

FORMER LAUNDRY BLOCK

**Heartlands Hospital, Bordesley Green East
Birmingham, West Midlands**

Historic Building Record

[Report No. 2012.016]



DRAFT REPORT

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Summary

An historic building record (HBR) in respect of the former laundry block at Heartlands Hospital, Bordesley Green East, Birmingham was commissioned by the Heart of England NHS Foundation Trust in November 2012 with the aim of creating a visual and interpretive record of the historic structure, an original element of a late 19th-century 'infection hospital', prior to demolition and redevelopment as part of a wider scheme of hospital improvements.

The Birmingham Infectious Diseases Hospital was established under the terms of the Isolation Hospitals Act of 1893, which not only enabled county councils to provide isolation facilities, but also allowed them to compel local authorities within the county to do so. Heartlands thus originated as a specialist 'Infectious Diseases Hospital', built on land external to the burgeoning city of Birmingham in 1895, to the designs of William Henry Ward of Stone. The hospital as originally envisaged comprised an entrance lodge and waiting rooms; receiving and discharging wards; isolation block; pavilion ward blocks; administration block; nurses home; a general laundry, disinfecting station, incinerator, steam boilers etc.; stabling and coach house; two cottages and mortuary. No original design drawings survive. The laundry block currently under consideration thus formed a part of the original scheme as built in 1895, combining laundry facilities (presumably located at the well ventilated upper ground floor level) with boiler houses, disinfection station and incinerator, the latter presumably located to the lower ground floor. A laundry of this type would have been furnished with a wide range of equipment and machinery for washing, mangling, wringing, drying and ironing; such machinery, originally manual though increasingly steam powered, would have been essentially free-standing and need not have left significant traces upon the fabric of the building. Certainly, little remains that can be directly linked to any specific processes, though details such as surviving, high level wall boxes are of limited interest in illustrating the use of motive power and line-shafting.

A total of four principal phases of development have been identified, the largest being a radical extension and significant phase of modification undertaken in the 1930s, reflecting a more general phase of expansion of the hospital at that time in response to the growing urban population.

As with other historic structures previously recorded at the Heartlands site, the laundry block is essentially utilitarian in nature and is not of specific historical interest or particular architectural merit. Representing the last surviving building of the original, 1895 isolation hospital, its interest lies more in its historical context than in the fabric of the building itself. Further, the loss of internal fixtures and fittings, the inevitable result of continued usage and changes in function over an extended period of time, has served to lessen its heritage value in evidential and illustrative terms.

The current recording action has allowed for an adequate, and proportional, drawn and photographic record of the building to be made by way of 'preservation by record' for the benefit of posterity and to illuminate possible future research.

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1 INTRODUCTION

1.1 Background to the Project

- 1.1.1 An historic building record (HBR) in respect of the former laundry block at Heartlands Hospital, Bordesley Green East, Birmingham was commissioned by the Heart of England NHS Foundation Trust in November 2012 with the aim of creating a visual and interpretive record of the historic structure, an original element of a late 19th-century 'infection hospital', prior to demolition and redevelopment as part of a wider scheme of hospital improvements. The building has since the late 1970s been used for storage of patient records and by the hospital's estates department, who vacated the building in October 2011 and May/June 2013 respectively.
- 1.1.2 No brief was issued for the historic building record which has been undertaken to supplement a desk-based assessment (Tyler 2010a) and previous stages of recording work carried out in respect of other historic structures on the site, viz. a 1930s Ward Block (Block 10) and the early 20th-century former nurses home, Warwick House (Tyler, 2010b and c respectively), both of which have subsequently been demolished.¹
- 1.1.3 The recording project has been undertaken in accordance with English Heritage's *Understanding Historic Buildings: A Guide to Good Recording Practice* (EH, 2006) and the Institute for Archaeologists' *Standard and Guidance for the Archaeological Recording of Standing Buildings* (IfA, 2008).

1.2 Site Location

- 1.2.1 The Heartlands Hospital is located to the north side of Yardley Green Road, c.5km east of Birmingham city centre (Figure 1) and is centred on NGR SP 11800 86750. The site is bounded to the north by Bordesley Green East, to the south by Yardley Green Road, to the east by the gardens of properties fronting a series of cul-de-sacs opening off the west side of Little Bromwich Road and to the west by an open field backing onto Belchers Lane.
- 1.2.2 The building currently under consideration, a former laundry block latterly functioning as accommodation for estates department/patient records storage, is located towards the northern boundary of the hospital site (Figure 2).

1.3 Aims and Objectives

- 1.3.1 In the light of the planned demolition of the former laundry building and given its historical significance evident from a review of historical sources (see below and Tyler, 2010a), the aim of the historic building record was to generate a full visual and interpretive record of the historic structure in advance of demolition with a view to documenting the building for posterity thus achieving 'preservation by record'.

¹ Earlier stages of recording work were undertaken in accordance with project briefs prepared by Birmingham City Council Planning Archaeologist. In the absence of an official brief for the current project, recording has been undertaken to a level commensurate with previous stages of archaeological recording work.

1.4 Designations

- 1.4.1 The laundry block is not included on the Statutory List of Buildings of Special Architectural or Historical Interest, nor is it locally listed. The wider hospital site does not include or form part of any Scheduled Ancient Monument (SAM) or Conservation Area and includes no statutory or locally listed buildings.
- 1.4.2 The general hospital site is included on the Birmingham City Historic Environment Record (HER), reference **21069/MBM2734** and, as such, represents an 'Heritage Asset' under the terms of government planning policy guidance.

2 METHODOLOGY

2.1 Documentary Research

- 2.1.1 No new programme of archival or documentary research has been undertaken as part of the current recording action; a search was made in 2010 of all relevant and readily available published and unpublished documentary sources as part of previous stages of archaeological and historical research, upon which the historical background below is based. It is not known whether any further relevant materials have been deposited with the Birmingham City Archives since the previous phases of work as the archives were closed for relocation at the time of compilation of the current report.

2.2 Historic Building Survey

- 2.2.1 The historic building record was based on a full and detailed examination of the building, both externally and internally. Recording was undertaken to a level commensurate with an 'Level 2' record as defined by English Heritage in *Understanding Historic Buildings: A Guide to Good Recording Practice* (EH, 2006) and comprised three distinct elements as outlined below. Survey work was carried out in May 2013 following the vacation of the premises.

Drawn Record

- 2.2.2 A drawn record of the building was made, based for the most part upon existing survey data supplied by the client. Floor plans were generated at each principal level, annotated to show significant architectural and archaeological detail, and serve as the basis for the illustrative plans reproduced within this report. Supplied survey was augmented by sufficient on-site measurement to allow for the generation of exterior elevation drawings and a representative cross-section through the building, measurements being captured by a combination of hand tape and hand-held laser measurement. A register of project drawings is included below as **Appendix A**.

Photographic Record

- 2.2.3 The photographic record comprised high resolution digital photography using a Nikon D3000 digital single lens reflex camera (10MP), extending to include both general and detail shots, contextual views and accessible exterior elevations, visible structural and decorative details (interior and exterior), and general interior views of principal rooms and circulation areas. Where possible, photographs included graded photographic scales. A register of project photographs detailing subject, orientation, photographer and date is included below as **Appendix B**; a selection of images is reproduced as plates.

The Written Record

- 2.2.4 To accompany the drawn and photographic records, a systematic written account of the building was made as free text; this forms the basis of the following description

3 GENERAL ARCHAEOLOGICAL AND HISTORICAL CONTEXT

- 3.1 The archaeological background to the Heartlands Hospital site has been addressed in detail during earlier phases of archaeological work (see Tyler, 2010a) and will thus not be repeated here. A broad introduction and historical development of both general and specialist hospitals in England is provided by Richardson's RCHME volume on *English Hospitals 1660-1948* (1998).
- 3.2 An outline summary of the development of the Heartlands hospital itself, based upon previous phases of archaeological work and drawing upon Ayers, Ellis and Portsmouth's 1995 centenary publication '*East Birmingham Hospitals 1895-1995*' is included below for reasons of completeness, with specific reference to the laundry block now under consideration.

4 THE EAST BIRMINGHAM HOSPITAL

- 4.1.1 The origins of Heartlands Hospital lie in the closing years of the 19th century when the 'Yardley Road Infection Hospital' was built in 1894-5 to the designs of the architect William Henry Ward of Stone, Staffordshire.² The hospital was erected on the eastern outskirts of the city of Birmingham on a former agricultural site, purchased by Birmingham Corporation from the Rev. Frederick Graeme Littlecot, vicar of Rushall (Walsall). The cost of the land was £4,975³ including a fee of £175 paid by way of compensation to a tenant farmer, Henry Masters of Howlett's Farm, for the breaching of a tenancy agreement made between himself and Littlecot dating to 14th October 1892.⁴
- 4.1.2 The semi-rural aspect of the site, as depicted in the Ordnance Survey 1st Edition 1:2500 map of 1887-9 (Figure 3a), was commented on by Richard Fowler FSI of Colmore Row in a report of 26th April 1893 on the condition of Howlett's Farm, which noted the site '*... seems an excellent one, being high and surrounded by fields*'.⁵ At the time, suburban residential development was confined to the centres of Little Bromwich, Alum Rock and Stetchford to the west, north and north-east respectively with limited development along the southern side of Yardley Road (the current Yardley Green Road). The siting of the proposed hospital did not go unchallenged, however, and public meetings saw vociferous protest against the development on the grounds of disputed necessity, the location close to a rapidly expanding residential neighbourhood, the expense of the project and the foreseen blight for property owners in the area.⁶
- 4.1.3 Design drawings for the hospital were submitted to the City in 1893-4 and are listed in contemporary ledgers kept at the Birmingham City Archives,⁷ though unfortunately the drawings themselves have not survived. The original planned elements comprised the following:⁸
- Entrance lodge and waiting rooms
 - Receiving and discharging wards
 - Isolated block for doubtful cases
 - Ten pavilions for 24 beds each
 - Official and administration block
 - Nurses home (for 40)
 - **General laundry, disinfecting station, incinerator, steam boilers etc.**
 - Stabling and coach house
 - Two cottages: one for the removal officer and one for disinfection officer

² See Hartland 2009, 253-74.

³ Birmingham Daily Post, July 26th 1893, p.5; Birmingham Archives; Jewel Baillie 81b/41.

⁴ Birmingham Archives; Jewel Baillie 81b/47.

⁵ Birmingham Archives ref. Jewel Baillie 81b/6a.

⁶ Birmingham Daily Post 1st June 1893; Birmingham Archives ref. Jewel Baillie 81b/40a.

⁷ Ref. BPI 9657

⁸ Birmingham Archives ref. Jewel Baillie 81b/40a

- Mortuary

- 4.1.4 At the time of opening, as the 'City Hospital, Little Bromwich', on 29th June 1895, only four of the planned pavilions had been built (Ayers, Ellis and Porstmouth 1995, 9), presumably those illustrated in historic plans to the north of the site immediately adjacent to the laundry block to the south (Figure 3b); historic photographs indicate primary, single-storey brick-built pavilion ranges.
- 4.1.5 The original hospital was not designed for continuous occupation, rather as an emergency facility to be used at times of smallpox epidemics, later extended to cover other infectious diseases including measles, scarlet fever, whooping cough, diphtheria and tuberculosis.
- 4.1.6 The hospital was extended in 1902-4 at the cost of £19,765 (Ayers, Ellis and Porstmouth 1995, 10) with the building of a further 3 pavilions to the south of the original four, an isolation ward and an administration block (demolished 1995),⁹ and nurses home 50 nurses ('*Warwick House*', demolished 2010).¹⁰ In the absence of the original design drawings, the earliest graphic record of the hospital site is the first revision Ordnance Survey map of 1904 (Figure 3b) which shows the additional ward blocks and an additional three aligned parallel to the main hospital avenue. By 1910 capacity had increased to 10 ward units holding 300 beds (*ibid.*, 11). During the 1930's the hospital expanded dramatically, reflecting the steady increase in the population of the city, witnessing the building of another fourteen wards, some of which at least were of two storeys, increasing capacity to 750 beds (*ibid.*, 12).
- 4.1.7 The end of the Second World War saw the introduction of the National Health Service Act of 1946, resulting in the formation of the National Health Service in July 1948. Little Bromwich Hospital came under the control of the Selly Oak Hospital Management Committee (HMC), together with the Selly Oak and Solihull Hospitals, the Accident Hospital and the Royal Orthopaedic Hospital. The steady reduction in infectious diseases in response to advances in vaccine technologies saw additional ward space becoming available at East Bromwich and certain services were transferred from Selly Oak. In April 1953 the crucial decision was made to 'generalise' the East Bromwich Hospital heralding significant investment, and during the period 1959-61 over £380,000 was spent improving facilities.
- 4.1.8 In 1962, a new hospital management committee was set up to manage Little Bromwich Hospital, together with Yardley Green, Hollymoor, Solihull, Witton and Marston Green Hospitals (Ayers, Ellis and Porstmouth 1995, 39), and on the 1st April 1963, East Birmingham Hospital was created by the merging of Little Bromwich and Yardley Green Hospitals. Over the next 30 years, the hospital continued to grow with the demolition of many of the older ward ranges and the up-grading of others, the extent of which is readily apparent from a review of the construction dates of the extant building stock on the site (see Tyler 2010a; figure 19). On the 1st April 1992, the hospital received trust status and changed its name to the Birmingham Heartlands Hospital; investment and modernisation of the site continues.

5 THE LAUNDRY BLOCK

5.1 The Evidence of Historic Ordnance Survey Mapping (Figure 4)

- 5.1.1 The Ordnance Survey edition of 1904-5 (Figure 4a) illustrates the laundry block, presumably as-built, as a rectangular range, somewhat shorter than the extant building, aligned approximately east-west with a series of three southerly projections; viz. two long, opposing perpendicular wings to east and west flanking a shorter, wider central block, the latter terminating to the south in the original, tall detached stack (see also Figure 5). A further, narrow rectangular structure is shown projecting southwards from the south-east angle of the main range.

⁹ See Ayers, Ellis and Portsmouth 1995, fig.4a.

¹⁰ See Tyler 2010c. The Phase II extension of the laundry block (see §.6.3 below) presumably dates to this phase of expansion.

- 5.1.2 The edition of 1915-17 (Figure 4b) illustrates an essentially similar layout, though the principal, east-west aligned range had by this date been extended eastwards,¹¹ the extension being slightly wider than the primary range. The construction of the eastern extension necessitated the removal of the narrow rectangular structure shown on the earlier edition.
- 5.1.3 The edition of 1937-8 (Figure 4c) indicates major modification and extension of the laundry block, presumably related to the general expansion of the hospital at this period (see §.4.1.6 above). To the south elevation, the two extant north-lit extensions had been appended,¹² with a further pent-roofed block abutting the eastern of these (see also Figure 6b), while to the west the range had also been extended though apparently on a slightly different plan to the surviving block.¹³ The depiction of these extensions and their development is somewhat ambiguous and will be discussed further below. Contemporary with these modifications, the original southern wings were cleared away and the main stack dismantled with a new boiler house range and associated chimney being erected to the north of the main range (see Figures 3d and 6).
- 5.1.4 By the time of the 1951 edition (Figure 4d), the range had essentially developed the plan that it retains today; the western extensions had acquired their current plan form including the small tower projection to the west elevation and the flight of steps rising from south to north across the western end of the range. The recessed area between the two southern extensions had been roofed over and an additional lean-to appended to the south side of the western of these (see also Figure 6b).
- 5.1.5 The edition of 1969/70 illustrates no changes from that previously described. The only significant modification since the time of this edition has been the removal of the single storey lean-to blocks abutting the southern extensions.

5.2 Historical Photographs

- 5.2.1 An historical photograph pre-dating the significant 1930s modifications and extensions (Figure 5) illustrates the early arrangement of the laundry block though not in any great degree of detail. The original location of the main stack to the south side of the range is clearly evident however while close examination of the photograph reveals that the south elevation of the main range would appear to have been originally furnished with windows matching those of the north elevation (surviving), partly obscured by the low southerly wings and central block; the ridge of the main roof was furnished with a series of longitudinal roof vents.
- 5.2.2 A further, aerial photograph of c.1950 (Figure 6), again a view from the south, illustrates the appearance of the range following the significant expansion of the 1930s with the extant southern and western extensions clearly visible, small lean-to blocks abutting the south elevations of the former. The ridge vents of the main range remain visible while a series of four flues can be delineated rising above the southern roof slopes of the Phase IIIa extensions, which together suggest that the building was still in use as a laundry at this time. The new boiler house and chimney, first depicted on the 1937/8 Ordnance Survey map, are clearly visible beyond the main range to the north.

¹¹ Phase II; see §.6.3.

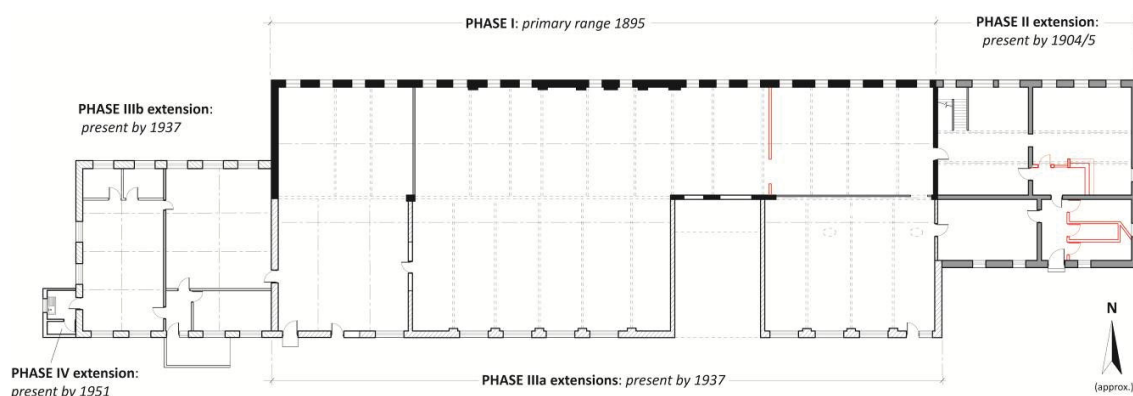
¹² Phase IIIa; see §.6.4.

