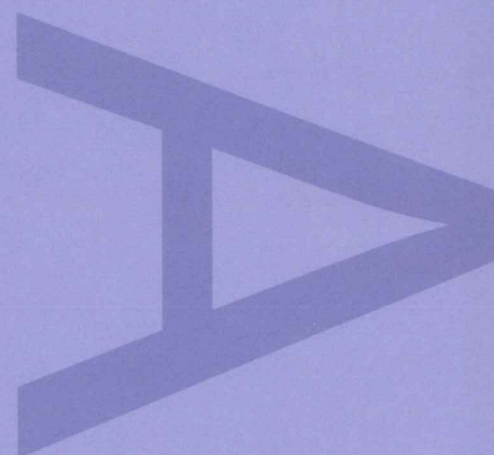
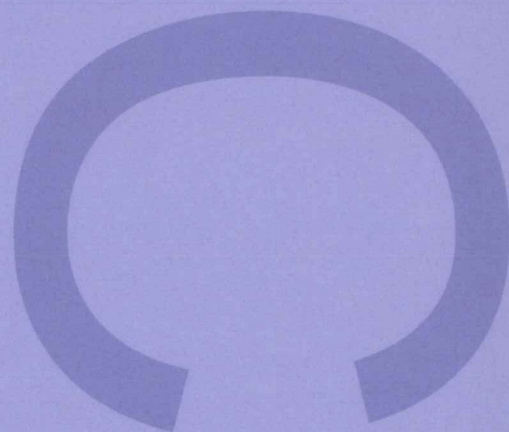
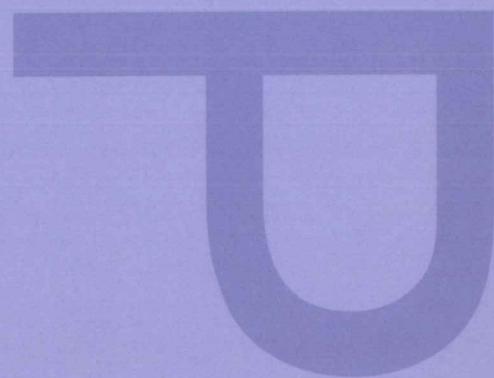


