

WSI for Archaeological Watching Brief

Building R1

King's Cross Central General Partner Ltd and
Aga Khan Foundation (United Kingdom)

May 2015

King's Cross

**Plot R1 and Plot R5(S)/R3
KING'S CROSS CENTRAL
London N1**

London Borough of Camden

**WRITTEN SCHEME OF INVESTIGATION FOR
AN ARCHAEOLOGICAL WATCHING BRIEF**

27.04.2015

Project Manager: David Divers



Plot R1 and Plot R5(S)/R3 KING'S CROSS CENTRAL London N1

Written scheme of investigation for an archaeological watching brief

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1 Introduction

1.1 Project background

- 1.1.1 This Written Scheme of Investigation (or WSI) for an archaeological watching brief at Plot R1 and Plot R5(S)/R3, King's Cross Central, London N1 has been commissioned from MOLA by Argent LLP on behalf of The client.
- 1.1.2 The site comprised two adjacent plots located on brownfield land, which were formerly part of a railway goods yard. Plot R1 is located to the immediate south of Plot R5(S)/R3. The centre of the site lies at National Grid reference 530153 183739. Ground level across both plots lies at c 24.2m–25.5m Ordnance Datum (OD), representing a slope down from north to south across the site.
- 1.1.3 Plot R1 is being developed to create a new building with a double basement with a basement formation level about 8.0m below modern ground level. Plot R5(S)/R3 is being developed to create a basement car park with a formation level up to 5m below modern ground level. Ground levelling works would take place at both sites prior to construction. The site lies within the King's Cross Central development area which was granted Outline Planning Permission on 22 December 2006 (ref. 2004/2307/P). However, the proposed schemes for Plot R1 and R5(S)/R3 are submitted as a separate, full planning application. This Written Scheme of Investigation has been prepared in support of these submissions.
- 1.1.4 The principal works that require a watching brief are groundworks associated with site preparation and pile probing, and then ground reduction following installation of the perimeter piling, along with any other excavation that may impact on archaeological remains.
- 1.1.5 The main potential archaeological interest on the site is the buried remains of 19th century railway tracks and ancillary railway structures associated with the former railway goods yard. The site also has a low potential for earlier archaeological remains below made ground deposits associated with the goods yard.
- 1.1.6 An archaeological watching brief as defined by the Chartered Institute for Archaeologists is *a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons (see below Section 2.1)*
- 1.1.7 The results of the watching brief will be set out in a report to be issued within six weeks of completing the fieldwork. The site archive will be deposited with the London Archaeological Archive Resource Centre (LAARC) within 12 months of issuing the report. However, if there is significant time delay between the watching briefs on Plot R3 and the watching brief on Plot R5(S)/R3, then two separate reports will be written.
- 1.1.8 This document sets out the methodologies (including Health & Safety) which will be followed during the watching brief and reporting stages. These will follow the Standards and Code of Practice laid down by the Chartered Institute for Archaeologists (CIFA 2014), London region archaeological guidance from Historic England (GLAAS 2014), and Historic England Centre for Archaeology Guidelines where appropriate.
- 1.1.9 Other relevant documents include:

- King's Cross Central Plot R1 Historic environment assessment, MOLA, 22.04.2015 which presented the initial assessment of archaeological potential on the site.
- King's Cross Central Plot R5(S)/R3 Historic environment assessment supplementary report, MOLA, 16/04/2015.

1.2 Planning and legislative framework

- 1.2.1 The Planning and legislative background to the site has been adequately summarised in the previous historic environment assessment for Plot R1 (MOLA 22.04.2015, section 9).

