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KIER NORTH TYNESIDE

BLOCK E, THE KILLINGWORTH SITE,
HARVEY COMBE,
KILLINGWORTH, NORTH TYNESIDE

ARCHAEOLOGICAL BUILDING SURVEY REPORT

OCTOBER 2018

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Kier North Tyneside

Block E, The Killingworth Site, Harvey Combe, Killingworth, North Tyneside

Level 2 Building Survey

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SUMMARY

Wardell Armstrong LLP (WA) was commissioned by the client Kier North Tyneside, to undertake an archaeological building recording of Block E, The Killingworth Site, Harvey Combe, Station Road Industrial Estate, Killingworth, North Tyneside, NE12 6QQ, (NGR: NZ 2682 7145). This recording was required as a condition of planning consent for a development at the site (Planning Application Ref: 18/01010/FUL). The archaeological building recording was undertaken in accordance with specifications given by Jennifer Morrison, Tyne and Wear Archaeology Officer, acting as the archaeological planning advisor on behalf of Newcastle City Council.

The programme of building recording was undertaken on the 9th of October 2018, and comprised the recording of the one storey structure associated with the former Engineering Research Station, Block E.

Block E of the former Engineering Research Station, built in 1966, has since received a number of modern developments, which mainly affected its interior appearance. The building is currently in a fair condition, but in need of modernisation to maintain its function as a welfare area. The external and all accessible internal spaces of the building were surveyed, and several areas of alteration and modernisation of the building were noted.

The impact of the proposed development would be mainly internal, with a concentration on the later section of Block E to the north, which is of less significance than the original section to the south. It will include the reopening of a large space in the original section to conform to its original design layout. As the building was constructed to be flexible in its use and layout, these changes would not cause a negative impact upon the building.

ACKNOWLEDGEMENTS

Wardell Armstrong LLP (WA) thanks Michael Dixon of Kier North Tyneside for commissioning the project, and for all their assistance throughout the work. Also, WA thank Jennifer Morrison, Tyne and Wear Archaeology Officer, at Newcastle City Council for their assistance.

The building recording was undertaken by Ariane Buschmann, who also wrote the report. The figures were produced by Adrian Bailey and Helen Phillips. The project was managed by Rachel Salter and the report edited by Cat Peters.

1 INTRODUCTION

1.1 Project Circumstances and Planning Background

1.1.1 In October 2018, Wardell Armstrong LLP (WA) undertook an archaeological building survey at Block E, The Killingworth Site, Harvey Combe, Killingworth, North Tyneside (NGR: NZ 2682 7145). It was commissioned by Kier North Tyneside, who intends to redevelop the building to be more suitable for the welfare needs for the people employed on site, for which a planning consent has been granted by North Tyneside Council (planning reference: 18/01010/FUL).

1.1.2 The grant of planning permission by North Tyneside Council, dated 11th September 2018 stated at Condition 7 that '*no development shall take place until a programme of archaeological building recording has been completed, in accordance with a specification provided by the Local Planning Authority. A report of the results shall be submitted to and approved in writing by the Local Planning Authority prior to any development or demolition work taking place.*

1.1.3 *This is required pre-commencement to provide an archive record of the historic building or structure and to accord with paragraph 199 of the revised NPPF, Local Plan S6.5 and policies DM6.6 and DM6.7*'.

1.1.4 This planning condition was in line with advice provided to North Tyneside Council by Jennifer Morrison, Tyne and Wear Archaeology Officer, at Newcastle City Council in a letter dated 18th September 2018 (ref no. MON16092).

1.1.5 The building sits within the setting of the Grade II* listed former Engineering Research Station and is designated as of 'special interest', although not being listed itself (NHL 1259313). The proposed changes to the building and particularly the exterior elevations have therefore been carefully considered and are sensitive to the original concept. At present, the proposals are for the modernisation of the current welfare facilites for site-based staff at the NTC Killingworth Depot. A new internal layout is proposed, removing existing internal partition walls and add in new partitions. The building will comprise a canteen, locker space for Males & Females, toilet and shower provision, as well as several stores.

1.2 Project Documentation and Planning Context

1.2.1 The project conforms to a brief which was prepared by the archaeological planning advisor, Jennifer Morrison, Tyne and Wear Archaeology Officer at Newcastle City Council, in a letter dated 18th September 2018 (ref no. MON16092).

1.2.2 National planning policies on the conservation of the historic environment are set out in the updated National Planning Policy Framework (NPPF), which was published by the Ministry of Housing, Communities and Local Government (MHCLG) in July 2018. This is supported by National Planning Practice Guidance (NPPG) which was published in March 2014.

1.2.3 The policy and guidance documents emphasize that all heritage assets should be conserved *'in a manner appropriate to their significance*' (NPPF para 184). Sites of archaeological or cultural heritage significance that are valued components of the historic environment and merit consideration in planning decisions are grouped as 'heritage assets'; '*heritage assets are an irreplaceable resource*' (NPPF para 184), the conservation of which can bring '*wider social, cultural, economic and environmental benefits...*' (NPPF para 185). The policy framework states that the '*significance of any heritage assets affected, including any contribution made by their setting' should be understood in order to 'assess the potential impact*' (NPPF para 189). In addition to standing remains, heritage assets of archaeological interest can comprise sub-surface remains and, therefore, assessments should be undertaken for a site that '*includes or has the potential to include heritage assets with archaeological interest*' (NPPF para 189).

1.2.4 The NPPF draws a distinction between designated heritage assets and other remains considered to be of lesser significance; '*great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be; substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings and grade I and II* registered parks and gardens and World Heritage Sites, should be wholly exceptional*' (NPPF para 194). Therefore, preservation in-situ is the preferred course in relation to such sites unless exceptional circumstances exist.

1.2.5 It is normally accepted that non-designated assets will be preserved by record, in accordance with their significance and the magnitude of the harm to or loss of the site as a result of the proposals, to '*avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposals*' (NPPF para 190). If non-designated heritage assets of archaeological interest are affected by a proposal, '*a*

balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset' (NPPF para 197).

1.2.6 This report outlines the survey undertaken on site and associated research, the subsequent programme of post-fieldwork analysis, and the results of this archaeological building survey.

1.3 Local Plan

1.3.1 The North Tyneside Local Plan was adopted in July 2017. In regard to the historic environment and heritage assets, the planning policy contains several policies.

1.3.2 Under policy S6.5 *Heritage Assets*, the North Tyneside Council aims to preserve, promote and enhance its heritage assets. To do so, it will:

- *'Respect the significance of assets and maximising opportunities to sustain and enhance the significance of heritage assets and their settings.*
- *Targeting for improvements those heritage assets identified as at risk or vulnerable to risk. Seeking and encouraging opportunities for heritage-led regeneration, including public realm schemes. Supporting appropriate interpretation and promotion of the heritage assets. Adding to and keeping up-to-date the Borough's heritage asset evidence base and guidance. Examples include conservation area character appraisals, conservation area boundary reviews, conservation area management strategies, conservation statements/plans, registers of listed and locally registered buildings, the historic environment record and buildings at risk registers. Using the evidence it has gathered, implement the available tools to conserve heritage assets, such as Article 4 Directions and Building Preservation Notices'* (North Tyneside Council 2017, 144).

1.3.3 Furthermore, in Policy DM6.6 *Protection, Preservation and Enhancement of Heritage Assets,* North Tyneside Council states that proposals that affect heritage assets or their settings, will be permitted where they sustain, conserve and, where appropriate, enhance the significance, appearance, character and setting of heritage assets in an appropriate manner. As appropriate, development will:

- *'a. Conserve built fabric and architectural detailing that contributes to the heritage asset's significance and character;*
- *b. Repair damaged features or reinstate missing features and architectural*

detailing that contribute to the heritage asset's significance;

- *c. Conserve and enhance the spaces between and around buildings including gardens, boundaries, driveways and footpaths;*
- *d. Remove additions or modifications that are considered harmful to the significance of the heritage asset;*
- *e. Ensure that additions to heritage assets and within its setting do not harm the significance of the heritage asset;*
- *f. Demonstrate how heritage assets at risk (national or local) will be brought into repair and, where vacant, re-use, and include phasing information to ensure that works are commenced in a timely manner to ensure there is a halt to the decline;*
- *g. Be prepared in line with the information set out in the relevant piece(s) of evidence and guidance prepared by North Tyneside Council;*
- *h. Be accompanied by a heritage statement that informs proposals through understanding the asset, fully assessing the proposed effects of the development and influencing proposals accordingly'* (North Tyneside Council 2017, 145).

