Building Recording & Archaeological Specifications & Written Schemes of Investigation

Building E1
Incorporating the Southern Stanley Building

King's Cross Central General Partner Ltd

July 2012

King's Cross

Contacts

IHCM

45 Crescent Lane
London
SW4 9PT

T: +44 (0)207 636 1531
F: +44 (0)207 755 2121

Introduction

This document includes firstly, the Archaeological Specification and Written Scheme of Investigation for Zones B and E (2010) and secondly, the Building Recording Specification and Written Scheme of Investigation for the Stanley Buildings (2007), both by IHCM Ltd and Pre-Construct Archaeology Ltd.

These documents are submitted to discharge Conditions 55 and 56 of the King's Cross Central Outline Planning Permission (ref. 2004/2307/P), in relation to the Reserved Matters submission for Building E1, incorporating the Southern Stanley Building.

The Archaeological Specification and Written Scheme of Investigation in Part 1.0 of this document was originally submitted and approved in relation to the first Zone B basement scheme (ref. 2010/0862/P). It was subsequently resubmitted and approved for the Zone B Enabling Works (ref. 2011/3564/P) and Reserved Matters for Building B3 (ref. 2011/4090/P), the revised Zone B basement (ref. 2011/4743/P) and Building B1 (ref. 2011/4713/P). However, this is the first time it has been submitted for Development Zone E.

Similarly, the Building Recording Specification and Written Scheme of Investigation was submitted in 2007 and approved as part of the Enabling Works submission for the realignment of Pancras Road (ref. 2007/0729/P). Works to record the Northern Stanley Building were undertaken in accordance with this document prior to its demolition in the same year. No building recording has taken place for the Southern Stanley Building.

Archaeological Specification & Written Scheme of Investigation

1.0

Argent (King's Cross) Ltd

King's Cross Central - Southern Area

Archaeological Specification for Development Zones B and E

February 2010

IHCM Ltd
45 crescent Lane,
London SW4 9PT
Tel +44 (0)20 7636 1531 Fax +44 (0)20 7755 2121
www.arup.com

Job number

Contents

Figures

Argent King's Cross Ltd
King's Cross Central - Southern Area
Archaeological Specification for Development Zones B and E

IHCM Ltd
February 2010

1 Introduction

1.1 Objective of this Specification

Enabling and construction works in the ground are being brought forward as part of the development of Development Zones B and E, which lie in the southern area of the King's Cross Central (KXC) site. Zone B is broken down into 6 separate plots referred to as B1, B2, B3, B4, B5 and B6, which sit around a new piece of principal public realm referred to as Pancras Square. Zone E includes one new building, E1, which will wrap around the existing Grade II listed Stanley Building South. The buildings in Zone B will share a common basement. The basement for Building E1, although separate to the shared Zone B basement, will be accessed via the same. Details of these works will be submitted as reserved matters pursuant to conditions attached to the KXC outline planning permission dated 22 December 2006 (ref: 2004/2307/P), (the 'Outline Planning Permission'). Figure 1 shows the location of the Development Zones and plots.

This Archaeological Specification relates to archaeological mitigation works for **Development Zones B and E.** The mitigation proposed for these zones is consistent with that proposed for all of the plots south and north of Regent's Canal, in order to achieve a holistic approach and ensure the implementation of consistent sets of archaeologicxal investigation objectives and methods, with combined post-site documentation outputs.

The other KXC Development Zones will be separately addressed as buildings in these zones are brought forward for Reserved Matters Approval.

The KXC Environmental Statement submitted with the outline planning application characterizes the Southern Area prior to first phase urban development and then through the many episodes of change and adaptation during the 19th and first half of the 20th centuries – as a dynamic hub of activity between King's Cross and St Pancras Stations, and economic and social decline in the latter decades of the 20th century.

Heritage documentation and mitigation objectives related to the existing Gasholder No. 8 guide frame, are addressed in a Specification and Written Scheme of Investigation for Building Recording and Analysis for the Gasholder No.8 Guide Frame, submitted and approved (application ref. 2008/5668/L) pursuant to Condition 3 of Listed Building Consent 2004/2315/L for the dismantling of the same structure. The recording standards set out in the documents are stated to include the bell and the tank as and when works to these elements are undertaken.

A Specification and Written Scheme of Investigation for Building Recording and Analysis was also submitted and approved in relation to the now demolished Stanley Building North (application ref. 2007/0769/L) pursuant to Condition 3 of Listed Building Consent 2004/2313/L for the demolition of the same building. A separate Specification and Written Scheme of Investigation will be submitted for building recording works relating to Stanley Building South as part of any Reserved Matters submission relating to the same.

1.2 Outline Planning Conditions

Conditions 56 of the Outline Planning Permission requires a programme of 'Archaeological Investigation and Mitigation' to be carried out during the implementation of the scheme. Condition 56 requires:

"the implementation of a programme of archaeological work in accordance with a written scheme of investigation"

For the Southern Area, an Archaeological Watching Brief process was determined to be the appropriate mitigation measure, as identified within the Environmental Statement. This specification sets out the strategy to ensure archaeological objectives are achieved to satisfy Condition 56 and implement the Environmental Statement.

1.3 Summary History of King's Cross Central

In summary, the developmental history of the KXC site, including Zones B and E, is outlined below. It is to be noted that the Sites and Monuments Records and research undertaken for the KXC Environmental Statement do not allow a precise characterisation of the pre-Industrial period archaeological history:

1. Wooded landscape in prehistoric times generally used for ad hoc activities with increasing small clearance for farming from Neolithic times onwards.
2. Agricultural landscape in Roman to Post-Medieval times on the eastern flanking slope of the Fleet Valley.
3. 17th and 18th century shallow quarrying for weathered clayey soils for brick making.
4. Construction of the Regent's Canal in the opening decades of the 19th century.
5. Early 19th century establishment of a gas industry south of Regent's Canal.
6. Phased urban development comprising terraced housing with some areas of commerce and a little light industry, with replacement with some blocks of flats.
7. The mid 19th century creation of the Great Northern Railway Goods Depot then involving the following activities in the Northern Area of KXC:
   - In the north, the terracing back of the gentle south facing slopes to create a sub-horizontal ground surface.
   - In the south, the raising of the ground level with spoil from the north end of KXC, to complete the level landscape as it approaches the Regent's Canal.
   - Construction of an arrangement of buildings servicing the railway industry sited to the south.
   - Construction of a vast network of railway tracks throughout the North Area of KXC.
8. A period of stability of railway, and urban functions from the late 19th century through to after World War II.
9. Early 20th century decline of the gas making industry.
10. Some damage in World War II as a result of German bombing.
11. Decline of the railway functions in the 1960s -1980s with phased demolition of the more major buildings in the Northern Area and removal of many areas of railway sidings.
12. A series of temporary uses in the surviving buildings and open areas. Removal in 2001-3 of all residual railway related buildings and infrastructure. Removal of Stanley Building North and Culross Buildings and upgrading of the German Gym.
13. Large-scale ground disturbances associated with the construction of the Channel Tunnel Rail Link out of St Pancras Station, the LUL Northern Ticket Hall and the KXC Shared Service Yard. Removal of the Triplet Gasholder guide frame. Some remodelling of Pancras Way.

To assist in relating the present-day site topography to its former railway and other uses, Figure 2 is included in this Specification. It shows the site in 1896, at a time when it had reached maximum development and after which changes are relatively minor.

1.4 Background History of Development Zones B and E

1.4.1 Summary

Development Zone B is substantially the former gas works.

The start of the industrial development of the area was initiated by the insertion of the Regent's Canal in the first quarter of the 19th century (opened 1820). This permitted the immediate development of the Pancras Works south of the canal, roughly opposite the Eastern Goods Yard. Further south, generally between King's Cross Station and St Pancras Station, mixed residential and commercial development occurred at this time. As the gas industry expanded and the great railway works were inserted so there was piecemeal changes then some major removal of the residential and light commercial urban fabric.

The gas works ceased making coal gas in 1904, with a brief revival in 1907, and its manufacturing plant was demolished in 1911. The gasholders remained in use, linked to trunk mains.

Zone E and the south west corner of Zone B formerly comprised an area of residential development. Today, only Stanley Building South and the immediate hard landscaping survives. The Stanley Buildings originally included five blocks of approximately 20 m by 12 m. They were purpose-built in 1864-5 as low-rental 'philanthropic' housing by the Improved Industrial Dwellings Co. One five-storey block remains, identified here as Stanley Building South.

Four of the former blocks have been demolished pursuant to Listed Building Consent 2004/2313/L, in order to accommodate the extension of St Pancras Station for the Channel Tunnel Rail Link terminal and for the realignment of Pancras Way.

Stanley Building South is currently unoccupied. It is listed Grade II and lies within the King's Cross St. Pancras Conservation Area.

The Stanley buildings had no basements. Consequently, earlier made ground survives here and forms part of the infill of the historic River Fleet valley.

1.4.2 General Gas Industry Site History

The former gasworks within the KXC site, locally known as the Imperial Gasworks or Pancras Works, was built as the principal works of the Imperial Gas Light and Coke Company. When opened in 1824 this was the largest gasworks in the world. The works was sited alongside the Regent's Canal. It used coal initially delivered to the works by the canal and then later via a viaduct across the Regent's Canal from the Goods Yard. The gas was produced in large retort houses. This was then stored in the gasholders on the site, which acted as reservoirs so that an adequate supply of gas was always available when required. The Gas Light and Coke Co. acquired the Imperial Gas Light and Coke Company in 1876.

The consumption of gas was steadily climbing throughout the second half of the 19th century, in response to London's rising population and prosperity and falling costs in the making of gas. Proportionate increases in gas storage capacity were needed to meet peak demands at all the company's works. With connection by trunk mains to the company's huge Beckton gas works supplementing local production, several of the Pancras gasholders came to be enlarged in the 1880s. By 1900 the works occupied 11 acres (4.6 hectares), of which more than half was devoted to gas storage.

Gasholder No. 8, centrally placed in Zone B, was designed by John Clark, the engineer of the Pancras Works, and its ironwork was built by Westwood and Wrights in 1883. Both they and Clark had been responsible for the 'telescoping' of the three 'Siamese Triplet' Gasholders Nos. 10, 11, and 12, completed in 1880 and located to the north west of Zone B, where the modern canopy of St Pancras Station is now sited. The brick tank of No. 8, set deeply into in the ground, had been constructed c.1853 for a previous gasholder, and was now deepened by 2 feet to 28 feet (8.5 m), still considerably less than the exceptional 55 feet (16.8 m) depth of the tanks of the triplet group. So the new bell of No 8 was given three telescopic 'lifts', within a guide frame some 83 feet (25.3 m) tall, compared with the two lifts, within guide frames 108 feet (32.9 m) tall, of the reconstructed triplet group. With different proportions, the guide frame of No. 8 has only two tiers of columns and girders compared with the three tiers of the triplet group.

All of these guide frames were based stylistically on those of John Clark's father, Joseph, some of whose work may be seen at the Bethnal Green and Bromley-by-Bow gasholder stations.

Although No. 8 is the only gasholder guide frame still standing today on the gasworks site, it may be noted here that in 1886-7 two other gasholders were enlarged and two more were added, with a new style of guide frame in lattice girder construction (with resemblance to the wind girders of St Pancras Station trainshed). There were then no fewer than nine substantial gasholders on the site, seven of which remained until the commencement of the CTRL works in 2001. Several of the gasholder tanks are still found within the ground of Zone B, founded at various depth and backfilled. Developed piecemeal on a constricted site, the holders were smaller and more attuned to the urban setting than some other London gasholders of the period. They presented a remarkable townscape - and landmark for people approaching St Pancras Station by train.

The Pancras Works ceased to make gas in 1904, but the gasholders continued in use, storing town gas piped from other gasworks. In the 1970s town gas was replaced by natural gas brought ashore from the North Sea, although again the gasholders continued in use.

The high-pressure national gas grid established first in the 1960s for the distribution of natural gas has an inherent storage capacity and flexibility, allowing a considerable and ongoing reduction in the national stock of gasholders. However, high-pressure mains cannot be used in built-up areas, and meeting the peaks of demand in large cities remains a problem. The removal of several of the gasholders, necessitated by the alignment of the CTRL and sanctioned by the CTRL Act of 1996, required an augmentation of the regional gas supply network. With that achieved, all of the Pancras Works gasholders were decommissioned and purged of gas in 2000.

1.4.3 Immediate Archaeological Features Associated with Gasholder No. 8

The depth of the brick tank, recorded at 28 feet (8.5 m), is one-third of the full height of the bell, which is some 25 m. To reduce the amount of excavation, it was normal to leave the soil in the central portion of the tank in place, in the form of an inverted cone or "dumpling" to ensure stability of the soil. The bottom of the tank and the sloped sides of this 'dumpling' would be sealed with a layer of puddled clay or concrete if necessary, to prevent leakage of water out of the tank. On this site, the tank will assuredly cut into the underlying impermeable London Clay, and so these surfaces are likely to have received only a thin 'blinding' of concrete.

The wall of the tank will increase in thickness with depth, stepping out several times on the outer face to provide adequate resistance as a compressive ring against earth pressure, which would otherwise tend to force the walls inwards. Vertical piers to support the guide columns will project behind the wall, probably capped with a massive padstone. The inner face of the wall will be a uniform cylinder with vertical iron guides attached to the face. A central pillar in the tank provides support to the bell trusses when the tank is empty.

Immediately adjoining the tank on its south-west side, there is a circular brick well for the pipes that descend beneath the bottom of the tank wall to convey gas into and out of the gasholder bell. This had until 2001 a traditional hand-operated pump, with flywheel, for removing any accumulated water.

1.4.4 Other Gas Industry Facilities Associated with Gasholder No. 8 in Development Zone B

According to Ordnance Survey mapping dated 1871, Development Zone B included the following elements of the gasworks, remnants of which may still be in the ground on site and along the proposed Boulevard and the present day Goods Way:

1. A significant portion of one of the major Retort Houses.
2. Sets of Condensers and Tar Wells.
3. Sets of Boilers and Pumps and Hydraulic Mains.