1.3 Archaeological background

- 1.3.1 A detailed description of the geology, archaeology and history of the site was provided in the earlier historic environment assessment for Plot R1 (MOLA 22.04.2015, section 4). A brief resume is provided here:
- 1.3.2 The site has low potential for prehistoric remains. There is no archaeological evidence for prehistoric activity within the site or study area, which lies on the London Clay at some distance from the fertile river terrace gravels.
- 1.3.3 The site has a low potential for Roman remains. No archaeological evidence for Roman activity has been recovered from within the site or study area and it is likely that the site lay within undeveloped open land, or possibly agricultural (pasture) land, in this period. Although there is some evidence to the south of the study area of burial and reused Roman building fabric this does not indicate intense activity that would extent as far as the site.
- 1.3.4 The site has a low potential for early and later medieval remains. There is no evidence to suggest Saxon occupation or activity extended into the site or study area. Similarly, there is no evidence to suggest that development related to the later medieval settlements of St Pancras or Battlebridge extended into the site. This is reinforced by early post-medieval maps, which show that the area of the site remained open fields until the mid-19th century. The site may have lain within woodland, fields or meadows belonging to the settlements, or within open, unoccupied ground.
- 1.3.5 The site has a moderate potential for post-medieval remains. Historic mapping indicates the site was never intensively developed with buildings, or other structures which may have had deep foundations. The site was occupied by rail tracks from the mid-19th century, until its clearance at some point between the mid-1960s and the mid-1980s, when it lay in open waste ground. By the late-1990s the site formed part of a golf driving range. The greatest potential would be for the buried remains of rail tracks and any small ancillary structures such as the foundations of control boxes or signal bases.

1.4 MOLA team and other responsibilities

In the document below the following terms should be understood:

- 1.4.1 *MOLA (Museum of London Archaeology)* is a company limited by guarantee registered in England and Wales with company registration number 07751831 and charity registration number 1143574. Registered office: Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED.
- 1.4.2 *Project Manager* - MOLA office based manager who is the client's principal point of contact and who has overall responsibility for the project budget and

delivery.

- 1.4.3 *Site Supervisor* - MOLA site based manager who is responsible for the direction of the field team. Site supervisors on larger sites will tend to be Project Officers in grade, whilst on other sites they will be Senior Archaeologists. On some sites there may be both a Project Officer and/or one or more Senior Archaeologists.
- 1.4.4 *Archaeologists* - MOLA excavation staff responsible on site for archaeological excavation.
- 1.4.5 *Field Manager* - MOLA office based manager responsible for allocation of staff and supply of equipment and resources.
- 1.4.6 *Health and Safety Compliance Manager* – The MOLA manager with sole responsibility for site inspections, reporting and issuing of recommendations for the Site Supervisor and Project Manager to implement. Reports directly to MOLA CEO
- 1.4.7 *Principal Contractor* - appointed directly by the Client with overall responsibility for site H&S under CDM regulations.
- 1.4.8 *Attendance Contractor* - the contractor responsible for providing such attendances to MOLA as are deemed necessary to carry out their archaeological work (see section 4.2). These might for instance include but not be restricted to shoring, lighting, facilities, fencing, additional labour, spoil removal, etc The Attendance Contractor may be the same as the Principal Contractor, or it may be subcontracted to the Principal Contractor or it may sub-contracted to MOLA.

2 Objectives of the watching brief

2.1 General considerations

- 2.1.1 The purpose of an archaeological watching brief as defined by the Chartered Institute for Archaeologists (CIFA, 2014) as ‘...a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is the possibility that archaeological deposits may be disturbed or destroyed.’
- 2.1.2 A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.
- 2.1.3 The Standard also notes that a watching brief may be the appropriate archaeological response outside the planning process (eg ecclesiastical development, coastal erosion, agriculture, forestry, and countryside management, works by public utilities and statutory undertakers).

2.2 Site specific objectives

- 2.2.1 The archaeological brief is essentially limited to establishing where, if at all, archaeological deposits survive (presence/absence), recording where necessary, and to ensuring that the proposed groundworks do not involve the destruction of any archaeological deposits of national significance.
- 2.2.2 The watching brief will involve a MOLA Site Supervisor in attendance on the Principal Contractor’s (or any other contractor employed by them or the client) activities and able to make such records as may be possible *without interrupting the progress of the contractors’ activities*. This may typically include taking photographs, making quick sketches or written records, retrieval of finds and taking levels on observations. The primary purpose of watching briefs will normally be the identification of the limits of features – size, depth, alignment.
- 2.2.3 Bulk finds will not normally be recovered in the watching brief areas, though finds of specific and unique intrinsic interest may be.
- 2.2.4 The limited nature of the proposed works and the watching brief upon them makes it unreasonable to establish many specific archaeological research objectives. Nevertheless a few research questions can be outlined:
- 2.2.5 What is the nature and level of natural topography?
- 2.2.6 What are the earliest and latest deposits identified?
- 2.2.7 Do any rail tracks or sleepers survive on the site?
- 2.2.8 Is there any evidence for ancillary railway structures such as control boxes or signal bases?
- 2.2.9 Is there any evidence for pre-railway archaeology?
- 2.2.10 What is the extent of modern disturbance?

