had a vertical crack biased to the north side and the single section, upper lining (E2) was also cracked centrally. A U-shaped notch cut out of the top of this section, located towards the south end of the east wall, is interpreted an original feature cut to house a lead spout used to either fill the bath or alternatively as an overflow (**Plates 10**, **16** to **19**). A short length of the lead pipe was previously uncovered during the removal of debris from the bath (**Plates 10** and **25**).

6.3.9 The floor of the bath was covered with marble in three distinct east-west bands (**Figure 11**). The central band was slightly wider than the two outer bands and was the same width as the length of the steps at the west end of the bath. The central band also incorporated a central panel part-filled with three and a quarter north-south courses of red brick (on bed) and 12 inch red clay tiles. This panel of plain brick and tile seems somewhat incongruous and contrasts with the fine marble, suggesting it is a later adaptation. It would be tempting to suggest the original panel held an ornate painted ceramic or a decorative mosaic. The dimensions of the tiles to the flooring vary, but clearly respect the extent of the central wide band (see Section 8 for a fuller description of the floor). A circular copper alloy plug in the south side of the floor was an original feature of the bath (**Plates 22, 23**, **34**, **35**, **38** and **39**).

7 ARCHAEOLOGICAL EXCAVATION RESULTS

By Pete Boyer

7.1 Introduction

7.1.1 Between 2nd and 12th November 2015, PCA excavated and monitored the excavation of trenches within the bath house at Langtons Gardens. Both the walls of the building and the bath structure have historically suffered from tree root damage and consequently the initial phase in the restoration process was to install a root barrier in the space between the bath structure and external building walls. Accordingly PCA hand-excavated and monitored the hand excavation of areas between the bath structure and external walls, down to the base of the bath house walls and bath foundations (**Figure 13**). This was carried out prior to the installation of a flexible root barrier and the backfilling and compaction of excavated spoil.

7.2 Methodology

7.2.1 Following the breaking out of a modern concrete surround (**Plates 7**, **9** and **10**), excavation commenced in the space between the north of the bath structure and the northern external wall of the building. The entire length of this space was excavated stratigraphically by hand to the level of the base of the external wall, a depth of *c*.0.9m below ground level (bgl). Subsequently, further excavation to the base of the bath structure was carried out in 1.2m long slots within the space in order that the structural integrity of the external wall was not compromised. Once the base of the bath was reached, a flexible, root barrier membrane was installed and the edges of each slot shuttered with wooden planking prior to backfilling. Each slot was backfilled with excavated material in layers, with each layer being compacted as backfilling progressed up to a level *c*.150mm below the top of the bath. During the course of the excavation all layers and deposits were recorded archaeologically by written, drawn and photographic means, and any artefactual material was collected and bagged according to context number.

7.2.2 A slightly different methodology was employed for the space between the southern edge of the bath and the southern external wall of the bath house. Following the removal of concrete in this area, 1.2m long slots were excavated straight down to the base of the bath structure, though thereafter the installation of a root barrier and backfilling were carried out as described above.

7.2.3 The gaps at the west and east ends of the bath, between an internal partition wall and the eastern external wall respectively, were much narrower and their lengths much shorter than those to the north and south. Consequently, following concrete removal, each of these areas was excavated in its entirety to the base of the bath structure, with root barrier installation and backfilling carried out as described above.

7.3 The Archaeological Sequence (Figure 13)

7.3.1 The earliest deposit recorded in all areas was a firm, light yellowish/reddish brown sand and gravel [10], this being the natural Black Park Terrace Gravel formation of Pleistocene age, recorded here at a surface elevation of *c*.29.1m AOD to the north and south of the bath, though this level was reduced to the east and west, where it had been truncated by the construction cut for the bath. Overlying the natural gravel to the north and south of the bath was a layer of firm, light, slightly reddish brown, sandy silt, recorded as [9] to the north and [12] to the south. This deposit was up to 0.63m thick and appeared to be made ground. Ceramic building material and a single sherd of pottery of 17th- to 18th century date were recovered from this layer. Some tree roots were present within this layer north of the bath but to the south, much thicker roots were present and had to be removed by saw (**Plate 26**). The made ground was overlain by a 0.11m thick layer of firm, mid brown, sandy silt, recorded as [8] to the north of the bath and [13] to the south. This appears to have been a buried topsoil layer and with a surface elevation of *c*.29.84m AOD (above ordnance Datum), possibly represented the ground surface level at the time of the bath house construction.

7.3.2 To the north of the bath, layer [8] was truncated by the construction cut [4] for the northern external wall of the bath house, though this only extended down to the surface of the natural gravel, not penetrating into this material. The bricks [3] of the external wall lay flush against the inner edges of the cut and had not been pointed, indicating a foundation, only the brickwork above the construction cut being faced on both sides. Equivalent buried topsoil layer [13] to the south was also truncated by the construction cut for the internal wall, which again had been built flush against the inner edge of the cut. The wall was constructed from unfrogged red bricks bonded with hard, white lime mortar, that part exposed showing that there was an internal corbel, 40mm wide along the northern and southern internal edges of the building and 60mm wide along the eastern internal edge, 0.23m (below ground level) and extending without further step, vertically to the base of the foundation (**Plate 27**). The bricks in the corbelled course and all courses below had been laid as all headers, whereas the course above the corbel was laid as all stretchers. The next three courses above this were laid as all headers, above which was a single course of all stretchers, separated by gaps or sockets, presumably to take wooden beams. A further course above this comprised all headers, whilst remaining upper courses were concealed by internal plasterboard (externally the wall coursing is visible in Flemish bond).

7.3.3 West of the bath structure, removal of the modern concrete layer revealed that the existing internal partition wall had been constructed on an earlier concrete plinth, which itself lay on an earlier foundation [11]. This was constructed from just two courses of unfrogged red bricks, bonded with a slightly friable, pale yellow, lime mortar, lying on a bed of crushed rubble; the lower course of bricks laid as all stretchers and the upper course as all headers. This earlier foundation extended 0.19m east of the existing internal wall, resulting in there being a very narrow gap to the western edge of the bath (**Plate 28**).

7.3.4 The construction cut [7] for the bath structure also cut through the buried topsoil but extended to a much greater depth than that for the external wall foundation (*c*.1.4m bgl), in order to accommodate the sunken bath. The brick-built bath structure [6] was constructed from unfrogged red bricks that were irregularly coursed; headers, stretchers and part-bricks being visible on the external faces (**Plate 29**), and bonded with a slightly friable, white lime mortar. Once the bath had been constructed a layer of clay packing [5] was placed all around between the structure and the edge of the construction cut, brick fragments recovered from this indicating, at earliest an 18th-century date. At the western and eastern ends of the bath the construction cut had extended to the internal partition wall and the external bath house walls respectively so the clay packing extended the entire length of the room. The stratigraphic sequence was completed by the layer of concrete [1] that had been laid all around the bath, between it and the internal and external walls of the bath house.

7.4 Summary and Conclusion

7.4.1 The excavations revealed that prior to construction of the bath and bath house the ground had already been disturbed, probably in the late 17th or early 18th century and over this made ground was weakly-developed topsoil, through which the construction cuts for the structural elements were made. The investigations have also shown that the current internal partition wall at the west end of the room containing the bath is later than the bath house and bath structures and lies on an earlier foundation.

8 ARCHAEOLOGICAL MONITORING RESULTS

8.1.1 **Introduction**

8.1.2 Between 1st and 10th February 2016, PCA monitored and archaeologically recorded the removal of the Portland Stone slabs forming the sides of the bath and the floor tiles and plinth at the base. Prior to their removal each of the slabs forming the bath elevations were individually numbered, prefixed with N, E, S or W according to their location (**Figure 12**). It soon however became apparent that these slabs were more fragmented/cracked than originally thought, and were remarked with an alphabetical suffix (so N1A, N1B etc). Each section of plinth was also numbered along the same lines and each individual Portland stone slab, marble tile or ceramic tile/brick that formed the bath floor were also numbered (1-67), prefixed with F (floor).