4. Sets of Scrubbers.
5. Sets of Purifiers.
6. Store House.
7. Crushing House.
8. Gas delivery pipes and machinery.
9. Wells and pumps for topping up the Gasholder tanks.
10. Coal, clinker and coal waste holding pens.
11. A large variety of small cylindrical tanks
12. Offices/stores
13. Associated hard landscaping.

1.4.5 Urban History and Other Heritage Resources within Blocks B and E

Limited development on the southern part of the KXC site took place in the late 18th century, stimulated by 'The New Road', to the south of KXC. The development was substantially one of low quality two storey terraced housing, the layout of which responded to field and property boundaries, the somewhat ad-hoc exploitation of soils for brick/tile making, the Fleet Sewer, and the Small Pox Hospital grounds (under King's Cross Station). Today, the orientations of the German Gymnasium and Stanley Building South, and their surrounding local roads, are based on this first phase development pattern.

There was further piecemeal expansion of the King's Cross residential area in the second and third decades of the 19th century, including the areas of terraced housing bordering Suffolk Street, Cheney Street, Ashby Street, Northampton Street and Norfolk Street south of the gas works, with Upper Edmond Street to the east. These streets were generally located towards the southern end of Development Zone B. This street pattern was diagonally placed across the previous agricultural field pattern.

The housing was typified by 2 storey structures and those on Suffolk Street West possibly having half basements. The houses generally fronted the roads and had rear extension kitchens and with 'privies' set at the bottom of small yards/gardens.

The existing housing between the two stations remained for a few more years. The erection in 1864-5 of the original five blocks of Stanley Buildings, an early project of Sir Sidney Waterlow's philanthropic and profit-restricted Improved Industrial Dwellings Company, responded to existing poor local housing conditions and the imminent dispossession of sites by the Midland Railway. The German Gymnasium, part of a contemporaneous redevelopment on Pancras Road, reflected other aspects of mid-Victorian Society.

Further platforms and sidings were added to the west of King's Cross Station before 1894 including new "docks" for express milk traffic and for horses and carriages (which subsequently became a Motor rail terminal). This facility was within Zone B at the south end. To improve road traffic circulation around the station, a new bridge was built across the enlarged "throat" of the station, with a western approach along the southern edge of the gas works. This was officially named Battle Bridge Road in 1873, possibly in advance of its construction. These works, set at a lower level related to rail tracks entering from the north where joining with the main rail routes passing under the Regent's Canal. The Milk Dock displaced the remaining pocket of back-street houses so that the railway extended west as far as Cheney Street.

By 1894 most of the residential streets had been swept away leaving the Stanley Buildings to the west and the German Gymnasium at the south end of this KXC development area.

Pressure on land made it more difficult for railway workers to find decent affordable housing close to their place of work, and to that end, the Great Northern Railway in 1891-2 erected a tenement-style block of flats along the new Battle Bridge Road called the Culross Buildings.

It was accompanied by a mission hall, Culross Hall, one of three provided by the company for it's employees spiritual needs. The Culross Buildings were totally unrelated to the few remaining earlier buildings in the area, such as the German Gymnasium (1864/5) and the Stanley Buildings (1864/5), and were demolished in 2008 pursuant to Conservation Area Consent 2004/2317/C.

1.5 Potential Archaeological Resources in Development Zones B and E

Related to the two Development Zones are identified the following potential industrial and earlier aged remains, generally noted from north to south:

Block/Plot Reference	Potential Industrial Remains
B3 and B5	Foundations of the Gasholder No. 8 - brick wall to the north.
B5	Gasholder No. 8 foundations.
B3, B4, B5, B6	Gasholder No. 8 buried infrastructure (with some connections to above ground features including an upstanding pump).
B1, B3, B4, B5, B6	Foundations and complex Infrastructure associated with the other gasholders, notably, wells for water used within the gasholder tanks and lots of interconnecting metal pipes.
Mostly B5 and B6	Buildings and related artefacts associated with the gas manufacturing process (see Section 1.4.4 above).
Whole of Zone B	Soil formations associated with the gas works, some of which may be contaminated.
B3 and B5	Surface setts and sub surface make up of Battle Bridge Road.
B1, B2 and B4	Basement and foundations of Culross Buildings.
Zone E and Plot B1	Foundations and surrounding infrastructure to demolished Stanley Buildings.
Generally Zones B and E	Made ground soil formations predating first phase urban development.
Generally Zone B and E	Natural soil formations associated with the Fleet river and valley and generally of prehistoric times, back to the last glaciation.

1.6 Previous Archaeological Works

Associated with the construction of the CTRL there have been some archaeological investigations. The archaeological fieldwork data resulting from these works has not been made available to IHCM for the purpose of supporting mitigation objectives in the southern development plots. It is understood that reports on these investigations have not yet been issued by the Archaeological Contractor for LCR.

There has been some archaeological works in the Southern Area for KXC, associated with the design and procurement of the Boulevard to be located to the east of Zone B and where the Pancras Works was also located, and Pancras Road to the west where Stanley Building North was once sited. Further, as part of earlier submissions to discharge Condition 3 of Listed Building Consent 2004/2313/L and Condition 3 of Conservation Area Consent 2004/2317/C, there has been phased recording of Stanley Building North and the Culross Buildings (both now demolished). All the field work was carried out by Pre Construct

Archaeology Ltd. The table below provides an initial summary of PCA's findings, illustrating the character of the discoveries located in the position shown on Figure 3. The findings are still being evaluated and analysed through the post-excavation programme of archaeological work.

Test Pit Reference	Brief Description
Trial Pit 1	A red brick wall and possible footing was observed at 20.15mOD, aligned north to south, and was 2.64m deep. This wall was only visible on the eastern excavation limit and extended beyond the limits of excavation.
Trial Pit 2	A red brick wall and possible associated brick surface were observed in this pit. The wall was observed at 19.54mOD and extended beyond the limits of excavation in the north of the pit. The surface was observed at 18.29mOD and extended beyond the limits of excavation in the south of the pit.
Trial Pit 3	A modern brick inspection chamber and what appeared to be a concrete pad were observed in this pit. The concrete was observed at 17.44mOD and was 0.52m thick.
Trial Pit 4	Five, probably associated, red brick walls and the remnants of a paved sandstone surface were observed in this pit. The masonry was first observed at 19.28mOD and continued to a depth of 17.68mOD. The sandstone paving was observed at 18.53mOD and was 0.1m deep.
Trial Pit 5	A dark brownish red brick surface was observed between 18.48mOD and 18.08mOD. It was 0.1m thick and extended beyond the limit of excavation.
Trial Pit 6	Two concrete surfaces were observed in this test pit. The upper surface observed at 19.16mOD was 0.3m deep. The lower surface observed at 18.56mOD was 0.4m deep and had dark staining from the ground contaminants.
Trial Pit 7	Was abandoned
Trial Pit 8	Two metal pipes were observed in this pit. One pipe, 0.2m in diameter, was observed at 19.57mOD and was aligned northeast southwest. The other pipe was found to be 0.45m in diameter at 19.15mOD and was aligned northwest southeast.
Trial Pit 9	A curved brick wall was observed at 19.29mOD. The wall was 1.8m high and located on a concrete footing in the eastern part of this pit. The concrete footing was observed at 17.49mOD and was 1.5m deep.
Trial Pit 10	A yellow stock brick wall was observed at 20.17mOD and measured 1.44m north to south, 0.22m east to west. It was of uncertain depth. A metal pipe measuring 0.30m in diameter was observed at 18.93mOD and was aligned northwest to southeast. It was not possible to ascertain a relationship between the wall and the pipe due to the limited scope of the excavations
Trial Pit 11	A concrete wall and its footing aligned east to west were observed at 20.40mOD and 17.56mOD respectively. These extended beyond the limits of excavation. The wall was found to be 2.84m deep but of uncertain thickness and the footing was found to be at least 1.0m wide and of uncertain depth.
Trial Pit 12	The wall of the gasholder was observed at 18.96mOD, this was found to have sandstone blocks capping the brickwork. An interior brick surface was recorded at 18.21mOD and was 0.2m deep. Further excavations inside the gasholder were hampered by the presence of contaminated ground water. The trial pit was excavated to a depth of 4.5m.
Trial Pit 13	The wall of the gasholder was observed at 18.94mOD, this was excavated to a depth of 3.2m. Excavations inside the gasholder revealed that the brickwork stepped in by 0.8m giving the wall an overall width of 1.42m.
Trial Pit 14	A cobbled surface was observed at 19.15mOD, this had been truncated in the east of the pit. No other structures were observed.
Trial Pit 15	Modern reinforced concrete was observed at 18.04mOD and was 0.1m thick. This is possibly the base of the attenuation tank. No other structures were observed.
Trial Pit 16	The cobbled road surface was observed at 19.14mOD (ground level). At

	16.34mOD what appeared to be a thin concrete surface extending beyond the limit of excavation was observed
Trial Pit 17	The cobbled road surface was observed at 19.04mOD (ground level). At 18.64mOD a patchy reddish brown brick surface was found to be 0.1m deep. This extended beyond the excavation limits.
Trial Pit 18	No structures were observed in this pit. Made ground deposits were observed to depth of 4.3m.
Trial Pit 19	No structures were observed in this pit. Made ground deposits were observed to depth of 3.2m
Trial Pit 20	No structures were observed in this pit. Made ground deposits were observed to depth of 1.2m.
Trial Pit 21	Modern services were observed at 17.96mOD. The trial pit was abandoned.
Trial Pit 21a	No structures were observed in this pit. Made ground deposits were observed to depth of 4.5m.
Trial Pit 22	A pipe was observed at 14.20mOD. The excavation was abandoned at a depth of 4.5m.
Trial Pit 23	A cobbled surface was observed at 15.58mOD, this extended beyond the excavation limits. No further structures were observed.
Trial Pit 24	An east-west aligned red brick wall was observed at 14.86mOD, measuring 0.5m in width, 1.04m in height. The wall extended beyond the excavation limits.
Trial Pits 25, 26	These were not excavated.
Trial Pit 27	Only modern backfill was observed. The trial pit was not surveyed due to access problems.
Trial Pit 28	No structures were observed in this pit. Made ground deposits were observed to a depth of 4.5m.
Trial Pit 29	No structures were observed in this pit. Made ground deposits were observed to a depth of 4.5m.
Trial Pit 30	No structures were observed in this pit. Made ground deposits were observed to a depth of 4.5m.
Trial Pit 31	This exposed more of the gasholder's curved wall. This was recorded with a total station due to the presence of contaminants.
Pancras Road	**Brief Description**
General ground reduction to road formation level for the recreation of Pancras Road - to the south and north of the German Gymnasium.	Natural clay observed at 15.77 m OD overlain by 19th century made ground including structural remains of the foundation of the original western end of the German Gymnasium. Culvert and footings of 19th century variously found to the south and north of the Gym including of Stanley Building North. The 19th century features found heavily truncated by 20th century ground works. No formations found of Prehistoric to 18th century date were identified and considered to have been truncated.

1.7 The General Character of the Engineering Construction Works in the Southern Area

The engineering works (enabling and construction works) will be phased and submitted to the London Borough of Camden as part of the planning process. There is to be a holistic approach to the ground works in Zones B and E, basically comprising the construction of a piled retaining wall, the creation of a double-height basement and piling for each proposed structure.

The relevant works affecting the potential archaeological resources and mitigation undertakings will likely include:

1. Trial pitting to visually inspect the shallow ground conditions and establish the precise location of obstructions buried in the ground.
2. Sinking of bore holes to provide design data in respect of deep ground conditions and foundation designs.
3. Site preparation including the removal of present ground surfaces, any surviving upstanding features and obstructions in the way of proposed ground works.
4. Construction and forming of temporary works.
5. Cut and fill earthworks to new formation level including the treatment of any contaminated soils encountered.
6. Excavation for shallow and deep buried services.
7. Excavation of basements and sumps, pits and other small area excavations.
8. Piling including forming of pile caps and ground beams.
9. Hard and soft landscaping around the proposed buildings, where a large number of known and evaluated heritage features will be removed.

The nature of those works most relevant to archaeology are described in greater detail in Section 2 of this Specification. This is to be read with the engineering and architectural plans and other documents provided in the individual plot submissions.

It is likely that there will be design development prior to construction but not affecting the archaeological mitigation, related to the above types of engineering works.

1.8 Archaeological Watching Brief Process

A series of Archaeological Watching Briefs will accompany the engineering works in the two Development Zones, providing archaeological information to satisfy the aforementioned Planning Condition 56. Section 3 of this specification defines an Archaeological Watching Brief. The Archaeological Watching Briefs will occur wherever there are to be ground works, unless designed out and approved in writing with the London Borough of Camden and English Heritage.

Paragraph 10.8.1 and Table 10.8 of the KXC Environmental Statement sets out the mitigation measures proposed. It confirms that Archaeological Watching Briefs would be in place where any engineering ground works would occur which would encounter made ground from the 19th Century or earlier, or River Fleet Alluvium.

The Watching Brief will conform to standards required by the Institute of Field Archaeologists and the guidelines of the Greater London Archaeological Advisory Service of

English Heritage. The Archaeological Contractor shall be a member of the Institute of Field Archaeologists.

The archaeological officer of English Heritage for the London Borough of Camden, will be given access to monitor the archaeological site and post-site works on behalf of English Heritage and for the London Borough of Camden.

IHCM (International Heritage Conservation and Management) is the Archaeological Consultant to the Employer for this work, Argent (King's Cross) Limited.

The phasing of developments, and thus archaeological works, will allow for a process of adapting and modifying archaeological watching brief objectives.