**AN ARCHAEOLOGICAL WATCHING  
BRIEF AT THE GRANARY COMPLEX,  
KING'S CROSS CENTRAL,  
LONDON BOROUGH OF CAMDEN**

**SITE CODE KXC-06**

**OCTOBER 2007**



**PRE-CONSTRUCT ARCHAEOLOGY**

**An Archaeological Watching Brief at The Granary Complex,  
King's Cross Central, London Borough of Camden**

**Site Code: KXC - 06**

**Central National Grid Reference: TQ 3010 8349**

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October 2007**

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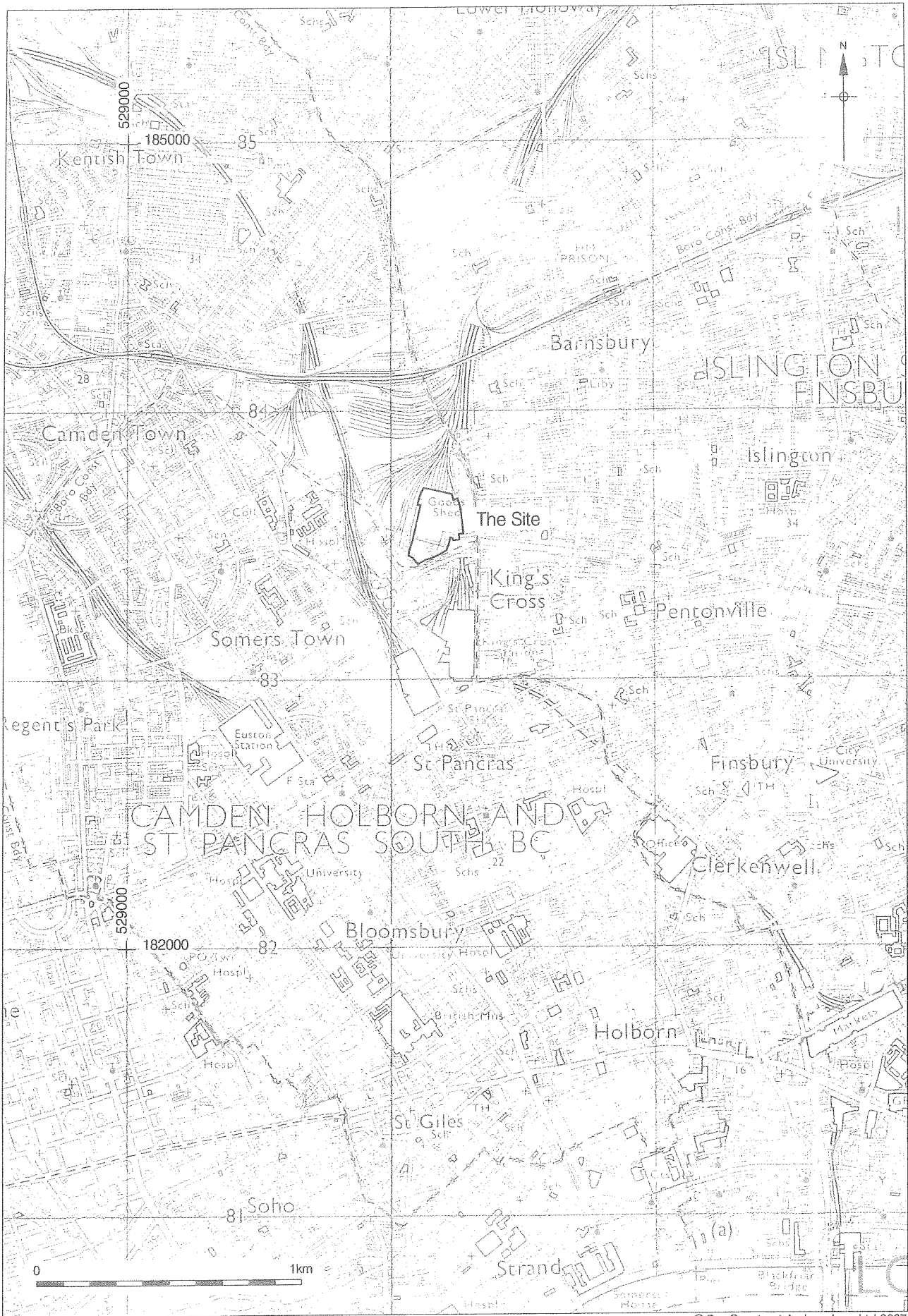
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## 1 ABSTRACT

- 1.1 This report details the results and working methods of an archaeological watching brief of geotechnical trial pits carried out at the Granary Complex, King's Cross Central. As part of a structural and geotechnical investigation into the historic buildings and their settings, the watching brief was commissioned by Argent (Kings Cross) Limited and carried out by Cameron Taylor (later Scott Wilson). The project took place intermittently between 17<sup>th</sup> November 2006 and 5<sup>th</sup> April 2007, and represents one of a series of watching briefs intended to support the designs of King's Cross Central, in response to LB Camden planning requirements.
- 1.2 Natural deposits were recorded in trial pits 4, 6 and 9 consisting of clean silty clay. In all pits, barring TP15, this was sealed by a series of 19<sup>th</sup> century made ground layers. The 19<sup>th</sup> century footings for still extant walls were recorded in pits 3, 4, 5, 6, 9, 10 and 13. In addition 19<sup>th</sup> century subterranean structures were observed in pits 1, 2 and 5 relating to the former canal basin. Extensive evidence was also revealed relating to late 19<sup>th</sup> century services. Large numbers of pipes were recorded in trial pits 1, 5 and 9. Sealing all pits was a further series of 20<sup>th</sup> century made ground/levelling deposits. All recorded deposits indicate large-scale redevelopment of the area during 19<sup>th</sup> and 20<sup>th</sup> centuries, thereby supporting both past observations and historical documentation related to the extensive railway lands of the Great Northern Railway and Midland Railway.