8.1.3 **Results**

8.1.4 The removal of the Portland stone slabs revealed important details of how the bath stone lining was constructed. The slabs were all dressed to the fair face (to bath) and un-dressed to the rear face (to the brick box). The larger, lower slabs (typically measuring 70mm thick) incorporated an integral chamfered tongue along the base and sides and a V-shaped trench cut along the top of the slab, designed to locate and fix the slabs together (using the weight of the slab) without the requirement for unsightly mortared joints (**Plates 30** and **31**). The base of the larger slabs, via the tongue, located into a similar recess cut into the top of the stone plinth, and likewise received the narrower upper slab (e.g. N3) within a V-shaped recess cut into its upper edge (see **Figure 14**; **Plate 32**). Neighbouring slabs (both upper and lower) were also braced using iron staples or clamps bridging the joint along the uppermost edge. They were never visible with those to the upper slabs hidden by the floor and edging surrounding the bath. Additional stability to the stone lining was achieved at the eastern end of the bath, where the lower slab (E1), projected beyond the internal width of the bath and into two locating recesses or pockets (on each side) built into the surrounding brick-box. The undressed backs to the slabs were also mortared into the surrounding brick box, although no keying in or bonding ties were observed.

8.1.5 The plinth was roughly square in section with an ogee moulded edge to the inner (bath) side (**Figure 14**; **Plate 33**). As described above, it received the base of the lower stone slabs within a V-shaped slot cut in its upper face and 'tucked under' the lower courses of the brick box, which lipped over the back of the plinth. It was formed in sections which completed the circuit of the bath, apart from around the step, where it appears to have been removed. Each section, measuring *c.*150x150mm in height and depth and between 630mm to 1340mm in length are joined 'end on' using an internal lead plug, bridging the two sections and formed after assembly by pouring hot lead through a small aperture at the junction of the plinth section. The marble floor tiles butt up against the inner side of the plinths.

8.1.6 Detail of the composition and design of the marble bath floor was revealed after it was fully exposed and cleaned (**Figure 11**; **Plates 34** and **35**). This showed that the floor comprised three different types of marble tile, with a pale grey/white Italian Carrara marble forming the majority of the floor, and two single courses or bands of black stone tiles forming a cross, orientated roughly north-south and east-west through the centre of the bath. These two tile bands were formed from different marble, the east-west band comprising Frosterley marble, a polished black limestone containing fossilised corals, mined in County Durham (**Plate 37**) and the north-south band using Nero Marquina, a dense black marble with white veins, imported from Spain (**Plate 36**). A rectangular panel, in-filled with brick and red clay tiles, lies at the centre of the floor and at the crossing of the black marble bands. As already discussed (in Section 6), these plain ceramics represent a secondary replacement or infill, of possibly a decorative panel or mosaic. Original triangular marble pieces surviving at the corners of the rectangular panel show that the replaced 'decorative feature' was set within an eight sided opening (**Plates 34** and **35**).

8.1.7 Removal of the marble floor, which entailed the numbering and cataloguing of each

individual tile, revealed details of the drain, located in the south-eastern quadrant of the floor. The ?brass mechanism of the plug was built into a square stone tile (**Plates 38** and **39**), which underlay Carrara marble tiles (small pieces) and sat directly over the butt end of a stone lined drainage gulley (**Figure 14**; **Plate 40**). The gulley projected into the bath for *c*.50cm from the south wall and at a slight angle from perpendicular. It was built with a Portland stone lining, a square butt end and gradually fell away to the south, below the plinth and presumably the supporting brick box. Possibly due to the ground conditions no evidence of a foundation or bedding layer for the marble tile floor was recognised.

8.1.8 The removal of the stone lining also revealed details of the brickwork comprising the brick box (**Plates 41** and **42**). Unsurprisingly the character of the brickwork mirrored that described for brick-built bath structure [6] recorded during the external excavations. It was built using 16 courses (visible) of irregularly coursed bricks, laid as headers and stretchers, in a bond vaguely reminiscent of Flemish work, using both part and whole bricks in a hard lime rich mortar.

9 DISCUSSION

9.1 The outcome of historic building recording and archaeological excavation and monitoring works carried out prior to and during works associated with the repair and conservation of the Grade II listed bath house and bath at Langtons Gardens, Hornchurch, has revealed important details regarding the original design and construction of the bathing pool and the enclosing bath house building.

9.2 The gazebo/bath house is dated to the 18th century in its listing description. Langtons House was built in the early 18th century replacing an earlier house. The south-facing canted wings were added during the late 18th century. The house and gazebo form part of a group of listed buildings at Langtons Gardens which also includes a mid-18th century stable building and a late 18th-century Orangery. These buildings are set within grounds attributed to the famous landscape architect Humphry Repton (1752-1818) and as a group point toward a distinct period of investment and development that occurred at Langtons during the late 18th century.

9.3 The 1812 parish map of Hornchurch and the 1814 map of the Liberty of Havering do not show the bath house although the ornamental oxbow lake is clearly depicted on these maps. The bath house first appears on the mid 19th century parish tithe map of 1849, providing, if cartographic evidence is to be relied upon, a construction date of sometime between 1814 and 1849.

9.4 The architectural style of the building with a canted bay to the front, hints at a late 18th or early 19th century date, and possibly a design influenced by alterations made to the main house during the late 18th century, with the addition of the two canted wings. The style and dimensions of the original brickwork to the flank walls of the bath house would support a late 18th to early 19th century date, based on the presence of both diagonal and horizontal kiss marks to the bricks and the brick widths, which conform with and post-date legislation to standardise brick size enacted in 1775.

9.5 Although Elizabeth Graham in her assessment report (of 2014) suggests the typology of the bathing room is of little diagnostic value, as large cold baths of this type were constructed from the seventeenth-century onwards, she also points out that the trend towards compact bathrooms within the body of the house, starts to emerge during the nineteenth century. This again suggests a construction date of late eighteenth to early nineteenth century for the building.

9.6 The results of the archaeological excavations reveal that the land on which the bath house stands had already been disturbed, probably in the late 17th or 18th century and prior to the construction of the bath house. This disturbance was sealed by a weakly-developed topsoil, through which the construction trenches for both the bath house and bath were made. Ceramic dating evidence recovered from the backfill of these cuts, was not closely datable, but their presence does suggest these events did not predate the 18th century. These investigations have, however shown that the bath house was originally constructed as a two cell building, adopting the present internal spatial arrangement, as the current internal wall (between A and B), which is clearly a modern wall, is built off a much earlier foundation.

9.7 Whilst the construction of the bath and the surrounding bath house are undoubtedly contemporary structures, the sequential relationship between the two was not established during these works, although for simplicity one would expect that the structural brick-box into which the stone lining was added, was constructed prior to the enclosing building. The excavations and monitoring works showed that following the construction of the brick box, the construction cut around the structure was filled with a clay lining, presumably added to waterproof the bath from external ground water penetration. The sequence of construction within the brick box appeared to start with the laying of the drain, followed by the stone plinth, stone lining and lastly the tiled floor structure.

9.8 Given the recovery of Carrara marble tile fragments from the back-filled bath, it appears that the floor of the bathing room was covered with Carrara marble tiles and

used an over-sailing Carrara marble edging to the bath with a half-round nosing (discussed more at length in Elizabeth Graham (2014) and the Thomas Ford & Partners (2014) reports). The use of Carrara marble tiling was not solely reserved for the floor around the bath, but was also used to decorative affect, along with Spanish Nero Marquina marble and Frosterley marble, on the base of the bath. The use of these expensive non-local and imported marbles shows the levels of investment and attention to architectural detailing which went into the design and construction of this building. This attention to design is echoed by the Portland stone lining and the adjoining plinth, which through a series of integral tongues and grooves and iron ties, married together to form a well-engineered interlocking stone lining with fine joints.

9.9 As the bathing room showed no evidence of window fenestration to the flank walls, some form of glazed lantern, set within the roof structure, along the lines of that present in the bath house at Wimpole Hall in Cambridgeshire (Graham, 2014) would seem logical. However as the present ceiling and roof structure are both modern additions, this assertion can neither be proven nor dismissed.

9.10 The building was built as a two cell, late eighteenth or early nineteenth-century bath house built with a contemporary marble tiled and stone lined plunge pool or bath.