1.3.4 Proposed developments that would detrimentally impact upon a heritage asset will be refused permission, unless it is necessary for it to achieve wider public benefits that outweigh the harm or loss to the historic environment, and cannot be met in any other way. All heritage assets affected by proposed development will require recording before development commences.

1.3.5 Any heritage reports prepared as part of a development scheme will be submitted for inclusion on the Tyne and Wear Historic Environment Record (HER) and published where considered appropriate (North Tyneside Council 2017, 145).

1.3.6 According to Policy DM6.7 *Archaeological Heritage,* the Council will aim '*to protect, enhance and promote the Borough's archaeological heritage and where appropriate, encourage its interpretation and presentation to the public'* (North Tyneside Council 2017, 147).

1.3.7 *'Should the loss of significance of the archaeological remains be outweighed by substantial public benefits so that preservation in-situ would not be justified, preservation by record will be required to be submitted to and agreed with the Local*

Planning Authority, and completed and the findings published within an agreed timescale' (North Tyneside Council 2017, 147).

2 METHODOLOGY

2.1 Standards and guidance

2.1.1 The archaeological building survey was undertaken following the Chartered Institute for Archaeologists *Standard and Guidance for archaeological investigation and recording of standing buildings or structures* (2014).

2.1.2 The fieldwork programme was followed by an assessment of the data as set out in the Standard and Guidance for archaeological investigation and recording of standing buildings or structures (CIfA 2014).

2.1.3 A Level 2 Historic Building Survey, as described by Historic England, is a descriptive record of a building or buildings, which is judged not to require any fuller record, or it may serve to gather data for a wider project. Both the exterior and interior will be viewed, described and photographed. The record will present conclusions regarding the building's development and use (Historic England 2016, 14).

2.2 Documentary Research

2.2.1 A part of the remit for this archaeological building recording was an element of documentary research, the aims of which are to provide a context and improve the understanding of the structural remains and to provide a coherent overall record of the building and its history and evolution.

2.3 Level 2 Building Survey

2.3.1 The building survey comprised internal and external observation of the buildings and structures to produce a photographic and written record. Photographs were taken, with a graduated scale, in digital format, and in black and white 35mm print, of all external elevations and internal rooms, including structural architectural details, details of fixtures and fittings, and more general views showing the structures in their urban context. In summary, the photographic survey included:

- general view or views of the exteriors and interiors of the buildings;
- the scaled external appearance of the buildings, typically as a series of oblique views which show all external elevations and give an overall impression of size and shape. Where an individual elevation embodies complex historical information, views at right angles to the plane of the elevation may also be appropriate;
- the overall appearance of the internal areas, where accessible, including any

evidence for historic fixtures and fittings;

- photographs of all exterior and interior details, whether structural, functional or decorative, which is relevant to the design of the buildings, and to their development and use;
- the relationship of the buildings to other buildings, or to a significant viewpoint.

2.3.2 The written record comprised:

- the precise location of all structures subjected to the building and topographic survey, as a National Grid reference and in address form;
- the location of the project archive;
- a historical background to set the structures into their historical context, with information derived as a result of the desk-based research;
- a description of the form of the structures and their date and construction phases;
- drawings to illustrate the report, to include scaled floor plans and elevations of the structures showing the locations of any significant historic features.

2.3.3 The purpose of the archaeological building recording was to produce a photographic and written record of the existing structures. Its aim is to identify sequences of development and modification within the buildings, to create a detailed record of the current state of the buildings and record any fixtures and fittings of historical significance.

2.4 Reporting and Project Archive

2.4.1 Three paper copies of the report will be submitted to the client's agent for submission to North Tyneside Council within two months of the commencement of proposed on-site works as per planning condition 7 of the grant of planning permission of the 11th September 2018.

2.4.2 A digital copy of the report will be deposited with the Tyne and Wear Archive at Newcastle.

2.4.3 A full professional archive has been compiled in accordance with the project specification, and the Archaeological Archives Forum recommendations (Brown

2011). The project archive will be deposited with the Tyne and Wear HER at Newcastle.

2.4.4 Wardell Armstrong LLP supports the **O**nline **A**cces**S** to the Index of Archaeological **I**nvestigation**S** (OASIS) project (http://www.oasis.ac.uk). This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by WA as a part of this national project. The OASIS reference for the project is: wardella2-330751.

3 BACKGROUND

3.1 Location and Modern Context

3.1.1 The site is located at the former Engineering Research Station of British Gas at Harvey Combe, Killingworth, North Tyneside (NGR: NZ 2682, 7145). The site's environs comprise a large compound, with various contemporary buildings, car parks and green spaces. The building is situated to the north of Block A, a grade II* listed building.

3.1.2 At present the building contains a series of offices, storage areas, changing room and canteens for various contractors with North Tyneside Council. The building is associated with Block A and B of the former Engineering Research Station, designed in 1966 by the architects John Gordon Ryder and Peter Yates. While the building is associated with the grade II* listed main block, it itself is not currently listed.

3.2 Historical Background

3.2.1 This historical background has been compiled from information derived from historical mapping consulted at the Tyne and Wear Archive as well as readily-available documentary sources such as local histories.

3.2.2 The site is situated in Killingworth township, approximately 5 miles north-east of Newcastle upon Tyne.

3.2.3 The village of Killingworth, and ecclesiastical parish were historically situated in the county of Northumberland. Killingworth Village is located in the south east part of Killingworth township. In 1242, the village belonged to the barony of Roger de Merlay III, along with other nearby settlements including Longbenton Village, as part of the barony of Morpeth (Killingworth Village 2018).

3.2.4 On the large tract of moor, referred to as Killingworth Moor, the Newcastle Races were held during the 17th and 18th centuries. The open land was enclosed in 1790. In 1793 Killingworth Moor was enclosed by the construction of West Lane, Great Lime Road and Killingworth Road. The village expanded greatly in the late 17th and 18th centuries with new developments brought by wealthy mine-owners and businessmen moving to the area (Killingworth Village 2018).

3.2.5 The historic Killingworth was designated as Killingworth village conservation area in 1974. The conservation area is part of a wider suburban area, with a variation of approximately 120 houses and large green open spaces (North Tyneside Council

2008, 3).

3.2.6 Killingworth township is located to the north-west of the old village. Officially, it is not classified as a post-war new town, but rather an independent settlement. The development was financed through the 1952 Town Development Act (NECT 2014, 32). The comprehensive development area was defined in 1960, on derelict colliery land to the north of Killingworth village (Pevsner et al 1992, 361). Under the housing authority of Longbenton Urban District Council, and with the architect R.J.A. Gazzard, the development of a new town for up to 20,000 people on 760 acres of land began in 1963. At the centre of this development was a large artificial lake (Pevsner et al 1992, 362).

3.2.7 The buildings of the Engineering Research Station (ERS) were constructed to the east of the North-Eastern Railway Line, to the west of Station Road. Prior to any development of Killingworth township, the site was part of an expansive field system to the north of Killingworth village, with only a few dispersed farmsteads (Figures 3 and 4).

3.2.8 John Gordon Ryder and Peter Yates, the architects commissioned with the design of the structure, had met while working in the office of Berthold Lubetkin in 1948, assisting on his plans for Peterlee New Town, County Durham. They created their own practice in Newcastle in 1953, and established a reputation for innovative and highly individual modern buildings, with a focus on the Tyneside area (Carroll 2004). Their designs were greatly influenced by Corbusian Modernism, as well as their former mentor Lubetkin. Their designs are characterised by linear features, geometric shapes, in a simple appearance with hidden complexity. They used a variety of materials, including concrete, brick and timber, but also utilised landscaping to create earth sculptures as part of their design. The buildings often included bespoke fittings such as all kitchen and bathroom fittings and sanitaryware (NECT 2015, 31).

3.2.9 The Engineering Research Station for British Gas is one of Ryder and Yates' best-known buildings. The original brief for the development was for a building to investigate methods of producing gas. The discovery of natural gas under the North Sea, however, refocused the brief to the research and development of gas distribution (Carroll 2004).