## 2 INTRODUCTION

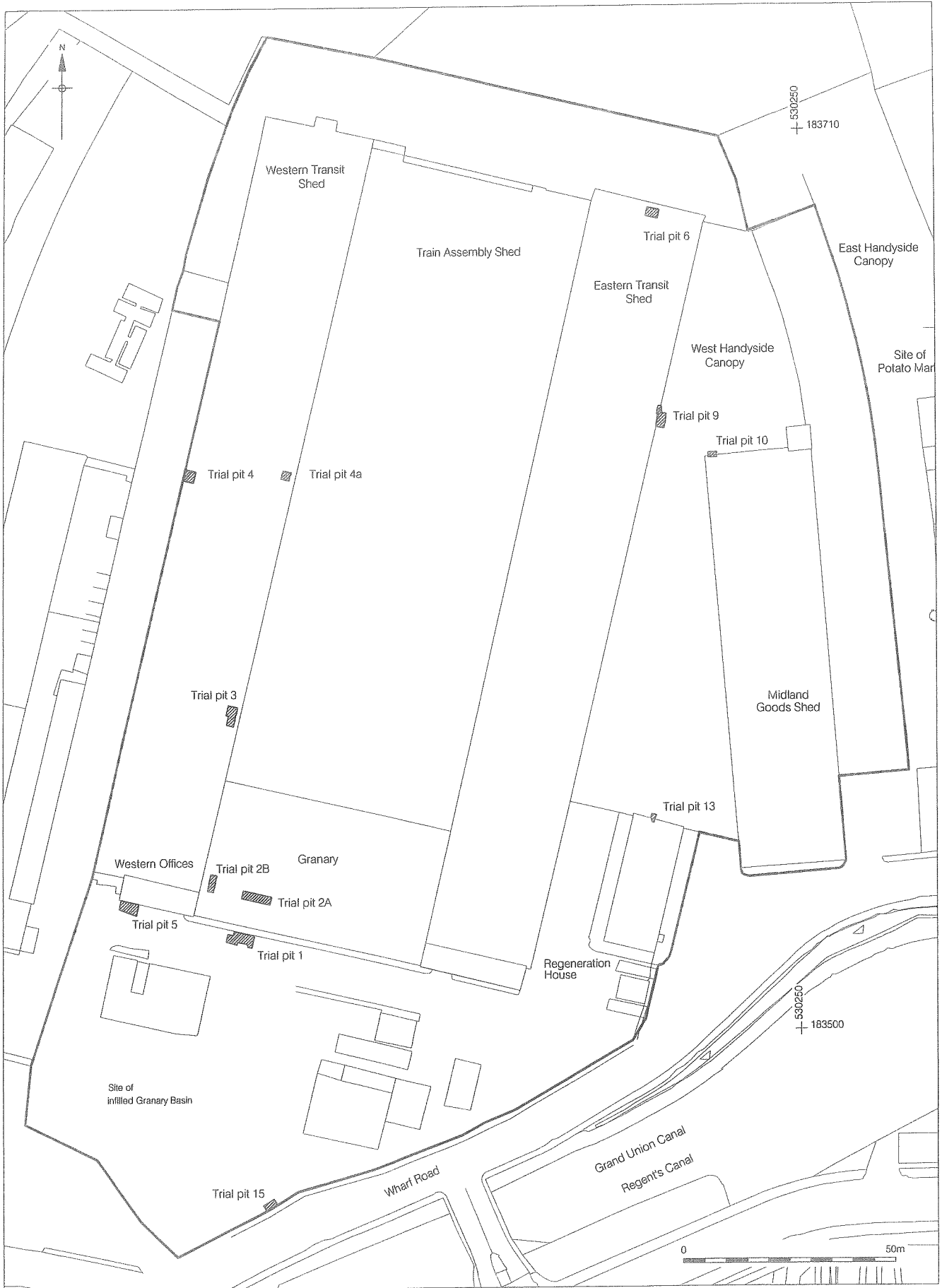
- 2.1 An archaeological watching brief of geotechnical trial pits was undertaken intermittently between 17<sup>th</sup> November 2006 and 5<sup>th</sup> April 2007 by Pre-Construct Archaeology Limited at the Granary Complex, King's Cross Central. The project represents one of a series of watching briefs intended to support the designs of King's Cross Central, in response to Camden planning requirements.
- 2.2 The site is bounded by Goods Way to the south, Wharf Road to the north and York Way to the east, and is located within the Regent's Canal conservation area.
- 2.3 The site is located at National Grid Reference TQ 3010 8349.
- 2.4 The maximum depth of ground reduction was 4.58m in TP3, with a minimum depth of 0.90m in TP15. The trial pits were recorded as a watching brief.
- 2.5 The work was commissioned by Argent (Kings Cross) Limited and carried out by Cameron Taylor. The project was managed for Pre-Construct Archaeology by Gary Brown and supervised by the author.
- 2.6 The site was assigned the code KXC 06