3 Watching brief methodology

3.1 Archaeological considerations

- 3.1.1 Properly arranged, a watching brief will cause minimal disruption to site works and will take place within agreed constraints. Watching briefs are not recommended in circumstances where important or complex archaeological remains are liable to be discovered, resulting in a risk of conflict between the need to record archaeological finds and the need to allow building works to proceed.
- 3.1.2 MOLA staff will monitor ground reduction on the site by the Principal Contractor, following installation of the perimeter piling. MOLA staff will also monitor any enabling works which may affect railway related archaeology.
- 3.1.3 A MOLA Site Supervisor will monitor the work and record any archaeological remains revealed in the appropriate manner (plans, sections, field notes and/or pro-forma 'context sheets'). Observations will be transformed onto the Ordnance Survey National Grid Projection and heights OD. Any necessary photographic records will be made using digital or conventional media as deemed appropriate. All recording will be carried out in accordance with national standards (CIFA 2014).
- 3.1.4 Subject to 2.2 above, where significant archaeological deposits survive in any area of the proposed groundworks, the contractors will allow the MOLA archaeologist(s) reasonable time and access to record deposits as required.
- 3.1.5 In areas of archaeological interest the excavation and removal of deposits by the Contractor will, as far as possible and subject to 2.2 above, proceed according to the reasonable advice and guidance given by the attending archaeologist.
- 3.1.6 Subject to 2.2 above some areas may require temporary shoring and groundworks might need to be temporarily re-scheduled in order to provide a safe environment for archaeological recording.
- 3.1.7 Provision will be made, at the earliest stage of development programming, for specified blocks of time to be made available for unrestricted archaeological access to areas of groundworks to carry out the watching brief.
- 3.1.8 Any finds of human remains will be left *in situ*, covered and protected. If removal is essential it can only take place under appropriate Faculty jurisdiction, Ministry of Justice (Coroner's Division) licence, environmental health regulations, coroner's permission, and if appropriate, in compliance with the Disused Burial Grounds (Amendment) Act 1981 or other local Act. Prior written notice will also be given to the local planning authority. It will be necessary to ensure that adequate security is provided.
- 3.1.9 Because MOLA is providing a monitoring service to an on-going construction programme, the timing of which can vary considerably, it remains the client's responsibility to ensure that their Principal Contractor informs MOLA no later than one week in advance of the start of any proposed groundworks where a watching brief is required.

3.2 Recording systems

- 3.2.1 A unique-number site code will be agreed with the Museum of London

Archaeological Archive (LAARC).

- 3.2.2 The recording systems adopted during the investigations will be fully compatible with those most widely used elsewhere in London, and those required by the Archive Receiving Body, the Museum of London.

3.3 Treatment of finds and samples

- 3.3.1 Where necessary, a strategy for sampling archaeological and environmental deposits and structures (which can include soils, timbers, animal bone and human burials) will be developed in consultation between MOLA, the client and the local Planning Authority. Subsequent on-site work and analysis of the processed samples and remains will be undertaken by MOLA specialists.
- 3.3.2 All retained finds and samples will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in a proper manner and to standards agreed in advance with the Museum of London.
- 3.3.3 All finds of gold and silver, or other objects definable as ‘treasure’, will be removed to a safe place and reported to the local Coroner according to the procedures of the Treasure Act 1996 and the Treasure (Designation) Order 2002. Where removal cannot be effected on the same working day as the discovery suitable security measures will be taken to protect the finds from theft.
- 3.3.4 Advice will be sought from the LPA Archaeological Advisor and the Historic England Regional Archaeological Science Advisor throughout the project, as appropriate.