3.2.10 The site was developed in three main phases between 1966 and 1975. The Station was planned around two distinct internal sections: a fixed area with the entrance,

car park, library and administration, and a flexible as well as extendable section for offices, laboratories and workshops. The permanent element, with its symbolic entrance bridge and pylon, proclaimed itself structurally and formally by a group of six roof towers. These roof towers formed ventilation flues and water storage tanks (Carroll 2004). The first phase of Block E, a linear ancillary building to Block A, was built in 1966-67 (Figure 5). It was designed as a single storey linear block, with purple-grey engineering brick and cream eaves cladding. An earth mound covers part of the east elevation. This was part of Ryder and Yates original design, representing a wave of earth, which the building rises from. It was originally used for noisy work and hazardous stores (NECT 2015, 19). The Camperdown Ward, to the west of the building, was added by 1973 (Figure 6).

3.2.11 By the early 1980's, the number of staff employed within the ERS had expanded to approximately 450. More than 25% of them were working in temporary accommodation across the site, the majority of which had very limited planning permission. Numerous options for expanding the laboratory and office accommodation were considered. In the end, it was decided to expand the main ERS building. Although these proposals were initially accepted, they did not proceed. Mr Robert Evans, the newly appointed Chief Executive, withheld permission for all further projects until an overall review of the industry's requirements had been made (BG Technology 1994, 27).

3.2.12 Block E was expanded northwards by 1985 (Figure 7). The problem of further accommodation was eventually solved in early 1986, when the former Government Skill Centre, adjacent to the Engineering Research Station, was listed to be on sale, and obtained by the ERS. The Skill Centre comprised approximately 100,000sq.ft of office space on 5.5 acres, mainly built in the early 1970's (BG Technology 1994, 28).

3.2.13 The entire site was brought by North Tyneside Council in 1995. They were based there until 2008. Presently, most buildings are sub-let to Council contractors.

4 ARCHAEOLOGICAL BUILDING SURVEY RESULTS

4.1 Introduction

4.1.1 The archaeological building recording was undertaken on the 9th October 2018 (Figure 8). The building was situated to the north of the main block of the former Engineering Research Station, Killingworth, and was easily accessed. The easternmost area of the building was not surveyed due to asbestos contamination.

4.2 Building Exterior

4.2.1 The building comprises two main sections. The original southern structure, and the northern extension. The one storey building is of an elongated east to west aligned layout (Figure 8).

4.2.2 **South Elevation:** The south facing elevation is part of the original structure. It comprises the dark purple-grey brickwork in a stretcher bond with cream coloured eaves cladding above (Plate 1). There are 12 doorways along the elevation, and five windows. The doors vary in size and material, although the majority are light grey painted timber panelling. At the western section of the elevation are two bricked-up doorways. A break in fabric between the second window and third doorway from the west indicates possibly the original extent of the building and its subsequent extension to the west. This extension may have occurred by 1968 (Figure 5).

4.2.3 **West Elevation:** The west facing elevation comprises two sections (Plate 2). To the south, the elevation is made of dark purple-grey brickwork in a stretcher bond, while the northern section is covered in profiled metal cladding. A single, wood panel doorway with a ventilation panel is situated in the southern section. A timber panelled double door is located within the northern section.

4.2.4 **North Elevation:** There are various areas of repair work visible along the north facing elevation. It is constructed of dark purple-grey brickwork in a stretcher bond and profiled metal eaves cladding (Plate 3). There are four doorways, a loading bay and five windows along the elevation. The eastern three windows may be later insertions within blocked-up doorways (Plate 4). To the immediate west of the loading bay is a bricked-up window and a bricked-up large doorway. A bricked-up double doorway is visible at the western section of the elevation (Plate 3).

4.2.5 **East Elevation:** The east facing elevation is mostly covered by the designed earth mount. There are two sections forming the elevation, the southern original structure (Plate 5) and the set back east elevation of the extension (Plate 6). Both sections are

blind, and of dark purple-grey brickwork in stretcher bond.

4.3 Building Interior

4.3.1 Not all rooms were accessible on the interior. Asbestos contamination at the easternmost room made access unsafe. A further five rooms at the eastern end were excluded from the survey. There were several access points to the various rooms and storage areas throughout the building. The main materials used within the building are brick and concrete breeze blocks. The majority of the rooms within the building have been altered various times. The ceilings of all offices, canteens and changing rooms have been lowered. The concrete floor has been covered with linoleum.

4.3.2 A total of 27 rooms of the ground-floor (GF) were surveyed, each of which were allocated a bespoke room number (Figure 8), 1 to 27.

4.3.3 **GF1:** An elongated hallway room in the southern section of the building, which has been sectioned off the main hallway GF3 by a doorway set in concrete breeze blocks (Plate 7). A double doorway at the east elevation leads to GF2. Both the east and west elevation comprise painted brickwork in stretcher bond. The floor is covered in linoleum.

4.3.4 **GF2:** A large area recently used as a lunch room, in the southern original structure. The east, west and north elevations are of painted brickwork in stretcher bond with some areas of concrete breeze blocks at the north and west elevation. The south elevation comprises concrete breeze blocks (Plate 8). A doorway at the east elevation leads to a gas meter room. At the north elevation, a double doorway leads to GF4 (Plate 9).

4.3.5 **GF3:** A narrow hallway with access from GF1 and an external doorway at the north elevation. Doorways along the hallway lead to rooms GF4, GF6-GF12, GF16 and GF17 (Figure 8). Only the southern-eastern corner of the hallway presents some areas of the painted over original brickwork in stretcher bond (Plate 10). The remaining elevations are made of concrete breeze blocks.

4.3.6 **GF4:** A medium sized locker room, accessible from GF2 and GF3. It gives access to GF5 via a doorway at the eastern section of the north elevation. The east, west and northern elevations are made of concrete breeze blocks, while the south elevation comprises painted over brickwork in stretcher bond. This was originally an external wall (Plate 11).

4.3.7 **GF5:** A small drying room accessible via GF4 (Plate 12). It is completely made of

concrete breeze blocks. No features of interest could be observed.

4.3.8 **GF6:** A small office room accessible via GF3 (Plate 13). It is completely made of concrete breeze blocks. A window is situated at the north elevation.

4.3.9 **GF7:** A small office room accessible via GF3 with a window at its north elevation (Plate 14). It is completely made of concrete breeze blocks. No features of interest could be observed.

4.3.10 **GF8:** A small disabled toilet accessible via GF3 within the northern section of the building. No features of interest could be observed.

4.3.11 **GF9:** A small toilet and shower room for female members of staff within the northern section of the building with modern fittings. It can be accessed from GF3. No features of interest could be observed.

4.3.12 **GF10:** A large room, used as reception and office, accessed from GF3 at the north elevation. The north elevation is made of concrete breeze blocks. An external double door at the south elevation gives access to the room. A window is situated to the west of the doorway.

4.3.13 **GF11:** A large changing, shower and toilet room for male members of staff. The room can be accessed from hallway GF3 through a doorway at the east and the west elevation. A low, north to south aligned partition wall contains five sinks on each side (Plate 16). Along the north elevation are four toilet stalls and two showers, while there are four urinals each at the east and west elevation (Plate 15). The fixtures most likely date from between the 1970's and 1980's, with some modernisations to the shower fittings.

4.3.14 **GF12:** A medium sized changing room. An opening at the north elevation has been blocked off with concrete breeze blocks, possibly a former loading bay, prior to the extension of the building (Plate 17). Parts of the original brick walling is still visible within GF12 and GF13. The west elevation is made of concrete breeze blocks, and the south elevation is also clad in this material. The west elevation comprises dry-walling. A doorway at the northern end of the west elevation leads to GF13, and a doorway at the southern end of the same elevation leads to GF14. A window is situated at the south elevation. Parts of the lowered ceiling panels were removed, exposing a medium-density fibreboard panelled ceiling and brickwork above the former opening (Plate 18).

4.3.15 **GF13:** A small changing room accessed from GF13. The north elevation comprises

the blocked-off doorway mentioned in GF12 with a small section of original brickwork in the north-west corner (Plate 19). The west elevation is also made of brickwork in stretcher bond, while the south and east elevation consist of concrete breeze blocks (Plate 20).