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Figure 1  
 Site Location  
 1:20,000 at A4



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Figure 2  
 Trial Pit & Borehole Locations  
 1:1,000 at A4

### **3 PLANNING BACKGROUND**

- 3.1 In November 1990 the Department of the Environment issued Planning Policy Guidance Note 16 (PPG16) "Archaeology and Planning" providing guidance for planning authorities, property owners, developers and others on the preservation and investigation of archaeological remains.
- 3.2 In considering any planning application for development, the local planning authority is bound by the policy framework set by government guidance, in this instance PPG16, by current Structure and Local Plan policy and by other material.
- 3.3 The relevant Development Plan framework is provided by the Camden Unitary Development Plan. The Camden Replacement Unitary Development Plan (2006) states:

#### **B8 – ARCHAEOLOGICAL SITES AND MONUMENTS**

##### **A – SITES AND MONUMENTS OF NATIONAL ARCHAEOLOGICAL IMPORTANCE:**

**WHEN CONSIDERING DEVELOPMENT CLOSE TO SITES AND MONUMENTS OF NATIONAL ARCHAEOLOGICAL IMPORTANCE, INCLUDING SCHEDULED ANCIENT MONUMENTS, THE COUNCIL WILL SEEK THE PHYSICAL PRESERVATION OF THE ARCHAEOLOGICAL FEATURES AND THEIR SETTINGS.**

##### **B – SITES AND MONUMENTS OF ARCHAEOLOGICAL IMPORTANCE:**

**THE COUNCIL WILL ONLY GRANT CONSENT FOR DEVELOPMENT WHERE ACCEPTABLE MEASURES ARE UNDERTAKEN TO PRESERVE REMAINS OF ARCHAEOLOGICAL IMPORTANCE AND THEIR SETTINGS. DEVELOPERS SHOULD ADOPT MEASURES THAT ALLOW SUCH REMAINS TO BE PERMANENTLY PRESERVED IN SITU. WHERE THIS CANNOT BE ACHIEVED, NO DEVELOPMENT SHALL TAKE PLACE UNTIL SATISFACTORY EXCAVATION AND RECORDING OF THE REMAINS HAS BEEN CARRIED OUT.**

- 3.4 Also of relevance is local policy KC11:

**KC11 - HERITAGE**



THE COUNCIL WILL GRANT PLANNING PERMISSION FOR DEVELOPMENT PROPOSALS FOR THE KING'S CROSS OPPORTUNITY AREA, WHICH SEEK TO ENSURE THAT:

- A) PRESERVE LISTED BUILDINGS OR STRUCTURES AND THEIR SETTING
- B) PRESERVE OR ENHANCE BUILDINGS, STRUCTURES AND OTHER FEATURES OF CHARACTER AND HISTORIC INTEREST, AND THEIR SETTING, WITHIN THE CONSERVATION AREAS
- C) PRESERVE THE REMAINS OF SIGNIFICANT ARCHAEOLOGICAL IMPORTANCE AND THEIR SETTINGS.

9.67

The Opportunity Area has a diverse and unique character with a distinct sense of place. It is of outstanding national, architectural, historical and industrial archaeological importance. Because the Opportunity Area contains one of the more important and complete Industrial Archaeology sites in the country, this is an area of archaeological potential. The St Pancras Archaeological Priority Area is also partly located within the Opportunity Area. The Council will require development to meet the requirements set out in policy B8A and B8B on archaeology and of PPG16.