3.4 Ownership of finds

- 3.4.1 Whereas ownership of any finds on the site lies with the landowner, it is necessary that the landowner gives the necessary approvals, licences and permissions to donate the finds to the Museum of London, to enable that body to carry out its obligations to curate the finds, in perpetuity, as part of the archaeological Archive from this site.
- 3.4.2 These approvals, licences and permissions shall be confirmed by the completion of the relevant Deed of Transfer form.
- 3.4.3 The client (or their agent) will make arrangements for the signing of the Deed of Transfer Form by the client or, if the landowner is different to the client, by the landowner.
- 3.4.4 Notwithstanding the above, subsequent arrangements may be made if required between the landowner and the client and the Museum for the conservation, display, provision of access to or loan of selected finds in or near their original location.

3.5 Reports and archives

- 3.5.1 A *Watching Brief report* will be made available to the client and the Local Planning Authority within six weeks of the completion of fieldwork.
- 3.5.2 A short summary of the results of the watching brief will be submitted to the Greater London HER and NAR (using the appropriate OASIS archaeological report form) and for publication in an appropriate academic journal.
- 3.5.3 Details of the project will be submitted to the online database maintained by the Online Access to the Index of Archaeological Investigations (OASIS)

Project

- 3.5.4 GIS data will also be made available to the GLHER.
- 3.5.5 Finds and records will be curated by the Museum of London and be available for public consultation in a site archive compatible with other archaeological archives in the Museum of London and adhering to standards set out in the following:
- Archaeological Archive Forum, Archaeological Archives: a guide to best practice in creation, compilation transfer and curation (2011)
 - Museum of London, General Standards for the preparation of archaeological archives deposited with the Museum of London, (2009),
 - Museums and Galleries Commission's Standards in the Museum Care of Archaeological Collections (1992),
 - Society of Museum Archaeologists' draft Selection, Retention and Dispersal of Archaeological Collections (1992).
 - Society of Museum Archaeologists (1995) Towards an Accessible Archive. The Transfer of Archaeological Archives to Museums: Guidelines for Use in England, Northern Ireland, Scotland and Wales.
 - United Kingdom Institute for Conservation Guidelines for the preparation of excavation archives for long term storage (1990)
- 3.5.6 Copyright of the written archive will be vested in the Museum.
- 3.5.7 Pursuant to these agreements the archive will be presented to the archive officer or relevant curator of the Museum within 6 months of the completion of fieldwork (unless alternative arrangements have been agreed in writing with the local planning authority).

4 Programme, staffing and attendances

4.1 Timetable and staffing

- 4.1.1 The timing and overall duration of the archaeological watching brief on the groundworks will be determined by the contractor's programme and the nature and extent of any surviving remains. It is envisaged that a Senior Archaeologist will monitor the groundworks, with Archaeologists to assist with any recording work if required. Other archaeological specialists may be called in if necessary.

4.2 Attendances

- 4.2.1 For watching briefs, the attendances required by MOLA tends to be minimal as archaeologists are in fact attending the on-site works. However, some provision for welfare and working conditions will need to be anticipated. Some or all of the following attendances may be required and supplied by the client or client's agent.
- 4.2.2 Shoring: the need for the shoring of trenches will be determined by a competent person taking into account ground conditions, groundwater conditions, weather conditions, nature of work to be undertaken, how long the work will take, adjacent structures. The shoring will be installed and maintained in accordance with CDM 2007 and HSG 150 throughout the occupancy of the site by a competent person employed by the Principal Contractor/client or his agents. The shoring will be inspected by a competent contractor (Not MOLA) before each shift, any event which may have affected the strength of the shoring, or any un-intentional falls of material or equipment.
- 4.2.3 Where mechanical or electric hoists are to be used in shored shafts, MOLA Health and Safety policy requires staff working in shafts less than 4m x 4m to leave the shaft before hoisting of buckets takes place and not to re-enter until the bucket is lowered back into position. Time for such evacuation will not form part of excavation programme. Beyond a depth of 3m within such shafts gas monitoring equipment will be required to ensure appropriate air quality for those working there. Where mechanical or electrical hoists are in use in larger excavation trenches, the area in which the hoist is in use must be clearly demarcated and no staff will enter this area while the hoist is being raised or lowered.
- 4.2.4 Safety guard-rails and suitable access points into the site and areas of excavation, away from any site traffic and machinery.
- 4.2.5 Ladders into all areas of excavation when the excavated depth requires such access.
- 4.2.6 If ground-water is encountered in the trenches, adequate pumps will be required to remove it in order to complete the excavations.
- 4.2.7 If necessary, tungsten halogen lamps (500W minimum) with 110-volt transformer, adequate cabling, and power supply.
- 4.2.8 A suitable security system to operate overnight, weekends and holidays.
- 4.2.9 Labourers to assist in the removal of spoil from deeper areas of excavation.