¹³ Phase IIIB; see §.6.5.

6 BUILDING DESCRIPTION

6.1 Overview

- 6.1.1 The laundry block is located towards the northern side of the hospital site; it occupies a composite plan comprising a primary narrow, rectangular single-pile range aligned approximately east-west¹⁴ with a series of extensions of disparate phases of development to the east, west and south. The building is of two full storeys to the north though, being terraced into rising ground to the south, the 'first' floor level in fact constitutes an 'upper ground floor', accessed directly from ground level to the southern side of the range (see Figure 10), while the ground floor to the north forms a 'lower ground floor' or basement level. The building has overall dimensions of 77.4m/254ft (E/W) x 18.3m/60ft (N/S).
- 6.1.2 The building as recorded comprises four principal phases of development which can be summarised as follows; each phase of development will be described in turn below.



HEARTLANDS LAUNDRY BLOCK: Overall phasing

- PHASE I:** principal north range forming primary part of isolation hospital, erected 1895.
PHASE II: eastern, in-line extension present by Ordnance Survey edition of 1904/5.
PHASE IIIa: addition of two asymmetric extensions to south of main range, present by 1937.
PHASE IIIb: western extension, present in some form by 1937.
PHASE IV: alterations to **PHASE IIIb** block plus addition of western tower, present by 1951.

Room Numbering System

- 6.1.3 The room numbering system employed in the following description reflects the pre-existing system most recently used by the Heart of England NHS Trust; each room is assigned a unique alpha-numeric reference comprising a number from a continuous sequence (separate for each floor level) preceded by a single letter prefix denoting its floor level (**B**: basement/lower ground floor; **G**: upper ground floor; **F**: first floor/attic).

¹⁴ The principal axis of the building is aligned WNW-ESE though this will be assumed to run east-west for the purposes of the following description and discussion.

6.2 Phase I: primary range (1895)*Exterior*

- 6.2.1 The primary laundry block range (Plates 1 and 2) occupies the central, northern section of the extant building, measuring 47m/c.154ft long (E/W) x 8.4m/27½ ft wide (N/S), arranged over two storeys beneath a tile-clad (renewed), pitched roof, gabled to east and west, standing c.8m/26ft to eaves level (to the north) and 11.5m tall to ridge. The north elevation (Figure 9a) is brick-built (8½ x 4 x 2½ in. laid to English bond) rising to a triple course eaves band comprising two shallow, ¼-brick oversails; ground floor brickwork is of banded red stretchers and blue/purple headers (Plate 8) with first floor comprising uniform, paler orange brick articulated by horizontal, 2-course bands of blue/purple brick at the cill and springing level of the upper window openings.
- 6.2.2 The lower ground floor is pierced by a series of wide, segmental headed archways (x 10 total) opening onto internal rooms, furnished variously with double doors ([B.007/008/010]; Plate 9), modern roller doors ([B.012]) or part-blocked with pedestrian doorways flanked by window openings ([B.003-006, 009 and 011]; Plates 10/11); to the far east end of the primary range, a pedestrian doorway and single segmental headed window (part blocked) open onto [B.013]. Wider archways are spanned throughout by segmental brick arches of four, blue-brick header courses while the narrower openings at [B.013] are spanned by triple header arches; all openings are furnished with stopped, bull-nosed blue-brick jambs. First floor fenestration is of regular 1/1 horned sashes, grouped in two sets of eight to east and west with a further pair set centrally to the length of the range; high level vents located between adjacent windows are set immediately beneath the oversail eaves band. The elevation around the eastern six eastern window openings (Plate 12) has been renewed in pale orange brick and the elevation here lacks the blue-brick horizontal banding evident elsewhere; the date and reason for this modification has not been established. All window openings are furnished with projecting, bull-nosed blue-brick cills and segmental arches of two header courses (save the central pair which have secondary, flat concrete lintels).
- 6.2.3 The western gable end (Figure 9b; Plate 2) maintains the pattern of brickwork of the principal facade with banded red/blue-purple brick to ground floor, uniform paler red-brick to first floor and oversail eaves detail continued beneath the ridge line. The gable is pierced by three vertical ventilation slots while ground floor level includes three blocked window openings; a fourth original window opening to the south survives internally within [B.003] where it has been adapted to form a doorway connecting the primary range with the Phase IIb western extension. A short section only of the original upper south wall survives internally (see §.6.2.7; Plate 50), the most part having been removed during modifications in the 1930s; the original eastern gable end has been subsumed into the body of the range when the block was extended eastwards in the early years of the 20th century (Phase II) and survives today as an internal partition.¹⁵

Interior

- 6.2.4 The lower ground floor or basement level of the primary range (Figure 7) is accessed solely from the north side of the building, the interior being subdivided into a series of discrete spaces ([B.013-B.003] from east to west), each with individual access archways to the principal elevation. To the far east end of the range, room [B.013] (Plates 13/14) is distinct in being accessed via a single pedestrian doorway within the north wall, as opposed to the wide archways of the rest of the range, flanked to the east by a single, segmental-headed window (partly blocked). A number of the rooms or bays at this level are interconnected by primary and/or inserted doors while, elsewhere, primary openings have been blocked up/infilled. In particular, central bays [B.007-010] would appear to have originally have been fully open at the north end, though the openings have subsequently been blocked variously in brick (Plate 31) and timber panelling, the latter formed of re-used doors (Plates 21, 30, 33 and 36). Typically, bays [B.011-013] to the east and [B.003-006] to the west extend to the width of the range, viz. 7.5m/24½ft deep, though the central bays [B.007-010] are deeper, extending further to the south (Plates 20, 32 and 35), [B.008] terminating in a mass

¹⁵

Three ventilation slots (blocked; Plate 49) mirror those of the western gable.

of brickwork (Plate 28) presumably representing the base of the original stack (see §5.1.1). Doorways within the walls flanking **[B.008]** immediately north of this brick base provide through access at the southern end of the longer bays (see also Plates 25/6) while further, regularly spaced archways (blocked) were noted in the flanking walls of **[B.008]** which, together with the blocked openings previously noted to the north, indicate a former, more open layout to the central part of the range. Bays **[B.009]** and **[B.010]** extend to the eastern side of the primary stack base to a maximum length of 20m/65½ft, from where brick-lined ducts continue beneath the former main hospital avenue (see Figure 5a) and would formerly have routed steam heating pipes to the adjacent ward blocks; the eastern 'new' duct opening off **[B.010]** (Plate 24) remains operational, fed by the new boiler house,¹⁶ though that to the west (the 'old' duct; Plate 27) is now functionally redundant.

- 6.2.5 Bay **[B.011]** is worthy of note, unusual in that each of the flanking walls include three blocked-in arched openings (Plates 18-19); this room, the former boiler room, currently functions as the main steam feed from the new boiler, housing a series of condenser tanks (Plate 17) and channelling pipework to the main hospital ranges to the south via bay **[B.010]** (Plates 20/22) and the 'new' duct (Plate 24). Elsewhere, bays have been adapted to use as workshops and/or storage and retain little to indicate original uses; **[B.013]** retains an early floor of edge-laid brick while the central bays **[B.007-010]** are finished in 6 in. red quarry tile (with single tile upstand skirting), otherwise floors have been screeded over. **[B.008]** retains three wall mounted rectifiers by Westinghouse Brake and Signal Company (Plate 34);¹⁷ these are annotated 'Van 1' – 'Van 3' and presumably relate to some form of electrified vehicles in use at the hospital, possibly in the (?)1950s. The westernmost bays **[B.003-006]** have been extensively modified by the introduction of a series of ephemeral partitions and suspended ceilings (Plates 38-44) though clearly originally formed a suite of interconnected rooms, each transverse partition including a primary opening (eg. Plates 37/40). An angled section of wall to the north-east corner of **[B.005]** may indicate the location of a former fireplace (Plate 43) while a series of three blocked window openings in the west gable end are visible above the inserted ceiling on **[B.003]** (Plate 44).¹⁸
- 6.2.6 There is no internal vertical communication between lower and upper ground floor levels.
- 6.2.7 The upper ground floor level of the range (Figure 8a) is accessed from the south side of the building, via the Phase IIIa southern extensions and from the east and west, again via connecting doorways from adjacent secondary structures. At this level, the range essentially comprises a single open space, though this has been subdivided by the introduction of two ephemeral partitions to form three rooms, **[G.007]**, **[G.006](N)** and **[G.005](N)** from east to west (Plates 45-7 respectively). Spaces are generously lit by a series of 1/1 timber horned sash windows in the north wall, these grouped in matching sets of eight to east and west, with a discrete pair to the centre of the range, the latter with modified, flat heads. High level vent panels are located between adjacent windows while triple ventilation slits occupy the upper part of the eastern and western gable ends (Plate 49). A small section of primary south wall survives to the east end only of **[G.006](N)**, incorporating two blocked doorway openings (Plate 50),¹⁹ otherwise the southern side of the range has been drastically modified for the introduction of the Phase IIIa southern extensions. The fabric of the south wall has been fully removed at Bays 1-9 (Plate 51) and Bays 12-15 (Plate 52), where the southern side of the primary roof is carried by massive, inserted steel I-beams (Plates 53/4) spanning the resultant voids, doubled-up to the west.²⁰
- 6.2.8 The roof of the primary range (Plate 48) is of 15 uneven bays (varying between 2.7m/9ft to 3.6m/12ft) defined by a total of 14 softwood king-post trusses with raking struts, principal rafters supporting three

¹⁶ Constructed in 2007 (M Dawson, *pers. comm.*).

¹⁷ NB: rectifiers fixed to the infill of the former openings of the east wall.

¹⁸ The doorway at the south end of the west wall of **[B.003]** has been adapted from a further primary window opening.

¹⁹ The eastern doorway is 8ft wide x 8ft 4in tall with flat concrete lintel, the western pedestrian door 3ft 3in wide x 10½ft tall with segmental arch.

²⁰ 2ft x 7½ in. with additional 33 x 11½ in. to western opening; steelwork by Appleby-Frodingham of Scunthorpe, Lancashire.

tiers of vertically set purlins (Figure 10c).²¹ Historic photographs (Figures 5/6) indicate the former existence of longitudinal ridge vents (x 3 total), though these have subsequently been removed, presumably following the disuse of the building as a laundry, and are no longer evidenced internally.

- 6.2.9 The rooms of the laundry block at this level have since the late 1970s until relatively recently, been used for the storage of patient records; this usage necessitated the introduction of extensive bays of storage racking throughout and the range thus retains little of historical interest in the form of early fixtures and fittings related to its primary or former uses.

6.3 Phase II: eastern extension (present by 1904)

Exterior

- 6.3.1 The Phase II extension was appended at the eastern end of the primary range at some point between the original construction date of 1895 and the first edition Ordnance Survey map of 1904/5 (Figure 4b). Its erection required the demolition of a narrow range which formerly extended southwards from the south-east corner of the main block (Figure 4b). Wider than the primary block, the Phase II extension is formed of two parallel ranges (Plate 5), each of four bays internally. The northern range is of two storeys, matching in broad terms the arrangements of the primary block to which it forms a simple 'in-line' extension (Plate 55), being brick-built to English bond with alternating red/blue brick courses to ground floor and paler, uniform red brick with two-course horizontal bands to first floor level.²² The southern range is of a single storey, reflecting the rising ground level, accessed from the south only and with a small underfloor area (unused) accessed via a small hatch within the east elevation (Figure 10a).

- 6.3.2 The north elevation (Figure 9a; Plate 55) rises through two full storeys, matching precisely the scale and massing of the adjacent, Phase I range (Plate 1). Ground floor level is pierced by two pedestrian doorways, accessing separate rooms, with bull-nosed jambs housing stout timber doors with segmental headed overlights of three vertical panes, and by four window openings housing multi-pane, cast-iron frames with central opening panels; all openings are spanned by segmental arches of three blue-brick header courses. First floor fenestration has been modified with a series of two- and three-light timber casements having been introduced; these are set beneath flat, reinforced concrete lintels similar to Phase III work, most probably of the 1930s (see below) and may suggest a date for their insertion. Unambiguous areas of patched brickwork are evident above the easternmost, two-light windows, though the modifications to the three-light windows to the west are less clearly defined. To the far west, a single-light window, set high beneath the eaves band, lights an internal stairwell. The south elevation is of a single storey with three window openings following the standard pattern, two housing 1/1 horned sashes and one (part blocked) with a modern UPVC unit; a single, pedestrian doorway is spanned by a flat, reinforced concrete lintel and shows obvious signs of having been significantly modified, again possibly in the 1930s.²³ The east elevation (Figure 10a) presents a pair of gables, that to the south wider than that to the east, each with triple vents at high level and with a brick stack rising above the central valley, formerly serving fireplaces a lower ground floor at least (see §.6.3.3). The southern of the two gables includes a single, central window opening (housing a modern UPVC unit) while a further window pierces the northern gable, offset towards the south side of the range.

Interior

²¹ Vertically set purlins are set such that their principal faces are aligned parallel to and perpendicular to the horizontal floor surface as opposed to the more common arrangement of being set orthogonally to the slope of the roof they support. A similar purlin arrangement was previously recorded in the early nurses home at Heartlands, Warwick House, since demolished (see Tyler 2010c; figure 9b, plates 47/8).

²² Brick sizes vary, however, at 8¼ x 4¼ x 2¼ in.

²³ The modifications would appear to have been made by the time of the 1950s aerial photograph (Figure 6b) on which image the patching around the door is clearly distinct.

- 6.3.3 The lower ground floor level (Figure 7) of the Phase II extension comprises two rooms, [B.014] and [B.015] (Plates 57 and 61 respectively), which are essentially similar in layout though [B.015] is marginally larger. Rooms are independently accessed from the exterior via stout timber ledged-and-braced doors in the north wall (Plates 57/61) and are each lit by two large, segmental-headed windows housing multi-pane cast-iron frames (Plate 58). Originally discrete, the rooms are now interconnected by a flat-headed door inserted within the transverse partition wall and communicating via a short, shallowly sloping ramp (Plate 62), the floor level rising some 0.25m/10in. from west to east. Both rooms are furnished with hard wearing floors of face-laid, blue/grey engineering brick. Areas of patching at the southern angles of the transverse partition (Plates 59/63) indicate the location of former fireplaces which would have been served by the surviving valley stack, visible externally, while high-level wall-boxes within the transverse walls (Plate 60) indicate the former presence of line shafting, though the details of these features has not been established. As with the primary range, there is no internal vertical communication between lower and upper ground floor levels.
- 6.3.4 At upper ground floor level (Figure 8a), the Phase II extension is accessed from the south via a small entrance lobby [G.012] with a series of three small offices ([G.013-015]) opening off the eastern side, all formed out of a former single, larger room. The remainder of this level is subdivided to form office spaces [G.009, 010 and 016] (Plates 69, 66/7) with a central reception area [G.006] (Plate 65) and retain little of significance; the fireplace/stack details recorded at lower ground floor level are here absent. [G.010] is lit by three, two-light timber casements to the north wall (Plate 68), dating probably to a phase of 1930s improvements, while [G.009] is lit by two, contemporary three-light windows (Plate 71). At the north-west corner of [G.009], an enclosed dog-leg stair [F.001] rises to attic level (Plate 72/3).
- 6.3.5 The upper level (Figure 8b; Plates 74) is of four bays defined by two softwood king-post trusses matching the details of the Phase I roof to the west (see §.6.2.8) and by a central, transverse wall which rises to ridge level creating two interconnected spaces, [F.002 and 003]. The softwood floor is set some 0.75m/2ft 5in. below the soffit level of the tie beams such that short flights of steps are necessary to afford access between adjacent bays (Plate 75).

6.4 Phase IIIa: southern extensions (present by 1937)

Exterior

- 6.4.1 Appended to, and opening off, the south side of the upper ground floor of the primary range are two single-storey extensions (Plates 76-9), brick-built in a mix of orange/red and purple/red brick laid to Flemish bond and with asymmetrical, north-lit roofs, terminating to east and west in low, raised parapets. Both extensions are c.10m/33ft wide (N/S), that to the east being shorter, of four bays internally and measuring 12.5m/41ft long (E/W) while that to the west is of nine bays internally with a total length of 28.5m/93½ft. Fenestration is of simple, high-set rectangular openings with sloping, bull-nosed blue-brick cills and flat, reinforced concrete lintels housing two-light timber casements, each with a single, opening hopper to the east. Doorways (two to the west, one to the east) are likewise set within the south elevation beneath flat concrete lintels.²⁴ The asymmetrical roofs are felted to the southern slope and glazed to the north (Figure 10c). A recessed area between the two extensions, originally open (Figure 4c) though subsequently covered over (Plate 78), houses a high-level, iron water tank and is currently used as a gas bottle storage area.