9.69

Heritage buildings and features are a positive asset. Re-using heritage buildings and bringing disused properties into use is an integral part of the sustainable regeneration of the area. Furthermore, redevelopment may provide the opportunity to salvage and re-use historic items of streetscape and street furniture on the site. Developers will have to demonstrate the balance between the protection of heritage buildings against other social and economic considerations to fulfill wider policy objectives and, as such, to justify any proposal for the removal of heritage buildings and other features in the context of PPG16.

9.70

The Regent's Canal is of strategic importance and is a key feature of the King's Cross Opportunity Area. Specific policies relating to Regent's Canal are contained in section 10. It is important that the redevelopment of the area captures the potential that the Canal offers. In particular the Council will seek development that achieves a successful balance of:

- the protection of the historic canal environment
- the enhancement of the canal's biodiversity
- access to and along the canal for pedestrians
- the use of the canal for recreation

- the use of the canal for transportation, especially during the construction of development

## 4 GEOLOGY AND TOPOGRAPHY

- 4.1 The British Geological Survey map 256 of the area (1:50,000 series) indicates that the King's Cross site is underlain by London Clay. This is underlain by the Woolwich & Reading Formation, Thanet Formation and Upper Chalk.
- 4.2 The monitoring of the geotechnical trial pits revealed natural clay at heights of between 20.94m OD and 23.56m OD. The site is generally flat, with ground level being recorded at between 24.20m and 25.03m OD across the areas being investigated.

## **5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

### **5.1 GENERAL OVERVIEW**

5.1.1 A specialist archaeological report was prepared by archaeological consultancy IHCM for Argent St George prior to the archaeological fieldwork. The following represents a summary of the archaeological and historical background to the site, as represented within this document, including a summary of past fieldwork in the vicinity. It appears that C19th and C20th redevelopment of the study area has truncated away much of the evidence for earlier, pre-industrial periods, in some instances impacting underlying natural soils.

### **5.2 PREVIOUS WORK**

5.2.1 A watching brief was carried out on eighteen geotechnical trial pits carried out at King's Cross Central – Road Bridge and Retaining Wall (WFI 07), as part of a ground and existing structures investigation. The watching brief found natural yellow clay in six of the trial pits at between 21.20m and 22.42m OD. In all the pits except one, this was sealed by a series of 19<sup>th</sup> century made ground layers. The 19<sup>th</sup> century footings for still extant walls were recorded in OP1 and OP9, and walls dating to the same period were observed in OP2, OP10, OP11 and TP12. Possible 19th century walls were observed in pits 201 and 205, and may relate to the Regent's Canal. Remains of the former canal basin retaining wall were recorded in OP8 and TP13. Sealing all pits was a further series of 20<sup>th</sup> century made ground/levelling deposits. All recorded deposits suggest large-scale redevelopment of the area during 19<sup>th</sup> and 20<sup>th</sup> centuries.

### **5.3 PREHISTORIC (450,000 BC – AD 43)**

5.3.1 The King's Cross Central site is generally located on London Clay. The poorer drainage associated with this soil would therefore have not been as conducive to occupation by early settlers as in surrounding areas. Furthermore, any gravel deposits likely to yield material such as flint axes of this date, as have been produced elsewhere in London, have eroded away. No SMR entries relating to this period were noted in the vicinity.

### **5.4 ROMAN (AD 43 – 410)**

5.4.1 The study site lies approximately 2km north-west of *Londinium*. Founded within a decade of the arrival of the Romans in AD 43, the city flourished during the 1<sup>st</sup> and early 2<sup>nd</sup> centuries. The city contracted in the 3<sup>rd</sup> and 4<sup>th</sup> centuries, becoming much less

densely populated, inhabited by the wealthy and influential, and was finally abandoned in the early 5<sup>th</sup> century following the Roman withdrawal from Britain.

5.4.2 A number of finds relating to this period are noted in the proximity of the site. These include a road [SMR 080540] to the eastern boundary along York Way, and finds of an iron urn [SMR 080365], and a tombstone [SMR 080382], deriving from Wharfdale road to the south-east of the study site.