5 Funding

- 5.1.1 The developer has already agreed to fund the appropriate archaeological watching brief coverage and these costs will be agreed in a separate document.

6 Bibliography

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7 ANNEX: MOLA Welfare, Health & Safety Method Statement

A Welfare, Health & Safety Method Statement has been prepared by MOLA to accompany this wsi but will be printed out and submitted separately as appropriate.

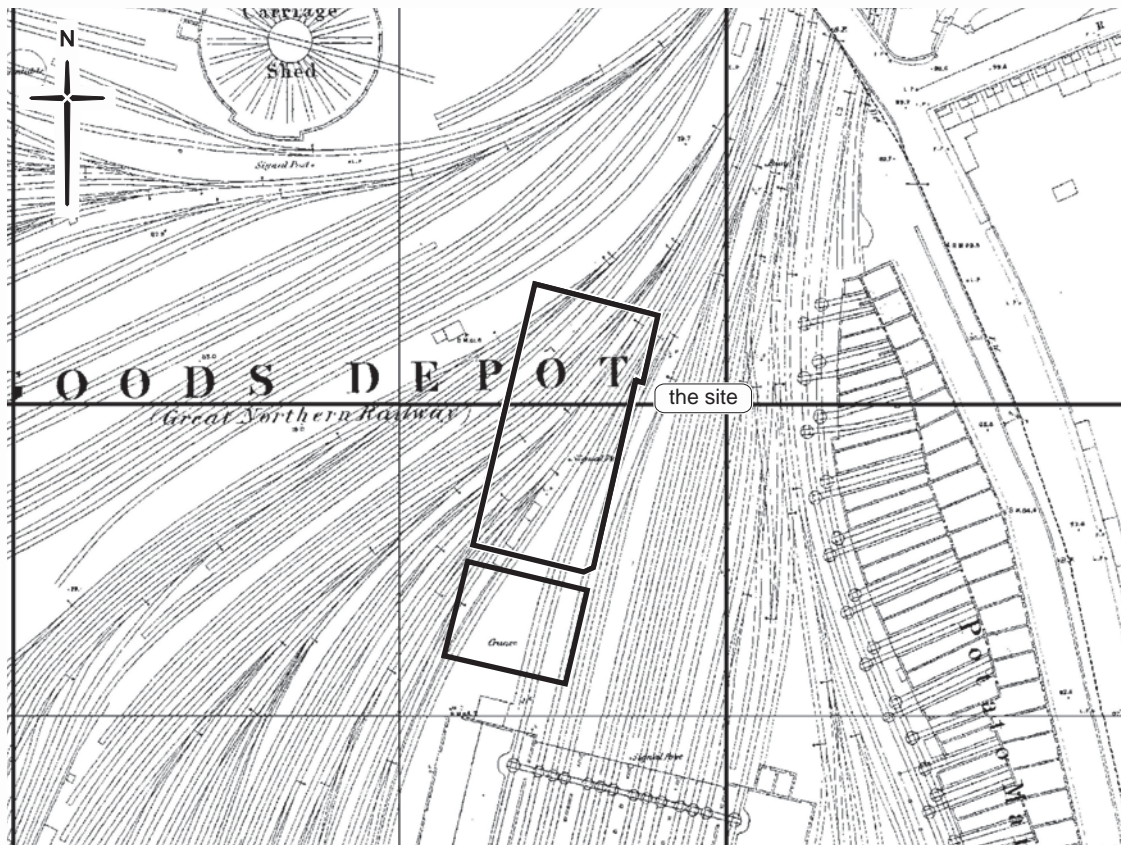