4.3.16 **GF14:** A small hallway, interconnecting GF12 and GF15. An external doorway is situated in the south elevation. The west elevation, containing the doorway to GF15, comprises brickwork in stretcher bond with a concrete lintel above the doorway (Plate 21). All other elevations are formed of concrete breeze blocks.

4.3.17 **GF15:** A large canteen or mess room in the southern section of the building (Plate 22). The west elevation is made of concrete breeze blocks. All other elevations are formed of painted over brickwork in stretcher bond. A drainage pipe is situated in the north elevation. A small north to south aligned section of a partition wall was retained at the south elevation (Plate 23). This may once have partitioned GF15 and GF26 into roughly same sized rooms.

4.3.18 **GF16:** A small office room in the northern section of the building (Plate 24). It is accessible from GF3 via a doorway at the south elevation. A window is situated in the north elevation. Additionally, a blocked-off window to GF17 is situated in the west elevation.

4.3.19 **GF17:** A roughly L-shaped large canteen or mess room in the northern section of the building, accessed via a doorway at the east elevation from GF3 (Plate 25). Its south elevation was once an external wall, made of brick in stretcher bond (Plate 26). An external double doorway is situated in the north elevation. To the east of the doorway is a three light window. A doorway in the south elevation leads to GF18, while a doorway in the west elevation leads to GF19.

4.3.20 **GF18:** A small east to west aligned drying room within the northern section, accessed via a doorway at the north elevation from GF17. A concrete lintel can be seen in the south elevation, associated with the blocked off doorway mentioned in GF12 and GF13 (Plate 27).

4.3.21 **GF19:** A large storage area, accessed via a doorway at the east elevation from GF17 and an external doorway at the north elevation. The southern elevation, constructed of brickwork in a stretcher bond, was once an external elevation (Plate 28). Pipes run along the upper section of the south and east elevations and break through at the west, south and east elevation. A small room, GF20, has been built in the north-east

corner (Plate 29).

4.3.22 **GF20:** A small office or storage room built with concrete breeze blocks in the north-east corner of GF19. No features of interest wereobserved.

4.3.23 **GF21:** A small storage room, only accessible via an external timber double doorway in the west elevation. The room is completely bare, with the exception of some narrow pipes along the east elevation and a bent drainage pipe is situated at the eastern end of the south elevation (Plate 30). Additionally, a concrete block is situated in the western end of the south elevation. The south elevation was once part of an external wall.

4.3.24 **GF22:** A small plant room with various boilers, only accessible via a narrow timber doorway in the west elevation (Plate 31). The east and north elevations are constructed of brick in a stretcher bond. The room may have once formed a larger room with GF25.

4.3.25 **GF23:** A medium large storage room, only accessible via a timber double doorway at the north elevation. Within the room are two gated storage areas (Plate 32). The exposed ceiling is held by large north to south aligned steel beams.

4.3.26 **GF24:** A small storage room, only accessible via an external timber doorway with concrete lintel in the south elevation. Traces of a doorway with concrete lintel can be seen in the north elevation (Plates 33 and 35). This leads to the gas meter room, which was not surveyed. All elevation are made of brick in stretcher bond. The exposed ceiling shows north to south aligned steel beams, which rest on top of a concrete beam at the upper level of the south elevation (Plate 35). A large pipe runs along the upper level of the east and south elevation (Plate 34).

4.3.27 **GF25:** A small storage room, only accessible via an external timber double doorway at the south elevation (Plate 36). A concrete breeze block wall at the north elevation separates the room from GF22. Various pipes run along the upper section of the room.

4.3.28 **GF26:** A medium sized storage room (Plate 37). A recent built concrete breeze block wall partitions this room from GF15. Various sets of older pipes run along the west elevation, while more modern pipes are at the north and east elevation.

4.3.29 **GF27:** A large storage room with loading bay within the northern section of the structure. It is accessible via the foldable gate at the north elevation. An internal doorway in the south elevation has been sealed off. The south elevation was once

an external wall of the original building (Plate 38). The ceiling within the room has been lowered. Within the concrete floor are tracks (Plate 39), running from the centre of the east elevation towards the sealed off doorway and towards the south-western corner of the room.

6 CONCLUSIONS

6.1 Discussion

6.1.1 Block E of the former Engineering Research Station has undergone numerous modern alteration, most of which were on the interior. The building is currently in a fair condition, but in need of modernisation to upkeep its full function as welfare area.

6.1.2 The core building dates from 1966, with several alterations and extensions. The oldest section is the southern section of the building, which was one bay wide. It is contemporary with the grade II* listed Block A, built in the first phase of the development of the Engineering Research Station. Cartographic evidence shows that the building was extended northwards by 1985 (Figure 7).

6.1.3 The building was designed to be flexible and expandable. It is thus difficult to assess when the alterations were undertaken. Rooms GF10, GF12-14 and a section of GF3 probably originally formed one large room with a loading bay at the north elevation, now observed by GF12 and GF13 to the south, and GF18 to the north. Similarly, GF15 and GF26 may have once been either a single large room, or two rooms of similar size. The storage rooms GF22 and GF25 also originally formed one single room.

6.1.4 The northern section of the building was added by 1985 (Figure 7), utilising concrete breeze blocks as the main material, thus identifying these alterations from the earlier brick building. There were no further noticeable features or fittings of archaeological significance.

6.2 Impact of the Proposal

6.2.1 The proposed redevelopment aims to modernise Block E to provide better welfare facilities for staff on site. These refurbishments are to be undertaken with minimal impact upon the exterior, which is of exceptional significance by association as a group with the grade II* listed Block A and Block B. The original, southern section of Block E is contemporary with the first phase of works of the Engineering Research Station.

6.2.2 Externally, the proposed development would reopen one of the bricked up doorways at the south elevation, thus partially restoring its original layout. Only three doorways are to be retained on the north elevation.

6.2.3 The majority of the proposed works would affect the interior northern section of

Block E. This section is a later addition to the original ancillaries building to Block A, and thus of lower significance than the southern structure. With the exceptions of rooms GF8, GF9, GF11, GF21 and GF23, all partition walls are to be removed and a new layout introduced.

6.2.4 Within the southern section, the only noticeable interior alteration would be the removal of the later inserted partition walls between GF10, GF12-GF14, as well as the original wall to GF15. A new partition is to be inserted in GF15, at the height of the small section of a north to south aligned partition wall at the south elevation. This would reopen a large room, similar to the original design.

6.2.5 Overall, the proposed development would positively retain the building as part of the group forming the earliest Engineering Research Station buildings. The impact would be mainly internal, concentrating on the later extension of Block E, which is of less significance than the original part, and the reopening of a large space in the original section. As the building was constructed to be flexible in its use and layout, these changes would not cause a negative impact upon the building.

7 BIBLIOGRAPHY

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Third Edition Ordnance Survey Map 1919, 25 inches to 1 mile scale

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Ordnance Survey Map 1973, 1:2500 scale

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APPENDIX 1: PLATES

Plate 1: South facing elevation, bricked up doorways visible at the western section

Plate 2: West facing elevation

Plate 3: Western section of North facing elevation

Plate 4: Eastern end of the north facing elevation, visible repairworks

Plate 5: Southern section of the east elevation with earth sculpture

Plate 6: Northern section of east elevation and earth sculpture

Plate 7: GF1 looking north

Plate 8: GF2 looking south, note different materials at elevations

Plate 9: GF2 looking north

Plate 10: GF3, change between original brick and added concrete breeze blocks

Plate 11: GF4 looking east, south elevation was once an external wall

Plate 12: GF5, drying room, looking north

Plate 13: GF6, small office looking north

Plate 14: GF7 small office/storage area, looking north

Plate 15: GF11 Men's toilet and shower room, looking north, 1980's toilet fittings

Plate 16: GF11 Men's toilet and shower room, looking north-east

Plate 17: GF12 looking north, noticeable: large opening blocked up with concrete breeze blocks