Note

This specification is one of a series prepared for undertaking Archaeological Watching Briefs in the King's Cross Central scheme. They have common content in regard to general requirements for site and post-site works, together with specific requirements for each development site, based on the nature of the site, the archaeological potential and the works proposed.

2 Details of Enabling Works

The design for the construction of the many buildings and associated hard/soft landscaping within the Southern Area will be detailed within submission documents for each plot scheme. The schemes will include those undertakings referred to in Section 1.7 above. The main processes are explained further below.

2.1 Trial Pitting and Borehole Investigations

The engineering designs for the new construction requires there to be programmes of further geotechnical investigations. These aim to investigate the shallow and deep ground conditions (made-ground, alluvium and London Clay), with observation trial pits and bore holes respectively.

The location of the pits will result from further assessment of the engineering findings and of the planned insertion of temporary and permanent new works and ground obstructions. Many of the pits will be 1 to 5m deep and shored so the pit faces can be hand logged. Some deeper probing may occur, at levels unsafe for general trial pitting excavations. The engineering investigations will also address ground contamination and the need for remediation.

2.2 Site Preparation and Removal of Old Foundations and Obstructions

Each scheme in the Southern Area is to be built in an area of complex ground conditions resulting from more than 200 years of development and change, the latest (modern) phase of which can be presently observed and relates to completion of the CTRL scheme and early KXC works. Section 1.7 above indicates where development related ground works are likely to be located.

2.3 Construction of Temporary Works

Given the scale and scope of the developments within the site, it is likely that the engineering contractors and sub-contractors would need to undertake temporary works. Such works may involve local excavation into the ground for:

- Connections to services.
- Fences.
- Crane bases.
- Foundations for huts.
- Forming hard standing for cars and construction plant.

2.4 Cut and Fill Earthworks and Including the Treatment and Removal of Soil Contamination

Given the industrial and commercial history of King's Cross, it is likely that there are still localities of 'hot-spots' of soil contamination. The contamination, if it is related to 19th century industrial processes, may have a heritage interest, especially where such contamination is associated with structural remains and industrial processes and where the contamination needs treatment or disposal.

It is likely that contamination would be found during earthworks, shallow remodelling of the ground to a new formation level, and at times of excavation associated with basement and infrastructure construction.

2.5 Excavation of Basements, Sumps, Pits and other Small 'Area' Excavations within Buildings

The development proposal includes for permanent spaces set in the ground and includes:

- A shared double-height Zone B basement and single-level basement for Building E1. The latter basement will be accessed via the Zone B basement. Some basements may be formed within a piled retaining wall and / or within temporary works. Some construction may also occur within open excavations with battered faces.
- Duct chambers.
- Lift sumps.
- Headings.

It is the excavation of basements that would provide the greatest opportunity for archaeologically investigating any surviving historic ground conditions and structural remains.

2.6 Piling, including forming of Pile Caps and Ground Beams

The type of buildings being constructed favours piled foundations and a substructure of pile caps/pile rafts and ground beams. The piling may occur before the forming of basements and other below-ground sump structures. For archaeological objectives, piling would allow for assessing ground conditions before larger-scale ground works occur. If basements are formed first, the piling would have no archaeological interest requiring the Archaeological Contractor to monitor their construction.

2.7 External Shallow and Deep Buried Services

The construction works may necessitate diversion of existing buried services and definitely the insertion of new ones. Shallow infrastructure works may be located above soil formations of archaeological interest. Services inserted in trenches below 0.5 m deep, and in areas where there may be physical obstructions and ground contamination, could traverse through or below archaeologically interesting ground conditions.

2.8 Hard and Soft Landscaping

The formation of roads, squares and other open areas will variously replace the presently-found modern and surviving older surfaces, following the insertion of new services.

To achieve the new hard and soft landscaping will also require surface and shallow (0 - 0.5 m below ground level) and deep (0.5 - 2.5 m below ground level) buried archaeological remains to be locally removed.

3 Archaeological Objectives of the Watching Brief

3.1 Definitions

3.1.1 Archaeological Watching Brief

An Archaeological Watching Brief, as recommended by the Institute of Field Archaeologists (IFA, 1994), refers to:

> *"A formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons within a specified area or site on land or underwater where there is the possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive."*

In all cases, the watching brief is intended:

> *"to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works."*
>
> *"to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support a treatment to a satisfactory and proper standard."*
>
> *"to establish and make available information about the archaeological resource existing on a site."*

The Institute stresses that an Archaeological Watching Brief is not intended to reduce the requirement for excavation or preservation of known or probable deposits, and is intended only to guide, not to replace, any requirement for contingent excavation or preservation of possible deposits.

4 Archaeological Programme of Works

4.1 General Archaeological Watching Brief Objectives at King's Cross Central

The Archaeological Watching Briefs will collect and interpret data from the many site-based engineering components of the development scheme for Zones B and E in the Southern Area of KXC.

The archaeological objectives will be related to:

1. Determining the character of the site and landscape prior to first-phase industrial development, including information about the rural topography with evidence of Prehistoric to Post-Medieval land use; the exploitation of soils for brick making; early commercial development as part of the rapidly expanding early to mid 19th century industrial fabric of London.
2. The mid 18th to early 19th century 'early' urban and commercial land uses, prior to the insertion of the great mid 19th century railway buildings and associated railway facilities.
3. The character of foundations and soils of mid to late 19th century, specifically related to the existing gas and railway related buildings and associated landscaping.
4. Adding archaeological data to that obtained for CTRL and LUL development works that have been taking place for the last few years at King's Cross and St. Pancras.
5. The Archaeological Watching Briefs will also provide specialist advice to the Development Manager (Argent) and the Engineer and the Principal Engineering Contractor for each plot on made-ground and historic engineering features during the site works, if and when discoveries are made. The Archaeological Watching Brief will monitor site works to reduce the chance of accidental damage occurring to retained heritage buildings.
6. Updating Archaeological Watching Brief objectives (project design) from time to time as plots are developed and new schemes arise, responding to findings and interpretation discussions between all concerned parties.
7. For Development Zones B and E, providing one or more interim reports on the findings, planned to be issued during the ground works development programme and a draft final report within six months following the completion of site works in each zone.

4.2 General Archaeological Objectives Prior to Construction

Prior to the start of engineering site works in each zone the opportunity will be taken to investigate a set of archaeological objectives. Some works will be 'archaeologically 'driven', providing an opportunity to undertake archaeological investigation by 'excavation' and 'strip and map' techniques. These investigations will then be taken off the agenda for being undertaken as Watching Briefs during the construction phase of the scheme.

4.3 Archaeology During Constuction

During the engineering ground works for the scheme a programme of archaeology will be undertaken. The programme will be developed related to the engineering undertakings and

modified to respond to findings made during the pre-development archaeological evaluation works.

4.4 Other General Archaeological Undertakings

It is likely that other archaeological mitigation will be required during the engineering programme of ground works but it is not possible to precisely forecast all of these. This will be subject to discussion with the London Borough of Camden and English Heritage at the time.

4.5 Specific Archaeological Research Objectives Related to Blocks B and E

The following investigation objectives have been formulated for Development Zones B and E:

1) Determining of the internal layout arrangements of buildings, and how these relate to map and other contemporary documentation.
2) Understanding and documenting construction techniques of the many former buildings on site, especially those associated with the gas production and storage. Examination of any surviving foundations related to the former Stanley buildings and Culross Buildings.
3) The finding of any evidence of how the gas industry buildings and structures functioned.
4) The detailed examination of the infrastructure.
5) Documenting of any surviving evidence of the hard landscape on and around the development footprint.
6) The understanding of site preparation of the site ready for first phase urban uses.
7) Identification and examination of pre-railway development made-ground and site conditions, including of the possible occupation on the east side of the Fleet valley channel. This may include soil sampling for investigation of the hisitoric environment.

It is not possible to show on a plan where the archaeologial programme of works will occur but it is assumed that it would be throughout Zones B and E, where ever there are to be temporary and permanent new ground works.

It is not intended to investigate the whole of Development Zone B given the industrial character of the site. The locations for investigation will be determined as a result of:

1) Future engineering site investigations.
2) Safety regarding access and ground contamination.
3) The engineering sequence and programme of works.
4) Site discussions with the London Borough of Camden and English Heritage.
5) Evaluation of findings where the works shall occur in phases potentially spanning several years.

5 Actions by the Archaeological Contractor Prior to and During the Development Programme on Each Zone

To satisfy Archaeological investigation requirements, the appointed Archaeological Contractor shall:

1. Provide a Written Scheme of Investigation (WSI) for IHCM, for onward submission to the London Borough of Camden and English Heritage. This shall be approved in writing prior to development work starting on site.
2. Provide a Health & Safety Plan under CDM Regulations and work to it.
3. Obtain an archaeological site code.
4. Be fully familiar with the heritage documentation undertaken by IHCM in the Environmental Statement produced for Argent (King's Cross) Limited – to be provided at tender.
5. Be familiar with archaeological site works carried out for CTRL.
6. Be familiar with the conditions attached to the Planning, Listed Building and Conservation Area Consents associated with the King's Cross Central development.
7. Coordinate the fieldwork programme with Argent, the Engineer, IHCM and the English Heritage archaeological officer representing the London Borough of Camden.
8. Attend, unless otherwise agreed, all works that are on and that penetrate below the present hard landscape surfaces.
9. Generally advise the Principal Engineering Contractor on made-ground and structural features within it, related to the site history potentially spanning Prehistoric to Modern times. Advise on archaeological value of the heritage assets, with an assumption that only remains (including building fabric) of no and low value may be penetrated/removed without the agreement of IHCM and/or Camden/English Heritage.
10. Observe and document, from ground level, machine excavation without shoring and hand digging undertaken by the Principal Engineering Contractor.
11. Descend at agreed times pits and areas less than 1.2 m deep without shoring, and deeper pits with shoring, to observe, explore, photograph and document made ground and alluvial soil formations, structural remains of the various buildings and other archaeological remains.
12. Provide advice to the Principal Engineering Contractor on backfilling and reinstatement, ensuring protection of archaeological features and accurate historic reinstatement respectively.
13. Provide within one week of the end of a watching brief episode a brief 'Initial Summary' of results of the watching Brief, indicating the suspected significance of any observed remains, together with a simplified diagram illustrating the location, depth and adjacent features. The 'Initial Summary' will be submitted by e-mail to IHCM and London Borough of Camden and English Heritage within the one week period from the end of the watching brief. As comprehensive archaeological and geotechnical reports become available from site works in nearby development plots, these will be made available as soon as possible to all relevant parties (and in any event within the timescales specified in Section 7.0), to inform evaluation and mitigation objectives and methods for the development processes being addressed in this Specification.

6 Salvage

The Archaeological Contractor will identify and retain where appropriate archaeological artefacts to determine those with a potential for archaeological archiving; those for reuse within the plot scheme; materials with a potential to be reused within KXC; materials with a potential for reuse on heritage projects elsewhere; and material that can be disposed of. The Archaeological Contractor will ensure appropriate heritage documentation is complete.

IHCM will coordinate archaeological salvage particularly of Hydraulic artefacts that may have an important museum use in London and nationally.

In summary, moveable artefacts found during the archaeological programme of works will be:

1. Recovered and documented by standard archaeological methods.
2. Evaluated for conservation, interest to the development objectives and for heritage value.
3. Typically lodged as part of the archaeological archive.
4. Considered as architectural salvage for reuse within the scheme and KXC, or, considered for a disposal strategy.

No architectural salvage will be necessary within the terms of this archaeological specification, given that a programme of heritage activities related to Gasholder No. 8 has already been approved pursuant to an earlier Reserved Matters submission.

7 Provisions to be Made by the Archaeological Contractor after the Site Works on Each Zone

The following requirements are to be satisfied by the Archaeological Contractor:

1. Provision of a factual and interpretive report on the site works in respect of made ground and alluvial soil formations, structural remains, artefacts and ecofacts. The report shall conform to methods prescribed by 'MAP2', Management of Archaeological Projects Draft 2 (English Heritage, 1991) and by English Heritage Greater London Division (English Heritage, 1998, Archaeological Guidance Papers 3 and 4). The report shall contain text, drawings and photographs as appropriate.
2. Provision of each agreed report in draft one month following the completion of site works, and the final reports one month after receiving comments on the drafts from IHCM.
3. Provision of a completed 'Online Access to the Index of Archaeological Investigation' form (OASIS form) to English Heritage.
4. Lodging of the site paper archive with the Museum of London. Artefacts are to be retained by the landowners or their nominated agency pending consideration of the potential for museum displays.
5. The documents and archive from Plot B and E shall be used with similar from the other development plots to result in an holistic analysis and publication/report on the heritage of KXC.

8 Provisions by the Principal Engineering Contractors and Developer in Support of the Archaeological Site Works on Each Plot

8.1 General Developer Provisions

1. Office and temporary accommodation for the Archaeological Contractor.
2. Male and female washing and lavatory facilities for the Archaeological Contractor.
3. Secure storage for the Archaeological Contractor.
4. CDM Co-ordinator role for CDM Regulations.
5. Contract Manager.

8.2 General Contractor Provisions

1. Production of investigation and construction method statements that reference the integration of archaeological site works.
2. Right of legal entry to the plot and preparation of the site ready for archaeological attendance.
3. All electricity and lighting necessary for archaeological equipment and working conditions.
4. Site induction to ensure safe working methods by archaeologists and approved visitors.

8.3 Technical Contractor Provisions

1. Allow inspection of and provide technical advice on services drawings.
2. With the Engineer or other client representative define all possible constraints that have to be taken into account and including those related to:
    - Nearby Listed Buildings.
    - Conservation Areas.
    - Working near to active railway corridors.
    - Locations where archaeological salvage is required.
3. Dispose of the spoil from the agreed archaeological working areas, if and when necessary.
4. Provide geotechnical advice and information to aid archaeological works and interpretation programme.
5. Prepare and undertake break-out of 20th century structures and soils agreed with the Archaeological Consultant.
6. Provide all supportive works to excavations deeper than 1.2 m, where access is required and the excavation faces are not battered.
7. Break out all unnatural obstructions impeding archaeological works when requested by the Archaeological Contractor.
8. Provide, if necessary, tent covers over evaluation areas to be dug in winter conditions where very sensitive archaeological resources are encountered.