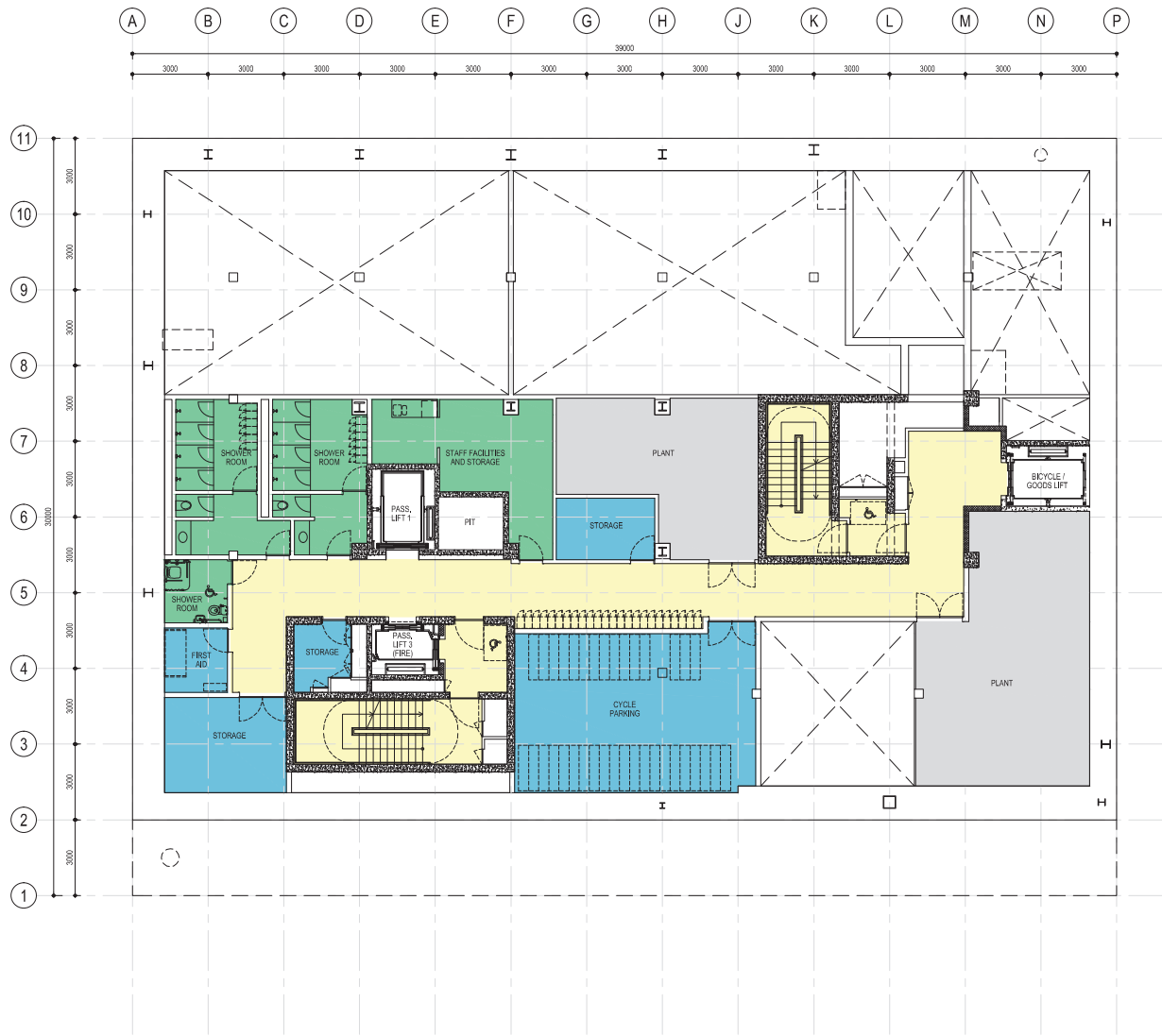


Fig 2 Ordnance Survey 1st edition 6": mile map of 1873-74

- KEY**
- COMMERCIAL UNIT
 - EDUCATION
 - CIRCULATION
 - SUPPORT SPACES
 - PLANT / REFUSE / MER / SER / IT
 - STORAGE / CYCLE PARKING
- roof**
- BROWN ROOF
 - PV PANEL



KCCLP/AKF (UK) BUILDING R1

FOR APPROVAL

Fig 4: Proposed basement plan for Plot R1

STRUCTURAL ENGINEERING CONSULTANT :
Expedition Engineering
Marley House First Floor, 320 Regent Street, London W1B 3BB, United Kingdom