10 ACKNOWLEDGEMENTS

10.1 Pre-Construct Archaeology Limited would like to thank Borras Construction for commissioning the project on behalf of the London Borough of Havering.

10.2 The project was managed for Pre-Construct Archaeology Limited by Charlotte Matthews. The historic building recording was carried out by Adam Garwood. Pete Boyer undertook the archaeological excavation and Rosie Banens monitored the dismantling of the bath structure. This report was written by Adam Garwood and Pete Boyer. The illustrations were prepared by Ray Murphy.

11 BIBLIOGRAPHY

Butler Hegarty Architects, 2012 *Langtons: Conservation Area Appraisal*

CIfA, 2014a *Standard and guidance for archaeological excavation*

CIfA 2014b *Standard and guidance for the archaeological investigation and recording of standing buildings or structures*

CIfA, 2014c *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*.

English Heritage, 2006 *Understanding Historic Buildings: A guide to good recording practice*

English Heritage 2005 *The Presentation of Historic Building Survey in CAD*

Graham, E. 2014 *Bath house at Langtons, Hornchurch*

Thomas Ford & Partners, 2014 *The Bath House, Langtons Gardens: Restoration Proposals & Outline Schedule of Works Based on an Examination of Physical Evidence and a Review of C18th – C19th Listed Bath Houses & Plunge Pools*

APPENDIX 1: OASIS FORM

OASIS ID: preconst1-243240

Project details	
Project name	The Bath House, Langtons Gardens, Billet Lane, Hornchurch
Short description of the project	The historic building recording and archaeological excavation and monitoring works carried out prior to and during works associated with the repair and conservation of the bath at the Grade II listed bath house, Langtons Gardens, Hornchurch, suggests, based on the cartographic evidence, the architectural style of the building, its brickwork and ceramic evidence uncovered during excavations, that the bath house was built between the later 18th and early 19th century. It also revealed that the bath was built with a Portland stone lining and ornate Carrara rnarble, Frosterley marble and Nero Marquina marble floor. The bathing room was similarly floored with Carrara rnarble.
Project dates	Start: 22-10-2015 End: 10-02-2016
Previous/future work	Not known / No
Any associated project reference codes	LTG15 - Sitecode
Type of project	Building Recording
Site status	Listed Building
Monument type	BATH HOUSE Post Medieval
Methods & techniques	'"Annotated Sketch"',"'Measured Survey"',"'Photographic Survey"',"'Survey/Recording Of Fabric/Structure"'
Prompt	Conservation/ restoration
Project location	
Country	England
Site location	GREATER LONDON HAVERING HORNCHURCH The Bathhouse, Langtons Gardens, Billet Lane, Hornchurch
Postcode	RM11 1XL
Site coordinates	TQ 53822 87486 51.56473627164 0.219534975406 51 33 53 N 000 13 10 E Point
Project creators	
Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	Nigel Oxley
Project design originator	Charlotte Matthews
Project director/manager	Charlotte Matthews
Project supervisor	Adam Garwood
Type of sponsor/funding	London Borough of Havering

body	
Name of sponsor/funding body	London Borough of Havering

Project archives

Physical Archive Exists?	No
Digital Archive recipient	LAARC
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	LAARC
Paper Media available	"Context sheet","Drawing","Microfilm"

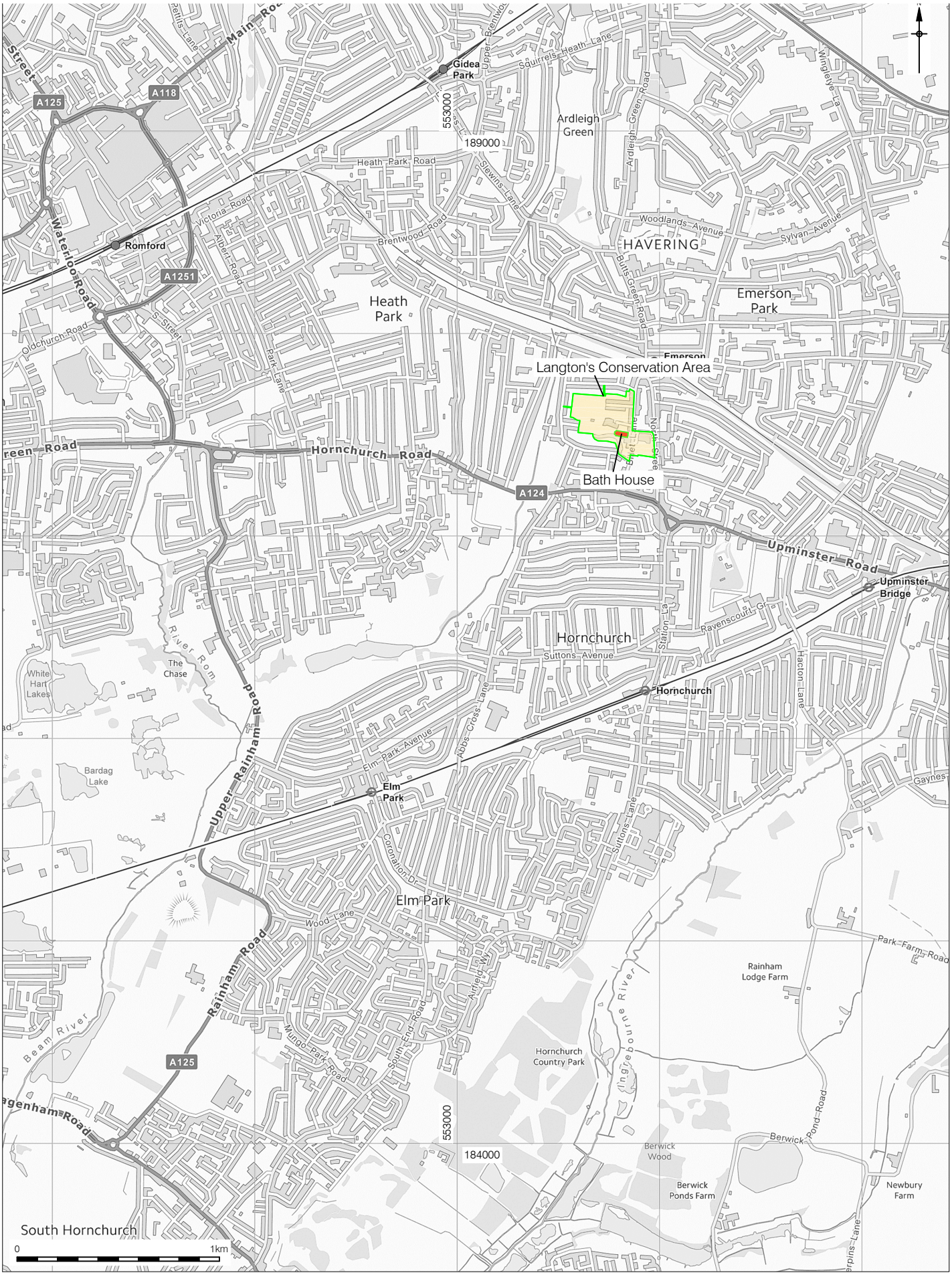
Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	The Bathhouse, Langtons Gardens, Billet Lane, Hornchurch, London Borough of Havering
Author(s)/Editor(s)	Garwood, A. and Boyer, P.
Other bibliographic details	PCA Report R12482
Date	2016
Issuer or publisher	Pre-Construct Archaeology Limited
Place of issue or publication	Brockley Office
Description	A4 typescript PDF report

Entered by	Charlotte Matthews (cmatthews@pre-construct.com)
Entered on	13 May 2016