Interior

- 6.4.2 Internally, the extensions form unencumbered open spaces, though the western extension is sub-divided by a transverse partition to form two rooms, [G.005](S) and [G.006](S), all opening off the southern side of the main range at Bays 1-3, 4-9 and 12-15; the primary southern wall of the Phase I range has here been removed with the north side of the Phase IIIa roofs being supported on massive longitudinal I-beams (see

²⁴

The eastern doorway of the western extension has been reduced in size.

§.6.2.6; Plates 51/2). In both cases, Phase IIIa roofs are supported by regular steel trusses supporting five timber purlins to the southern slope and ridge piece; an additional raking brace supports the lower chord of the trusses within the western extension (Plate 81). In both sections, the northern roof slopes are glazed (Plate 80/84) while the soffit of the southern roof slopes are clad in tongue-and-groove boards which retain circular voids (Plate 84) indicating the former locations of ventilation flues (see Figure 6b). Circular window openings (Plate 82) are set high in each asymmetrical gable, save to the east side of [G.008] where three vertical ventilation slits (Plate 83) represent a surviving feature of the south-eastern gable of the Phase II eastern extension, incorporated into later fabric. Both eastern and western extensions retain racking related to the building's most recent use for storage of patient records and little of historical interest was noted.

6.5 Phase IIIb: western extension (present by 1937?)

As noted above (§.5.1.3), the Phase IIIb extension at the west end of the range is first illustrated on the Ordnance Survey edition of 1937/8 (Figure 4c) though it is there illustrated on a slightly different plan to the extant building and lacks the western, rectangular tower (here Phase IV). Although no clear building break is definable between the western Phase IIIa extension and the Phase IIIb block, which use matching materials, are stylistically similar and appear ostensibly to be broadly contemporary, they have been assigned to separate phases of development to reflect the ambiguity of the cartographic record.

Exterior

6.5.1 The Phase IIIb extension is appended at the western end of the range, abutting the west gable of the primary block (Plate 2) and Phase IIIa extension. It is a two-storey, brick-built structure on a rectangular plan, 12.4m/40½ft (N/S) x 13.85m/45½ft (E/W), in a mix of orange/red and purple/red brick laid to regular Flemish bond, formed of two parallel, unequal ranges aligned perpendicular to the principal laundry block and gabled to north and south with low parapets capped by concrete slabs. The range is somewhat shorter than the main block is wide, such that the north elevation is set back from the principal facade (Plate 85), while the south gable elevation is flush with the south wall of the Phase IIIa extensions (Plate 86) with no clearly discernible building break. As with the main range, the building is terraced into the rising ground to the south such that it is accessed from the north and west at lower ground floor and from the south only at upper ground floor level. The north elevation (Figure 9a) is furnished with a wide roller door to the east (Plate 87) and two large multi-pane windows to ground floor level, all beneath a single, reinforced concrete lintel, with five regularly spaced, three-light steel casements to first floor level, again beneath flat concrete lintels. To the south, a central doorway is flanked by pairs of similar, three-light steel casements (Plate 86) while the fenestration of the west elevation follows the same overall pattern, here abutted to the south by the Phase IV tower.

6.5.2 Internally, the ground floor forms a single unencumbered workshop space [B.002] (Plate 89), extending to the east around the back of the primary range (Plate 90), generously lit to the north and west by large steel casement windows (Plate 91). At first floor level, the building is split into two principal spaces [G.003] (Plates 92-3) and [G.002] (Plates 94/5), reflecting the division of two parallel ranges, each sub-divided by a series of ephemeral stud partitions. Roofs are formed of regular steel trusses, double fan form to [G.003], single fan to the narrower [G.002], carrying two and one tier of purlins respectively with upper glazed panels.

6.5.3 As with the Phase I and Phase II ranges, there is no internal vertical communication between lower and upper ground floor levels.

6.6 Phase IV: western extension (present by 1951)

6.6.1 A small rectangular tower, 2.3m/7½ft x 3.4m/11ft in plan, of two storeys and containing WC/kitchen facilities is appended at the south end of the west elevation (Plates 85/88). It shares common

characteristics with the Phase IIIb extension previously described though, interestingly, is not shown in its current form until the Ordnance Survey edition of 1956/7 (Figure 4d). It has thus here been assigned to a putative Phase IV.

7 DISCUSSION

- 7.1 The Birmingham Infectious Diseases Hospital was established under the terms of the Isolation Hospitals Act of 1893, which not only enabled county councils to provide isolation facilities, but also allowed them to compel local authorities within the county to do so (Richardson 1998, 140).
- 7.2 The laundry block formed a part of the original scheme as built in 1895, combining laundry facilities (presumably located at the well ventilated upper ground floor level) with boiler houses, disinfection station and incinerator which would logically have been housed at lower ground floor level, the functional separation being reflected in the lack of internal vertical communication between the two areas. A laundry of this type would have been furnished with a wide range of equipment and machinery for washing, mangling, wringing, drying and ironing (see Sambrook 1983; Morrison 1999, 128),²⁵ often supplied by specialist companies such as Thomas Bradford and Co. of London, Liverpool and Manchester (see below). Such machinery, originally manual though by the late-19th century increasingly steam powered, would have been essentially free-standing and need not have left significant traces upon the fabric of the building (Sambrook 1983, 15). Certainly, little remains today that can be directly linked to any specific processes, though details such as the high level wall boxes recorded within the Phase II extension at the east end of the range are of interest in illustrating the use of motive power and line-shafting.

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(image: Mitton L, *The Victorian Hospital* 2010, 13.)

Directory advertisements by Thomas Bradford and Co. for laundry machinery and for specialist hospital/workhouse installations

²⁵

The lower illustration in Morrison (1999), a photograph dated 1938, although of a workhouse provides a good illustration of a large institutional laundry at this time with increasing mechanisation.

- 7.3 The lower ground floor would have originally housed the boiler houses and related plant and the surviving system of ducts extending southwards below the line of the original central avenue is of interest, with the 'new duct' still retaining its primary function, though today fed by the new (2007) boiler house to the north-west. Again, however, modification to alternative use has resulted in the loss of meaningful evidence for original uses and the detailed functionality of the original range has not been defined in any degree of detail.

8 CONCLUSION

- 8.1 As with other historic structures previously recorded at the Heartlands site, the laundry block is essentially utilitarian in nature and is not of any specific historical interest or particular architectural merit; representing the last surviving building of the original, 1895 isolation hospital, its interest lies more in its historical context than in the physical fabric of the building itself. Furthermore, the loss of internal fixtures and fittings, the inevitable result of continued usage and changes in function over an extended period of time, has served to lessen its heritage value in evidential and illustrative terms.²⁶
- 8.2 The current recording action has allowed for an adequate, and proportional, drawn and photographic record of the building to be made by way of 'preservation by record' for the benefit of posterity and possible future research.

9 ACKNOWLEDGEMENTS

- 9.1 The project was commissioned by the Heart of England NHS Foundation Trust; thanks are extended to Mr Mike Dawson and to Mr David Hughes for arranging access to the buildings and for providing useful information on the more recent history and uses of the building.
- 9.2 Documentary research and site assessment were undertaken by Ric Tyler MIfA who also wrote collated and illustrated the current report.

²⁶

Definitions as laid out in English Heritage's *Conservation Principles: Policies and Guidance for the Sustainable Management of the Historic Environment* (2008).

10 SOURCES

a) Cartographic Sources (in chronological order)

- 1887/9 Ordnance Survey 1st Edition County Series 1:2500 map.
- 1904/5 Ordnance Survey 2nd Edition County Series 1:2500 map.
- 1915/7 Ordnance Survey 3rd Edition County Series 1:2500 map.
- 1937/8 Ordnance Survey 4th Edition County Series 1:2500 map.
- 1951/3 Ordnance Survey National Grid Series edition.
- 1969/70 Ordnance Survey National Grid Series edition.

b) Other Graphic Sources

- 1930s photograph (original included in wall display at hospital site)
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c) Secondary Sources

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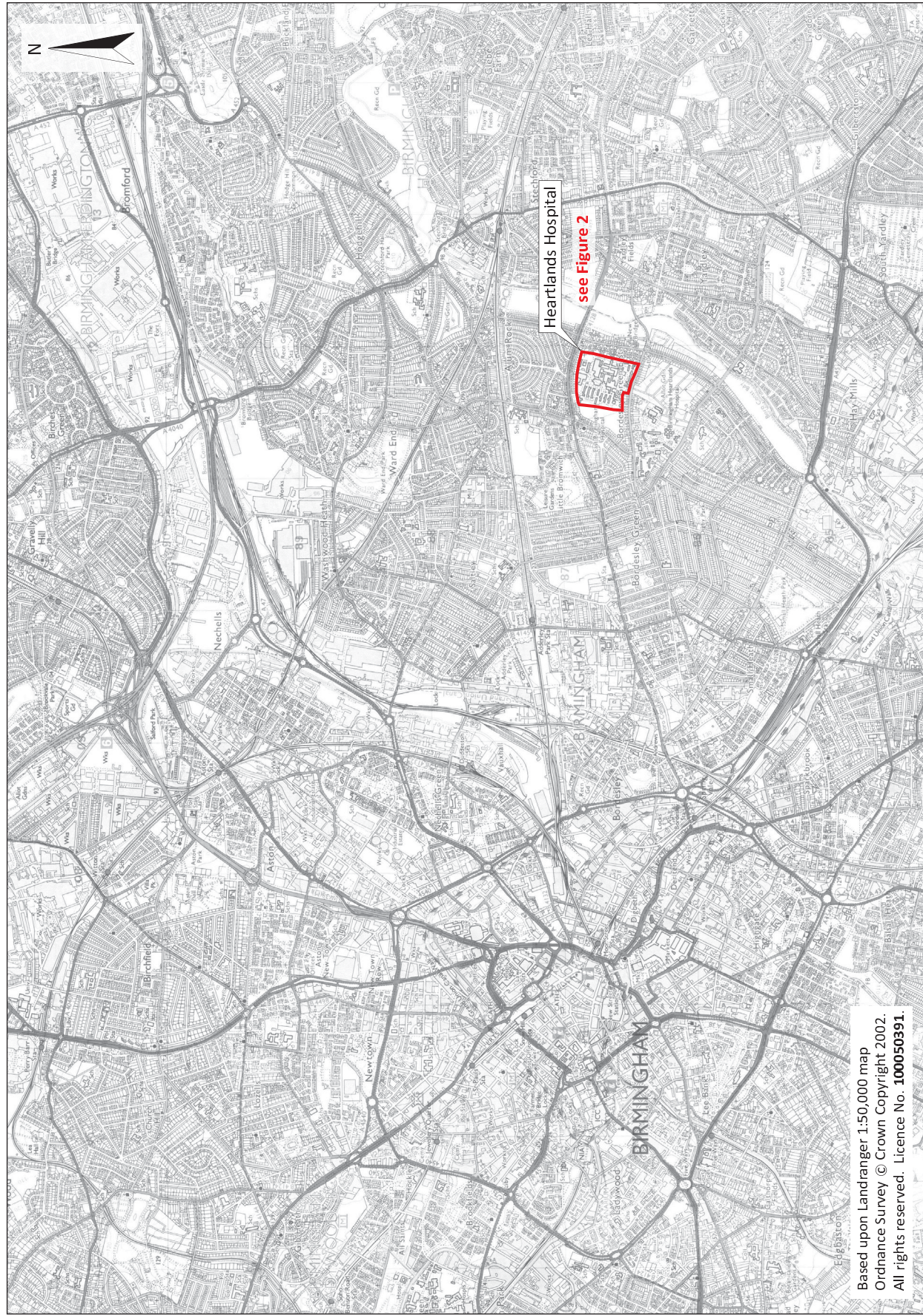
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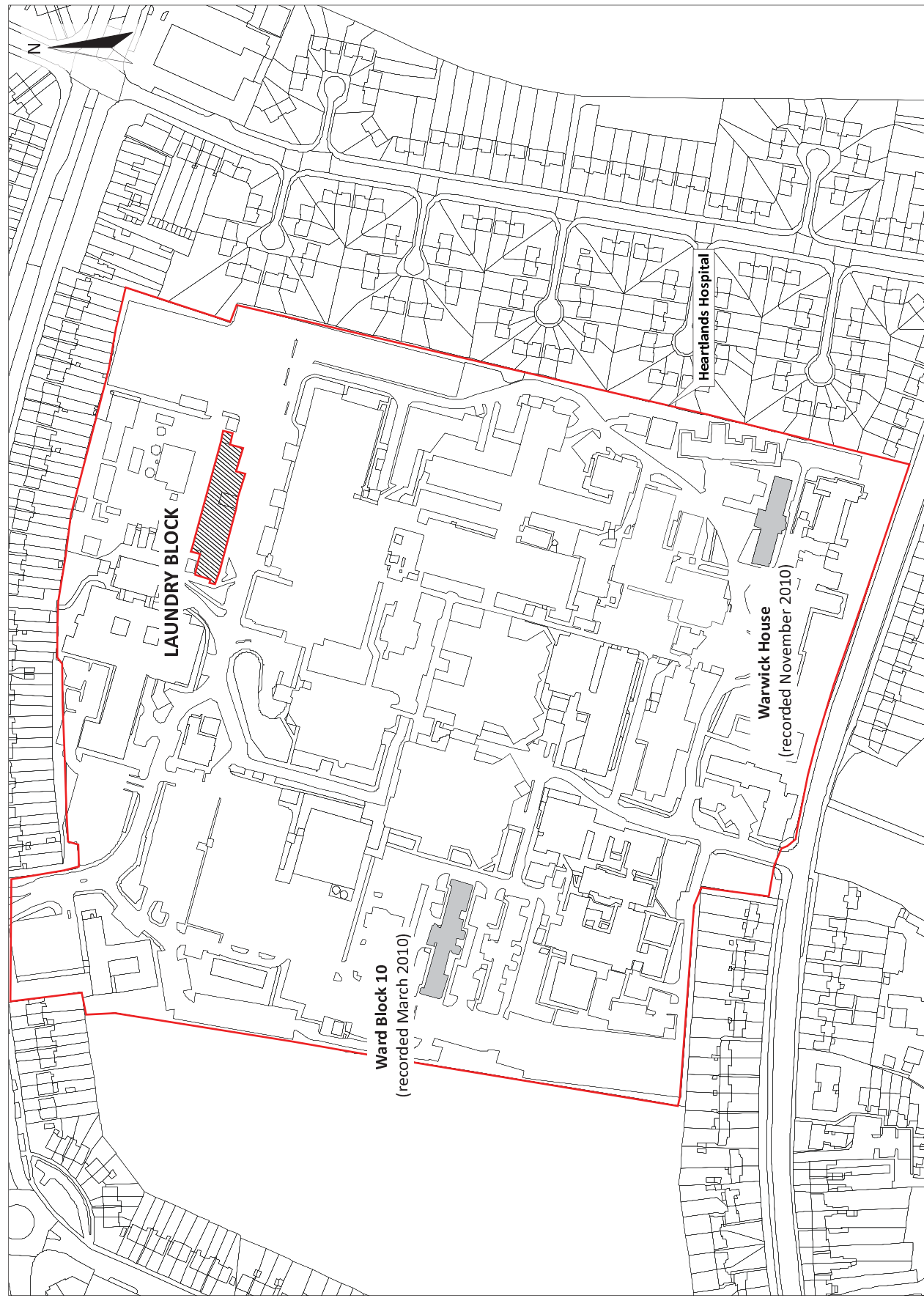
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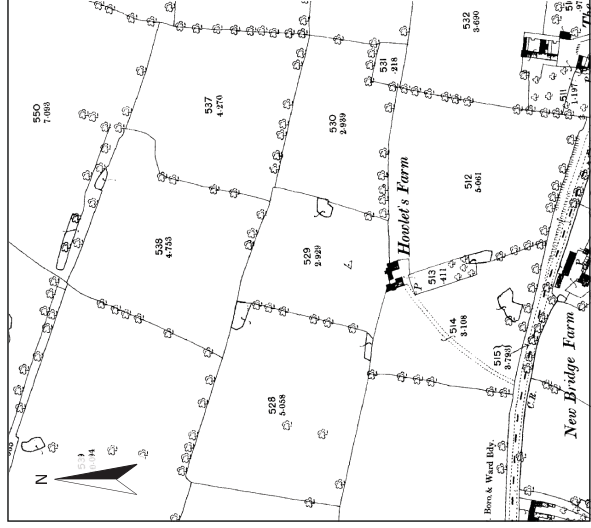
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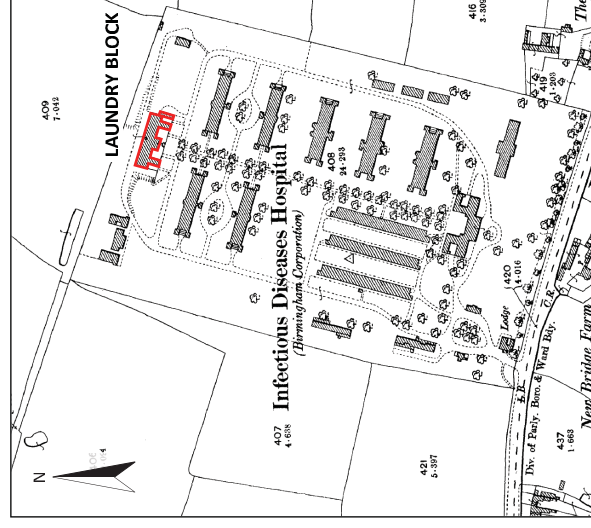
Based upon Landranger 1:50,000 map
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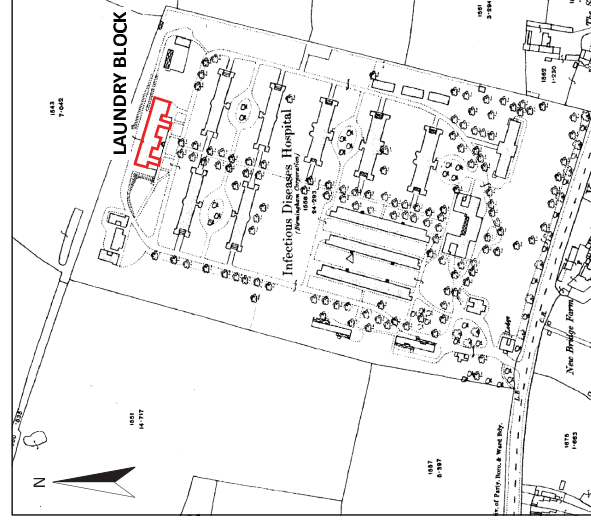
**Former Laundry Block, Heartlands Hospital
Bordesley Green East, Birmingham, West Midlands**
Figure 2: Site Plan
(NB: based on 2010 plan showing previously recorded structures)