Plate 18: GF12 brickwork above the closed opening

Plate 19: GF13, western end of the large opening from GF12

Plate 20: GF13 looking south

Plate 21: GF14, hallway, looking west

Plate 22: GF15 canteen, looking east

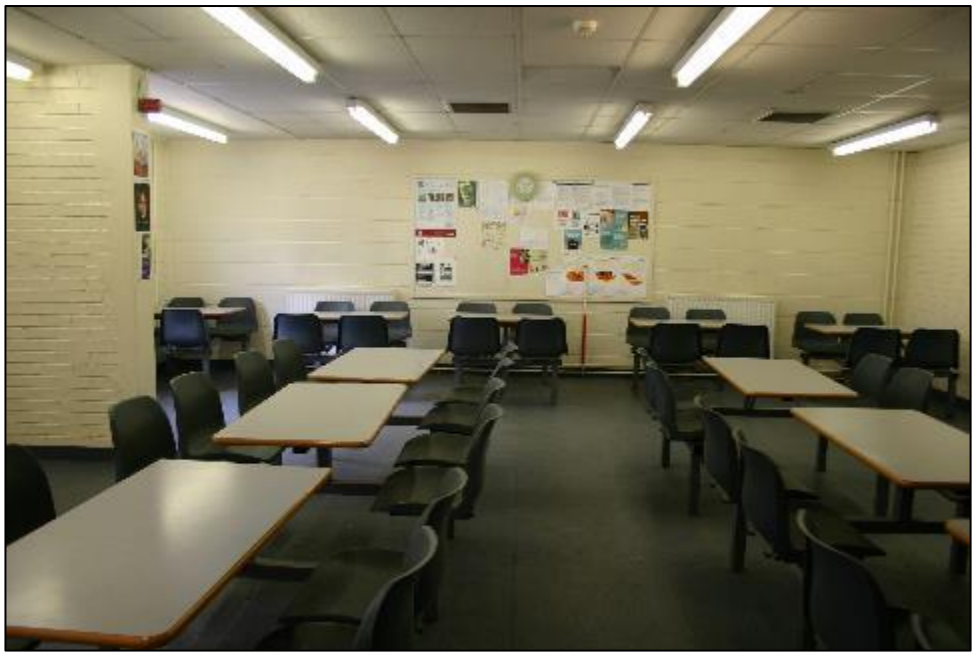

Plate 23: GF15 canteen, small partition wall to the south

Plate 24: GF16 small office, looking north-west

Plate 25: GF17 canteen, looking east, closed up window at the east elevation

Plate 26: GF17 canteen, looking south

Plate 27: GF18 changing room, looking east

Plate 28: GF19 storage area, looking south to former external wall

Plate 29: GF19 looking towards GF20 built into north-east corner

Plate 30: GF21 storage room, large pipe at south elevation

Plate 31: GF22 boiler room, general view looking east

Plate 32: GF23 secure storage room, looking south

Plate 33: GF24 storage room, looking north, blocked doorway at north elevation

Plate 34: GF24 storage room, large pipework at upper level, looking south

Plate 35: GF24 concrete lintel of blocked door below concrete support of roof steel beams

Plate 36: GF25 storage room, looking north

Plate 37: GF26 storage room, looking north, with recent breeze block partition wall to GF15

Plate 38: GF27 loading bay, looking south to former exterior elevation and sealed off doorway

Plate 39: GF27 loading bay, tracks in concrete flooring, looking south

APPENDIX 2: FIGURES

CLIENT: Kier North Tyneside	DRG No.: CL12207_001		REV: A
	SIZE: A4	SCALE: 1:25,000	DATE: Oct 2018
PROJECT: Killingworth Depot Block E Refurbishment, Killingworth, North Tyneside	DRAWN BY: AB	CHECKED BY: AB	APPROVED BY: DJ
DRAWING TITLE: Figure 1: Site location			

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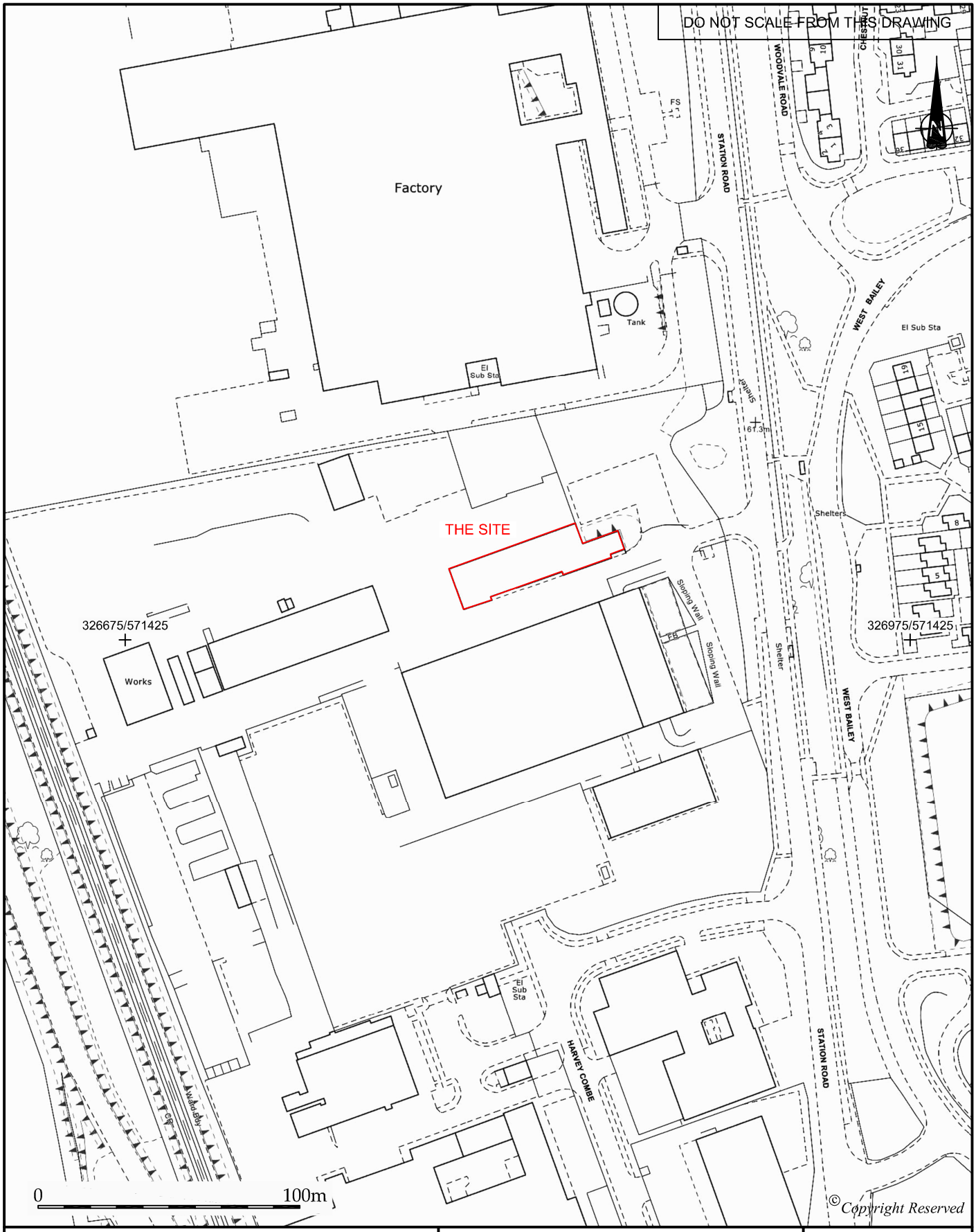

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	DRAWN BY: AB	CHECKED BY: AB	APPROVED BY: DJ
DRAWING TITLE: Figure 2: Detailed site location			