APPENDIX 2: CONTEXT INFORMATION

Site Code	Context	Type	Description	Date	Phase
LTG15	1	Layer	Thin concrete layer	Late 20th century	4
LTG15	2	Fill	Fill of const. cut [4]	18th-19th Century	3
LTG15	3	Masonry	External bath house wall	18th-19th Century	3
LTG15	4	Cut	Const. cut for [3]	18th-19th Century	3
LTG15	5	Fill	Fill of const. cut [7]	18th-19th Century	3
LTG15	6	Masonry	Brick wall of bath	18th-19th Century	3
LTG15	7	Cut	Const. cut for [6]	18th-19th Century	3
LTG15	8	Layer	Buried topsoil	17th/18th Century	2
LTG15	9	Layer	Made ground/subsoil	17th/18th Century	2
LTG15	10	Layer	Natural gravel	Natural	1
LTG15	11	Masonry	Base of internal wall	18th Century	3
LTG15	12	Layer	Made ground/subsoil	17th/18th Century	2
LTG15	13	Layer	Buried topsoil	17th/18th Century	2
LTG15	14	Masonry	Stone lining	18th-19th Century	3
LTG15	15	Masonry	Floor surface	18th-19th Century	3
LTG15	16	Masonry	Drain	18th-19th Century	3
LTG15	17	Masonry	Plinth	18th-19th Century	3

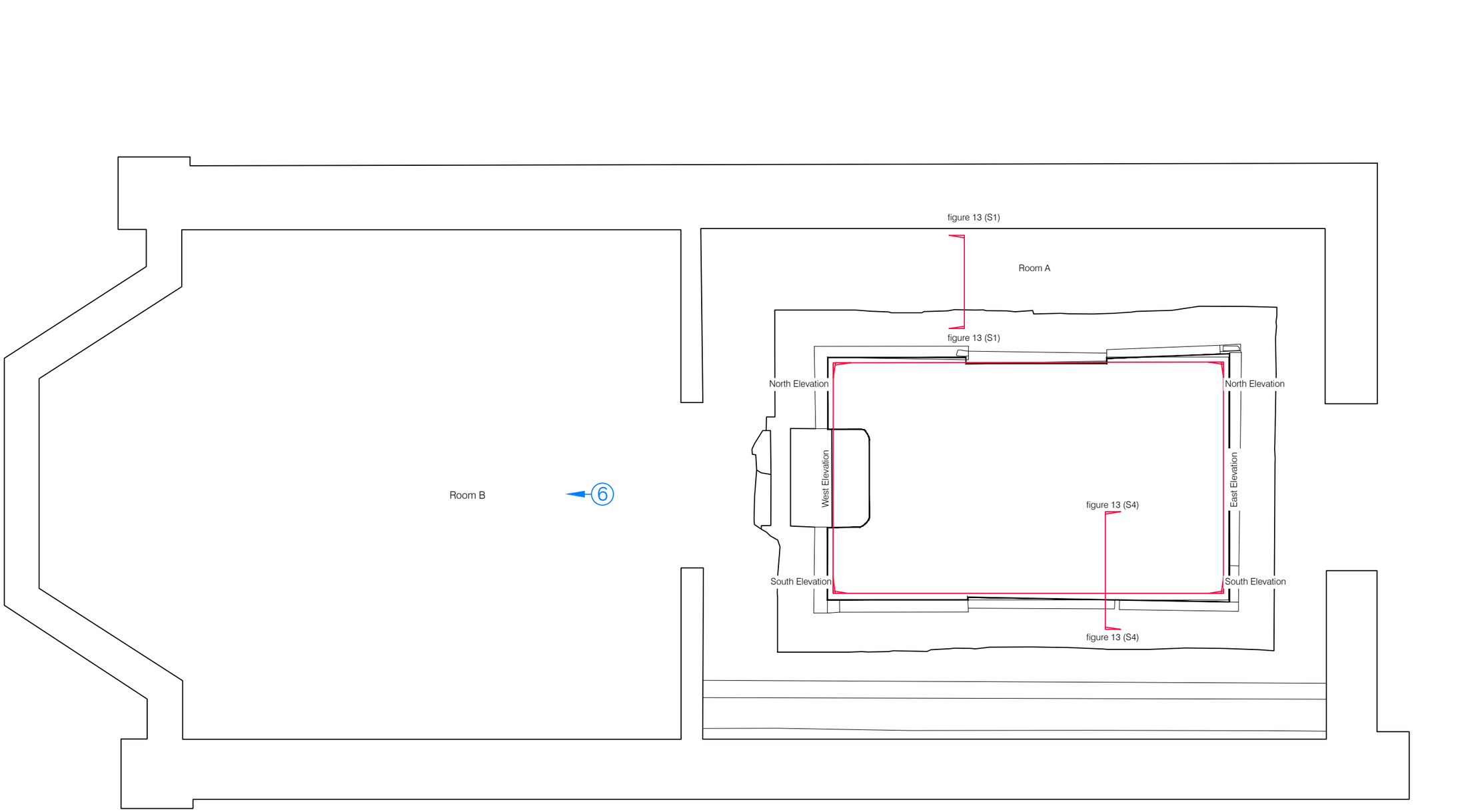


12/05/16 RM

Figure 1
Site Location
1:25,000 at A4

11/05/16 RM

Figure 2
Detailed Site Location showing Direction of Plates
1:400 at A4



6 LOCATION AND DIRECTION OF PLATE

0 2m

03/03/16 RM

Figure 3
Plan of Bath House
1:25 at A3

04/03/16 RM

Figure 4
Chapman and Andre Map of Essex 1777
1:10,000 at A4

04/03/16 RM

Figure 5
Parish Map Horchchurch 1812
1:1,250 at A4

04/03/16 RM

Figure 6
Liberty map of Horchchurch 1814
1:2,000 at A4

04/03/16 RM

Figure 7
Tithe map of Hornchurch 1849
1:1,250 at A4

04/03/16 RM

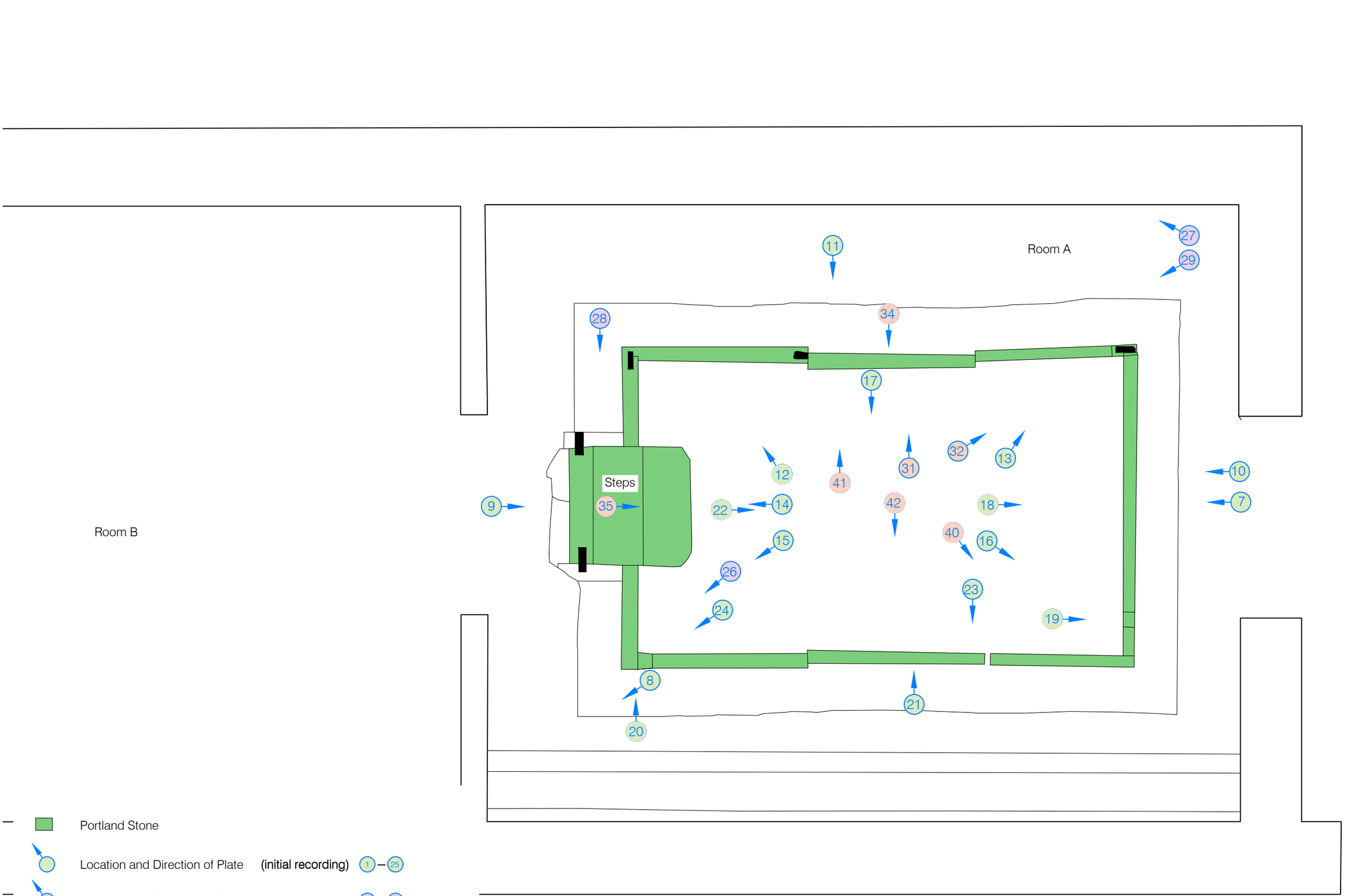
Figure 8
Ordnance Survey 6 inch Map of 1897-8
1:1,250 at A4