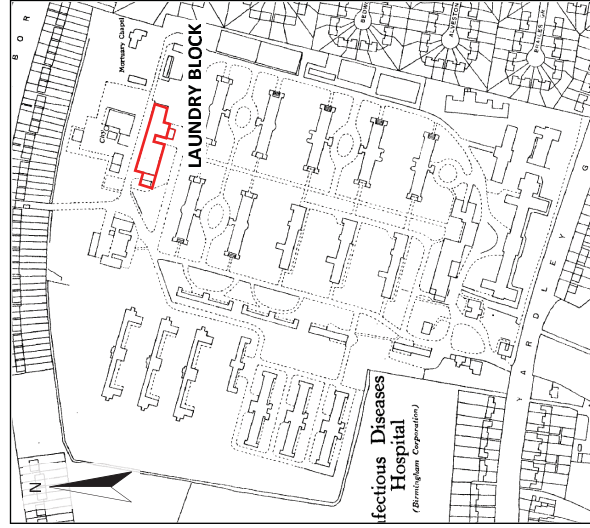
(a) 1887-9



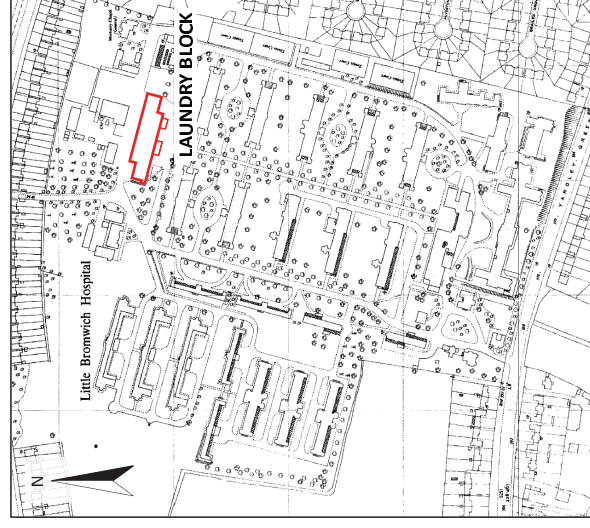
(b) 1904-5



(c) 1915-7



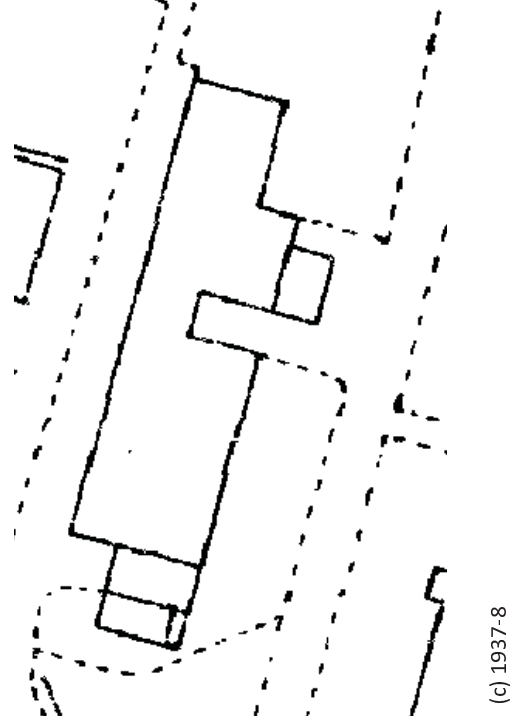
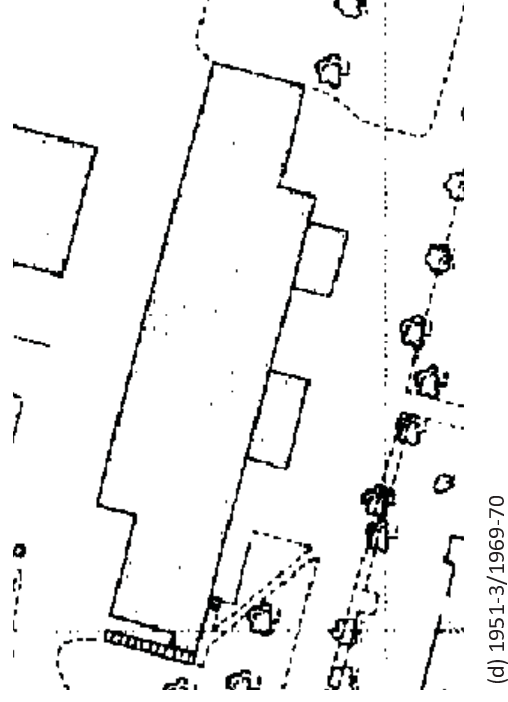
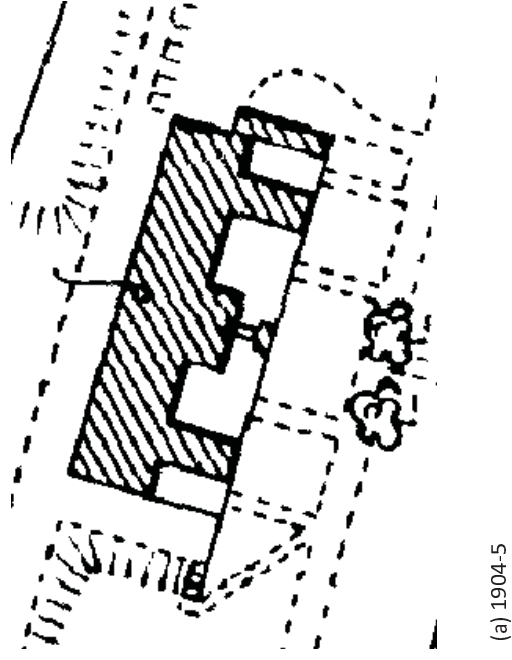
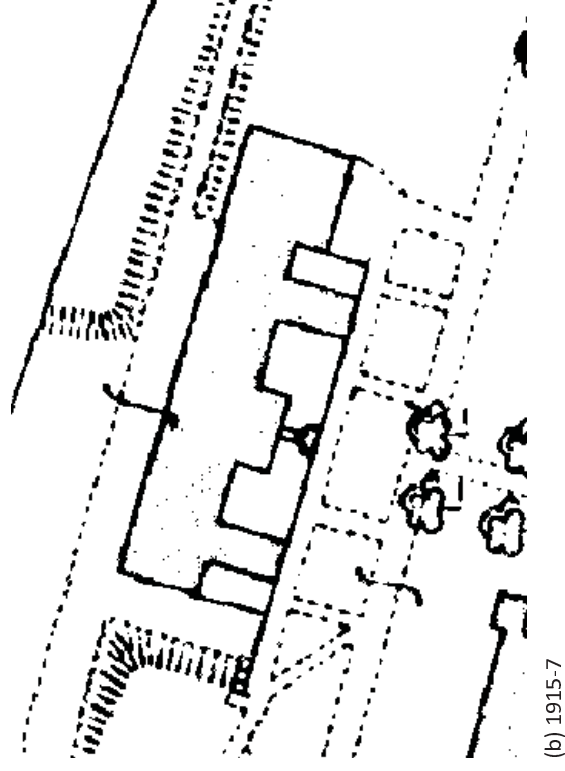
(d) 1937-8



(e) 1951-3



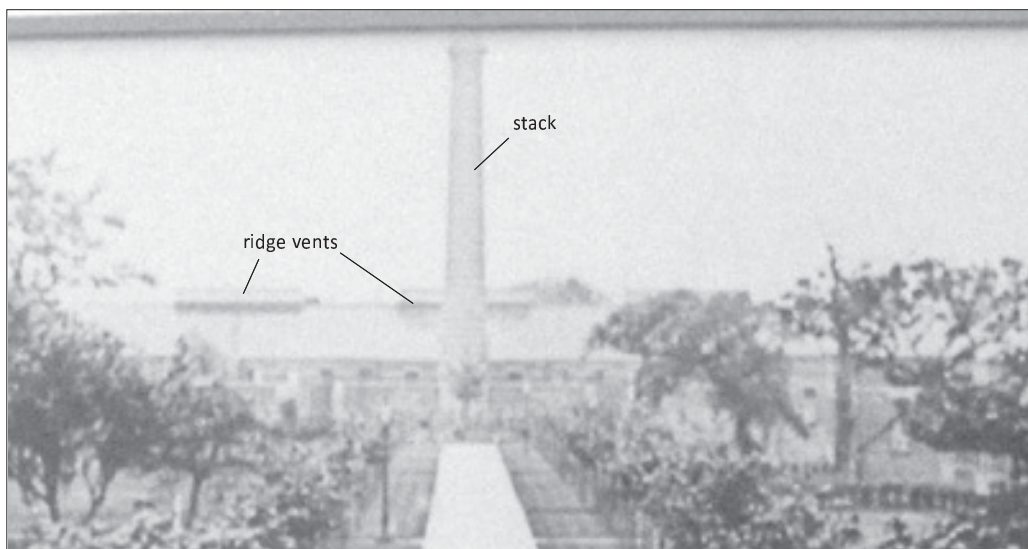
(f) 1969-70



Former Laundry Block, Heartlands Hospital
Bordesley Green East, Birmingham, West Midlands
Figure 4: Development of Laundry Block on historic OS mapping



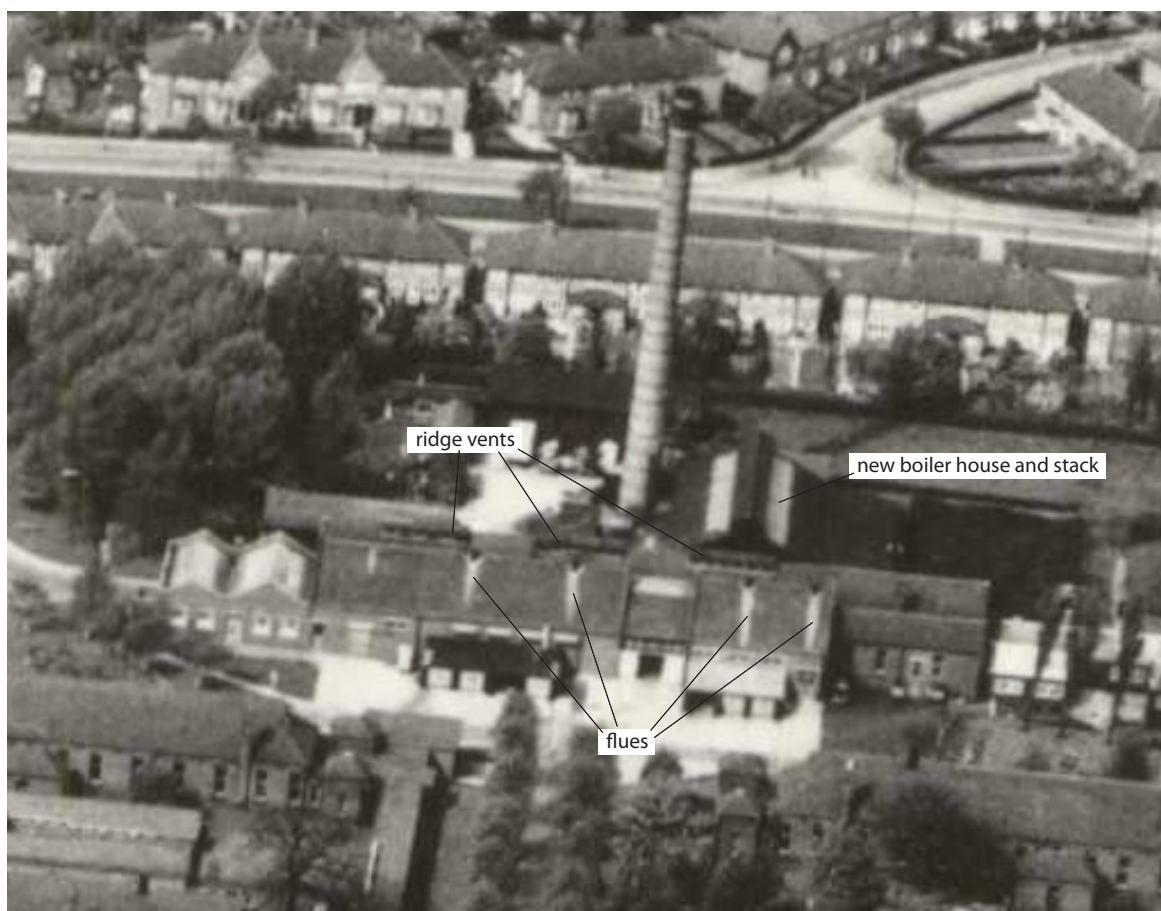
(a) Pre 1930s photograph looking north along main avenue towards Laundry Block (centre).



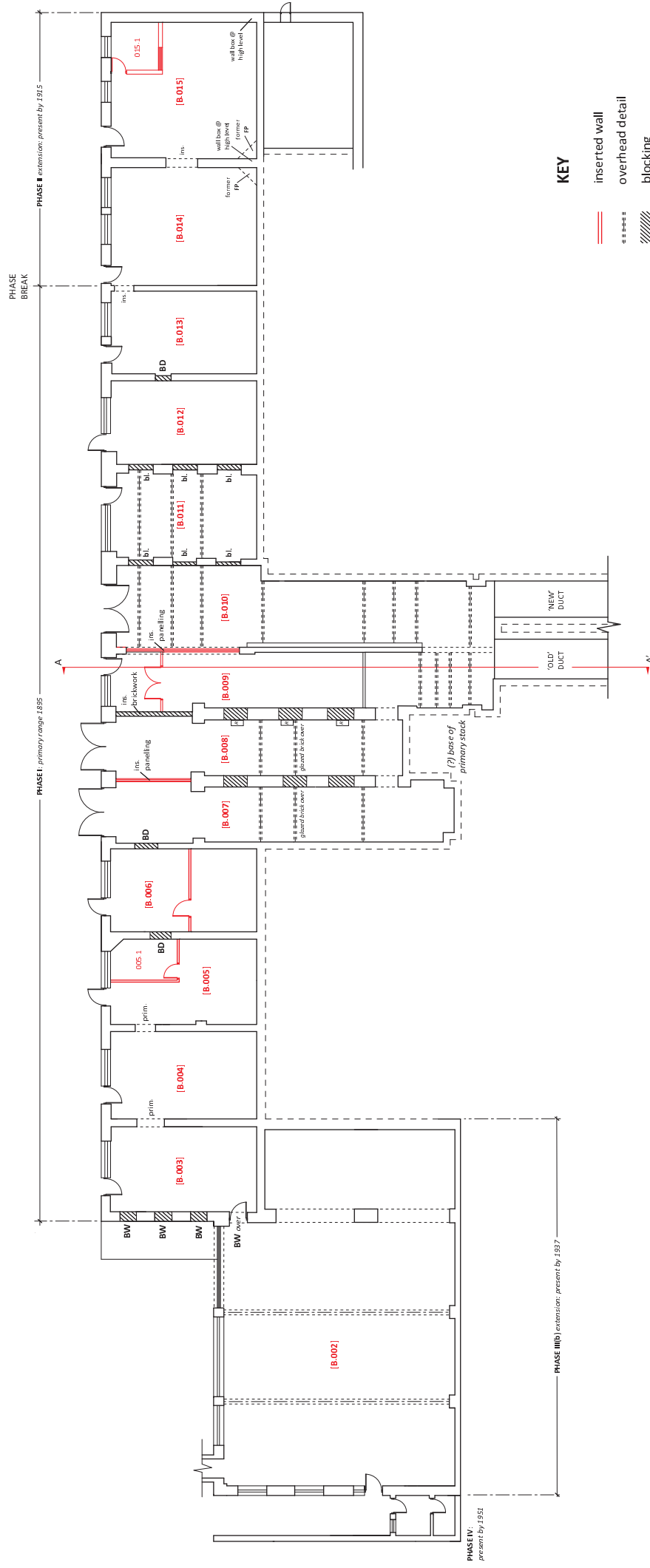
(b) Detail of laundry block, note original location of stack to south side of range and ridge vents



(a) 1950s aerial view of hospital site looking north.



(b) Detail of Laundry Block. **NB:** new incinerator and chimney to north of block, first evident on OS map of 1937-8. Also, ridge vents to north range and flues (x 4 total) to southern extensions.