MEP CONSULTANT :
ARUP
Atkin Mansarou, 13 Fitzroy Street, London W1T 4BG, United Kingdom

REVISIONS	

DRAWING TITLE :
BASEMENT MEZZANINE FLOOR PLAN



DATE : APR 21, 2015
SCALE AT A3 : 1/200
SHEET : A2-13

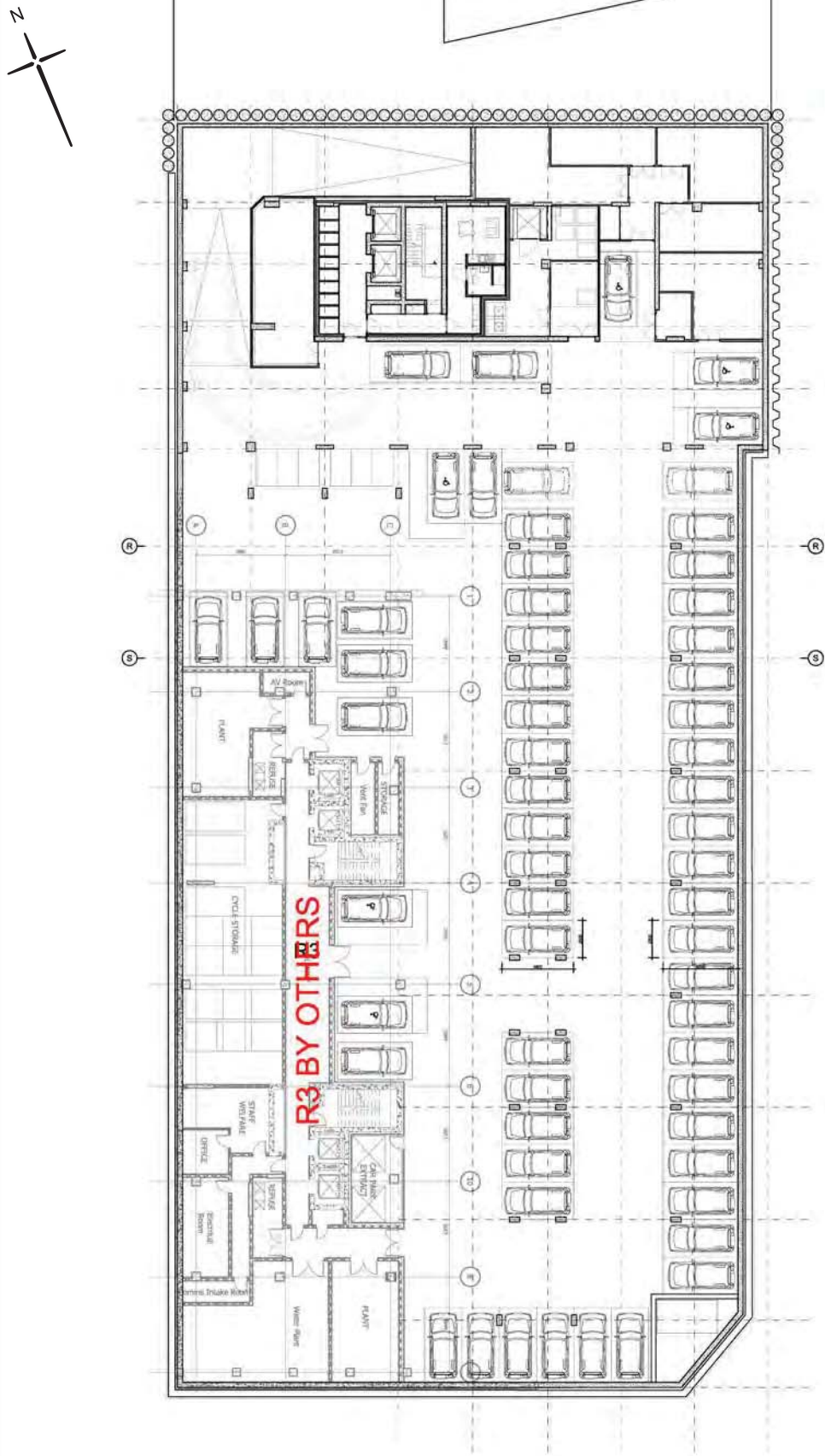


Fig 4 Proposed plan of Zone R West basement car park (Plot R5(S)/R3)