04/03/16 RM

Figure 8
Ordnance Survey 25 inch Map of 1912
1:500 at A4

04/03/16 RM

Figure 8
Ordnance Survey 25 inch Map of 1912
1:500 at A4



11/05/16 RM

Figure 10
Plan of bathing room (A) showing Portland Stone bath
1:20 at A3

N

Test Pit

Room A

Room B

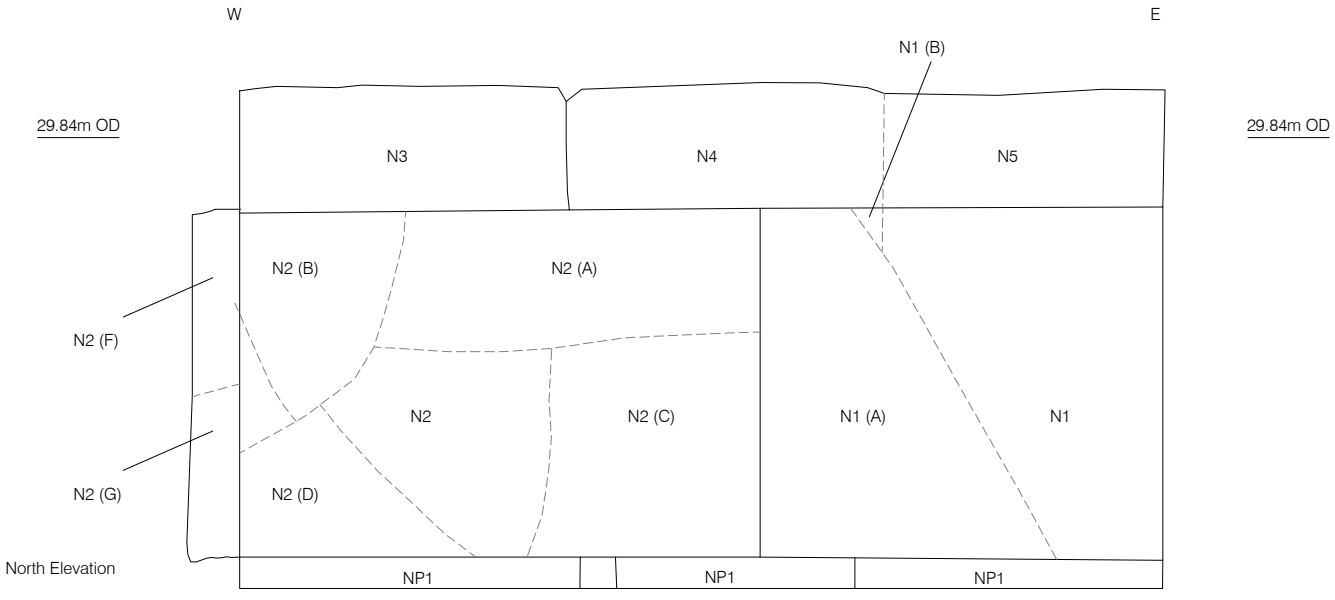
Modern Timber Joist

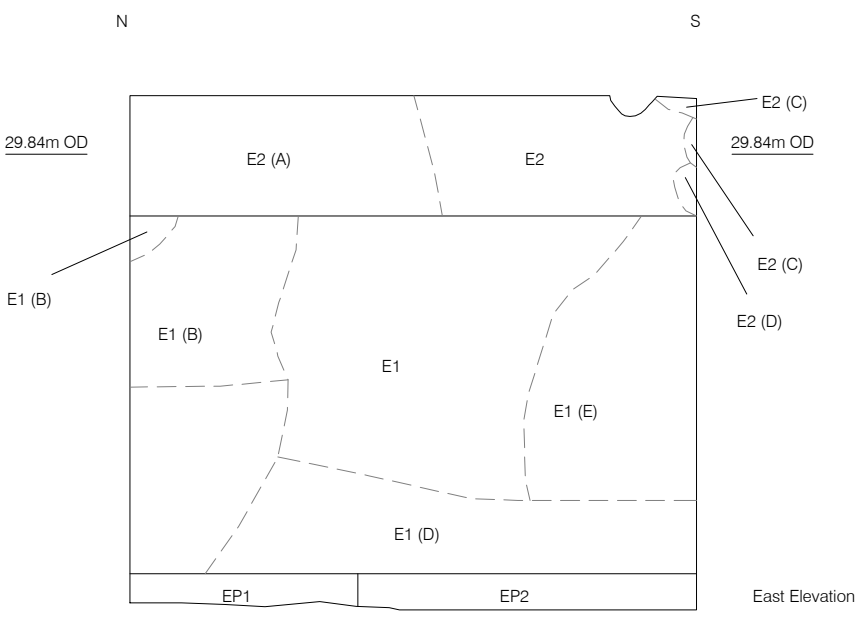
FROSTERLEY MARBLE
NERO MARQUINA
PLUG
CERAMIC BUILDING MATERIAL
CARRARA MARBLE
PORTLAND STONE