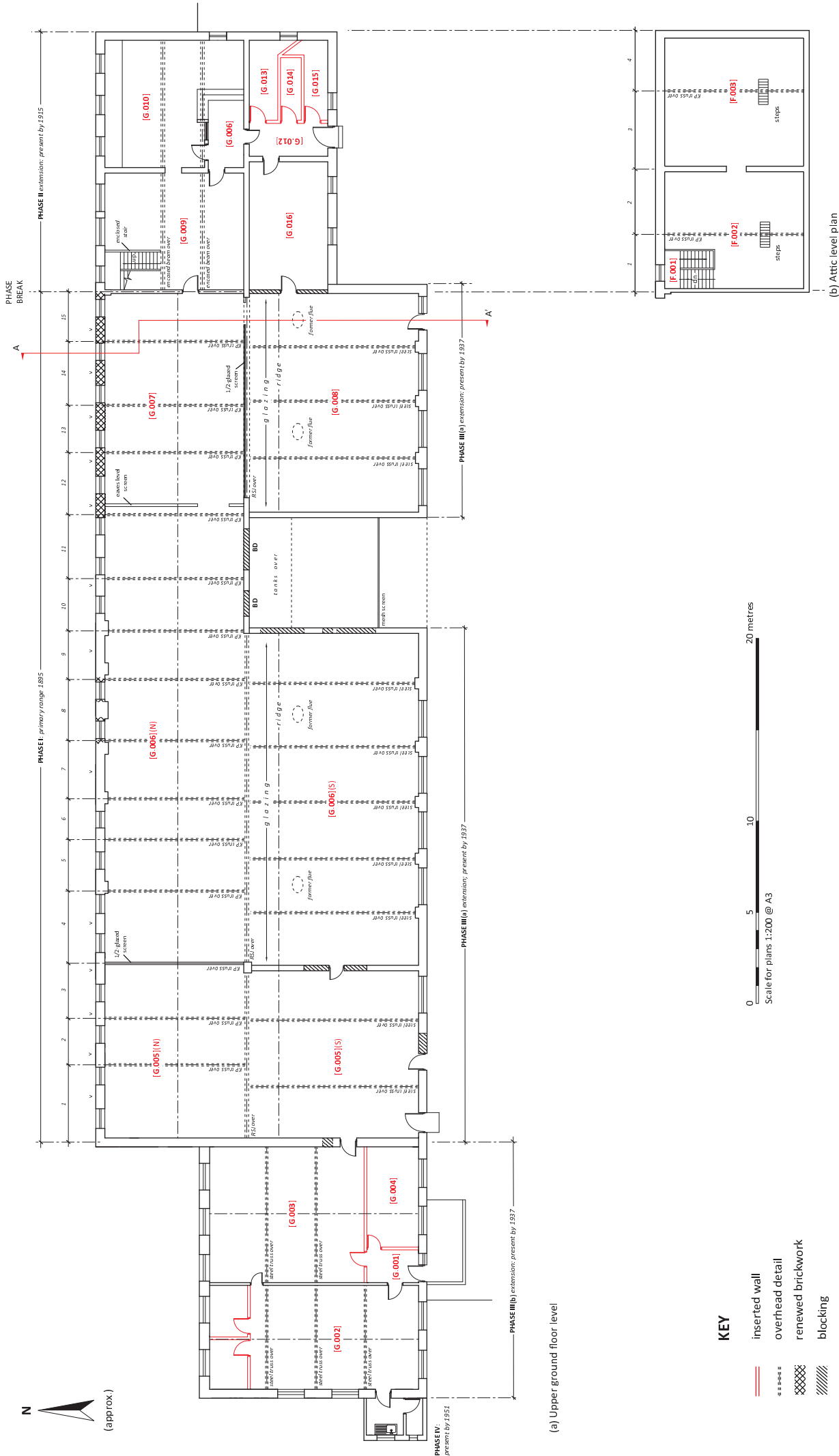
KEY

- inserted wall
- overhead detail
- blocking
- blocked window
- blocked door

0 5 10 20 metres
Scale 1:200 @ A3

Former Laundry Block, Heartlands Hospital
Bordesley Green East, Birmingham, West Midlands
Figure 7: Lower ground floor (basement) level plan

Based on survey drawings RH01.42-1 of December 2001.

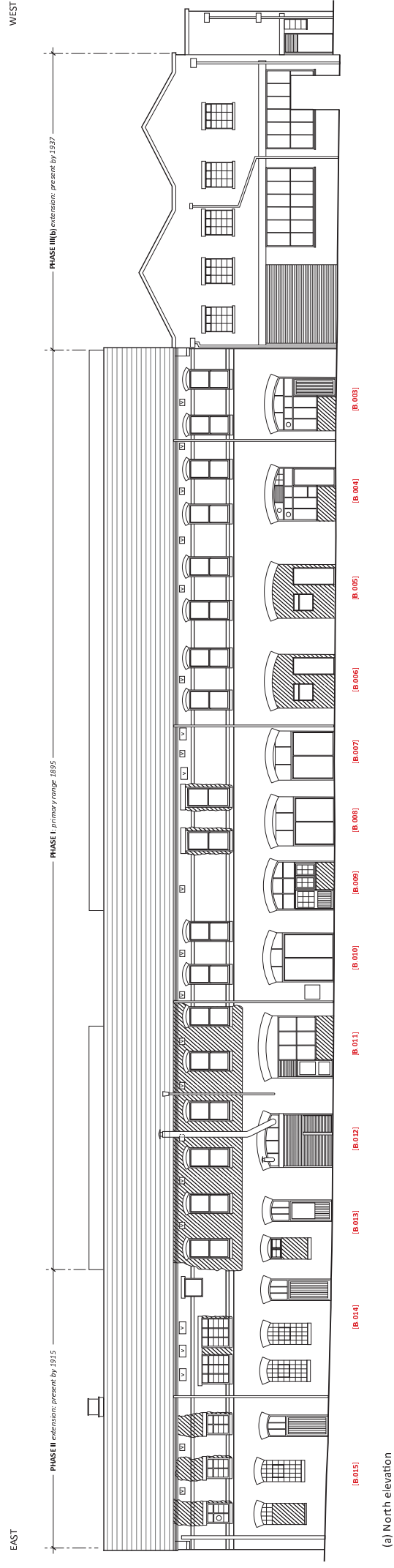


(a) Upper ground floor level

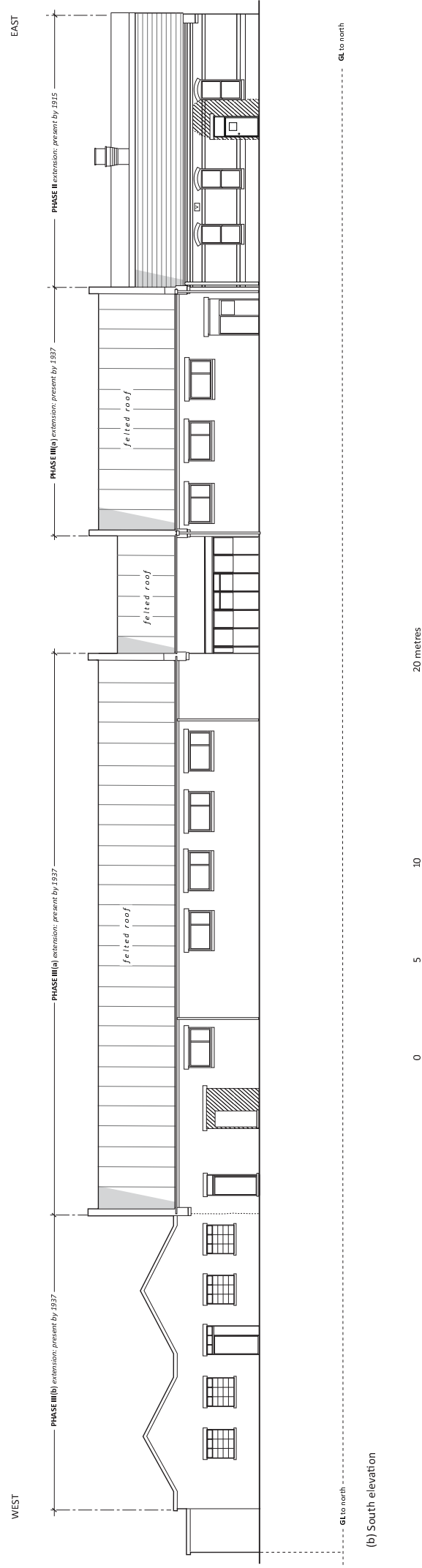
(b) Attic level plan

Former Laundry Block, Heartlands Hospital
Bordesley Green East, Birmingham, West Midlands
Figure 8: Attic and upper ground floor level plans

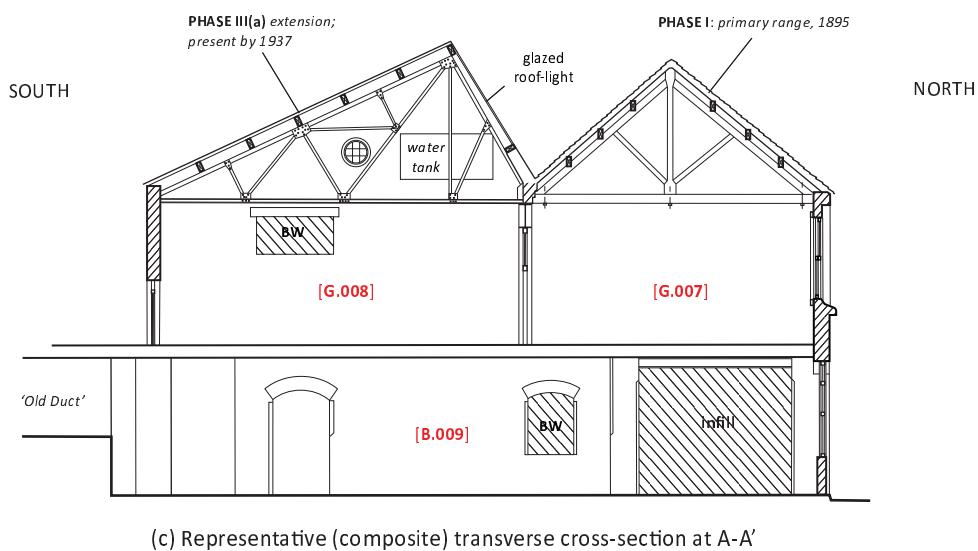
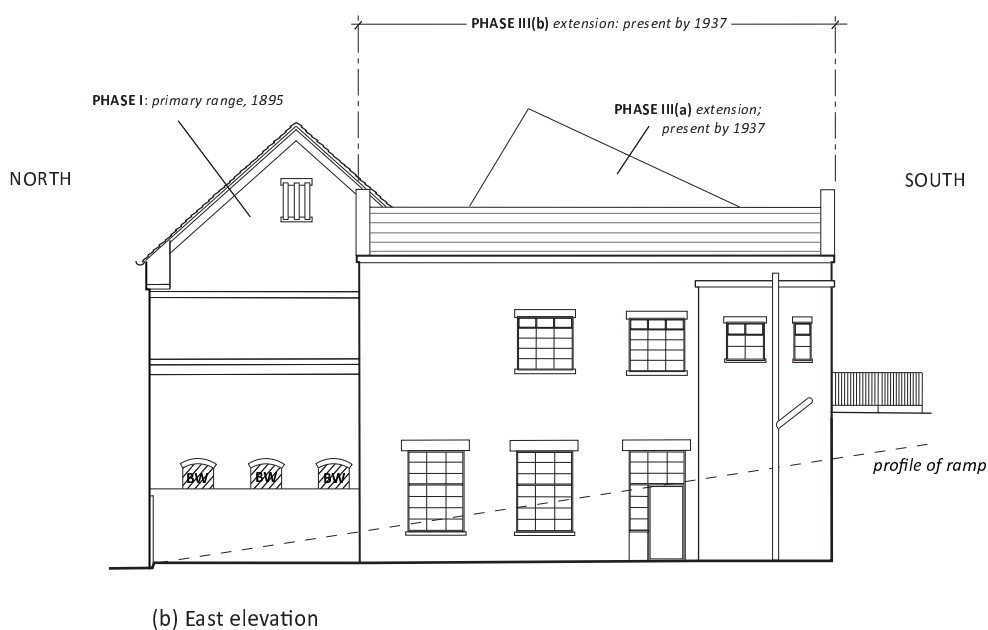
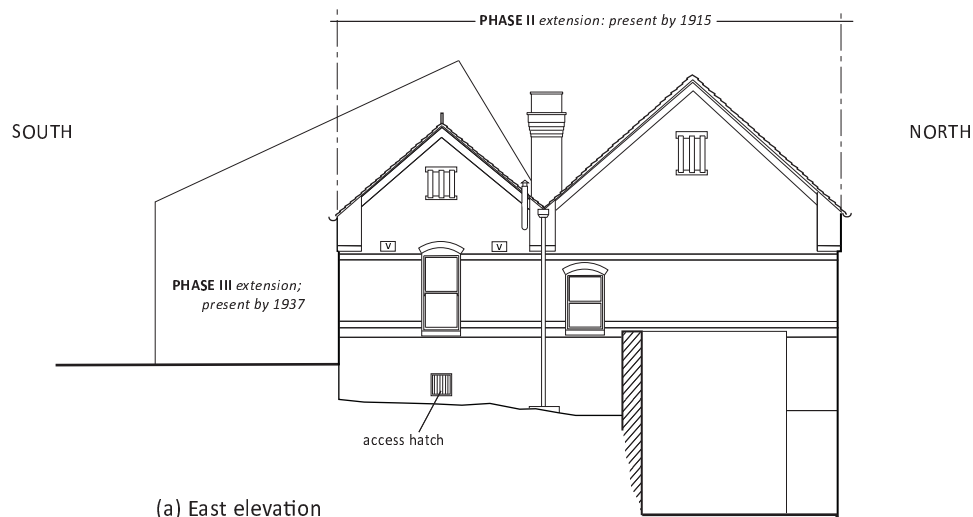
Based on survey drawings RR101-42-00 an 01 of December 2001



(a) North elevation



(b) South elevation



0 5 10 metres
Scale 1:200 @ A4

GENERAL VIEWS



Plate 1: Main range, north elevation; oblique view looking south-west; **Phase I** range to right, **Phase II** extension to left.



Plate 2: Main range, north elevation; oblique view looking south-east; **Phase IIIb** extension to right.



Plate 3: General view, south elevation; oblique view looking north-west; **Phase II** extension to right, **Phase IIIa** asymmetrical extensions to left.



Plate 4: General view, south elevation; oblique view looking north-east; **Phase IIIb** extension to left (double gable), **Phase IIIa** asymmetrical extensions to right.



Plate 5: East gable end.



Plate 6: West end elevation.



Plate 7: Steps and ramp rising from north to south at west end of range.

PHASE I RANGE



Plate 8: Typical section of primary walling with banded red/purple brick to lower GF and pale orange/red brick to upper GF level with darker bands, all laid to English bond.



Plate 9: Primary, wide arched openings at [B.007/008].



Plate 10: Partially blocked arch at [B.009].

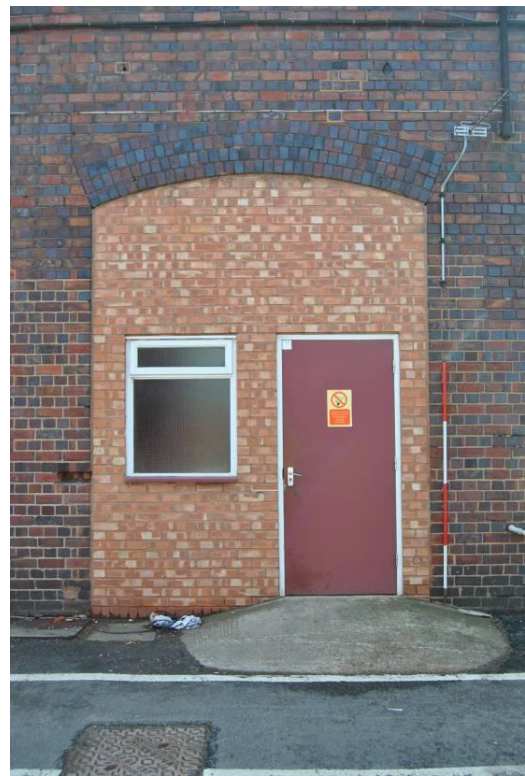


Plate 11: Modern blocking of arch at [B.006].



Plate 12: Renewed upper ground floor walling and windows at Bays 12 - 15 (see Figure 9a)



Plate 13: Workshop [B.013] looking north.



Plate 14: Workshop [B.013] looking south.



Plate 15: Workshop [B.012] (welding shop) looking south.



Plate 16: Blocked door to west wall of [B.012].



Plate 17: [B.011] (boiler room) looking south.



Plate 18: [B.011]; blocked archways of west wall.