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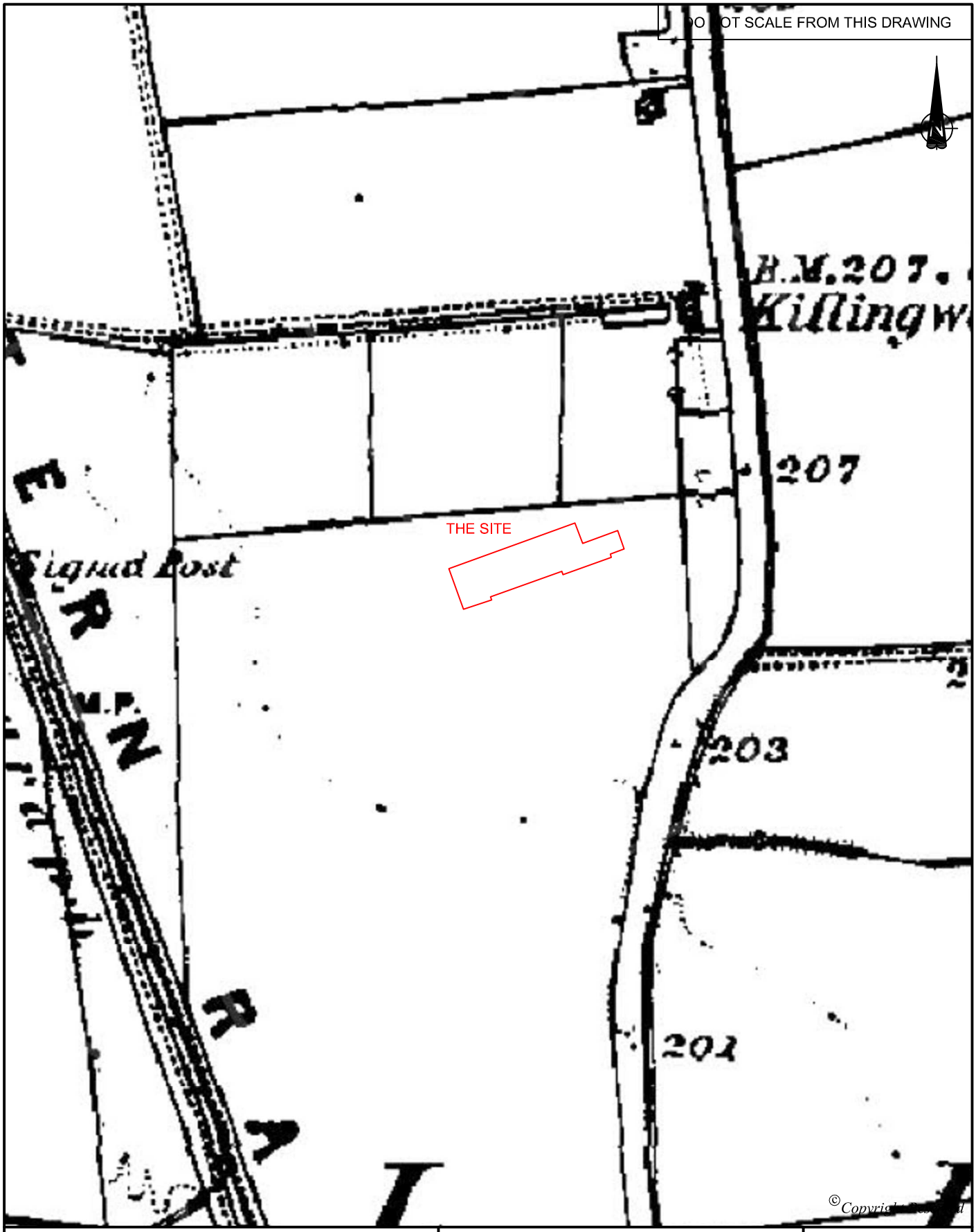

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DRAWING TITLE

Figure 3: First Edition Ordnance Survey Map, 1864
(6 inches to 1 mile scale)

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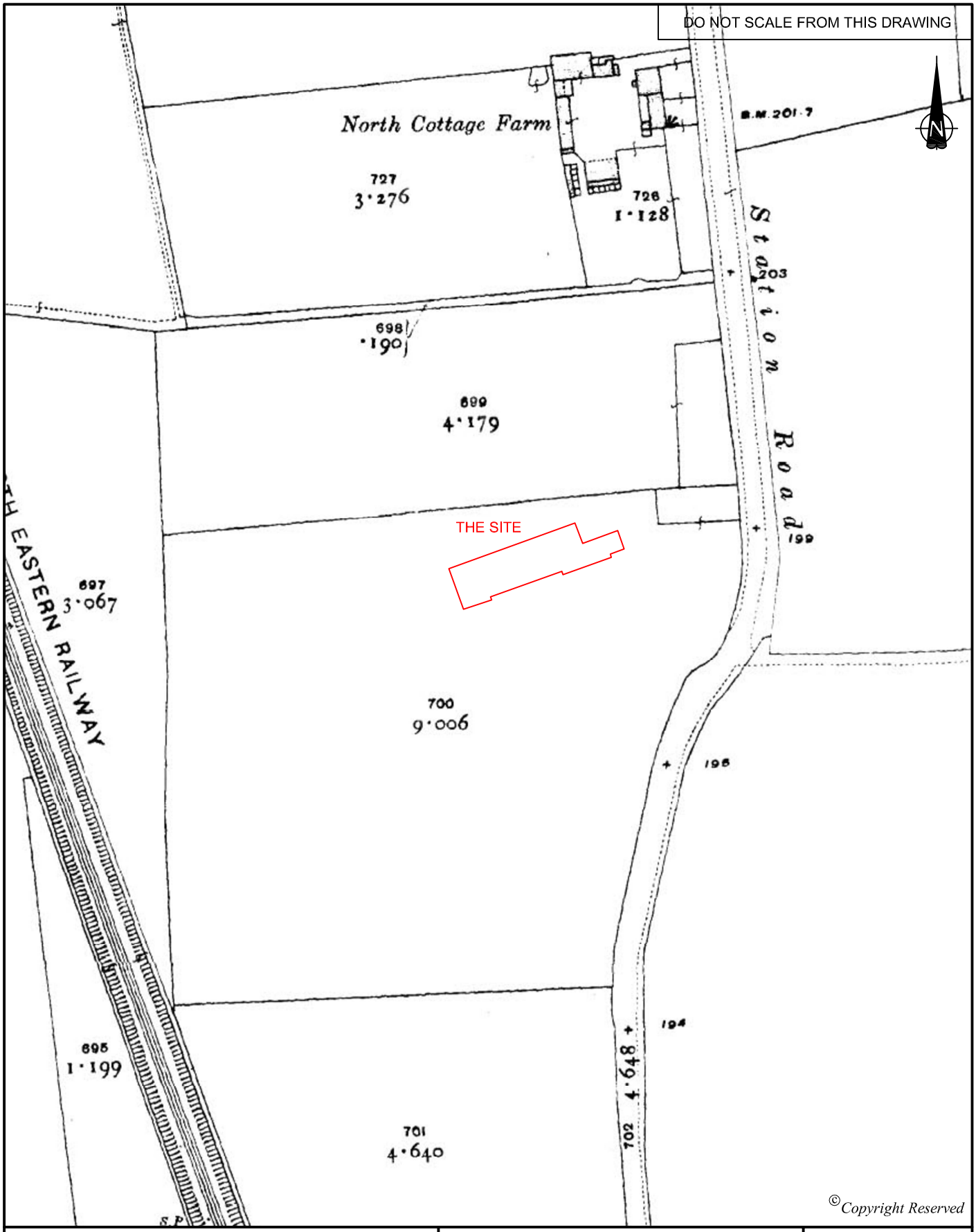

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	DRAWN BY: AB	CHECKED BY: AB	APPROVED BY: DJ

DRAWING TITLE

Figure 4: Third Edition Ordnance Survey Map, 1919
(25 inches to 1 mile)