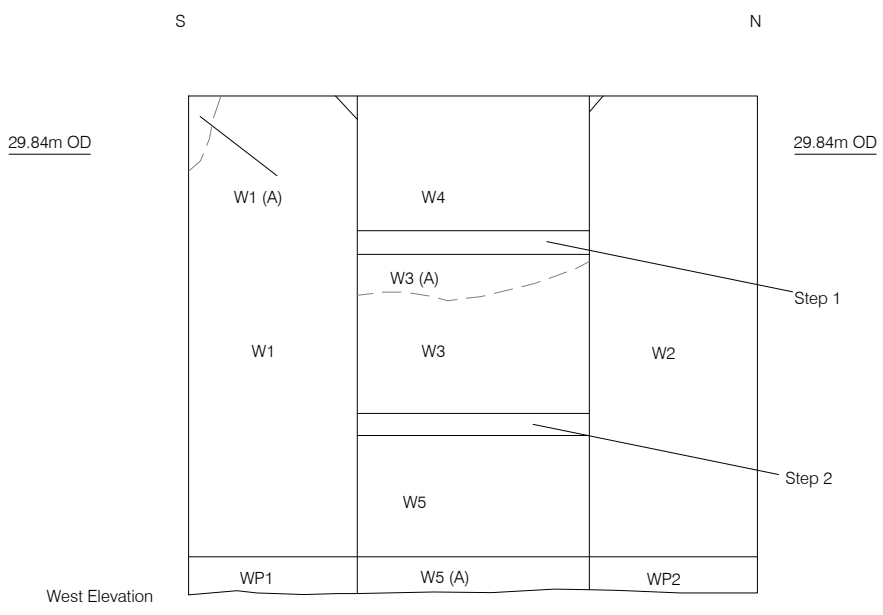
0 1m

03/03/16 RM

Figure 11
Plan of bath showing decorative marble
1:20 at A3







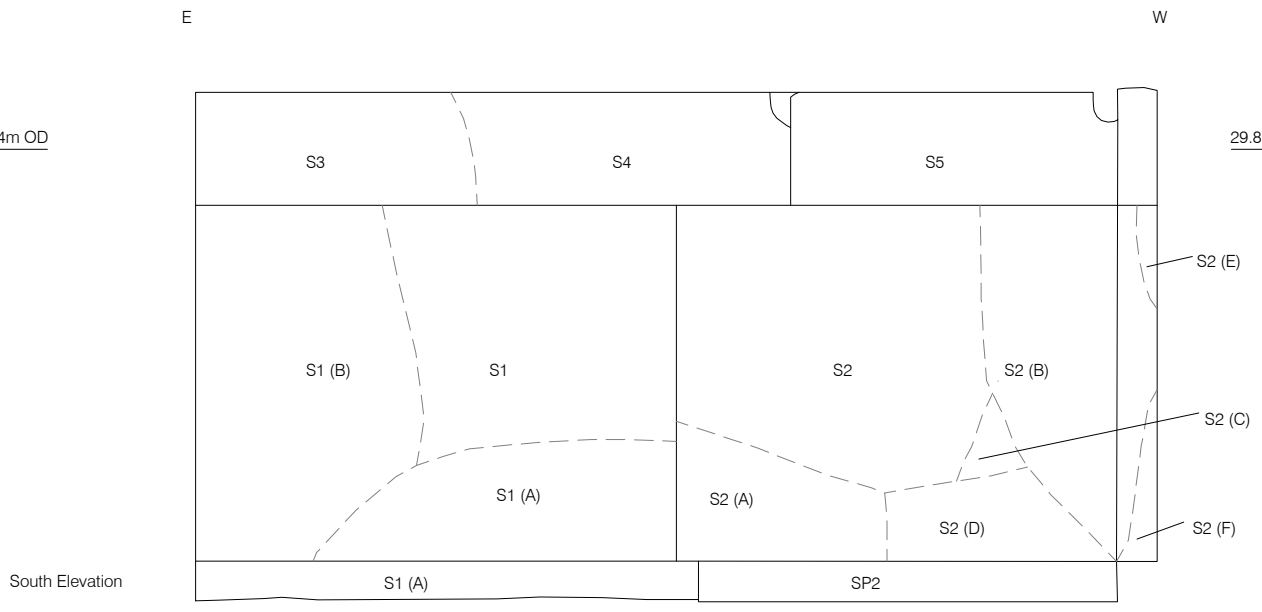


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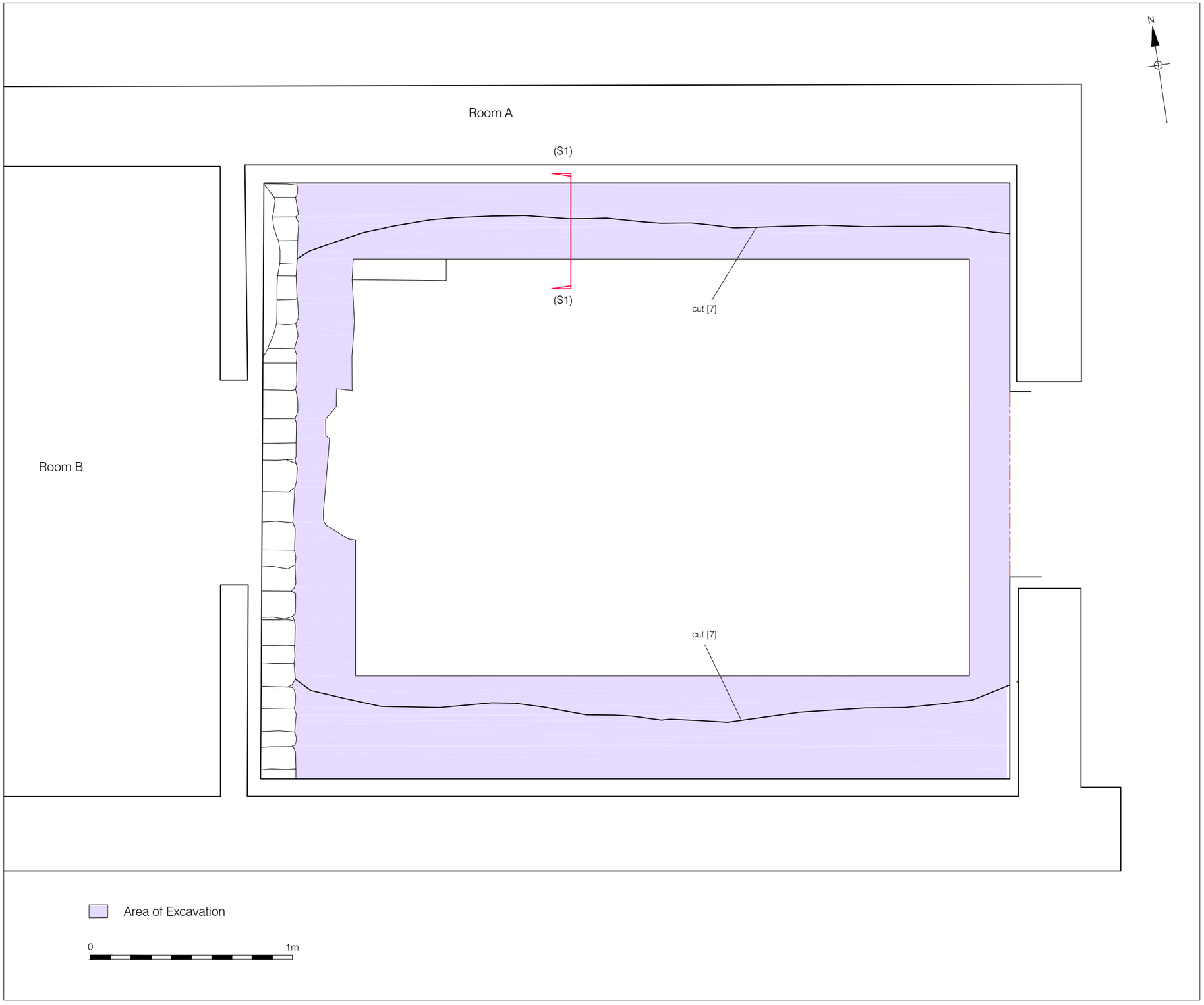
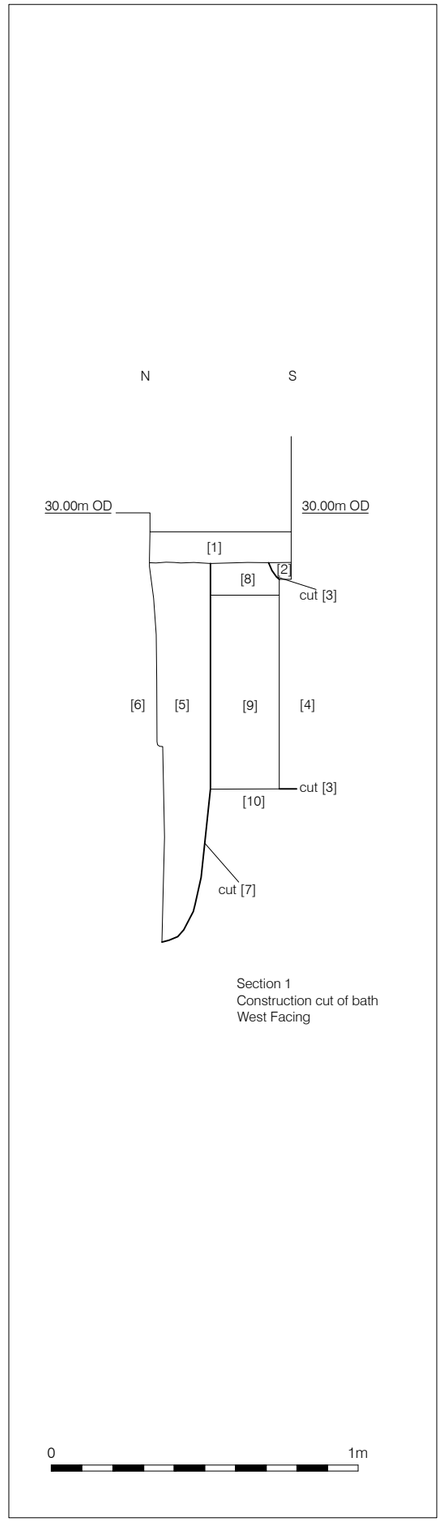
Figure 12
Bath Internal Elevations
1:20 at A4