9. Provide labour for moving spoil away from investigation areas, pits and trenches being used for approved archaeological purposes.
10. Provide labour for protecting archaeological surfaces when temporary works are being set in place.
11. Undertake any required reinstatement of the excavation areas incorporating as necessary special protective materials over important/fragile archaeological resources (Terram and / or sand). In practice, little or no reinstatement will be required here, as the excavations will be continued down to formation level.

9 The Archaeological Contractor Nominated for the Watching Brief on Each Plot

The Archaeological Contractor proposed for the Archaeological Watching Brief is:

Gary Brown and Helen Hawkins

Pre-Construct Archaeology Ltd

Unit 54 Brockley Cross Business Centre

96 Endwell Road

Brockley

London SE4 2PD

Tel: 020 7732 3925

Fax: 020 7732 7896

Or, alternatively, the Watching Brief may be undertaken by IHCM to satisfy special client requirements.

10 References

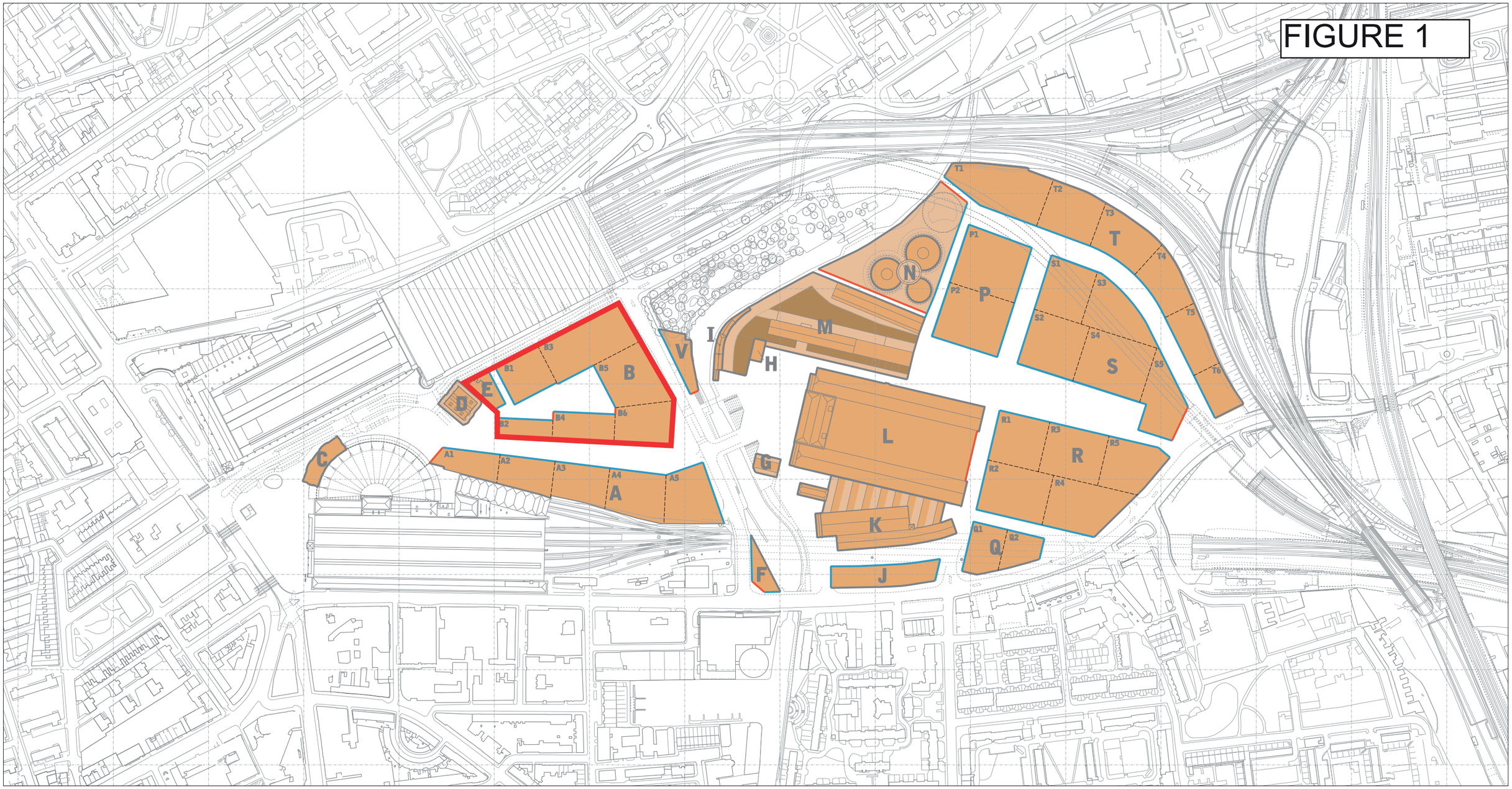
English Heritage. Management of Archaeological Projects. 1991.

English Heritage. Standards and Practices in Archaeological Fieldwork in London, Archaeological Guidance Paper 3. June 1998.

English Heritage. Archaeological Reports, Archaeological Guidance Paper 4. June 1998.

Institute of Field Archaeologists. Standards for Archaeological Watching Briefs. 1994.

FIGURE 1



Argent (King's Cross) Limited

King's Cross Central
Main Site Planning Application
Revised Development Specification
Revised Parameter Plans
Scale 1:4000 @ A3

Rev: T

280_PP_FD_KXC005_021_050808

Key:

- **Development Zones**
- **Development Zone Boundary**
- **Development Zone Boundary (L.O.D. ±1.0m)**
- **Development Zone Boundary (L.O.D. ±5m)**
- **Indicative Subdivision into Development Plots**
- **West Handyside Canopy**
- Study area boundary (Zone B and E)

In some cases, Development Zones include areas of public realm, as shown in drawing KXC 004. For example, Development Zone M includes the Coal Drops Yard, between the Eastern and Western Coal Drops, which would be refurbished as part of the public realm.

Indicative Position & Orientation for Gas Holder Guide Frames, which would be Re-erected within Development Zone N

KXC 005
Development Zones

0 25 50 100 200

N

ARUP

Figure 2

Boundaries

Zone B and E - Site Boundary

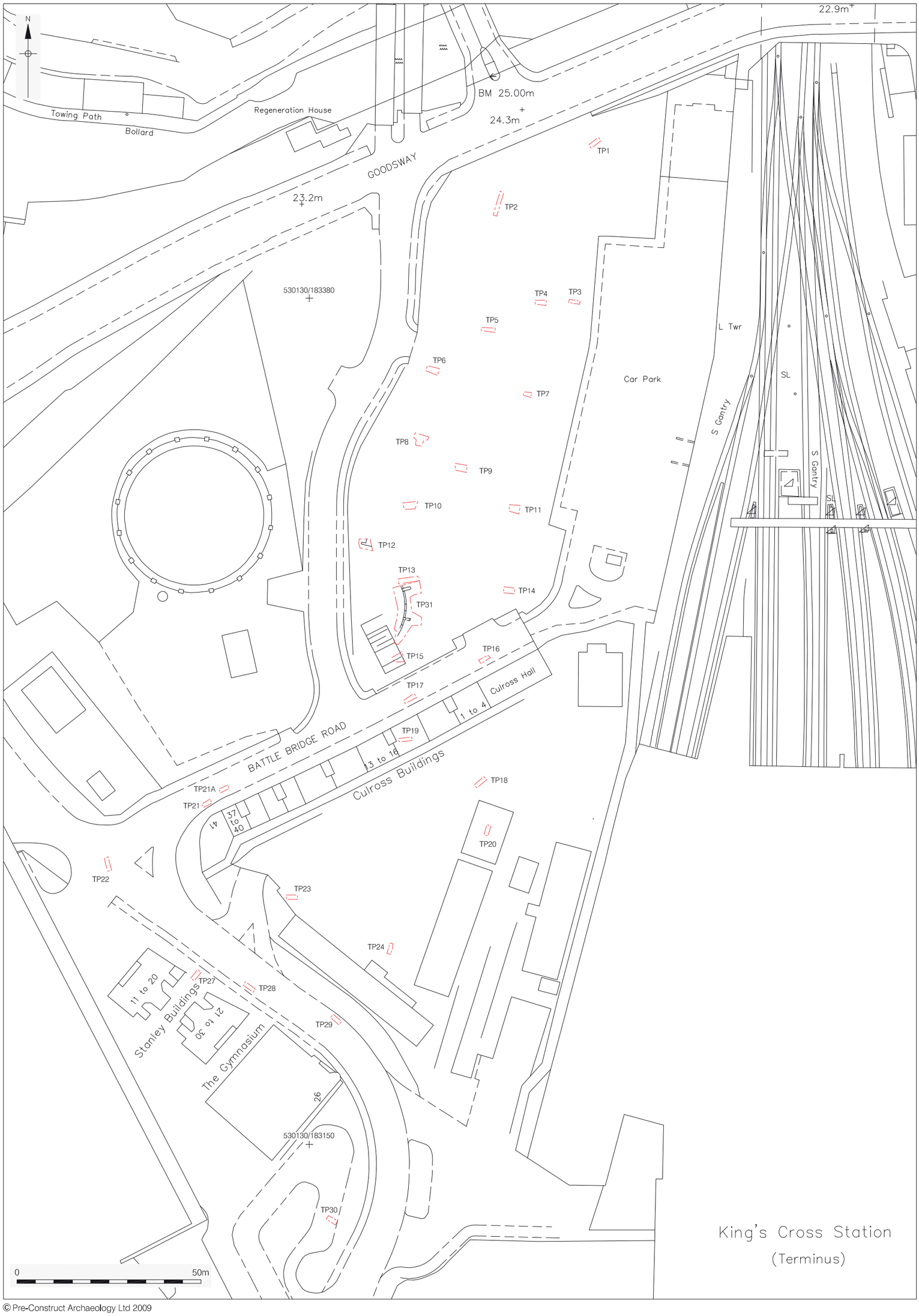
Note: -
Red line shown on the image was generated by supplier and does not indicate area of interest

Scale at A3: 1:2,000

0 20 40 80
Metres

N

Project Title: **Kings Cross Central - Zone B and E**	
Drawing Group Title: Earthworks & Remediation Plan	
Drawing Title: Historic Mapping 1896	
Spatial Reference System: British National Grid	Revision: A
By: VC / Chkd: xx / Appd: xx / Date: 2009-03-30	
Client Name:	
Job Number: 67940-13	Figure Number:



Test Pit Locations
Area South of the Canal
1:1,000 at A3

WRITTEN SCHEME OF INVESTIGATION

FOR AN

ARCHAEOLOGICAL WATCHING BRIEF AT DEVELOPMENT ZONES B AND E KING'S CROSS CENTRAL LONDON BOROUGH OF CAMDEN

FOR

Argent (King's Cross) Limited

Helen Hawkins

Pre-Construct Archaeology
Unit 54
Brockley Cross Business Centre
96 Endwell Road
Brockley
London SE4 2PD

February 2010

CONTENTS

1 INTRODUCTION

1.1 Objective of this Written scheme of Investigation

Enabling and construction works in the ground are being brought forward as part of the development of Development Zones B and E, which lie in the southern area of the King's Cross Central ('KXC') site. Zone B is broken down into 6 separate plots referred to as B1, B2, B3, B4, B5 and B6, which sit around a new piece of principal public realm referred to as Pancras Square. Zone E includes one new building, E1, which will wrap around the existing Grade II listed Stanley Building South. The buildings in Zone B will share a common basement. The basement for building E1, although separate to the shared Zone B basement, will be accessed via the same. Details of these works will be submitted as Reserved Matters pursuant to conditions attached to the KXC outline planning permission dated 22 December 2006 (ref: 2004/2307/P), (the 'Outline Planning Permission'). Figure 1 shows the location of the Development Zones and plots.

This Written Scheme of Investigation (WSI) relates to archaeological investigation works for **Development Zones B and E.**

Condition 56 of the outline planning permission 2004/2307/P requires a programme of archaeological Investigation and recording be prepared and implemented. Pre-Construct Archaeology Ltd is nominated as the archaeological contractor to undertake these works.

For the Development Zones B and E, an Archaeological Watching Brief process was determined to be the appropriate mitigation measure, as identified within the Environmental Statement. This Written Scheme of Investigation sets out the strategy to ensure archaeological objectives are achieved to satisfy Condition 56 and implement the Environmental Statement.

In preparing this document full reference has been made to the Specification as prepared by International Heritage Conservation and Management Ltd. ('IHCM') which provides the strategy for archaeological investigation and mitigation of the potential effects on Development Zones B and E, as reported in the Environmental Statement. It commits to undertaking appropriate works and directs the contents of the Written Scheme of Investigation provided by the commissioned archaeological contractor. As such, the specification fulfils the requirements of Condition 56 of the Outline Planning Permission.

The 'Archaeological Watching Brief(s)' will be applied to the engineering and construction works within Development Zones B and E, for example:

1. Trial pitting to visually inspect the shallow ground conditions and establish the precise location of obstructions buried in the ground.
2. Sinking of bore holes to provide design data in respect of deep ground conditions and foundation designs.
3. Site preparation including the removing of present ground surfaces, the removal of any surviving upstanding features and removal of obstructions in the way of proposed ground works.
4. Construction and forming of temporary works.
5. Cut and fill earthworks to new formation level including the treatment of any contaminated soils encountered.
6. Excavation for shallow and deep buried services.
7. Excavation of basements and sumps, pits and other small area excavations.
8. Piling including forming of pile caps and ground beams.
9. Hard and soft landscaping around the proposed buildings, where a large number of known and evaluated heritage features will be removed.