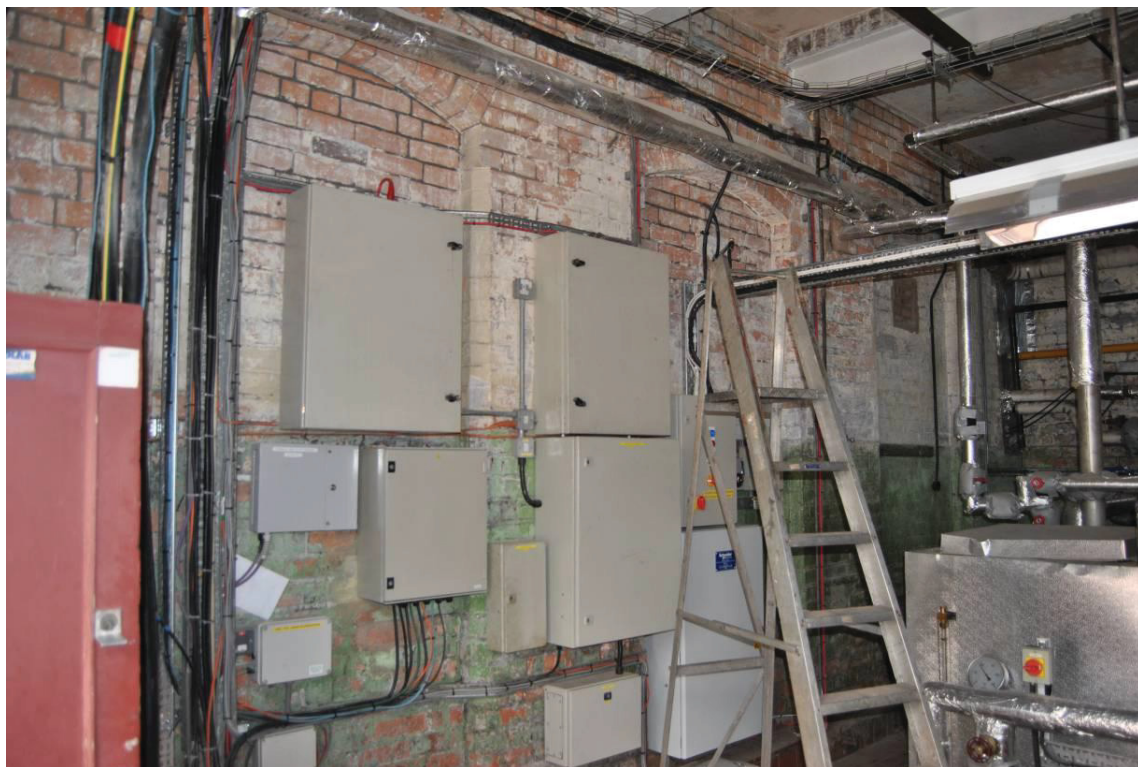


Plate 19: [B.011]; blocked archways of east wall.



Plate 20: [B.010] general view looking south.



Plate 21: [B.010]; infill panelling of re-used doors (west wall).

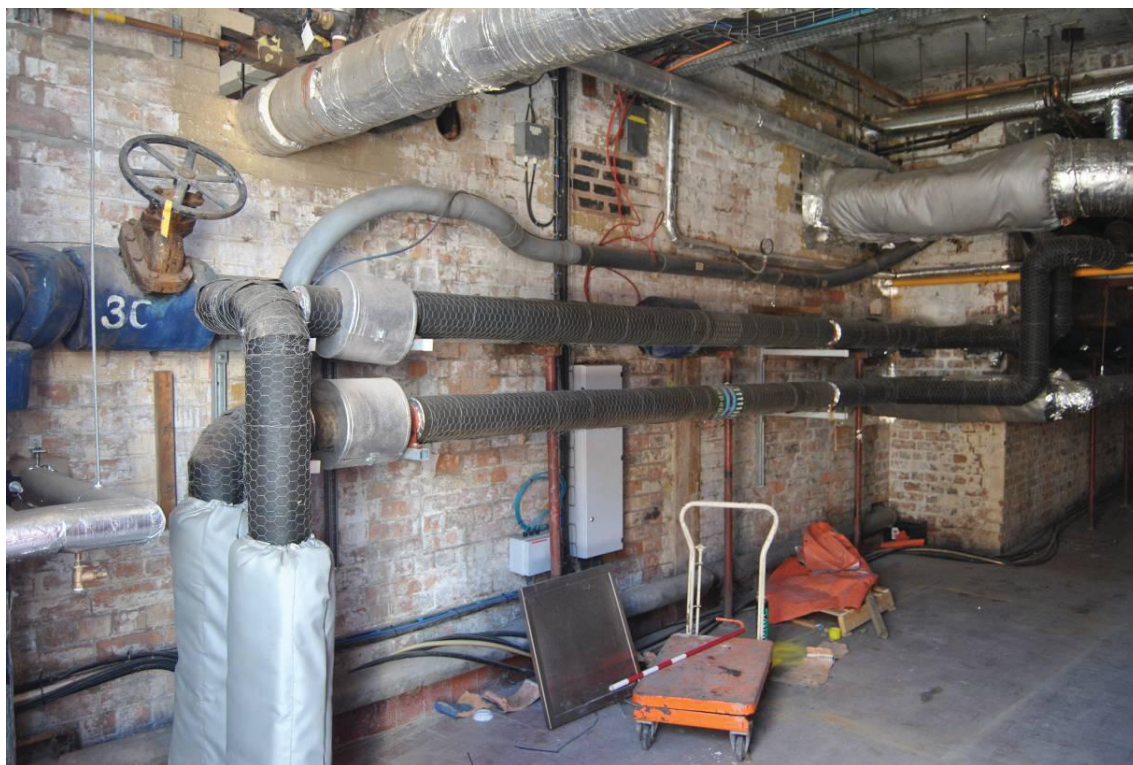


Plate 22: Ducting pipes passing through east wall from [B.011] to [B.010] (see also Plate 00).



Plate 23: [B.010]; steps serving 'new duct'.



Plate 24: [B.010]; 'new duct' looking south.



Plate 25: Circulation area at south end of [B.010/009]



Plate 26: [B.009]; steps serving 'old duct'.



Plate 27: [B.009]; 'old duct' looking south.



Plate 28: (?)Poss. base of primary stack at south end of [B.008].



Plate 29: [B.009]; entrance archway looking north.

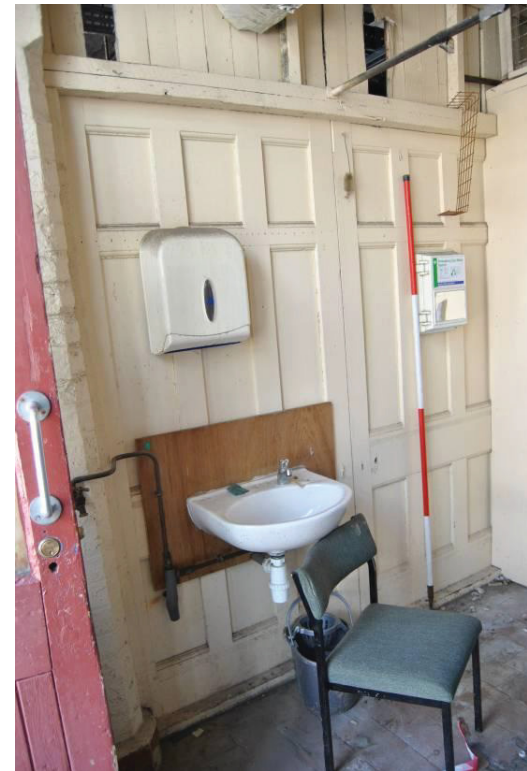


Plate 30: [B.009]; re-used door infill panels.

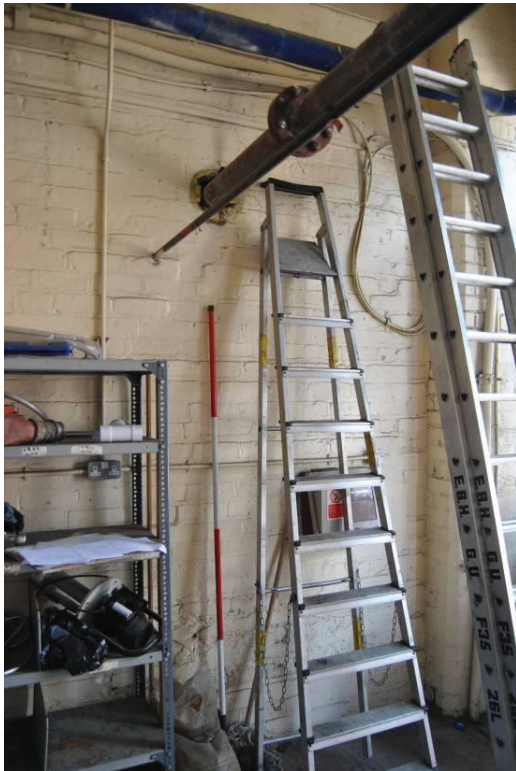


Plate 31: Brick infill at south-west of [B.009].



Plate 32: [B.008] looking south.



Plate 33: Infill panelling of re-used doors, [B.008].



Plate 34: Wall-mounted 'Westalite' VR30/25 rectifier;
NB: fixed to blocking of primary window opening.



Plate 35: [B.007] looking south NB: high level glazed brickwork to middle distance



Plate 36: [B.007]; infill panelling of re-used doors, south end of east wall.



Plate 37: [B.007]; blocked door, south end of west wall.



Plate 38: [B.005] looking south.



Plate 39: [B.005]; (?)former angle FP at NE corner.



Plate 40: [B.005] blocked door in east wall.



Plate 41: [B.004] looking south.



Plate 42: [B.004] looking north.



Plate 43: [B.003]; blocked door, south end of west wall.



Plate 44: [B.003]; blocked windows of western gable visible above suspended ceiling.



Plate 45: Primary range, east end; Room [G.007] looking west.



Plate 46: Primary range, central section; Room [G.006](a) looking west.



Plate 47: Primary range, west end; Room [G.005](a) looking east with inserted, part-glazed partition.



Plate 48: Primary range; king-post roof structure.



Plate 49: Primary range; ventilation slots (blocked) to eastern gable.



Plate 50: Section of primary south wall at Bays 10/11 with two blocked doorways.



Plate 51: Southern opening at Bays 12-15 onto eastern **Phase IIIa** extension [G.008], with part-glazed partition.



Plate 52: Southern opening at Bays 4-9 onto western **Phase IIIa** extension [G.006](b).



Plate 53: Steel I-beam spanning opening to eastern **Phase IIIa** extension [G.008].



Plate 54: Doubled steel I-beam spanning opening to western **Phase IIIa** extension [G.006](b).

PHASE II EXTENSION



Plate 55: Phase II extension, north elevation. **NB:** clear disturbance to brickwork above three left hand windows.



Plate 56: Phase II extension, south elevation and eastern gable end, looking north-west (**NB:** stack rising above valley).



Plate 57: Workshop [B.015] looking north-west.



Plate 58: Workshop [B.015]; detail of iron multi-pane window.

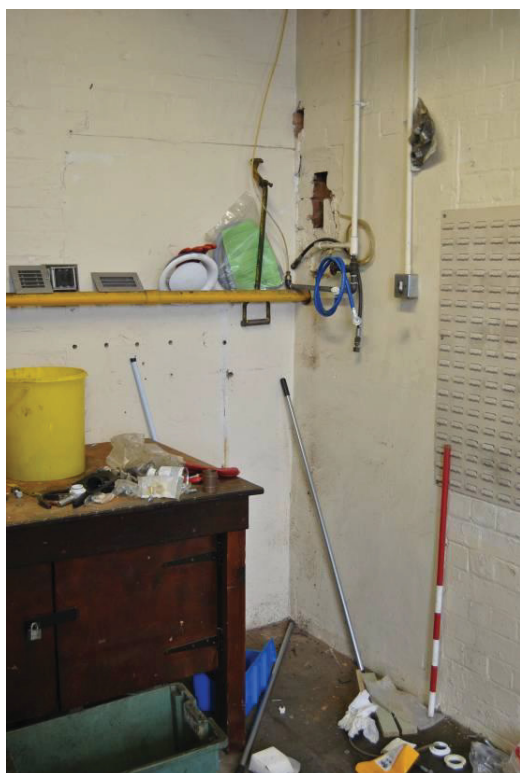


Plate 59: Workshop [B.015]; patching to wall suggesting location of former fireplace.



Plate 60: Workshop [B.015]; high-level wallbox in west wall indicating former line-shafting.

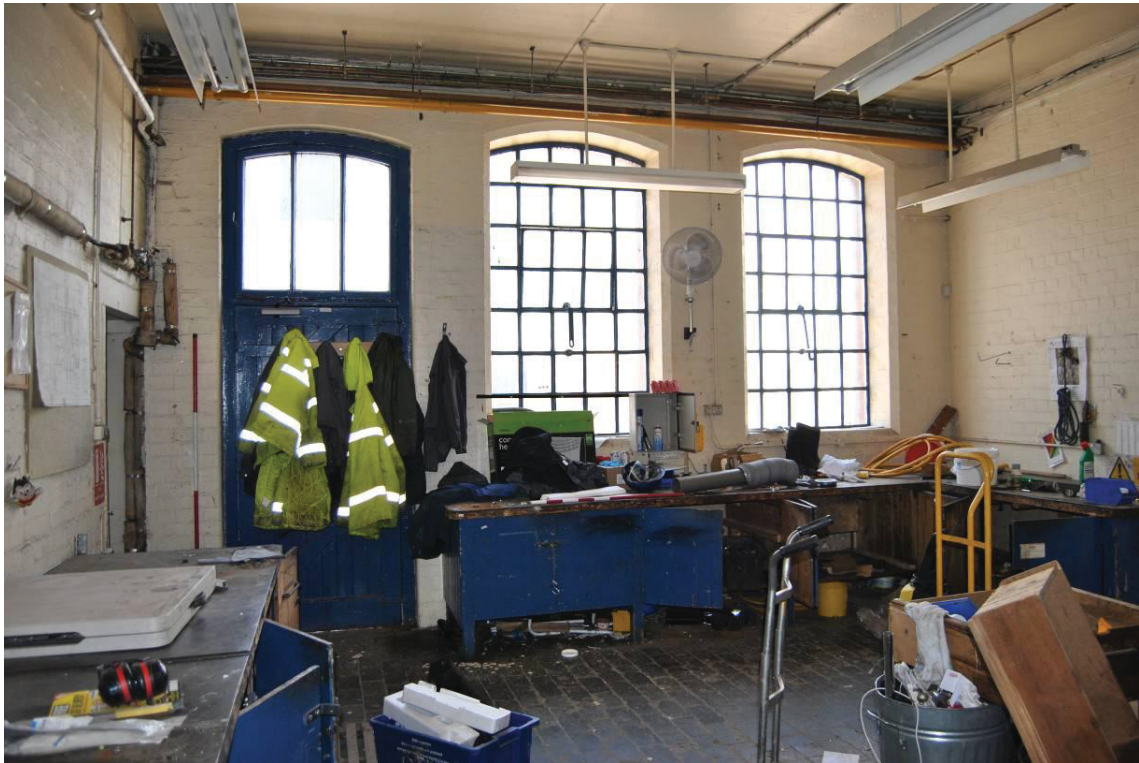


Plate 61: Workshop [B.014] looking north.



Plate 62: Inserted door connecting [B.014/015].



Plate 63: Patching to wall suggesting former fireplace
(NB: angled wall shown in this location on supplied plans)



Plate 64: Entrance lobby [G.012].



Plate 65: Reception area [G.011].



Plate 66: Office [G.010] looking north-east.



Plate 67: Office [G.010] looking south-east.



Plate 68: Inserted timber casement window to north wall of [G.010].



Plate 69: Office [G.009] looking north.



Plate 70: Office [G.009] looking south-west; door to right leads to ground floor of main range.



Plate 71: Office [G.009]; 3-light window to north wall.

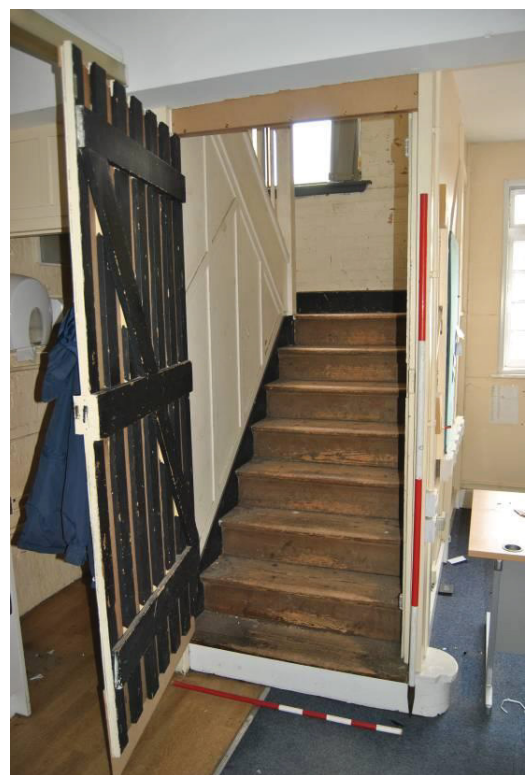


Plate 72: Office [G.009]; stair rising to attic level.

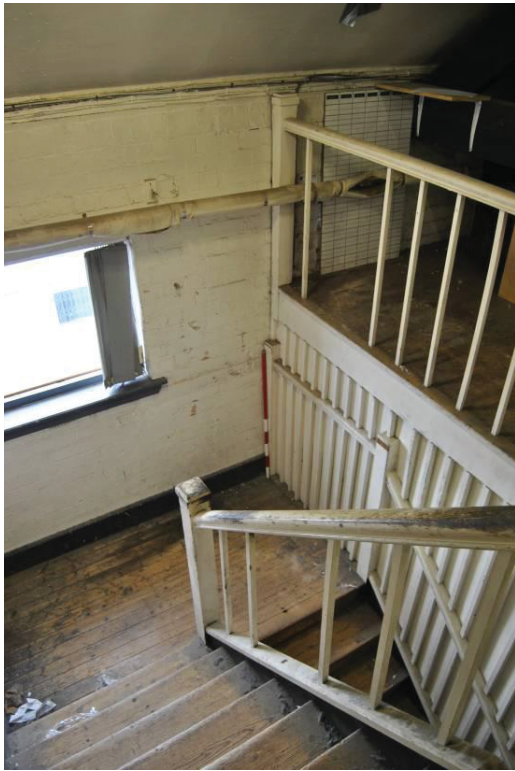


Plate 73: Dog-leg stair rising to attic level.