Section 1
Construction cut of bath
West Facing

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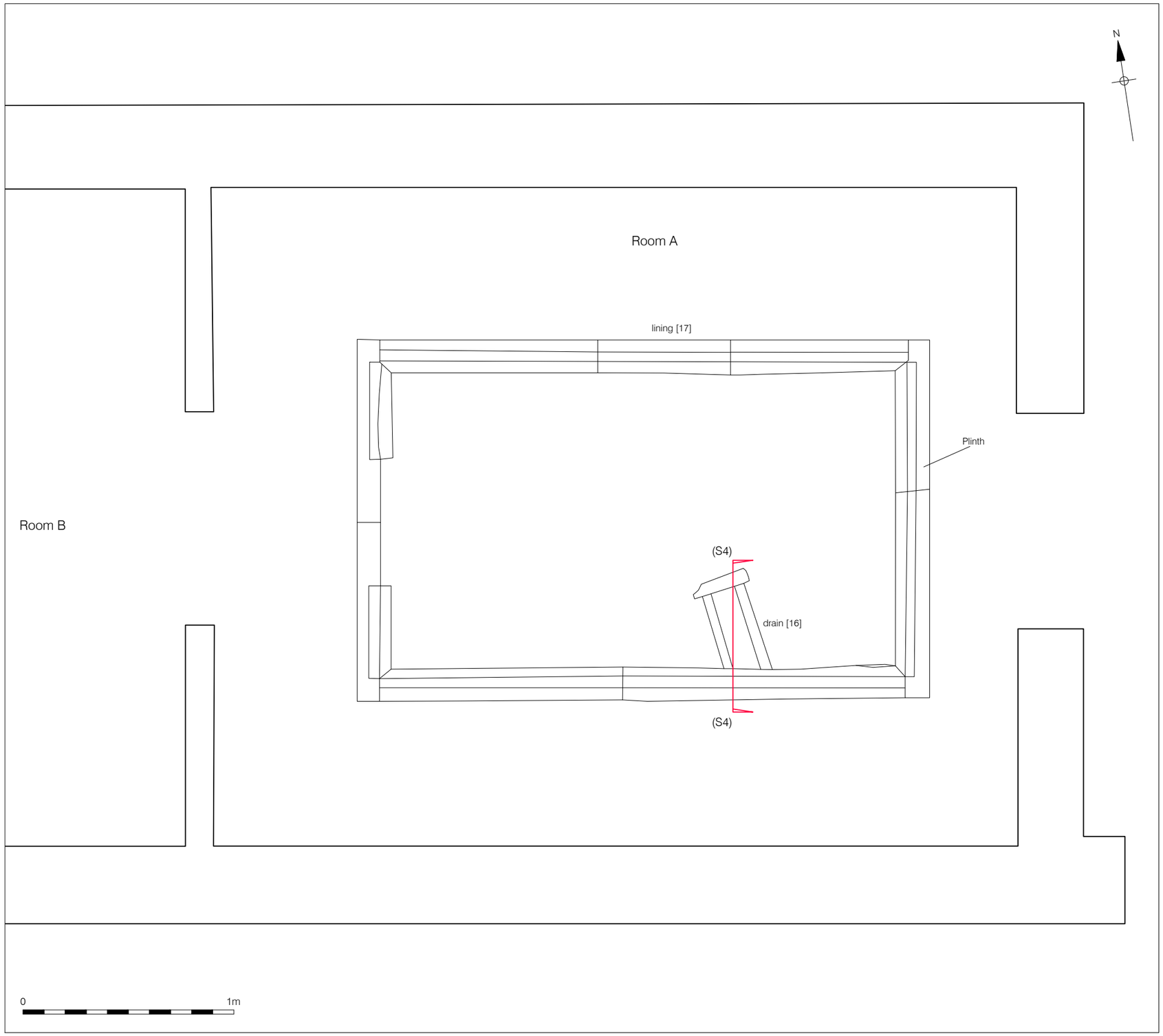
Figure 13
Plan and Section of Construction Cut for Bath
1:20 at A3



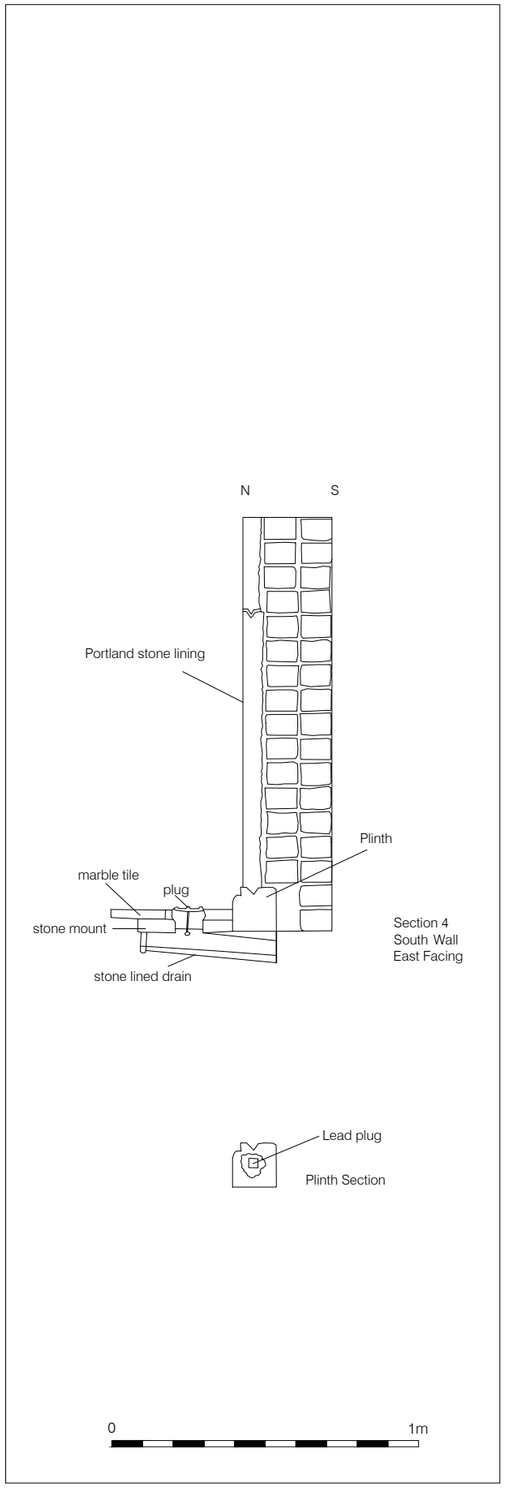


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Figure 14
Plan and Section of Bath showing Plinth and Drain
1:20 at A4

Plate 1 West elevation of the bath house, looking east

Plate 2 View along the ornamental lake, looking south

Plate 3 Canted western elevation of the bath house, looking east

Plate 4 Northern elevation of the bath house, looking south

Plate 5 Eastern elevation of the bath house, looking west

Plate 6 Restored gazebo (B), looking west

Plate 7 Bathing room (A), looking west to gazebo

Plate 8 Bathing Room (A) detail of egg and dart cornice, looking south-west

Plate 9 Stone lined bath and brick surround, looking east

Plate 10 Bath, looking west

Plate 11 Remains of iron tie or ‘staple’ between Portland stones in the lining of the bath, looking south

Plate 12 North wall of bath, looking north-west

Plate 13 North wall of bath, looking north-east

Plate 14 West wall and step into bath, looking west

Plate 15 South wall of bath, looking south-west

Plate 16 South wall of bath, looking south-east

Plate 17 South wall of bath, looking south

Plate 18 East wall of bath, looking east

Plate 19 Notch for water spout at the south end of the east wall, looking east

Plate 20 Notch for water spout at the west end of the south wall, looking down and east

Plate 21 Tiled central area of the floor of the bath, looking north

Plate 22 Detail of central brick and tile panel of the floor of the bath, looking east