The locations of the archaeological works are generally wherever there are to be ground works. Specific undertakings are defined in Section 1.8 above and other locations, but presently not yet determined, can be anticipated.

1.2 Background History of Plot B and E

1.2.1 Summary

Development Zone B is substantially the former gas works.

The start of the industrial development of the area was initiated by the insertion of the Regent's Canal in the first quarter of the 19th century (opened 1820). This permitted the immediate development of the Pancras Works south of the canal, roughly opposite the Eastern Goods Yard. Further south, generally between King's Cross Station and St Pancras Station, mixed residential and commercial development occurred at this time. As the gas industry expanded and the great railway works were inserted so there were piecemeal changes then some major removal of the residential and light commercial urban fabric.

The gas works ceased making coal gas in 1904, with a brief revival in 1907, and its manufacturing plant was demolished in 1911. The gasholders remained in use, linked to trunk mains.

Zone E and the south west corner of Zone B formerly comprised an area of residential development. Today, only Stanley Building South and the immediate hard landscaping survive. The Stanley Buildings originally included five blocks of approximately 20 m by 12 m. They were purpose-built in 1864-5 as low-rental 'philanthropic' housing by the Improved Industrial Dwellings Co. One five-storey block remains, identified here as Stanley Building South.

Four of the former blocks have been demolished pursuant to Listed Building Consent 2004/2313/L in order to accommodate the extension of St. Pancras Station for the Channel Tunnel Rail Link terminal and for the realignment of Pancras Way.

Stanley Building South is currently unoccupied. It is listed Grade II and lies within the King's Cross St. Pancras Conservation Area.

The Stanley Buildings had no basements. Consequently, earlier made ground survives here and forms part of the infill of the historic River Fleet valley.

1.2.2 General Gas Industry Site History

The former gasworks within the KXC site, known as the Imperial Gasworks or Pancras Works, was built as the principal works of the Imperial Gas Light and Coke Company. When opened in 1824 this was the largest gasworks in the world. The works was sited alongside the Regent's Canal. It used coal initially delivered to the works by the canal and then later via a viaduct across the Regent's Canal from the Goods Yard. The gas was produced in large retort houses. This was then stored in the gasholders on the site, which acted as reservoirs so that an adequate supply of gas was always available when required. The Gas Light and Coke Co. acquired the Imperial Gas Light and Coke Company in 1876.

The consumption of gas was steadily climbing throughout the second half of the 19th century, in response to London's rising population and prosperity and falling costs in the making of gas. Proportionate increases in gas storage capacity were needed to meet peak demands at all the company's works. With connection by trunk mains to the company's huge Beckton gas works supplementing local production, several of the Pancras gasholders came to be enlarged in the 1880s. By 1900 the works occupied 11 acres (4.6 hectares), of which more than half was devoted to gas storage.

Gasholder No. 8, centrally placed in Zone B, was designed by John Clark, the engineer of the Pancras Works, and its ironwork was built by Westwood and Wrights in 1883. Both they and Clark had been responsible for the 'telescoping' of the three 'Siamese Triplet' gasholders Nos. 10, 11, and 12, completed in 1880 and located to the north west of Zone B, where the modern canopy of St Pancras Station is now

1.2.4 Other Gas Industry Facilities Associated with the Gasholder No. 8 in Development Zones B.

According to Ordnance Survey mapping dated 1871 Development Zone B included the following elements of the gasworks, remnants of which may still be in the ground on site and along the proposed Boulevard and the present day Goods Way:

1. A significant portion of one of the major Retort Houses.
2. Sets of Condensers and Tar Wells.
3. Sets of Boilers and Pumps and Hydraulic Mains.
4. Sets of Scrubbers.
5. Sets of Purifiers.
6. Store House.
7. Crushing House.
8. Gas delivery pipes and machinery.
9. Wells and pumps for topping up the gasholder tanks.
10. Coal, clinker and coal waste holding pens.
11. A large variety of small cylindrical tanks
12. Offices/stores
13. Associated hard landscaping.

1.2.5 Urban History and Other Heritage Resources within Blocks B and E

Limited development on the southern part of the KXC site took place in the late 18th century, stimulated by 'The New Road', to the south of KXC. The development was substantially one of low quality two storey terraced housing, the layout of which responded to field and property boundaries, the somewhat ad-hoc exploitation of soils for brick/tile making, the Fleet Sewer, and the Small Pox Hospital grounds (under King's Cross Station). Today, the orientations of the German Gymnasium and Stanley Building South, and their surrounding local roads, are based on this first phase development pattern.

There was further piecemeal expansion of the King's Cross residential area in the second and third decades of the 19th century, including the areas of terraced housing bordering Suffolk Street, Cheney Street, Ashby Street, Northampton Street and Norfolk Street south of the gas works, with Upper Edmond Street to the east. These streets were generally located towards the southern end of Development Zone B. This street pattern was diagonally placed across the previous agricultural field pattern.

The housing was typified by two storey structures and those on Suffolk Street West possibly having half basements. The houses generally fronted the roads and had rear extension kitchens and with 'privies' set at the bottom of small yards/gardens.

The existing housing between the two stations remained for a few more years. The erection in 1864-5 of the original five blocks of Stanley Buildings, an early project of Sir Sidney Waterlow's philanthropic and profit-restricted Improved Industrial Dwellings Company, responded to existing poor local housing conditions and the imminent dispossession of sites by the Midland Railway. The German Gymnasium, part of a contemporaneous redevelopment on Pancras Road, reflected other aspects of mid-Victorian Society.

Further platforms and sidings were added to the west of King's Cross Station before 1894 including new "docks" for express milk traffic and for horses and carriages (which subsequently became a Motor rail terminal). This facility was within Zone B at the south end. To improve road traffic circulation around the station, a new bridge

Written Scheme of Investigation for an Archaeological Watching Brief at Development Zones B and E
King's Cross Central, London Borough of Camden ©Pre-Construct Archaeology Ltd, February 2010

was built across the enlarged "throat" of the station, with a western approach along the southern edge of the gas works. This was officially named Battle Bridge Road in 1873, possibly in advance of its construction. These works, set at a lower level related to rail tracks entering from the north where joining with the main rail routes passing under the Regent's Canal. The Milk Dock displaced the remaining pocket of back-street houses so that the railway extended west as far as Cheney Street

By 1894 most of the residential streets had been swept away leaving the Stanley Buildings to the west and the German Gymnasium at the south end of this KXC development area.

Pressure on land made it more difficult for railway workers to find decent affordable housing close to their place of work, and to that end the Great Northern Railway in 1891-2 erected a tenement-style block of flats along the new Battle Bridge Road called the Culross Buildings. It was accompanied by a mission hall, Culross Hall, one of three provided by the company for its employees' spiritual needs. The Culross Buildings were totally unrelated to the few remaining earlier buildings in the area, such as the German Gymnasium (1864/5) and the Stanley Buildings (1864/5), and were demolished in 2008 pursuant to Conservation Area Consent 2004/2317/C.

1.3 Potential Archaeological Resources in Development Zones B and E

Potential archaeological resources related to the site are listed below:

Block/Plot Reference	Potential Industrial Remains
B3 and B5	Foundations of the Gasholder No 8 Brick wall to the north
B5	Gasholder No 8 foundations.
B3, B4, B5, B6	Gasholder No 8 buried infrastructure (with some connections to above ground features including an upstanding pump)
B1, B3, B4, B5, B6	Foundations and Infrastructure associated with the other gasholders – of particular not are wells for water used within the gasholder tanks.
Mostly B5 and B6	Buildings and related artefacts associated with the gas manufacturing process
Whole of Zone B	Soil formations associated with the gas works, some of which may be contaminated.
B3 and B5	Surface setts and sub surface make up of Battle Bridge Road
B1, B2 and B4	Basement and foundations of Culross Buildings
Zone E and Plot B1	Foundations and surrounding infrastructure to demolished Stanley Buildings
Generally Zones B and E	Made ground soil formations predating first phase urban development.

Generally Zone B and E	Natural soil formations associated with the Fleet river and valley and generally of prehistoric times, back to the last glaciation.

1.4 Archaeological Objectives

The strategy defined by IHCM (February 2010) outlines the Archaeological Watching Brief process and references a series of archaeological objectives and these are set out below:

The Archaeological Watching Briefs will collect and interpret data from the many site-based engineering components of the redevelopment scheme. The archaeological objectives shall be related to:

1. Determining the character of the site and landscape prior to first-phase industrial development, including information about the rural topography with evidence of prehistoric to post-medieval land use; the exploitation of soils for brick making; early commercial development as part of the rapidly expanding early to mid 19th century industrial fabric of London.
2. The mid 18th to early 19th century 'early' urban and commercial land uses, prior to the insertion of the mid 19th century railway buildings and associated railway facilities.
3. The character of foundations and soils of mid 19th to early 20th century.
4. Adding archaeological data to that obtained for CTRL and LUL development works that have been taking place for the last few years at King's Cross and St. Pancras.
5. The Archaeological Watching Briefs will also provide specialist advice to the Developer (Argent), the Engineer, and the Principal Engineering Contractor on made ground and historic engineering features during the site works, if and when discoveries are made. The Archaeological Watching Brief will monitor site works to reduce the chance of accidental damage occurring to retained heritage buildings.
6. Updating Archaeological Watching Brief and local Excavation objectives (project design) from time to time, responding to findings and interpretation discussions between all concerned parties.
7. One or more interim reports on the findings are planned to be issued during the ground works development programme and a draft final report within six months following the completion of site works.

The watching brief/s and local excavations will follow both Institute of Field Archaeologists guidelines and the methodologies set out in English Heritage (GLAAS) Guidance Papers[1]. All archaeological works will be monitored by GLAAS on behalf of London Borough of Camden and by IHCM on behalf of the developers.

[1] English Heritage, Greater London Archaeology Advisory Service, "Archaeological Guidance Papers: 1 Written Schemes of Investigation; 2 Desk-Based Assessments; 3 Standards and Practices in Archaeological Fieldwork in London; 4 Archaeological Reports; 5 Evaluations", revised June 1998.

Written Scheme of Investigation for an Archaeological Watching Brief at Development Zones B and E
King's Cross Central, London Borough of Camden ©Pre-Construct Archaeology Ltd, February 2010

2 THE WATCHING BRIEF AND LOCAL EXCAVATIONS

All necessary site investigations and earthworks will be monitored by a suitably experienced archaeologist or archaeologists. The archaeologists will ensure that any archaeologically sensitive remains are recorded, and the relevant parties notified.

Pre-Construct Archaeology Ltd. is a Registered Archaeological Organisation with the Institute of Field Archaeologists.

The attending archaeologist will be provided with additional staff should the workload require it. The implementation of all groundworks will show due consideration for potential archaeological remains and the need to excavate/monitor them.

On completion of the fieldwork proper provision will be made for a full report on the results of the watching brief.

3 GROUNDWORKS

3.1 Method Statement

Areas of groundworks will be broken out by the engineering contractor, whereupon the attending archaeologist will monitor, identify, record and retrieve (as far as possible) archaeological remains that may be uncovered during the course of the invasive works, or, archaeologically excavate them should they be proved to be of high and moderate archaeological significance. Notification of progress will be made to all relevant parties (IHCM, Argent, the London Borough of Camden and GLAAS).

All methodologies set out here are understood as being possible given the likelihood that some contamination is present. This will be confirmed by the results of existing and ongoing site investigations. Prior to commencement PCA will be provided with copies of all ground soil contamination reports and any other appropriate reports in order to determine the level of PPE to be worn.

All gold and silver will be removed to a safe place and reported to the local coroner according to the procedures relating to Treasure Act 1996. 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.

If significant archaeological remains are accidentally encountered during the course of the investigations, or other groundworks, with the agreement of relevant parties, digging will locally stop to allow the archaeological remains to be investigated and recorded by the archaeologist, if not to be preserved *in situ.* Further engineering excavation will then proceed until the desired formation level is achieved. Necessary horizontal and vertical trench faces will be cleaned before recording.

3.2 Access and Safety

Reasonable access to archaeological areas will be arranged for representatives of the London Borough of Camden and other representatives of English Heritage who wish to be satisfied, through site inspections, that the archaeological works are being conducted to proper professional standards and in accordance with the agreements made.

All relevant health and safety legislation, regulations and codes of practice will be respected. The groundworks contractor will be responsible for overall health and safety on the site.

It is assumed that there will be contaminants present at the site and therefore requiring appropriate level of PPE. The engineering contractor shall provide any additional protection for archaeological undertakings should more severe contamination be encountered. A gas monitor should also be provided. Some of the work may be located within the area of the former gasworks. Work in these areas will be undertaken wearing appropriate extra PPE as required. If the archaeologist believes the trench to be contaminated, they will not enter the trench and will seek a second opinion from PCA's health and safety officer.

If the site is considered to be 'confined space' then appropriately qualified staff must be employed as must the appropriate associated equipment.

3.3 Recording Systems

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

The recording systems adopted during the investigations will be broadly compatible with those most widely used elsewhere in the Borough. Where there is any doubt as to the appropriate recording technique the Museum of London recording manual will be used.

The site archive will be organised so as to be compatible with the other archaeological archives produced in the Borough. Individual descriptions of all archaeological strata and features excavated and exposed will be entered onto prepared *pro-forma,* for example, Test Pit Recording Sheets. If complex stratigraphy or structures are encountered *pro-forma* Single Context Recording Sheets will be

used. Sample recording sheets, sample registers, findings recording sheets, accession catalogues, and the photography record cards will follow the Museum of London equivalents. This requirement for archival compatibility extends to the use of computerised databases.

A 'site location plan' indicating the site north and based on current Ordnance Survey data (reproduced with the permission of the Controller of HMSO) will be prepared. The location of the OS bench marks used and the site TBM will also be indicated.