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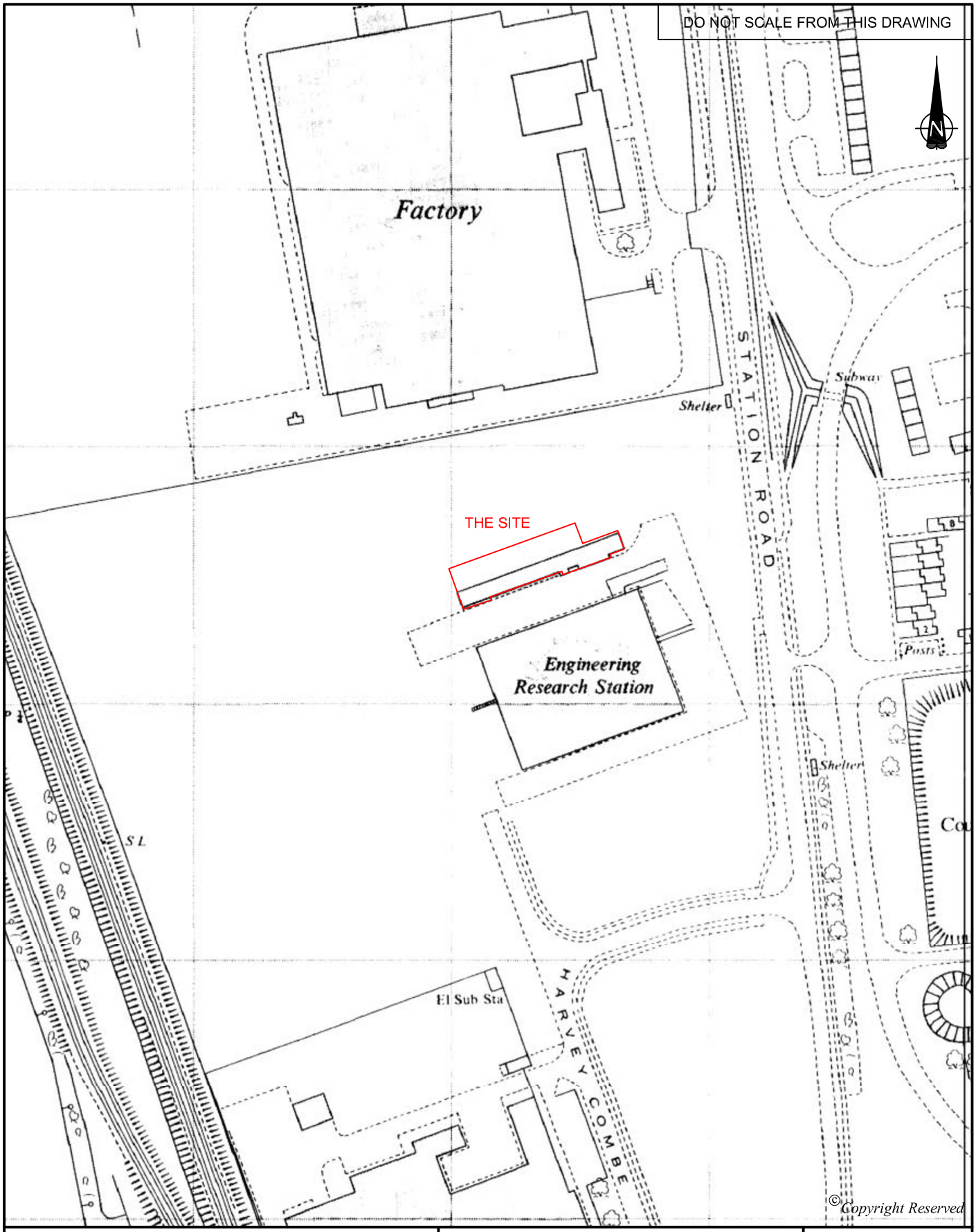

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Figure 5: Ordnance Survey Map, 1968
(1:2,500 scale)

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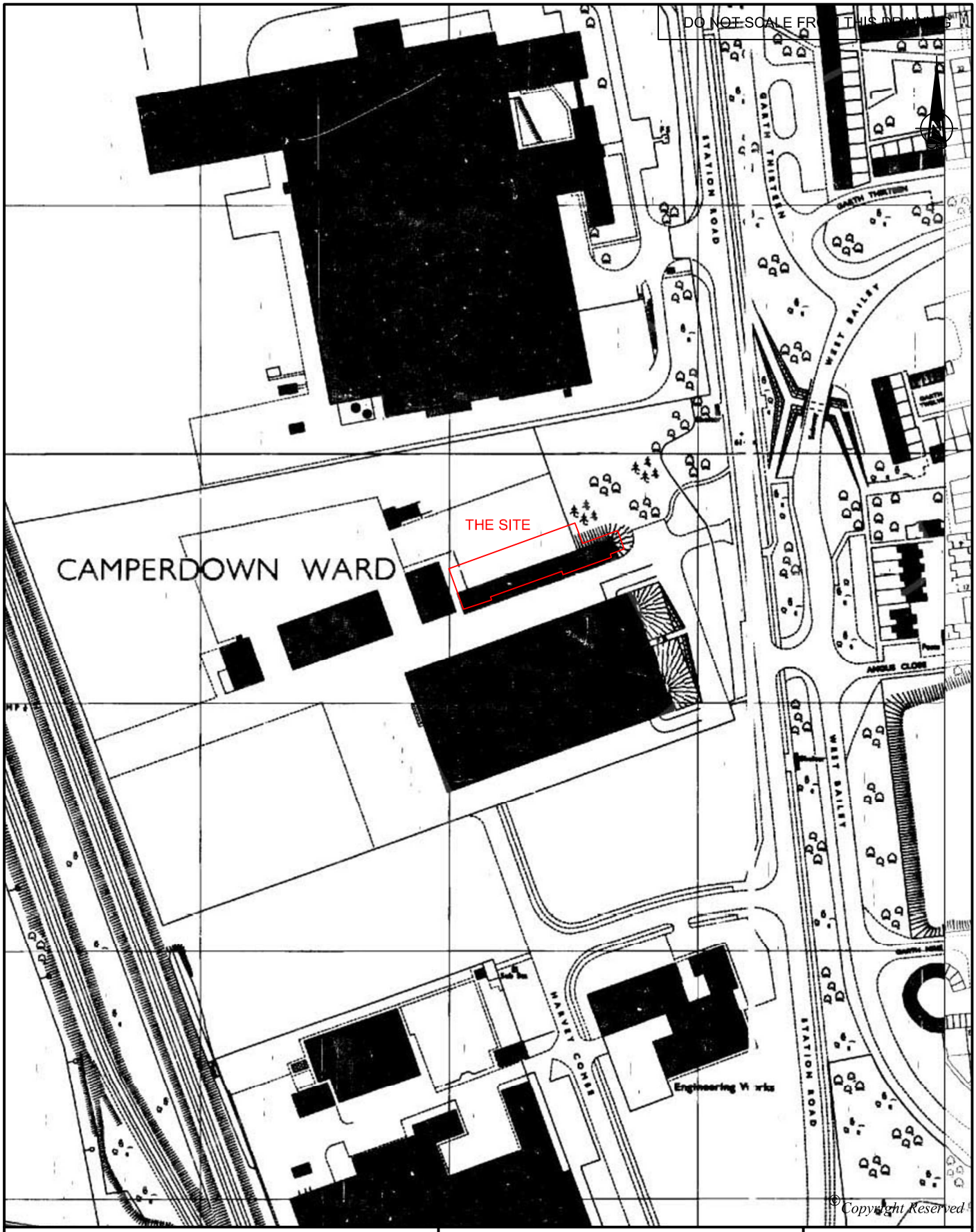

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Figure 6: Ordnance Survey Map, 1973
(1:2,500 scale)