Plate 23 Plug in the south side of the bath floor, looking south

Plate 24 Stone plinth, looking south-west

Plate 25 Ex-situ lead spout

Plate 26 Roots in the excavated area to the south of the bath structure, looking south-west

Plate 27 South face of north bath house wall, looking west

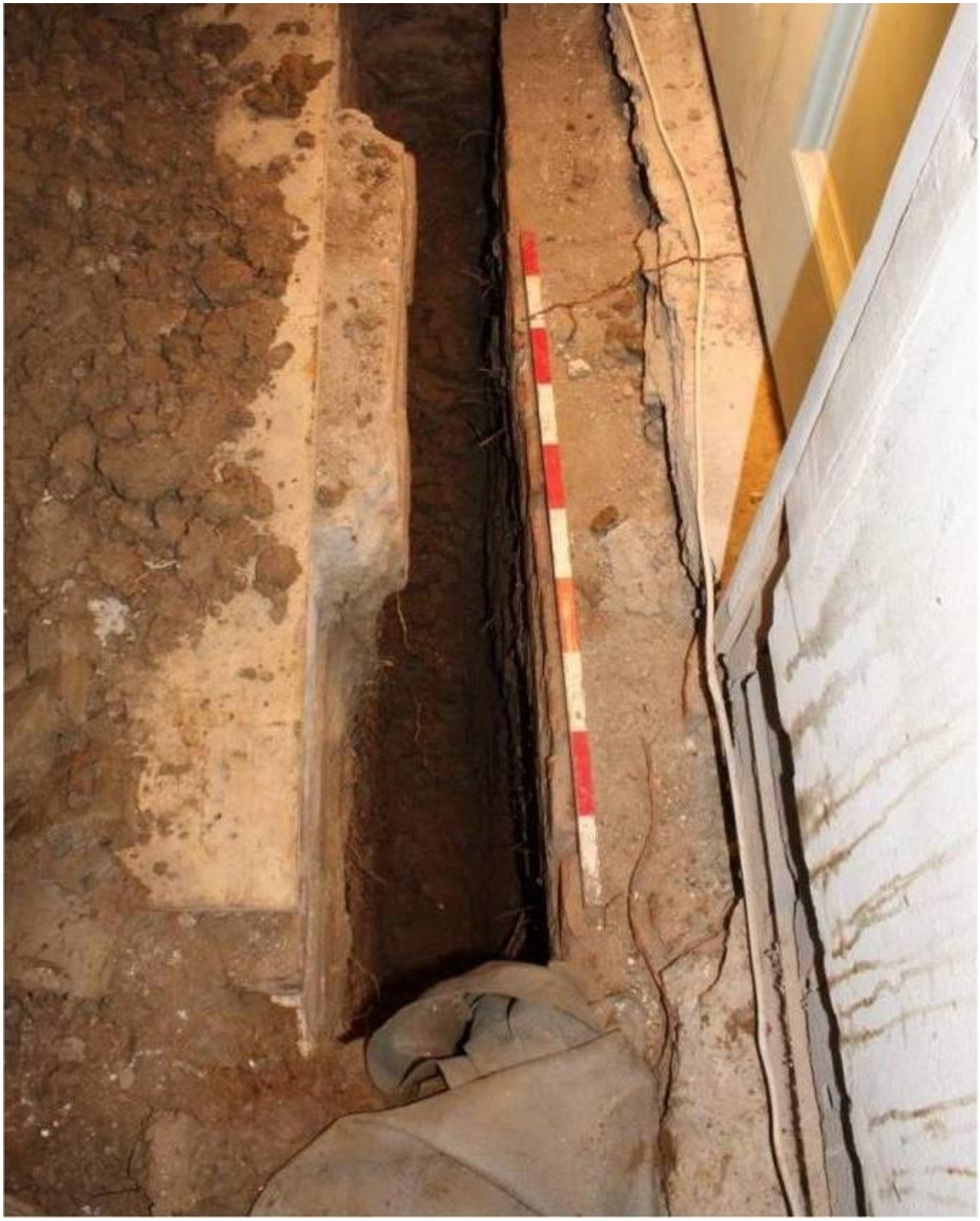

Plate 28 Narrow gap to the west of the bath, looking south

Plate 29 North side of the north wall of the bath structure, looking west

Plate 30 Integral lip or tongue along the edge of an ex-situ Portland Stone slab, which had lined the bath

Plate 31 Recess or groove along the top of the Portland Stone slabs lining the bath and iron bridging tie that joined the slabs together, looking north

Plate 32 Recess or groove in the top of the plinth to receive stone lining, looking east

Plate 33 Square locating lead plug in end of plinth

Plate 34 Decorative marble tiling to the floor of the bath, looking south

Plate 35 Decorative marble tiling to floor of the bath, looking east

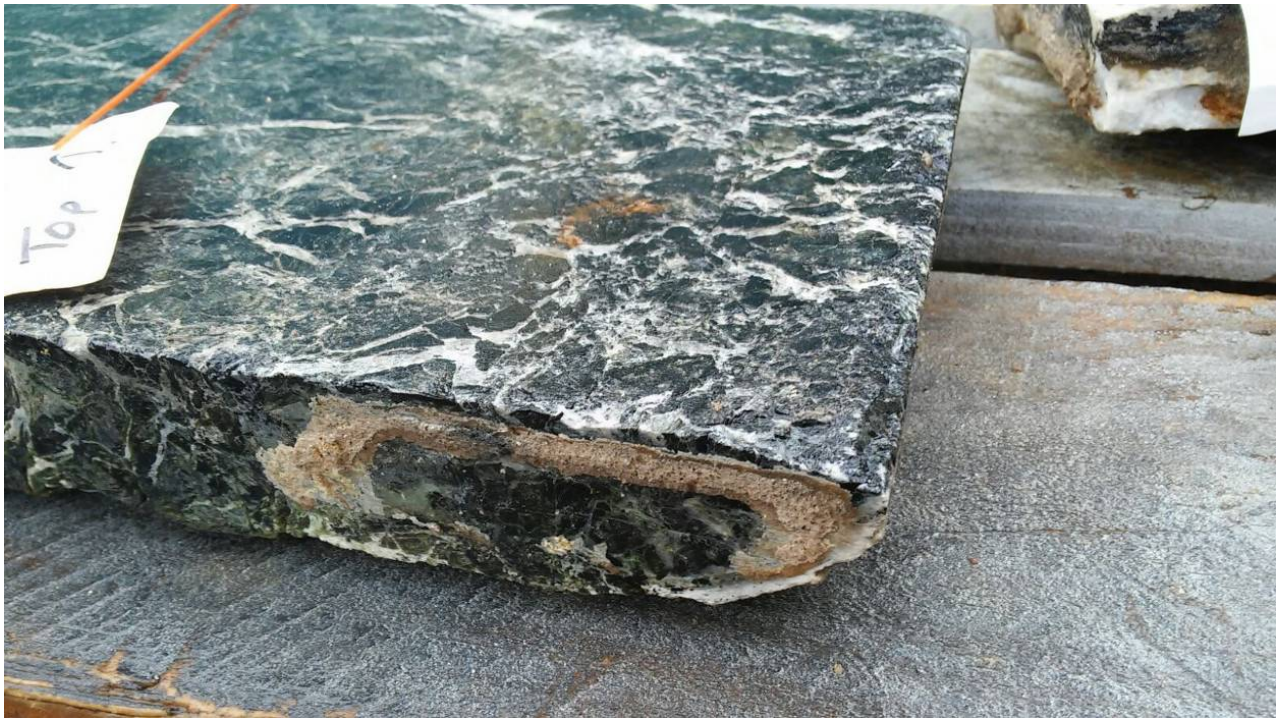

Plate 36 Ex-situ Nero Marquina marble tile from the floor of the bath

Plate 37 Ex-situ Frosterley and Carrara Marble tiles from the floor of the bath

Plate 38 Detail of plug

Plate 39 Detail of plug and stone mounting

Plate 40 Stone lined drain, looking south

Plate 41 Detail of brick box, looking north

Plate 42 Detail of brick box, looking south

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