## 5.5 EARLY-MID SAXON ( AD 410 – C9th)

5.5.1 Little evidence pertaining to the general character of the area in this period exists. A possible settlement [SMR 082063] is documented from the Old St Pancras graveyard, in addition to a 6<sup>th</sup> or 7<sup>th</sup> century altar [SMR 081792] from the same location. These, however, lay some way to the south of the study site.

## 5.6 LATE SAXON-MEDIEVAL (C10th – 1485)

5.6.1 The 9<sup>th</sup> and 10<sup>th</sup> centuries saw the city becoming increasingly reoccupied, with a presumed farming expansion in north London and therefore most probably into King's Cross. Such activities however, may only leave ephemeral traces in the landscape. The present boundaries of the London boroughs were virtually reached by the 13<sup>th</sup> centuries, with rural villages existing at St Pancras and Islington. The site itself, according to the *Domesday*, lay within the Ossulstone Hundred; with the land to the west of York Way being in the Prebendal Manor of St Pancras. The Medieval settlement around St Pancras church also lay to the west of the study site. The former manorial and parish boundaries correspond with the present York Way, a portion of the King's Cross Central site laying within the manor of Barnsbury, a property held by Hugh de Berners, from the Bishop of London.

5.6.2 Structures from this period were predominantly constructed from timber. High status buildings however, such as churches [e.g. SMR 082053], often utilised more durable materials such as masonry. Such structures may be used to infer the location of past settlements. No such buildings however are documented from the study site itself, the above entry deriving from the south of the site at St Pancras.

## 5.7 POST-MEDIEVAL (AD 1485 – 1750)

5.7.1 The general layout of London did not significantly change during this period, the population however quadrupled in size. Neighbourhoods around Islington, Shoreditch

and Clerkenwell began to be occupied by the poor, as the suburbs began to consume districts between the commercial areas and those beyond the city walls.

5.7.2 Documentation from this period denotes small pox and fever hospitals, to the south of the study site, north of the Great Northern Hotel. Other structures of note include the Brill settlement [SMR 080447], under St Pancras station, and three burial grounds under the former Goods depot to the west of St Pancras, partly excavated by Pre-Construct Archaeology in 2004.

## 5.8 INDUSTRIAL (1750-1900)

5.8.1 The previously open landscape of the study area during the C18th altered drastically with the urbanisation of London. The King's Cross area began to be utilised for quarrying and the manufacture of brick and tile; plus the construction of the Regent's Canal in 1820 facilitated yet further commercial development. A major gas manufacturing works was constructed to the south of the canal, with additional terraced housing and smaller commercial properties. Further industrialisation derived from the construction of railway termini at King's Cross, completed in 1852, and then St. Pancras completed c1868, with associated hotels, sidings, maintenance depots and goods handling shed.

5.8.2 Documentary sources reveal the construction of the Great Northern Railway steam locomotive shed at c1850, to the north of Goods Yard, in addition to the Midland Railway Roundhouse at c1860. The canal-side boundary wall, currently bordering Wharf road, was constructed c1850 and included an arched opening in the wall to accommodate the canal inlet leading to the granary basin.

5.8.3 Construction at the Granary complex itself began in 1851, designed by Lewis Cubitt, also responsible for the design of King's Cross Station and the adjoining Northern Hotel. This was intended to be the centrepiece of the Great Northern Railway, with four symmetrical canal dock entrances leading under the Granary and flanking Transit Sheds from the canal basin, and forming the main axis of the goods yard. The complex comprised the main Granary building, Eastern and Western Goods offices and Transit Sheds, the Midland Goods Shed and Regeneration House among others. A network of rail links and hydraulic cranes eased the transportation of goods from canal-side to warehouse. Reliable hydraulic machinery was a comparatively recent innovation at the time of construction, and the methods employed here were those pioneered by William Armstrong<sup>1</sup>.

5.8.4 Archaeological evaluations and watching briefs have confirmed the extent to which the study site was redeveloped during the industrial period. Evaluations by Oxford

---

<sup>1</sup> Hunter and Thorne, 1990

Archaeology and AOC during works for CTRL and LUL observed nothing other than modern and industrial soils, or structural features of a contemporary date.