Some record of the full extent in plan of any archaeological deposits encountered will be made; these plans will be on polyester based drawing film, will be related to the site grid and at a scale of 1:10 or 1:20. 'Single context planning' will be used on deeply stratified sites. The results will be digitised.

Sections will be drawn to scale or measured sketches will be made according to the relative safety of individual test pits.

The OD height of all principal strata and features will be calculated and indicated on the appropriate plans and sections, following transfer of information from the engineering contractor.

If the site complexity is such as to justify its use the 'Harris Matrix' stratification diagram will be used to record stratigraphic relationships. This record will be compiled and fully checked during the course of the excavations.

A photographic record of the investigations will be prepared. This will include black and white prints and colour transparencies (on 35mm film), illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include 'working shots' to illustrate more generally the nature of the archaeological operation mounted.

3.4 Treatment of Finds

Different sampling strategies may be employed according to the perceived importance of the deposit or feature under investigation. Close attention will be given to sampling for date and structure. Sample size will take into account the frequency with which material is likely to occur.

All finds retrieval policies of the Museum of London will be adopted and all identified finds and artefacts will be retained unless the Museum of London policy states otherwise.

All finds will be treated in a proper manner and will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in the United Kingdom Institute for Conservation's '*Conservation Guidelines No.2*' and the Museum of London's '*Standards for the Preparation of Finds to be Permanently Retained by the Museum of London*'. All metal objects will be x-rayed and then selected for conservation.

Lodging of the site paper archive with the Museum of London. Artefacts are to be retained by the landowners or their nominated agency pending consideration of the potential for museum displays on and off site.

3.5 Reports and archives

A report will be written up summarising the results of the archaeological watching brief on the investigation and earthworks, incorporating the data from the one or more phases of watching brief. The site and area historical, archaeological and geological background, site methodologies, results and any recommendations for further work will be set out and illustrated as appropriate. Copies of the report will be submitted via IHCM to English Heritage, the Borough's Planning Department, the Camden Local Studies Library and Argent.

The integrity of the site archive will be maintained. The finds and records will be available for public consultation. Appropriate guidance set out in the Museum and Galleries Commission's '**Standards in the Museum Care of Archaeological Collections**' (1992) and the Society of Museum archaeologist's draft '**Selection and**

Retention and Dispersal of Archaeological Collections' (1992), will be followed in all circumstances.

If the finds are not to be donated to the appropriate Museum, arrangements will be made for a comprehensive record of all relevant materials (including detailed drawings, photographs and descriptions of individual finds), which can instead constitute the archaeological archive, but see 3.4.4 above.

The minimum acceptable standard for the site archive is defined in the '**Management of Archaeological Projects 5.4' and 'Appendix 3'**. It will include all materials recovered, (or the comprehensive records of such materials as referred to above) and all written, drawn, and photographic records relating directly to the investigations. It will be quantified, ordered, indexed, and internally consistent before transfer to the Museum of London. It will also contain a site matrix, a site summary and brief written observations on the artefactual and environmental data.

United Kingdom Institute for Conservation guidelines for the preparation of excavation archives for long-term storage (1990) will be followed.

A short summary of the results of the work, even if negative, will be submitted to the Greater London SMR and NAR (using the appropriate archaeological report forms), and for publication in the appropriate academic journals including the 'Excavation Round-Up' of the **London Archaeologist**. Such publications will meet the minimum requirements set out in Appendix 7, '**Management of Archaeological Projects'** 1991, and derive from a 'phase 2 review' as defined in the same document.

4 RESOURCES AND PROGRAMMING

It is imperative that all soil excavation be undertaken under the supervision of an archaeologist in order not to cause unnecessary damage to identified archaeological deposits.

Accommodation, as well as welfare facilities and tool storage, will be required for the watching brief archaeologist and excavation team. It is assumed that these will be provided by the groundworks contractor at or near the site.

The site works will be inspected and monitored by Richard Hughes, IHCM, on behalf of Argent and Kim Stabler, English Heritage (GLAAS), on behalf of English Heritage and the London Borough of Camden.

The Health and Safety policies of Pre-Construct Archaeology Limited will be followed and in accordance with all statutory regulations. Full acknowledgement will be made to existing site policies and procedures.

The archaeological works will be supervised by a member of staff who has undertaken similar exercises.

5 TIMETABLE

Once confirmed, IHCM will advise Pre-Construct Archaeology Ltd and other relevant parties prior to commencement.

Building Recording Specification & Written Scheme of Investigation

2.0

Argent (King's Cross) Ltd

King's Cross Central

Building Recording and Analysis:

Stanley Buildings

Specification

February 2007

This report takes into account the particular instructions and requirements of our client.
It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

IHCM Ltd
45 Crescent Lane, London SW4 9PT
Tel +44 (0)20 6223378

Contents

1 Introduction

As part of the suite of permissions for the King's Cross Central (KXC) scheme granted by the London Borough of Camden, Listed Building consent has been granted for demolition of the northern of the two remaining Stanley Buildings blocks and planning permission has been granted for a comprehensive redevelopment scheme which includes works of alteration to the southern block to embed it within new mixed use development.

Condition 3 of the Listed Building Consent (2004/2313/L) for the demolition of the Stanley Buildings North block, mirrored in Condition 55 of the Planning Permission (2004/2307/P), requires a programme of 'Building Recording and Analysis'.

Condition 3 of the Listed Building Consent for the Stanley Buildings North block states:

> "No works authorised by this consent shall take place until the applicant has implemented a programme of building recording and analysis by a person or body approved by the local planning authority. This programme shall be in accordance with a written scheme which has been submitted by the applicant and approved in writing by the local planning authority."

Condition 55 of the Planning Permission states:

> "No works shall take place in relation to each phase of the Development… until the applicant, their agent or successors in title has secured the implementation of a programme [of] assessment, recording and historical analysis, which considers building structure, architectural detail and archaeological evidence. This shall be undertaken in accordance with a written scheme of investigation submitted by the applicant and approved by the local planning authority."

In this case, the relevant "phase of the Development" is the Realignment of Pancras Road, which is an Enabling Work. The realignment of Pancras Road triggers the demolition of the Stanley Buildings North block.

Initial building recording and analysis (including assessment) of the two Stanley Buildings blocks is to be carried out in advance of the demolition of the North block and the conservation and alteration works to the South block.

This Specification, drafted by IHCM, sets out the scope of this building recording and analysis work and defines the standards to which it is to be executed.

IHCM (International Heritage Conservation and Management) is the Historic Buildings Consultant to the Employer for this work, Argent (King's Cross) Limited.

Further recording and analysis of the two blocks will be carried out in one or more watching briefs as demolition and alteration works proceed in due course. This work too is to be carried out to the standards defined here. This may be the subject of an extension of the initial contract, or may form one or more subsequent contracts.

A Recording Contractor with appropriate expertise will be appointed to carry out each stage of the work. Continuity will be a consideration in the appointment of the Recording Contractor(s) for subsequent stages, with the requirement for a single integrated documentation to be completed for each block for archival purposes.

This Specification directs the contents of the Written Scheme of Investigation prepared by the commissioned contractor, Pre-Construct Archaeology Ltd. The two documents are submitted together for approval by the London Borough of Camden (LBC).

Similar recording and analysis of other buildings and structures will be undertaken subsequently, related to other development phases within KXC. This will be the subject of further future submissions.

Recording and analysis are generally to conform to the recommendations and guidance in English Heritage publications:

- *Understanding historic buildings: a guide to good recording practice* (2006)
- *Measured and drawn: techniques and practice for the survey of historic buildings* (2003)
- *Metric survey specifications for English Heritage* (2nd edition, 2003).

2 Objectives of the Building Recording and Analysis

2.1 General

It is proposed to carry out initial recording and analysis of the two blocks, Stanley North and Stanley South, together, so as to document them both as they currently stand, before the demolition of the North block and any conservation and alteration works to the South block take place. Further recording and analysis will be carried out during these later activities. This may be the subject of either an extension of the initial contract, or may form one or more subsequent contracts.

The objectives of the recording and analysis are:

- To meet the requirements of Planning Condition 55 in relation to the realignment of Pancras Road and Listed Building Consent Condition 3 in relation to Stanley Buildings North, as set out in the Introduction, 1 above.
- A general heritage-driven survey and documentation of the buildings, with drawings photographs and written accounts. This undertaking will provide ‘factual’ baseline data and also record the ‘as-found’ character.
- Identification of original elements and features, related to the functioning of the buildings as dwellings.
- Identification of modifications that may have affected their authenticity.
- Documentation of the condition of heritage elements.
- Support to the Architect and Engineer in designing the reuse functions (when such details are in due course brought forward) for the South block, where the historic fabric and features are to be retained.
- Support to Argent for longer-term management requirements of the retained heritage elements.
- Documentation to assist in the identification of elements and artefacts to be salvaged.
- Provision of information supporting and defining objectives for any necessary future documentation.

The resulting documentation is to be deposited in the English Heritage National Monuments Record Centre (NMRC) at Swindon, with the London Borough of Camden’s Planning Department, and with the Museum of London.

2.2 Programme of work

2.2.1 Commissioning the works

The commissioning of the heritage survey and documentation works will be completed within February 2007 as a result of either the nomination of a specialist Recording Contractor or a standard tendering process leading to the appointment of the Recording Contractor.

2.2.2 Site works period

The commission is planned to start in February/March 2007, with site works being completed within a three week period.

2.2.3 Reporting period

Draft documentation of the commission shall be submitted within four weeks of the site works being completed.

The issue of the final version of the report shall be two weeks following receipt of comments from Argent and IHCM.

Transfer of the archive to the National Monuments Record, Camden Planning Department, and the Museum of London would be within four weeks of receiving instruction from IHCM.

3 The Buildings

3.1 Summary description

Stanley Buildings, originally comprising five blocks of overall plan dimensions approximately 20 m by 12 m, were purpose-built in 1864-5 as low-rental ‘philanthropic’ housing by the Improved Industrial Dwellings Co. Two five-storey blocks remain, identified here as North and South. They are of yellow or white stock brick with early use of concrete for lintels. In each block there were originally four dwellings on each floor (subsequently reduced to two by combining adjacent units), symmetrically placed about the central party wall and accessed by a central walk-up staircase and balconies. The staircase also served the flat roof with a brick parapet, providing space for clothes-drying and children’s play.

Kitchens and toilet facilities were located in back extensions, with the overall dwelling layout designed to provide natural lighting and through ventilation of each room. Stairs, balconies and floors of corridors and some rooms are of early reinforced concrete employing wrought iron strips and rods as reinforcement. Other floors are of timber.

The other three former blocks have been demolished, the most recent (to the west of the North block) having been removed to accommodate the extension of St Pancras Station to become the Channel Tunnel Rail Link terminal.

Both blocks are currently unoccupied. Hoardings are being erected around them and they have been handed back to the ownership of the London Borough of Camden. Pancras Road, which originally ran to the west of the blocks, has been diverted and now runs to their east. Elements removed from the recently-demolished block are stored in the two surviving blocks.

Both blocks are listed Grade II and are within the King’s Cross Conservation Area.

3.2 Planned works

Listed Building Consent has been granted for the demolition of the North block (see the Introduction, 1 above).

The Planning Permission (2004/2307/P) provides for the retention and refurbishment of the Stanley Buildings South block and its embedment within new development incorporating a range of defined uses for example offices and a primary health care walk-in centre.

4 Recording and Analysis

4.1 Scope of work

It is proposed that the initial recording and analysis to be carried out in this contract should embrace both blocks, to document their condition at the outset of the KXC scheme. This will provide a single overall record.

The scope of the work will embrace the following activities, as set out in the English Heritage guide *Understanding historic buildings: a guide to good recording practice*:

- Documentary research
- Consultation
- Investigation
- Survey and drawings
- Photography
- Written account

Grade II listed, the two blocks stand within a Conservation Area and between the two major Grade I listed railway buildings – King's Cross Station, and St Pancras Station which includes the former Midland Grand Hotel. Accordingly it is proposed that the recording work will be to Level 4 as described in the English Heritage practice guide.

4.2 Documentary research

Documentary research on the blocks has already been carried out during building assessment studies as part of the Environmental Assessment for the KXC scheme. This and other available documentary material will be made available to the Recording Contractor for tender, who is to avoid incurring unnecessary expense by duplicating detailed research already undertaken.

Further archival sources are to be approached for additional documentary material. The scope of this study is to be agreed with IHCM before it is undertaken.

4.3 Consultation

Consultation is to take place with the following parties, to take advantage of specialist and local knowledge of the two buildings and the commission's objectives:

- IHCM (Michael Bussell and Richard Hughes)
- English Heritage (present contact: Zoe Croad)
- London Borough of Camden, King's Cross Team (present contact: Katharine Owen; also for access to the blocks once they have been handed back to Camden)
- Robert Thorne of Alan Baxter & Associates (an authority on the King's Cross area)
- London & Continental Stations and Properties (for recording information on the recently-demolished block)

4.4 Previous investigations

Previous investigations and assessment of Stanley Buildings, based on available documentation and on-site inspection by IHCM, will be made available to the Recording Contractor for tender.

It is noted that the recently-demolished block has been recorded as part of the CTRL project's mitigation measures under the Channel Tunnel Rail Link Act.

4.5 Survey and drawings

4.5.1 General

The Recording Contractor is to adopt techniques for surveying and measurement that allow the production of the drawings scheduled in Appendix A.

In addition, the techniques are to be suitable for their potential incorporation in a Geographical Information System (GIS) that is being considered for the overall KXC scheme. For instance, a user of a GIS system would be able to instantly identify structures and artefacts on a site, whereas a non-spatial alternative would require analysis time to identify features that may be affected by construction works.

To facilitate this it is anticipated that, in general, survey data will be captured electronically.

Survey, measurement and preparation of drawings are generally to follow the guidance in the English Heritage publications *Measured and drawn: techniques and practice for the survey of historic buildings* and *Metric survey specifications for English Heritage*.