Plate 74: Room [F.002]; looking north-west.



Plate 75: Short steps facilitating access over tiebeam.

PHASE IIIa EXTENSIONS



Plate 76: Eastern Phase IIIa extension, looking north-east.



Plate 77: Western Phase IIIa extension, looking north-west.



Plate 78: Covered storage area between **Phase IIIa** extensions, looking north-east.



Plate 79: Asymmetrical brick gable.



Plate 80: Asymmetrical steel truss to Phase IIIa extension [G.008], with glazed north-light.



Plate 81: Additional brace to north end of steel truss within [G.006](b).



Plate 82: Circular window within west gable wall of [G.008].



Plate 83: Ventilation slits within gable wall of [G.008].

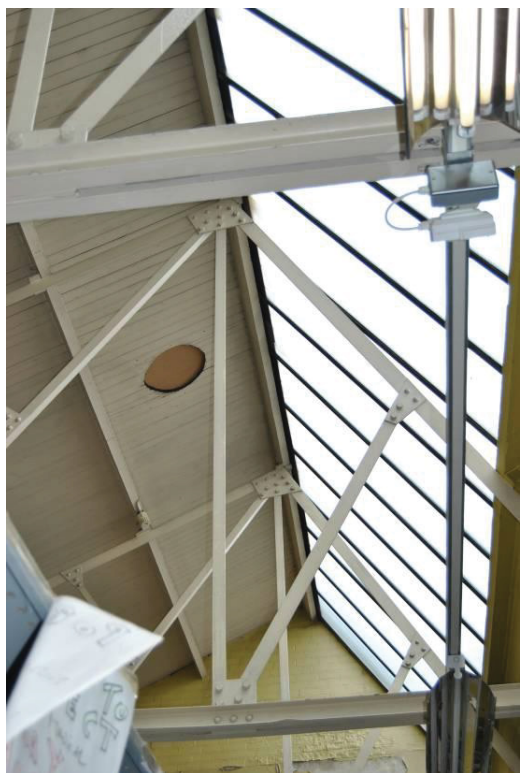


Plate 84: Former flue location evidenced by void in T&G roof lining of [G.008] (see Figure 6b).

PHASE IIIb EXTENSION



Plate 85: Phase IIIb extension: north and west elevations, oblique view looking south-east.



Plate 86: Phase IIIb extension: south gable elevation, looking north.



Plate 87: Principal, roller door entry; north elevation.



Plate 88: Tower attached at south-west corner.



Plate 89: Phase IIIb extension; room [G.002] (Carpenters' workshop) looking west.



Plate 90: Eastern extension of [G.002] to south of principal range ([G.003]).



Plate 91: 3-light steel window frame, [G.002].



Plate 92: Phase IIIb extension; room [G.003] looking north-west.



Plate 93: [G.003]; 3-light steel framed window to north elevation.



Plate 94: [G.002] looking south.



Plate 95: [G.002] looking north.

APPENDIX A: Register of Project Drawings

Drg. No.	Subject	Format	Scale	Date	Recorder
2012_016/001	Lower ground floor (basement) level plan	Annotated paper copy	1:200	15.05.2015	R Tyler
2012_016/002	Upper ground floor plan	Annotated paper copy	1:200	15.05.2015	R Tyler
2012_016/003	Attic plan	Annotated paper copy	1:200	15.05.2015	R Tyler
2012_016/004	North elevation	A3, pencil on film	1:200	15.05.2015	R Tyler
2012_016/005	Transverse cross-section	A3, pencil on film	1:100	15.05.2015	R TYler

APPENDIX B: Register of Project Photographs

NB: All photographs taken with Nikon D3000 digital SLR camera, 10 mega-pixels. Photo locations are illustrated on the plans below while files are included in .jpg format on the CD appended at the back of this report. Photos marked with an asterisk (*) are reproduced as plates within the current document.

Photo No.	Plate No.	Subject	Orientation	Date	Photographer
DSC_0025*	64	[G.012] looking north	→ N	16.05.13	R Tyler
DSC_0026		[G.012] looking south	→ S	16.05.13	R Tyler
DSC_0027		[G.012]; door to [G.011]	→ N	16.05.13	R Tyler
DSC_0028		[G.012]; door to [G.011]	→ N	16.05.13	R Tyler
DSC_0029		Reception [G.011] looking north-east	→ NE	16.05.13	R Tyler
DSC_0030*	65	Reception [G.011] looking north-west	→ NW	16.05.13	R Tyler
DSC_0031		Reception [G.011] looking north-west	→ NW	16.05.13	R Tyler
DSC_0032*	66	Office [G.010] looking north-east	→ NE	16.05.13	R Tyler
DSC_0033*	67	Office [G.010] looking south-east	→ SE	16.05.13	R Tyler
DSC_0034		Office [G.010] looking north-west; windows of north wall	→ NW	16.05.13	R Tyler
DSC_0035		Office [G.010]; detail of casement window	→ N	16.05.13	R Tyler
DSC_0036*	68	Office [G.010]; detail of casement window	→ N	16.05.13	R Tyler
DSC_0037*	69	Office [G.009] looking north-west	→ NW	16.05.13	R Tyler
DSC_0038*	70	Office [G.009] looking south-west	→ SW	16.05.13	R Tyler
DSC_0040*	71	Office [G.009]; detail of casement window	→ NW	16.05.13	R Tyler
DSC_0041		Office [G.009]; detail of stair rising to attic level	→ NW	16.05.13	R Tyler
DSC_0042*	72	Office [G.009]; detail of stair rising to attic level	→ N	16.05.13	R Tyler
DSC_0043		Office [G.009] looking north-west	→ NW	16.05.13	R Tyler
DSC_0045		[G.007] looking west	→ W	16.05.13	R Tyler
DSC_0046*	45	[G.007] looking west	→ W	16.05.13	R Tyler
DSC_0047*	51	[G.007] looking south towards opening onto [G.008]	→ SE	16.05.13	R Tyler
DSC_0049		[G.007] looking south towards opening onto [G.008]	→ SE	16.05.13	R Tyler
DSC_0051		[G.007]; ¼ glazed infill panels to [G.008]	→ SW	16.05.13	R Tyler
DSC_0052		[G.007]: king-post roof structure	↑	16.05.13	R Tyler
DSC_0053		[G.007]: king-post roof structure	↑	16.05.13	R Tyler
DSC_0054		[G.007]: east wall	→ E	16.05.13	R Tyler
DSC_0055*	49	[G.007]: east wall – high level gable vents	↑	16.05.13	R Tyler
DSC_0056		[G.007]: detail of 1/1 sash window	→ NW	16.05.13	R Tyler
DSC_0057		[G.007]: detail of 1/1 sash window	→ N	16.05.13	R Tyler
DSC_0058		[G.007]: detail of windows to north elevation	→ NE	16.05.13	R Tyler
DSC_0059*	50	[G.006](N): section of primary south wall with blocked doors x 2	→ S	16.05.13	R Tyler
DSC_0060		[G.006](N): section of primary south wall with blocked doors x 2	→ S	16.05.13	R Tyler
DSC_0061		[G.006](N): section of primary south wall with blocked doors x 2	→ SE	16.05.13	R Tyler
DSC_0062*	46	[G.006](N) looking west	→ W	16.05.13	R Tyler
DSC_0063		[G.006](N) looking west	→ W	16.05.13	R Tyler
DSC_0064		[G.006](N) looking west	→ W	16.05.13	R Tyler
DSC_0065		[G.006](N) looking south-western opening onto [G.006](S)	→ SW	16.05.13	R Tyler
DSC_0066		[G.006](N) looking south-western opening onto [G.006](S)	→ SW	16.05.13	R Tyler
DSC_0067*	52	[G.006](N) looking south-western opening onto [G.006](S)	→ SW	16.05.13	R Tyler
DSC_0068		[G.006](N) looking south-western opening onto [G.006](S)	→ SW	16.05.13	R Tyler
DSC_0071		[G.006](N) looking east	→ E	16.05.13	R Tyler
DSC_0072		[G.006](N) looking east	→ E	16.05.13	R Tyler
DSC_0073		[G.006](N) looking east	→ E	16.05.13	R Tyler
DSC_0074		[G.006](N); king-post roof structure	↑	16.05.13	R Tyler
DSC_0075*	48	[G.006](N); king-post roof structure	↑	16.05.13	R Tyler
DSC_0076		[G.006](N); king-post roof structure	↑	16.05.13	R Tyler
DSC_0077		[G.008] looking north-west	→ NW	16.05.13	R Tyler
DSC_0078		[G.008] looking west	→ W	16.05.13	R Tyler
DSC_0079*	80	[G.008]: asymmetrical roof structure	↑	16.05.13	R Tyler
DSC_0080		[G.008] looking west (document racking)	→ W	16.05.13	R Tyler
DSC_0082*	82	[G.008]: circular window in west gable wall	↑	16.05.13	R Tyler
DSC_0083		[G.008]: circular window and raised water tank visible in west wall	↑	16.05.13	R Tyler

DSC_0084		[G.008]: asymmetrical roof structure	→ E	16.05.13	R Tyler
DSC_0085		[G.008]: asymmetrical roof structure	→ E	16.05.13	R Tyler
DSC_0086*	83	[G.008]: triple ventilation slots to east wall	↑	16.05.13	R Tyler
DSC_0087		[G.008]: location of former flue	↑	16.05.13	R Tyler
DSC_0088*	84	[G.008]: location of former flue	↑	16.05.13	R Tyler
DSC_0089		[G.008]: I-beam to northern side (spanning opening to [G.007])	↑	16.05.13	R Tyler
DSC_0090		[G.008]: I-beam to northern side (spanning opening to [G.007])	↑	16.05.13	R Tyler
DSC_0091*	53	[G.008]: I-beam to northern side (spanning opening to [G.007])	↑	16.05.13	R Tyler
DSC_0092		[G.008]: I-beam to northern side (spanning opening to [G.007])	↑	16.05.13	R Tyler
DSC_0094		[G.006](N) looking south-western opening onto [G.006](S)	→	16.05.13	R Tyler
DSC_0095		[G.006](N): double I-beam to northern side (opening to [G.006](S))	↑	16.05.13	R Tyler
DSC_0096*	54	[G.006](N): double I-beam to northern side (opening to [G.006](S))	↑	16.05.13	R Tyler
DSC_0097		[G.006](N): double I-beam to northern side (opening to [G.006](S))	↑	16.05.13	R Tyler
DSC_0098		[G.006](S) looking south-east	→ SE	16.05.13	R Tyler
DSC_0099		[G.006](S) looking north-east	→ NE	16.05.13	R Tyler
DSC_0100		[G.006](S); north-lit roof	↑	16.05.13	R Tyler
DSC_0101*	81	[G.006](S): additional brace to north end of roof truss	↑	16.05.13	R Tyler
DSC_0102		[G.006](S): circular window (blocked) to east gable wall	↑	16.05.13	R Tyler
DSC_0103		[G.005](S) looking east	→ E	16.05.13	R Tyler
DSC_0104		[G.005](S) looking south	→ S	16.05.13	R Tyler
DSC_0105*	47	[G.005](N) looking east	→ E	16.05.13	R Tyler
DSC_0106		[G.005](N) looking east	→ E	16.05.13	R Tyler
DSC_0107		[G.005](N) looking east	→ E	16.05.13	R Tyler
DSC_0108		[G.005](N) looking north	→ N	16.05.13	R Tyler
DSC_0109		[G.005](N): ½-glazed screen to east	→ E	16.05.13	R Tyler
DSC_0110		[G.005](N): ½-glazed screen to east	→ E	16.05.13	R Tyler
DSC_0111*	92	[G.003] looking north-west	→ NW	16.05.13	R Tyler
DSC_0112		[G.003] looking north	→ N	16.05.13	R Tyler
DSC_0113*	93	[G.003] looking south-east	→ SE	16.05.13	R Tyler
DSC_0115		[G.003]; detail of steel casement window	→ N	16.05.13	R Tyler
DSC_0116		[G.003]; detail of steel casement window	→ N	16.05.13	R Tyler
DSC_0117*	94	[G.002] looking south	→ S	16.05.13	R Tyler
DSC_0118		[G.002] looking south-west	→ SW	16.05.13	R Tyler
DSC_0119		[G.002]; steel 'fan' roof truss	↑	16.05.13	R Tyler
DSC_0120		[G.002] looking north (doors to 002.2 and 002.3)	→ N	16.05.13	R Tyler
DSC_0121*	95	[G.002] looking north (doors to 002.2 and 002.3)	→ N	16.05.13	R Tyler
DSC_0122*	73	[F.001]; dog-leg stair rising from [G.009]	↓	16.05.13	R Tyler
DSC_0123		[F.001]; dog-leg stair rising from [G.009]	↓	16.05.13	R Tyler
DSC_0124		[F.001]; dog-leg stair rising from [G.009]	↓	16.05.13	R Tyler
DSC_0125		[F.001]; dog-leg stair rising from [G.009]	↓	16.05.13	R Tyler
DSC_0126		[F.002] looking west	→ W	16.05.13	R Tyler
DSC_0127*	74	[F.002] looking north-west	→ NW	16.05.13	R Tyler
DSC_0128*	75	[F.002]: steps rising over tie of KP truss	---	16.05.13	R Tyler
DSC_0129		Doorway [F.002] → [F.003]	→ E	16.05.13	R Tyler
DSC_0130		[F.003], southern eaves	→ S	16.05.13	R Tyler
DSC_0131		[F.003], southern eaves	→ S	16.05.13	R Tyler
DSC_0132		Phase II extension ([G.014/015]), north elevation	→ S	16.05.13	R Tyler
DSC_0133*	55	Phase II extension, north elevation; 1F window to [G.010]	→ S	16.05.13	R Tyler
DSC_0134		Phase II extension, north elevation; 1F windows to [G.009]	→ S	16.05.13	R Tyler
DSC_0135		Phase II extension, north elevation; GF window (part blocked) to [B.015]	→ S	16.05.13	R Tyler
DSC_0136		Phase II extension, north elevation; GF window (part blocked) to [B.015]	→ S	16.05.13	R Tyler
DSC_0137		Phase II extension, north elevation; GF window to [B.015]	→ S	16.05.13	R Tyler
DSC_0138		Phase II extension, north elevation; doorway to [B.015]	→ S	16.05.13	R Tyler
DSC_0139		Phase II extension, north elevation; GF windows to [B.014]	→ S	16.05.13	R Tyler
DSC_0140		Phase II extension, north elevation; lower GF openings ([B.014])	→ S	16.05.13	R Tyler
DSC_0141		Phase I range, east end [B.013]	→ S	16.05.13	R Tyler
DSC_0142		Phase I range, east end [B.013]; lower GF openings	→ S	16.05.13	R Tyler
DSC_0143		Phase I range, east end upper GF window within secondary brickwork at [G.007]	→ S	16.05.13	R Tyler