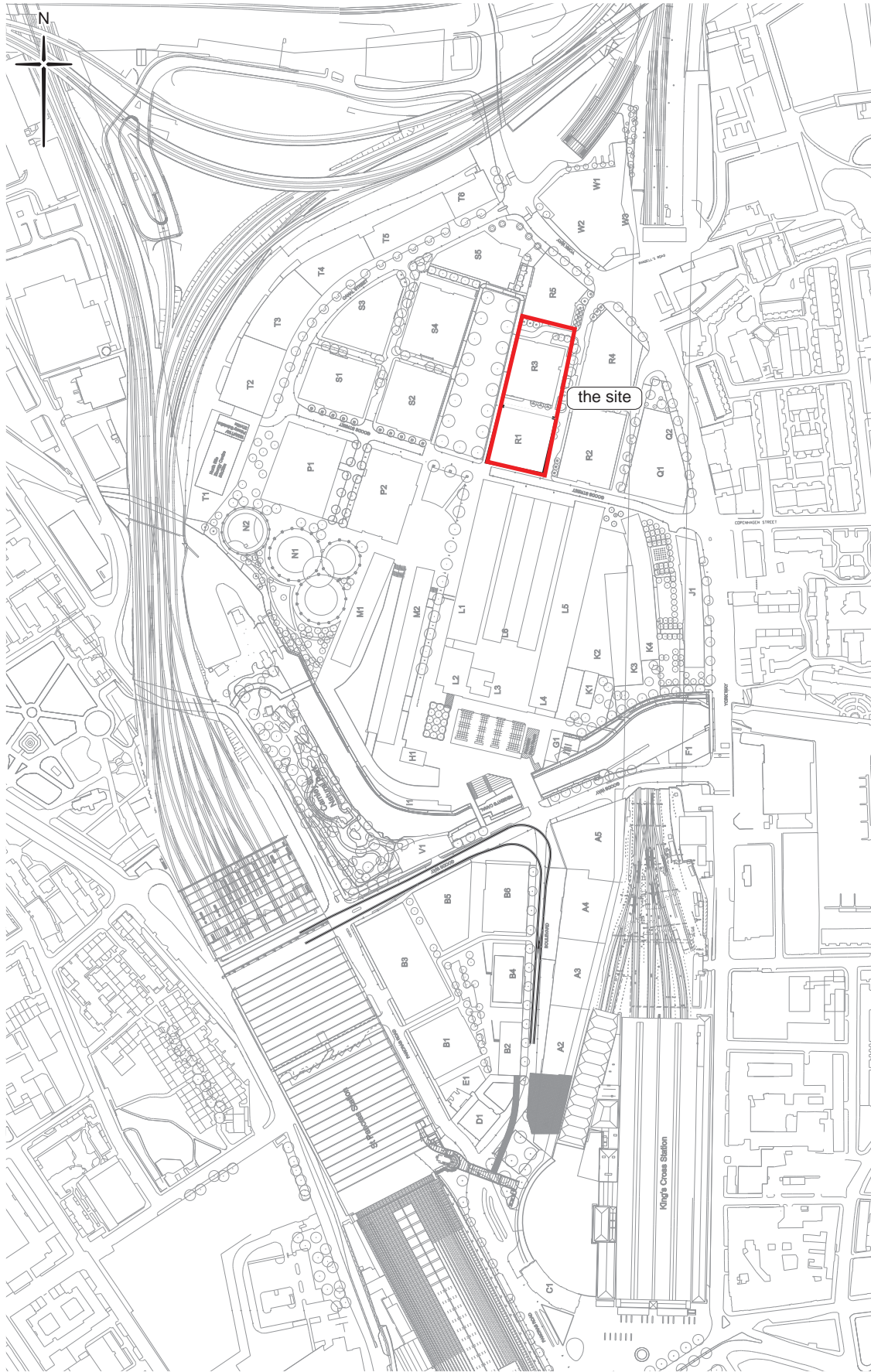


Fig 5 The site location within the King's Cross Central development

King's Cross

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