4.5.2 Site grid and survey control

A 3-dimensional topographical survey of the KXC site is being undertaken to a specification produced by Arup. This will establish permanent ground markers and define the overall site grid, which will be oriented with the Ordnance Survey National Grid. Information on the location of markers and the site grid will be provided to the Recording Contractor for tender.

The Stanley Buildings survey work is to be keyed to this site grid both on plan and in level.

4.5.3 Building drawings

A 2-dimensional survey of the two blocks has already been undertaken for the Employer, which formed the basis of drawings submitted with the planning application and application for listed building consent. This may provide a basis for some of the drawings which are listed in Appendix A as to be provided by the Recording Contractor. The tenderer is to study the survey material and to then advise the Employer of the extent of use that will be made of the survey data, which will be made available by the Employer at no charge to the Recording Contractor. This use is to be taken into account in the tenderer's price for the work.

4.5.4 Printed drawings

Drawings for the archive record are to be printed on durable paper.

4.6 Photography

Photographic recording is primarily to be carried out using silver-based black-and-white film. Format should preferably be medium-format or larger.

Supplementary colour photography is to be carried out to illustrate, at a minimum, external elevations and major rooms within the two blocks, and also significant details.

Photographs for the archive record are to be provided as prints (10 by 8 inches or similar size) on durable photographic paper.

Photographs of features and artefacts should contain a scale.

The photographic archives will include a representative sample of the black-and-white negatives.

The types of photographs required for this commission are defined in Appendix B.

4.7 Written account

The written account should cross-refer to existing documentary recording and summarise its findings, but should not reproduce or rehearse it in full. The intention is that such existing work will be deposited with the work of the Recording Contractor.

Appendix C contains topics to be addressed in the written account.

4.8 Digital archive records

In addition to the paper copies described above, three copies of the complete recording archive (drawings, photographs, and written account) are to be provided on CD. One of these is to be passed to the Employer; the other two are to be lodged with the English Heritage National Monuments Record Centre (NMRC) at Swindon and the London Borough of Camden's Planning Department.

5 Actions by the Recording Contractor

5.1 Before submission of tender

- Be familiar with the existing historic buildings documentation on the two Stanley Buildings blocks (to be provided to the tenderer).
- Be familiar with arrangements for access to the buildings and of the various contractors in possession of adjacent site(s) (to be provided to the tenderer).
- Be familiar with the draft Health & Safety Plan under CDM Regulations (to be provided to the tenderer; the Employer's Planning Supervisor is PCM Safety (present contact: Martin Perrett).
- Be familiar with surveys already undertaken for the presence of hazardous materials. (A survey is currently being commissioned.)

5.2 At tender

- Submit details of the tenderer's Health & Safety policy as an Employer.
- Submit a Written Scheme of Investigation for the recording and analysis of the two blocks, incorporating the requirements of this Specification and setting out proposals for equipment and methodology for achieving the required standards of archival recording.
- Submit particulars of public liability and professional indemnity insurance policies.

5.3 On appointment as Recording Contractor

- Adopt Health & Safety Plan and implement its requirements.
- Confirm constraints that may affect the site works including live services, asbestos and unsafe locations (including working at height to record features at roof level and elsewhere).
- Obtain an archaeological site code from the Museum of London and a unique reference from the National Monuments Record.
- Carry out the contracted recording and analysis.

5.4 During the site works

- Attend weekly progress meetings, presenting a short written progress report.
- Conduct tours for interested parties.
- Log of questions and enquiries.

5.5 On completion of work on site

- Provide the recording report in draft four weeks following the completion of site works, and issue the final report two weeks after receiving comments on the draft from IHCM. Eight paper copies and three electronic copies of the report shall be provided.
- At a time agreed with IHCM, lodge the final report both as paper and electronic copies with the English Heritage National Monuments Record Centre (NMRC) at Swindon and with the London Borough of Camden's Planning Department.
- Provide to English Heritage a completed NMR OASIS form.
- Lodge the archives including a copy of the final report with the Museum of London.

5.6 Documentation during other investigations of the buildings

- Recording of opened-up locations by drawing and photography, should there be engineering investigations that require intrusive exploration works taking place during the commission period.

Subsequent recording and analysis (which may be the subject of an extension of the initial contract, or may form one or more subsequent contracts):

- During demolition of the North block, at times of salvage collection and storage, and during development ground works. These documentation activities will be carried out with regard to the requirements of Planning Condition 56, related to archaeological matters.
- During future conservation and alteration works to the South block.

6 Facilities to be Provided to the Recording Contractor

The Employer will provide the following facilities and services to ensure that the works can be carried out to satisfy the commission's objectives and methods:

6.1 General

- Planning Supervisor role for CDM Regulations (PCM Safety: present contact Martin Perrett).
- Right of legal entry to the site (owned by the London Borough of Camden).
- Existing heritage-related documents.

6.2 Technical

- Engineering and live service drawings.

6.3 Facilities

- Office and temporary storage facilities (adequacy of security to be agreed with the Recording Contractor).
- Temporary messing accommodation, with heating or lighting responding to the time of year and climatic conditions.

7 Facilities to be Provided by the Recording Contractor

7.1 General

The Recording Contractor shall provide or arrange through the Employer for the following:

- All electricity and lighting necessary for working conditions.
- Washing and lavatory facilities.
- Site induction to ensure safe working methods by building surveyors, archaeologists and approved visitors.
- PPE for all staff and up to five designated visitors.
- First Aid kit.

7.2 Technical

- All survey and recording equipment and materials.
- Containers and packaging for samples and movable artefacts.

Appendix A

Schedule of Record Drawings to be Produced

Note: apart from the one overall site plan, drawings are required to be produced for both blocks

Drawing	Scale	Comments
A1 Plans		
Site plan	1:200	To show both blocks and nearest site grid control points
Ground floor plan	1:100	Including adjacent hard landscape features
First floor plan	1:100	
Second floor plan	1:100	
Third floor plan	1:100	
Fourth floor plan	1:100	
Flat roof plan	1:100	Plan view above parapet and chimneys
A2 External elevations		
Front elevation	1:100	
Side (west) elevation	1:100	
Side (east) elevation	1:100	
Back elevation	1:100	To use a single 'developed' elevation, or additional part-elevations, so that all external faces of the back extensions are recorded
A3 Sectional elevations (full height and width)		
Long front-to-back sectional elevation through central corridor from balcony to rear wall of deeper back extension	1:100	Two to each block: one looking to west in one dwelling, one looking east in the other
Long front-to-back sectional elevation through front room, both back rooms and shallower back extension	1:100	Two to each block: one looking to west in one dwelling, one looking east in the other; long section-line may be offset along length to allow clarity of reading
Cross-sectional elevation through both front rooms and balconies	1:100	Looking towards back of block
Cross-sectional elevation through back extensions	1:100	Looking from just inside doors towards back of block to highlight position of original washing, cooking and toilet facilities
A4 Details		
To include: - typical chimney-pots (excluding modern replacements) - typical parapet bay with cruciform openings - typical balcony balustrading, central column and beams, tie-rods and back-plates restraining column - typical dust and ash chute on balcony (roof, typical floor, ground floor) - typical decorative rendering around doorways and adjacent balcony wall areas - typical window lintels (various types) - typical window-frames and surrounds - typical decorative ceiling mouldings - typical cast iron / decorative fireplaces - original or early washing / cooking / toilet facilities - adjacent hard landscape features related to the buildings	1:20 and 1:10	

Appendix B

Schedule of Photographs to be Produced

Topic	Comments
B1 Setting	- Views to and from the blocks - Views taken from nearby buildings where access can be arranged (in particular from the roof of St Pancras Station trainshed and the new station extension roof if this is permitted)
B2 External elevations and features (including balconies, staircase and 're-entrant' elevations of back extensions)	- Oblique and rectified - Details to include: - typical balcony balustrading, central columns and beams, tie-rods and back-plates restraining columns - typical dust and ash chutes on balcony (roof, typical floor, ground floor) - typical decorative rendering around doorways and adjacent balcony wall areas - typical window lintels (various types) - Hard landscape features
B2a Flat roof	- General - Details to include: - typical chimney-pots (including modern replacements) - typical parapet bays with cruciform openings
B3 General internal room views	- General
B4 Telephoto of external remote features	- Brickwork, defects, windows, roofs, chimney stacks
B5 Internal features and fittings	- Floors, ceilings, doors, windows - Paint - Wallpaper - Bricklaying patterns - Mortar, plaster and mouldings - Exposed iron 'beams' in ceilings - Kitchen and bathroom services and fittings - Fireplaces and chimney-pieces
B6 Building condition	- Generally
B7 Artefacts	- As found during initial recording and subsequent demolition or alterations
B8 The site work in progress	
B9 Ad-hoc activities by temporary tenants	- **buildings are unoccupied; not applicable in this contract**
B10 Photographs found at archives (number to be agreed)	

Appendix C

Contents of Report

Topic	Comments
C1 Introduction	- Background to the commission
	- Planning conditions
	- Objectives
	- Programme
	- Constraints
	- Acknowledgements
C2 Methods	- Research
	- Survey
	- Documentation
	- Photography
	- Sampling
	- Consultation with specialists
	- Meetings
C3 Outputs	- Drawings
	- Photographs
	- Samples
	- Accounts
	- Appendices registering the produced database
C4 Written account	- Description of the building
	- Findings of the site work including phasing
	- Analysis of the documentation processes
C5 Conclusion	- Main findings
	- Outstanding objectives
	- Recommendations
C6 Figures, drawings, and photographs	- A good selection of each
C7 References	
C8 NMR OASIS Form	- Completed form for lodging, with or without report, with English Heritage
C9 Appendices	- Log of all collected baseline data resulting from the commission (drawings, photographs, samples, artefacts)

Appendix D

Artefacts and Samples

Artefact	Proposed Sampling
Wallpaper	Remove samples of early wallpaper for conservation and archiving in study collection
Paint	Remove samples for identification of materials and archiving in study collection
(Bricks	Sound facing bricks will be salvaged from North block during demolition if practicable, for use in South block during conservation and alteration works. The Recording Contractor is not required to identify suitable areas of such bricks, as identification will be included in the salvage process of the demolition contract.)
Chimney-pots (excluding modern replacements) Balcony balustrading Balcony central columns and beams, tie-rods and back-plates restraining columns Dust and ash chute boxes Decorative rendering around doorways and adjacent balcony wall areas Window lintels (not modern replacements) Window-frames and surrounds Decorative ceiling mouldings (if removal practical) Cast iron / decorative fireplaces Original or early washing / cooking / toilet facilities	Identify examples in sound condition for subsequent dismantling during demolition of North block and alterations to South block (to be re-used if practicable in first instance for replacement of damaged or missing counterparts in South block during conservation and alteration works; subsequently to be offered to museum or similar institutions; then as architectural salvage)

STANLEY BUILDINGS
King's Cross
London NW1

London Borough of Camden

Written Scheme of Investigation for
Building Recording and Analysis

National Grid Reference: TQ 3009 8319

February 2007

Written Scheme of Investigation for Building Recording and Analysis of Stanley Buildings, King's Cross, London NW1

National Grid Reference: TQ 3009 8319

Written by Alex Rose-Deacon
PCA
February 2007

Field Project Manager: Gary Brown

Contractor: Pre-Construct Archaeology Ltd

PCA
Unit 54
Brockley Cross Business Centre
96 Endwell Road
Brockley
London
SE4 2PD

0207 732 3925
0207 732 7896

February 2007

CONTENTS

1 BACKGROUND

1.1 Stanley Buildings are two of a number of historic buildings that are located in the vicinity of King's Cross and St. Pancras Stations and the former King's Cross Station Goods Yard. They are part of King's Cross Central, a major regeneration development scheme. Outline Planning Permission (2004/2307/P) for that scheme was granted in December 2006, subject to certain conditions.

1.2 The Enabling Works for the development include the realignment of Pancras Road and this triggers the demolition of the Stanley Buildings North. Listed Building Consent has been granted for the demolition (2004/2313/L).

1.3 Condition 55 of the Planning Permission states:

> "No works shall take place in relation to each phase of the Development …until the applicant …..has secured the implementation of a programme [of] assessment, recording and historical analysis, which considers building structure, architectural detail and archaeological evidence. This shall be undertaken in accordance with a written scheme of investigation submitted by the applicant and approved by the local planning authority."

1.4 In this case, the "phase of the development" is the realignment of Pancras Road as an Enabling Work.

1.5 Condition 3 of the Listed Building Consent states similarly:

> "No works authorised by this consent shall take place until the applicant has implemented a programme of building recording and analysis by a person or body approved by the local planning authority. This programme shall be in accordance with a written scheme of investigation which has been submitted by the applicant and approved in writing by the local planning authority."

1.6 This document forms the Written Statement of Investigation (WSI) for the building recording and analysis of both Stanley Buildings and responds to a specification for the heritage recording works prepared for the developer by International Heritage Conservation and Management (IHCM)

1.7 Pre-Construct Archaeology Ltd. (PCA) is a Registered Archaeological Organisation with the Institute of Field Archaeologists (#23).

1.8 Stanley Buildings lie to the west of King's Cross Station, on land bounded by the diverted Pancras Road to the north-east, Stanley Passage to the north-west, the St Pancras Station extension to the south-west, and Clarence Passage to the south-east.

1.9 The buildings were constructed in 1864-5 by the Improved Industrial Dwellings Company, as low-rent 'philanthropic' housing. Named after Edward Henry Stanley, the company's director, they were intended to provide safe and hygienic accommodation for industrial artisans and their families, and were amongst the earliest examples of this type of housing in London. They provided completely self-contained accommodation, and originally comprised five similar five-storey brick-built blocks with four dwellings on each floor, each containing a living-room, one or two bedrooms, a wash-house, and a W.C. Access was via an external open staircase and balconies. The flat roofs provided drying space and secure playing areas for children. Subsequently, the four dwellings on each floor were merged into two, and ownership of the blocks was passed to the local authority, the London Borough of Camden.