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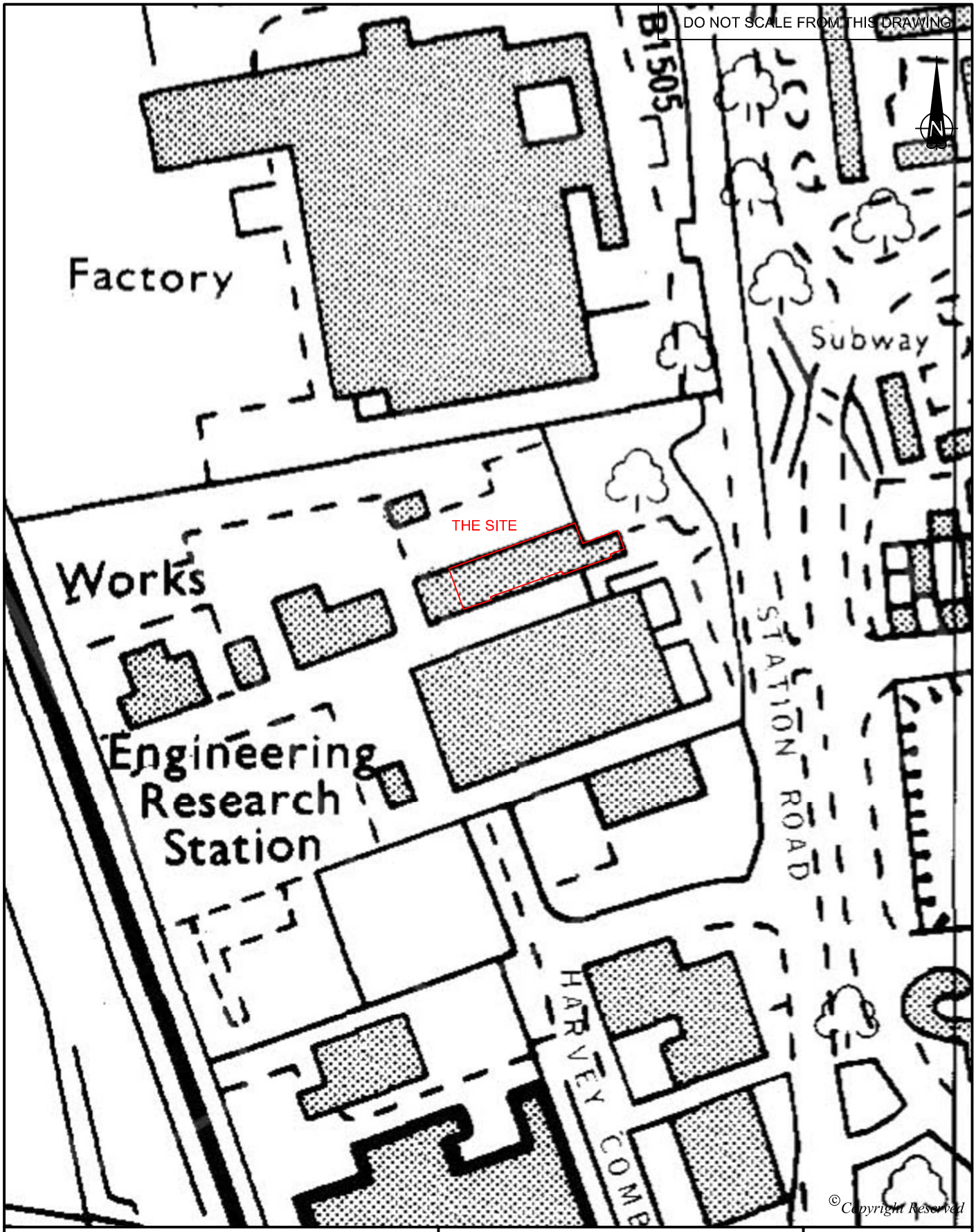

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Figure 7: Ordnance Survey Map, 1985
(1:1,000 scale)

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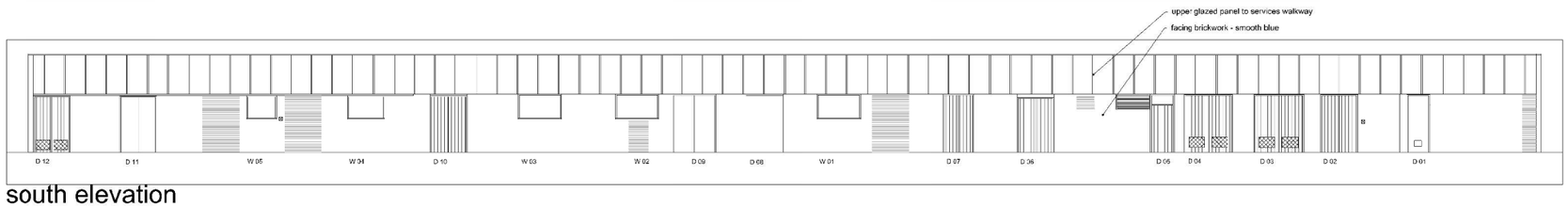
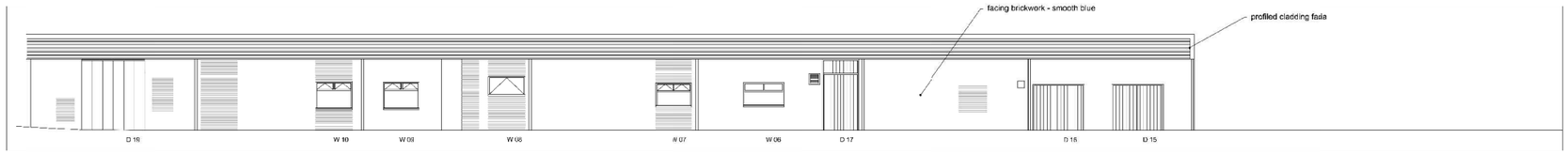
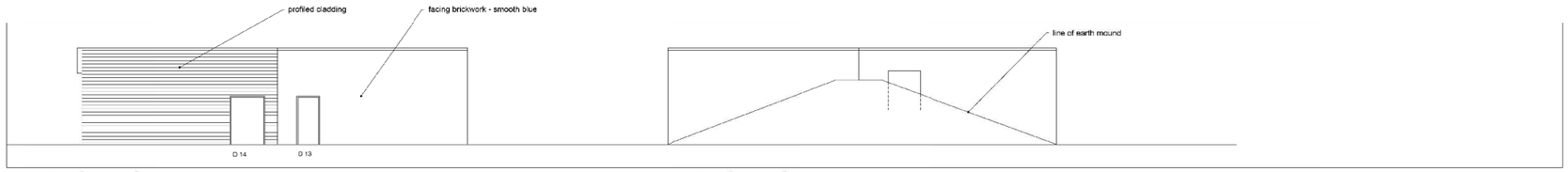


south elevation

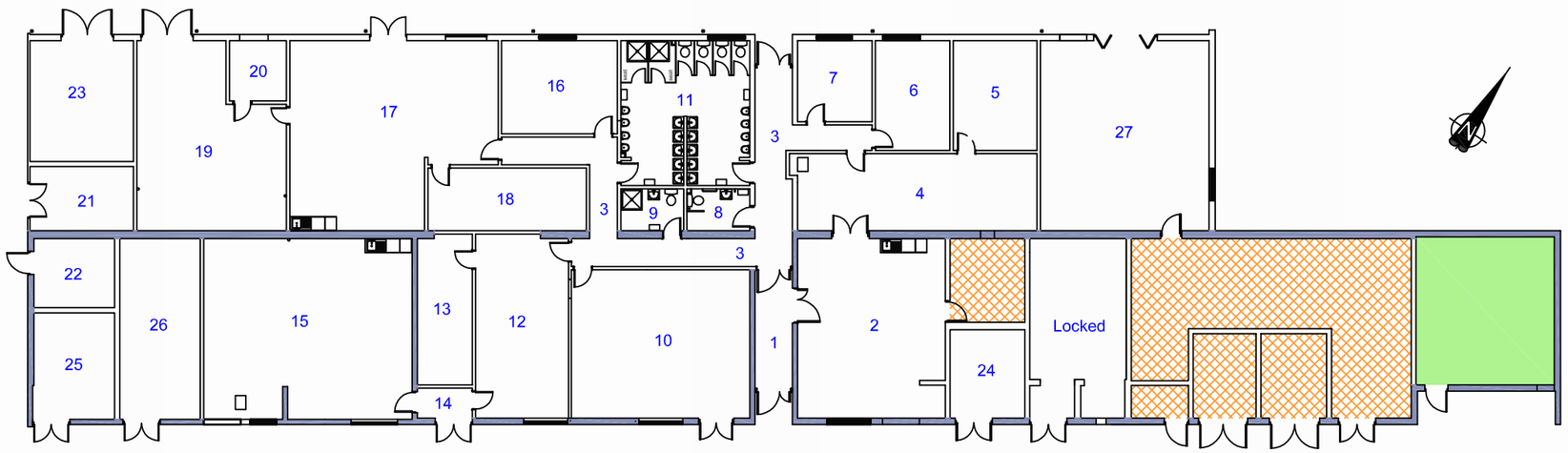


north elevation



west elevation

east elevation



ground floor plan

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KEY:

1 Room number as referenced in text

Possible original purple/grey bricks

Asbestos quarantine

Internal areas not to be included in contract

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D

CLIENT
Kier North Tyneside

PROJECT
Killingworth Depot
Block E Refurbishment
Killingworth, North Tyneside

DRAWING TITLE
Figure 8:
Block E floor plan and elevations

DRG No.	REV
CL12207_008	A

DRG SIZE	SCALE	DATE
A3	1:1,250	Oct 2018

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