DSC_0144		Phase I range, archway at [B.012]	→ S	16.05.13	R Tyler
DSC_0145		Phase I range, archway at [B.011]	→ S	16.05.13	R Tyler
DSC_0146		Phase I range, archway at [B.010]	→ S	16.05.13	R Tyler
DSC_0147		Phase I range, archways at [B.011/12]	→ SE	16.05.13	R Tyler
DSC_0148*	8	Phase I range, archways at [B.010/11]	→ SE	16.05.13	R Tyler
DSC_0149*	10	Phase I range, archway at [B.009]	→ S	16.05.13	R Tyler
DSC_0150		Phase I range, archway at [B.008]	→ S	16.05.13	R Tyler
DSC_0151*	9	Phase I range, archway at [B.007/08]	→ S	16.05.13	R Tyler
DSC_0152		Phase I range, archway at [B.007]	→ S	16.05.13	R Tyler
DSC_0153*	11	Phase I range, archway at [B.006]	→ S	16.05.13	R Tyler
DSC_0154		Phase I range, archway at [B.005]	→ S	16.05.13	R Tyler
DSC_0155		Phase I range, archway at [B.004]	→ S	16.05.13	R Tyler
DSC_0156		Phase I range, archway at [B.003]	→ S	16.05.13	R Tyler
DSC_0157		Phase I range, north-west angle	→ SE	16.05.13	R Tyler
DSC_0158*	2	Phase I range, general view looking south-east	→ SE	16.05.13	R Tyler
DSC_0159		Phase III(b) extension, north elevation	→ S	16.05.13	R Tyler
DSC_0160		Phase III(b) extension, north elevation; roller door	→ S	16.05.13	R Tyler
DSC_0161		Phase I range, western gable end	↑	16.05.13	R Tyler
DSC_0162		Phase I range, western gable end incl. vents	↑	16.05.13	R Tyler
DSC_0163		Phase I range, western gable end incl. vents	↑	16.05.13	R Tyler
DSC_0164		Phase I range, north-western angle detail	↑	16.05.13	R Tyler
DSC_0165		Phase I range, north-western angle detail	↑	16.05.13	R Tyler
DSC_0166		Angle of Phase I range and Phase III(b) extension	↑	16.05.13	R Tyler
DSC_0167		Phase III(b) extension; 1F window to [G.003]	↑	16.05.13	R Tyler
DSC_0168		Phase III(b) extension; general view looking south-east	→ SE	16.05.13	R Tyler
DSC_0169		Phase III(b) extension; west elevation (oblique)	→ SE	16.05.13	R Tyler
DSC_0170		Phase III(b) extension; steps rising at west end of range	→ S	16.05.13	R Tyler
DSC_0171*	7	Phase III(b) extension; steps rising at west end of range	→ S	16.05.13	R Tyler
DSC_0172*	5	Phase II extension; east double-gable end	→ SW	16.05.13	R Tyler
DSC_0173		General view of range	→ SW	16.05.13	R Tyler
DSC_0174		Phase II extension; east double-gable end	→ NW	16.05.13	R Tyler
DSC_0175		Phase II extension; southern of east gables	→ W	16.05.13	R Tyler
DSC_0176		Phase II extension; northern of east gables	→ NW	16.05.13	R Tyler
DSC_0177		Phase II extension; south elevation	→ N	16.05.13	R Tyler
DSC_0178		Phase II extension; south elevation – window detail	→ N	16.05.13	R Tyler
DSC_0179		Phase II extension; south elevation – door detail	→ N	16.05.13	R Tyler
DSC_0180*	79	Angle of Phase II and Phase III(a) extensions	→ NW	16.05.13	R Tyler
DSC_0181		Angle of Phase II and Phase III(a) extensions	→ NW	16.05.13	R Tyler
DSC_0183*	1	North elevation general view (oblique)	→ SW	16.05.13	R Tyler
DSC_0184		Phase II extension; north-east angle	→ SW	16.05.13	R Tyler
DSC_0185		Phase II extension, east end (@[B.015]), north elevation	→ S	16.05.13	R Tyler
DSC_0186		[B.015] looking south-west	→ SW	16.05.13	R Tyler
DSC_0187		[B.015] looking north-east	→ NE	16.05.13	R Tyler
DSC_0188*	57	[B.015] looking north	→ N	16.05.13	R Tyler
DSC_0189		[B.015]; inserted doorway onto [B.014]	→ W	16.05.13	R Tyler
DSC_0190		[B.015]; doorway detail	→ N	16.05.13	R Tyler
DSC_0191*	58	[B.015]; window detail	→ NE	16.05.13	R Tyler
DSC_0192*	59	[B.015]; detail at SW corner – former fireplace	→ SW	16.05.13	R Tyler
DSC_0193*	60	[B.015]; wall-box at high level (west wall)	↑	16.05.13	R Tyler
DSC_0194		[B.015]; wall-box at high level (east wall)	↑	16.05.13	R Tyler
DSC_0195		[B.015]; ceiling brackets	↑	16.05.13	R Tyler
DSC_0196		Phase II extension, east end (@[B.014]), north elevation	→ S	16.05.13	R Tyler
DSC_0197		[B.014] looking south-east	→ SE	16.05.13	R Tyler
DSC_0198*	61	[B.014] looking north	→ N	16.05.13	R Tyler
DSC_0199*	62	[B.014]; inserted doorway onto [B.015]	→ W	16.05.13	R Tyler
DSC_0200		[B.014] looking north-west; doors to exterior and to [B.013]	→ NW	16.05.13	R Tyler
DSC_0201		[B.014]: window detail	→ N	16.05.13	R Tyler
DSC_0202*	63	[B.014]; south-east corner – evidence for former fireplace	→ SE	16.05.13	R Tyler
DSC_0203		[B.014]; wall-box at high level in east wall	↑	16.05.13	R Tyler
DSC_0204		Phase I range, east end (@[B.013]), north elevation	→ S	16.05.13	R Tyler
DSC_0205*	12	Phase I range, east end; renewed brickwork at upper GF level	↑	16.05.13	R Tyler

DSC_0206		[B.013]; doorway (exterior)	→ S	16.05.13	R Tyler
DSC_0207*	13	[B.013] looking north	→ N	16.05.13	R Tyler
DSC_0208*	14	[B.013] looking south-east	→ SE	16.05.13	R Tyler
DSC_0209		[B.013]; flooring detail	↓	16.05.13	R Tyler
DSC_0210		[B.013]; doorway (ins./bl.) in west wall	→ W	16.05.13	R Tyler
DSC_0212		[B.013]; timber casement window detail	→ N	16.05.13	R Tyler
DSC_0213		[B.013]; doorway (ins.) to [B.014]	→ E	16.05.13	R Tyler
DSC_0214		Phase I range, archway to [B.012] (exterior)	→ S	16.05.13	R Tyler
DSC_0215*	15	[B.012] looking south-west	→ SW	16.05.13	R Tyler
DSC_0216		[B.012] looking south-east	→ SE	16.05.13	R Tyler
DSC_0217		[B.012]; blocked doorway in east wall	→ E	16.05.13	R Tyler
DSC_0218*	16	[B.012]; blocked archway in west wall	→ W	16.05.13	R Tyler
DSC_0219		[B.012]; blocked archway in west wall; detail of arched head	↑	16.05.13	R Tyler
DSC_0220		[B.012]; forge	---	16.05.13	R Tyler
DSC_0222		[B.012]; archway to exterior	→ N	16.05.13	R Tyler
DSC_0223		Phase I range, archway to [B.010] (exterior)	→ S	16.05.13	R Tyler
DSC_0224*	20	[B.010] looking south	→ S	16.05.13	R Tyler
DSC_0225		[B.010] looking south	→ S	16.05.13	R Tyler
DSC_0226*	23	[B.010], south end; steps at entrance to 'New Duct'	→ S	16.05.13	R Tyler
DSC_0227*	24	'New Duct' looking south	→ S	16.05.13	R Tyler
DSC_0228		[B.010], south end; steps at entrance to 'New Duct'	→ S	16.05.13	R Tyler
DSC_0229*	22	[B.010], pipework passing through east wall from 'boiler room' [B.011]	→ SE	16.05.13	R Tyler
DSC_0230		[B.010], pipework passing through east wall from 'boiler room' [B.011] (NB: infilled archway)	→ E	16.05.13	R Tyler
DSC_0231		[B.010], pipework passing through east wall from 'boiler room' [B.011] (NB: infilled archway)	→ SE	16.05.13	R Tyler
DSC_0232		[B.010], infill panelling of re-used doors, west wall	→ NW	16.05.13	R Tyler
DSC_0233*	21	[B.010], infill panelling of re-used doors, west wall	→ NW	16.05.13	R Tyler
DSC_0234		[B.010], detail of infill panelling, west wall, with I-beam over	→ NW	16.05.13	R Tyler
DSC_0235		[B.010], floor detail with chamfered brick piers	↓	16.05.13	R Tyler
DSC_0236		[B.010], floor level detail with quarry tile upstand	↓	16.05.13	R Tyler
DSC_0237*	25	[B.009/010] conjoined area at south end	→ SE	16.05.13	R Tyler
DSC_0238*	26	[B.009], south end; steps at entrance to 'Old Duct'	→ S	16.05.13	R Tyler
DSC_0239		Doorway [B.009] to [B.008]	→ NW	16.05.13	R Tyler
DSC_0240		Doorway [B.009] to [B.008]	→ W	16.05.13	R Tyler
DSC_0241		Doorway [B.009] to [B.008]; partially chamfered jamb	→ W	16.05.13	R Tyler
DSC_0242		[B.009], south end, east wall	→ NE	16.05.13	R Tyler
DSC_0243*	28	(?) Base of primary stack, south end of [B.008]	→ SW	16.05.13	R Tyler
DSC_0244		(?) Base of primary stack, south end of [B.008]	→ SW	16.05.13	R Tyler
DSC_0246*	27	'Old Duct' looking south	→ S	16.05.13	R Tyler
DSC_0247		Phase I range, archway to [B.009] (exterior)	→ S	16.05.13	R Tyler
DSC_0249*	29	Entrance archway to [B.009] (interior)	→ N	16.05.13	R Tyler
DSC_0250*	30	[B.009], infill panelling of re-used doors, east wall	→ SE	16.05.13	R Tyler
DSC_0251*	31	[B.009], inserted brickwork of west wall	→ W		
DSC_0252		[B.009], inserted brickwork of west wall beneath I-beam	↑	16.05.13	R Tyler
DSC_0253		Phase I range, archways to [B.008/009] (exterior)	→ S	16.05.13	R Tyler
DSC_0254		Phase I range, archway to [B.008] (exterior)	→ S	16.05.13	R Tyler
DSC_0255*	32	[B.008] looking south	→ S	16.05.13	R Tyler
DSC_0256*	33	[B.008]; infill of re-used doors - west wall	→ NW	16.05.13	R Tyler
DSC_0257*	34	[B.008]; wall mounted 'Westalite' rectifier to east wall	→ NE	16.05.13	R Tyler
DSC_0258		[B.008]; detail of wall mounted 'Westalite' rectifier	→ E	16.05.13	R Tyler
DSC_0259		[B.008]; detail of wall mounted 'Westalite' rectifier (makers plate)	→ E	16.05.13	R Tyler
DSC_0260		[B.008]; wall mounted 'Westinghouse' rectifier	→ E	16.05.13	R Tyler
DSC_0261		[B.008]; detail of wall mounted 'Westinghouse' rectifier (makers plate)	→ E	16.05.13	R Tyler
DSC_0262		[B.008]; doorway to [B.009]	→ E	16.05.13	R Tyler
DSC_0263		[B.008]; scar of removed wall	→ SE	16.05.13	R Tyler
DSC_0264		[B.008]; inserted wall (glazed brick) abuts blocked opening in east wall	→ E	16.05.13	R Tyler
DSC_0265		[B.008]; floor scar of removed wall	↓	16.05.13	R Tyler
DSC_0266		Phase I range, archways to [B.007/008] (exterior)	→ S	16.05.13	R Tyler
DSC_0267		Phase I range, archway to [B.007] (exterior)	→ S	16.05.13	R Tyler
DSC_0268*	35	[B.007] looking south	→ S	16.05.13	R Tyler

DSC_0270*	37	[B.007] blocked doorway to west wall	→ W	16.05.13	R Tyler
DSC_0271		[B.007] looking south	→ S	16.05.13	R Tyler
DSC_0272*	36	[B.007] ; infill of re-used doors, east wall	→ NE	16.05.13	R Tyler
DSC_0273		[B.007] high-level glazed brick partition	↑	16.05.13	R Tyler
DSC_0274		[B.007] boarded doorway to east wall, south end	→ SE	16.05.13	R Tyler
DSC_0275		[B.007] boarded doorway to east wall, south end	→ NE	16.05.13	R Tyler
DSC_0276*	56	Phase II extension; oblique view looking north-west	→ NW	16.05.13	R Tyler
DSC_0277		Phase II extension; detail of redundant stack above valley	↑	16.05.13	R Tyler
DSC_0278*	77	Phase III(a) extension (east); oblique view looking north-west	→ NW	16.05.13	R Tyler
DSC_0279		Junction of Phase II and Phase III(a) extensions	→ NW	16.05.13	R Tyler
DSC_0280		Phase III(a) extension (east); doorway	→ S	16.05.13	R Tyler
DSC_0281*	76	Phase III(a) extension (east); oblique view looking north-east	→ NE	16.05.13	R Tyler
DSC_0282*	78	Covered area between Phase IIIa extensions	→ N	16.05.13	R Tyler
DSC_0283		Covered area between Phase IIIa extensions	→ N	16.05.13	R Tyler
DSC_0284		Covered area between Phase IIIa extensions	→ N	16.05.13	R Tyler
DSC_0285		Covered area between Phase IIIa extensions (water tanks)	→ N	16.05.13	R Tyler
DSC_0286		Phase III(a) extension (west); oblique view looking north-west	→ NW	16.05.13	R Tyler
DSC_0287		Phase III(a) extension (west); oblique view looking north-east	→ NE	16.05.13	R Tyler
DSC_0288		Phase III(b) extension; southern gables	→ NW	16.05.13	R Tyler
DSC_0289		Phase III(b) extension; southern gables	→ NW	16.05.13	R Tyler
DSC_0290*	86	Phase III(b) extension; southern gables	→ N	16.05.13	R Tyler
DSC_0291		Phase III(b) extension; window detail	→ N	16.05.13	R Tyler
DSC_0292		Phase III(b) extension; door and reduced doorway openings	→ NE	16.05.13	R Tyler
DSC_0293		Junction of Phase III(a) and Phase III(b) extensions	→ N	16.05.13	R Tyler
DSC_0294		Phase IV tower extension	→ SE	16.05.13	R Tyler
DSC_0295		Phase III(b) extension; north elevation (oblique)	→ SE	16.05.13	R Tyler
DSC_0296*	87	Phase III(b) extension; north elevation	→ S	16.05.13	R Tyler
DSC_0297		Phase III(b) extension; north elevation	→ S	16.05.13	R Tyler
DSC_0298		Phase III(b) extension; north elevation window detail	→ SW	16.05.13	R Tyler
DSC_0299		Phase III(b) extension; north elevation	→ S	16.05.13	R Tyler
DSC_0300		Phase III(b) extension; oblique view looking south-east	→ SE	16.05.13	R Tyler
DSC_0301*	85	Phase III(b) extension; oblique view looking south-east	→ SE	16.05.13	R Tyler
DSC_0302*	88	Phase IV tower extension	→ S	16.05.13	R Tyler
DSC_0303*	6	Phase III(b) extension; west elevation	→ SE	16.05.13	R Tyler
DSC_0304*	4	General view looking north-east	→ NE	16.05.13	R Tyler
DSC_0305		General view looking north-east	→ NE	16.05.13	R Tyler
DSC_0306		General view looking north-east	→ NE	16.05.13	R Tyler
DSC_0307		Phase III(b) extension; south elevation (oblique)	→ NE	16.05.13	R Tyler
DSC_0308		Phase I range, archways to [B.004] (exterior)	→ S	16.05.13	R Tyler
DSC_0310*	41	[B.004] looking south-west	→ SW	16.05.13	R Tyler
DSC_0311*	42	[B.004] looking north	→ N	16.05.13	R Tyler
DSC_0312		[B.004] ; primary door to east opening onto [B.005]	→ E	16.05.13	R Tyler
DSC_0313		[B.004] ; primary door to west opening onto [B.003] (head obscured)	→ W	16.05.13	R Tyler
DSC_0314*	38	[B.005] looking south-east	→ SE	16.05.13	R Tyler
DSC_0315*	39	[B.005.1] ; angled corner – former stack?	→ NE	16.05.13	R Tyler
DSC_0316*	40	[B.005.1] ; former door in east wall (blocked)	→ E	16.05.13	R Tyler
DSC_0317*	43	[B.003] looking south-west	→ SW	16.05.13	R Tyler
DSC_0318		[B.003] ; primary doorway to east opening onto [B.004]	→ E	16.05.13	R Tyler
DSC_0319		[B.003] looking north	→ N	16.05.13	R Tyler
DSC_0320		[B.003] looking east above level of suspended ceiling (head of door)	→ E	16.05.13	R Tyler
DSC_0321		[B.003] looking south above of suspended ceiling (blocked windows)	→ S	16.05.13	R Tyler
DSC_0322*	44	[B.003] looking south above of suspended ceiling (blocked windows)	→ S	16.05.13	R Tyler
DSC_0323		[B.003] ; blocked window of west wall	↑	16.05.13	R Tyler
DSC_0324		[B.003] west wall - blocked windows	→ SW	16.05.13	R Tyler
DSC_0325*	89	[B.002] ; general view looking south-west	→ SW	16.05.13	R Tyler
DSC_0326		[B.002] ; general view looking south-east	→ SE	16.05.13	R Tyler
DSC_0327		[B.002] ; general view looking north-east	→ NE	16.05.13	R Tyler
DSC_0328		[B.002] ; door to [B.003] (adapted window)	→ E	16.05.13	R Tyler
DSC_0329*	90	[B.002] ; east wall opening behind [B.002]	→ S	16.05.13	R Tyler
DSC_0330		[B.002] ; window detail (north wall)	→ N	16.05.13	R Tyler

DSC_0331*	91	[B.002]; window detail (west wall)	→ W	16.05.13	R Tyler
DSC_0332		[B.002]; window detail (north wall)	→ N	16.05.13	R Tyler
DSC_0333		Phase II extension; oblique view looking north-west	→ NW	16.05.13	R Tyler
DSC_0334		Phase II extension; stack rising above roof valley	→ N	16.05.13	R Tyler
DSC_0335*	3	General view looking north-west	→ NW	16.05.13	R Tyler
DSC_0340		Phase I range, archway to [B.011] (exterior)	→ S	16.05.13	R Tyler
DSC_0342*	19	[B.011] looking south-east (blocked archways)	→ SE	16.05.13	R Tyler
DSC_0343		[B.011] looking south-east (blocked archways)	→ SE	16.05.13	R Tyler
DSC_0344		[B.011] looking south-east (blocked archways)	→ SE	16.05.13	R Tyler
DSC_0345		[B.011] looking south-west (blocked archways)	→ SW	16.05.13	R Tyler
DSC_0346*	18	[B.011] looking south-west (blocked archways)	→ SW	16.05.13	R Tyler
DSC_0347*	17	[B.011] modern condensers and related pipework	→ S	16.05.13	R Tyler
DSC_0348		[B.011] inserted steels to roof	↑	16.05.13	R Tyler
DSC_0349		[B.011] inserted steels to roof	↑	16.05.13	R Tyler
DSC_0350		[B.011] looking south-east (blocked archways)	→ SE	16.05.13	R Tyler