1.10 Three of the five original blocks have been destroyed or demolished, by bombing during World War II, for road improvements and most recently the CTRL works. The two surviving blocks (Nos. 11-20 in Stanley Buildings North, facing onto Stanley Passage, and 21-30 in Stanley Buildings South, facing onto Clarence Passage) are currently boarded up.

2 THE MITIGATION

2.1 The mitigation involves the preservation by record of the structures to be removed or altered by the development. The building recording will take the form of a Level 4 record of the structure, as set out in English Heritage *Understanding Historic Buildings: A Guide to Good Recording Practice* (2006), in advance of the works.

2.2 The PCA recording will fully conform to the IHCM specification.

2.3 The record will take the form of drawn plans of all the floors of the building where there is safe access. Drawings will be made of all elevations, and a photographic survey will be undertaken of the building. The survey will incorporate a written report and description.

2.4 All works will be undertaken in accordance with standards set out in:

- Association of Local Government Archaeological Officers: *Analysis and recording for the conservation and control of works to historic buildings* (1997)
- British Archaeologists and Developers Liaison Group: *Code of Practice* (1986)
- British Standards Institution: *Guide to the principles of the conservation of historic buildings (BS 7913)* (1998)
- English Heritage (Clark, K.): *Understanding historic buildings and their landscapes for conservation*, (2001)
- English Heritage: *Guidance Paper 98:* GLAAS: *Guidance Paper 3 - Standards and practices in archaeological fieldwork in London*
- English Heritage (Clark, K.): *Informed conservation* (2001)
- English Heritage: *The presentation of historic building survey in CAD* (2000)
- IFA: *Standards and guidance for the archaeological investigation and recording of standing buildings or structures* (1999)
- Royal Commission on the Historic Monuments of England (now part of English Heritage)*: Recording historic buildings: a descriptive specification*, 3rd edition (1996)
- English Heritage: *Understanding historic buildings: a guide to good recording practice* (2006)

2.5 Pre-Construct Archaeology has been provided with all available existing plans and sections by the client, and will use these to inform more detailed recording of the structures.

2.6 Site perimeter hoarding/fencing and general security is the responsibility of the client or their agent.

2.7 The erection of all scaffolding is the responsibility of the client or their agent.

2.8 The two buildings were visited on 29th November and are currently empty. Health & Safety procedures and a risk assessment will be undertaken prior to commencement of works.

3 METHOD STATEMENT

3.1 Access and Safety

3.1.1 During site work PCA will give reasonable access to the site to the client and their representatives, subject to the health and safety requirements at the site. Such access may be deemed necessary in order that the client is satisfied, through site inspections, that the works are being conducted to proper professional standards and in accordance with the agreements made.

3.1.2 All relevant health and safety legislation, CDM, COSHH regulations and codes of practice will be respected.

3.1.3 There is a duty of care for the client to provide all information reasonably obtainable on contamination and the location of live services before site works commence.

3.1.4 Any site perimeter hoarding, maintenance of gate access and general site security is the responsibility of the client or their agent, unless Pre-Construct Archaeology is instructed to the contrary. The costs of this will be additional to that quoted.

3.2 Recording Systems

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

3.2.2 The recording systems adopted during the investigations will be fully compatible with those most widely used elsewhere in London and by English Heritage.

3.2.3 The site archive will be so organised as to be compatible with the other archaeological archives produced in the Local Authority area. This requirement for archival compatibility extends to the use of computerised databases.

3.2.4 A ‘site location plan’ indicating the site north and based on the current Ordnance Survey 1:1250 map (reproduced with the permission of the Controller of HMSO) will be prepared.

3.2.5 A full photographic record of the investigations will be prepared. This will include medium format black and white and colour negative film, illustrating the building setting, external elevations, internal room space types, and features and fittings. Record shots of all spaces will be taken with a digital camera. The photographic record will also include shots to illustrate the site work in progress, and any relevant photographs found at the archives. The transparencies will be mounted in suitable frames for long-term curation in preparation for deposition with the archive.

3.3 The Recording Work: Scope

3.3.1 The buildings are irregular in plan with the main access off Pancras Road. The surviving building to the north-west has been vacant for some time and is in a relatively poor state of repair. The building to the south-east is in a better condition.

3.3.2 The buildings are of five storeys and have no basements or attics. It appears that all areas will be safely accessible, although only a small area of the building to the north-west was inspected. The recording will take the form of documentary research, full photographic survey (medium format), measured survey (both manual and electronic), and written description and analysis.

3.3.3 The balconies of the buildings contain several decorative elements including ironwork and plaster mouldings. These will be recorded by manual detail drawings.

3.3.4 The external elevations of the buildings and the surrounding hard landscaping will be recorded by electronic survey and photography.

3.3.5 The setting and major views of the buildings will be recorded photographically.

3.3.6 Fabric analysis will be undertaken of internal and external materials used in the construction of the buildings, and samples taken where required. Fabric analysis of the ceramic and stone materials used in construction will be undertaken using the London System of fabric classification.

3.3.7 Samples of materials will be taken to form part of the archive.

3.4 Recording: Methods

3.4.1 The purpose of the work will be to create an accurate record of the buildings and the fabric exposed by the works, which will enhance the existing understanding of the structures.

3.4.2 The recording will take the form of manual and electronic measured survey, producing plans, elevations and sections, a photographic survey, and fabric analysis of the historic and recent building sequence, materials and technology and techniques used. A written description will be produced.

Measured Survey

3.4.3 The measured survey will be undertaken by hand and electronically. The survey will be undertaken to produce conventional architectural drawing, executed according to the English Heritage (2006) specifications.

3.4.4 The survey will include:

- A site plan, drawn at 1:200
- Plans of all floors, drawn at 1:100
- A roof plan, drawn at 1:100
- External elevations, drawn at 1:100
- Four sectional elevations, two cross-sectional and two long, drawn at 1:100
- Detail drawings, drawn at 1:20 and 1:10, recording features related specifically to tenement building function, ornamentation of mouldings, external rails and balustrading, window structures, fireplaces and chimney stacks (as scheduled in Appendix A of the IHCM Specification).

3.4.5 All drawings will be produced digitally using AutoCAD (2004/2006) following English Heritage guidelines and using an appropriate layering system. All drawings will, wherever possible, be tied into the overall site grid and the Ordnance Survey National Grid. Plans, sections and elevations will be printed at a scale of 1:50, 1:100 or 1:200, depending on the level of detail to be shown. Roof trusses and other elements may need to be drawn at a scale greater than 1:50. Details will be drawn at 1:20 or 1:10.

3.4.6 The AutoCAD drawings will be constructed in a way which will be compatible with the GIS being developed for the whole Kings Cross Central scheme, and the data will be provided in appropriate formats for incorporation into the GIS.

3.4.7 The survey work on the Stanley Buildings will be keyed into the two-dimensional topographical survey of the King's Cross site undertaken by Plowman Craven and Associates. The survey work may also be tied into a three-dimensional electronic laser survey of the Stanley Buildings; this will be dependant on the timing of site works.

3.4.8 All drawings will be produced to a sufficient standard that they may offer support to the Architect and Engineer in designing the reuse functions where the historic fabric and features are to be retained, and to Argent for longer-term management requirements of the retained heritage elements.

Photography

3.4.9 Medium format black and white photography will be used to record evidence of the sequence of construction, elevations, typical and unusual spaces and architectural details, and important fixtures and fittings. This will be supplemented by colour photography, which will be used to illustrate external elevations, major rooms and significant details. Record photographs of each internal space will be taken with a digital camera. Photographs will also be made of the general context of the buildings. For exterior photographs the original design and period of the various phases will be taken into consideration, so that there are photographs of historically important views of the buildings in their landscape.

Fabric Analysis

3.4.10 Descriptive and interpretative notes will be made of the buildings and their construction, recording and analysing function, materials, phases, sequences, historical techniques used, missing fabric, fixtures and fittings (both former and current). Materials (brick, stone, timber, metal, render and mortar) will be identified and dated during the works. The recording of the building fabric will be undertaken using a modular pro-forma system based upon English Heritage levels of recording as defined in *Understanding historic buildings: a guide to good recording practice*. The information will be entered into a Microsoft Access database for the purposes of generating an electronic record that may be usable with GIS systems. Where the building fabrics are deemed to be of national or regional importance materials will be sampled analysed and dated by a specialist, where appropriate or practical. Where the sensitivity of the fabric precludes sampling the material will, where possible, be identified in-situ.

3.4.11 Following the main phase of recording, fabric samples will be taken during the demolition of the north block and alteration works to the south block (as scheduled in Appendix D of the IHCM Specification). This work will be undertaken by a buildings archaeologist and will be charged at a standard day rate.

Written Description

3.4.12 A report will be prepared based on the above record, describing the form and function of the building. It will present the results of the building recording and indicate the direction of any further work arising from it, before it is taken forward to publication.

3.5 Post-Recording Report

3.5.1 The report will be fully illustrated with plans, sections, elevations and photographs, and will outline the results of the work. The direction of photographs taken will be indicated within the report. There will be an analysis of the buildings' architecture, development and changing historic functions and operation. The report will cover all of the topics listed in Appendix C of the IHCM Specification, and will take the form laid out in paragraph 3.5.3 (below).

3.5.2 The buildings' significance in terms of their architecture and operation will also be analysed within a local, regional or national context. The report will identify the significance of the findings and the level to which they require publication, which will meet the 'minimum requirements' set out in Appendix 7 of the English Heritage *Management of Archaeological Projects* (1991).

3.5.3 The report will have the following contents:

Introduction
Historic background
Building descriptions
The development of the buildings (including their fixtures/operations and the historic sequence)
Architectural context
Discussion and conclusions
Fabric description appendix
Survey drawings (plans, sections & elevations; details of important architectural features)
List of photographs

3.6 Treatment of Finds and Samples

3.6.1 Although no artefact finds are envisaged, if located they will be retained as part of the site archive.

3.6.2 In the unlikely event of finds of national or regional importance being encountered they will be treated in a proper manner and to standards agreed in advance with the recipient museum. They will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in the United Kingdom Institute for Conservation's *Conservation Guidelines No.2*. Metal objects of importance will be x-rayed and then selected for conservation (except in those cases where the nominated representative of the LPA agrees that this will not be necessary).

3.6.3 Ceramic (pottery, clay tobacco, building material fabric and brick form) reference collections may be referred to for descriptive and analytical purposes in order to ensure that terminology is consistent.

3.6.4 Samples of building material considered to be of specific importance to the Listed status and history of the buildings or are of other regional or national importance will be taken where appropriate and practical, unless precluded by the sensitivity of the material. Any samples thus taken will receive the appropriate level of cleaning, conservation and archiving according to the guidelines set out in the United Kingdom Institute for Conservation's *Conservation Guidelines No.2*.

3.7 Reports and Archives

3.7.1 The integrity of the site archive will be maintained. Any finds and records will be available for public consultation. Appropriate guidance set out in the Museum and Galleries Commission's *Standards in the museum care of archaeological collections* (1992) and *Towards an accessible archaeological archive: the transfer of archaeological archives to museums: guidelines for use in England, Northern Ireland, Scotland and Wales* (SMA, 1995).

3.7.2 If finds are not to be donated to the appropriate Museum, arrangements will be made for a comprehensive record of all relevant materials (including detailed drawings, photographs and descriptions of individual finds), which can instead constitute the archaeological archive.

3.7.3 The minimum acceptable standard for the site archive is defined in *Management of archaeological projects*, 5.4 and Appendix 3. It will include all materials recovered (or the comprehensive records of such materials as referred to above), and all written, drawn, and photographic records, including a copy of all reports relating to the investigations undertaken. It will be quantified, ordered, indexed, and internally consistent before transfer to the appropriate museum. It will also contain a site summary and brief written observations on the artefactual and environmental data.

3.7.4 United Kingdom Institute for Conservation guidelines for the preparation of excavation archives for long term storage (1990) will be followed.

3.7.5 An assessment of the results of the work, even if negative, will be bound into the client report for submission to the LPA and the GLSMR as soon as possible after the completion of archaeological works.

3.7.6 Minimum requirements for public dissemination is for SMR report forms to be submitted to the LPA as soon as possible of within 6 months of completion of fieldwork, and the provision of a short paragraph summary of the results for publication in a local journal. Such publications will meet the minimum requirements set out in Appendix 7 of *Management of Archaeological Projects* (1991), and derive from a 'phase 2 review' as defined in the same document.

4 RESOURCES AND PROGRAMMING

4.1 The amount of recording will be dependent on the duration of the demolition process and the level of safe access available to the buildings. The fieldwork is likely to take ten working days, although these may not be continuous, depending on achieving safe access to the buildings.

4.2 Documentation of the demolition of the north block and alterations to the south, and associated materials sampling (as scheduled in Appendix D of the IHCM Specification), will be undertaken and will be charged separately at a standard day rate. The timetable and duration of this recording stage will be dictated by the timetable and duration of demolition and alteration works.

4.3 Accommodation, toilet facilities and full washing facilities for the attendant archaeological team will be arranged with the client.

4.4 The Health and Safety policies of Pre-Construct Archaeology Limited will be followed and in accordance with all statutory regulations. The work will conform to existing site policies and procedures.

4.5 The site team will consist of a historic buildings analyst, a survey team and a photographer. Additional assistants will be required to assist with recording.

4.6 The report will be prepared as soon as possible after completion of the fieldwork and will be submitted to the client and to IHCM in draft for comment and appropriate amendment. Eight copies of the final report shall be issued to the client two weeks following receipt of comment, for onward distribution to IHCM, English Heritage and the London Borough of Camden. At an agreed date, copies of the report will be lodged in the LAARC, the Camden Local Studies Library and the English Heritage National Monuments Record at Swindon.

King's Cross

5 Albany Courtyard
Piccadilly
London
W1J 0HF

T +44 (0)20 7339 0400
www.kingscrosscentral.com