## **5.9 MODERN (1900- PRESENT)**

5.9.1 The most significant change to the area resulted from the demise of the gas industry, followed by the railway yards. This led to the demolition and subsequent reconstruction of large areas, including new housing estates, the British Library and the establishment of the Camley Street natural park along the south bank of the Regent's Canal. More recently works for CTRL and LUL have altered and truncated the previous industrial landscape.

5.9.2 The arches linking the granary canal basin to the Regent's Canal were bricked up in the 1920s, following its disuse. The associated towpath over the bridge was also demolished, with a greater part of the arch dismantled during preparatory work for a temporary road haul bridge in late 2001 as part of the CTRL works at St Pancras.

## 6 ARCHAEOLOGICAL METHODOLOGY

- 6.1 The areas to be investigated were laid out by the groundwork contractors in accordance with the proposed development plan and verified on-site by representatives from Cameron Taylor. Each of the trial pits were machine excavated where possible, allowing for services, whereby pits were hand-dug. All ground reduction was monitored by both an archaeologist and the attendant geotechnical engineer.
- 6.2 The trial pits and bore holes were excavated across the site in order to investigate ground conditions, examine deep soil formations, establish the location and/or foundations of existing structures and locate any other unforeseen obstructions. All ground reduction of trial pits was observed as an archaeological watching brief.
- 6.3 No artefacts were identified or retained during the watching brief.
- 6.4 The dimensions of the trial pits (TP) and bore-holes (BH) were:

|      |  |
|------|--|
| TP1  | 6.16m (E-W) x 2.90m (N-S) x 2.87m (deep) |
| TP2A | 6.48m (E-W) x 2.04m x 3.88m (deep)       |
| TP2B | 4.00m (N-S) x 1.50m (E-W) x 3.20m (deep) |
| TP3  | 4.60m (N-S) x 2.28m (E-W) x 4.58m (deep) |
| TP4  | 2.90m (N-S) x 2.60m (E-W) x 3.86m (deep) |
| TP4A | 2.00m (N-S) x 2.00m (E-W) x 2.86m (deep) |
| TP5  | 4.82m (E-W) x 2.82m (N-S) x 2.16m (deep) |
| TP6  | 2.84m (E-W) x 2.10m (N-S) x 1.16m (deep) |
| TP7  | Abandoned                                |
| TP8  | Abandoned                                |
| TP9  | 5.00m (N-S) x 2.32m (E-W) x 1.72m (deep) |
| TP10 | 2.00m (E-W) x 1.20m (N-S) x 1.30m (deep) |
| TP11 | Abandoned                                |
| TP12 | Abandoned                                |
| TP13 | 1.90m (N-S) x 1.16m (E-W) x 1.30m (deep) |
| TP14 | Abandoned                                |
| TP15 | 3.00m (E-W) x 1.66m (N-S) x 0.90m (deep) |
| TP16 | Abandoned                                |



|     |  |
|-----|--|
| BH1 | Abandoned                                |
| BH2 | 0.72m (E-W) x 0.70m (N-S) x 1.10m (deep) |
| BH3 | 1.08m (E-W) x 0.88m (N-S) x 0.94m (deep) |

6.5 Individual descriptions of all archaeological strata and features excavated and/or exposed were entered onto pro-forma recording sheets. All plans and sections of archaeological deposits were recorded on polyester based drawing film, the plans being drawn at a scale of 1:20 and the sections at 1:10. The recording system used was "single context". All trial pits were photographed both digitally and with slide film following completion. The pits were backfilled loosely by JCB with the same material as was excavated and later reinstated with concrete or tarmac as appropriate.

## 7 SUMMARY OF THE ARCHAEOLOGICAL SEQUENCE

### 7.1 TP1

7.1.1 Trial pit 1 was located to the south of the Granary building, lying parallel to its southern façade. The maximum level of ground of reduction was to 21.45m OD, natural ground was not observed.

7.1.2 The earliest deposit observed consisted of structure [24]. Comprising the western wall and roof of a subterranean canal, this was recorded at 23.80m OD, measuring 3.00m (N-S) x 3.50m (E-W) x 2.87m (deep). Red bricks measuring 218mm x 121mm x 68mm were utilised, bonded with sand and cement. This feature was interpreted to be a C19th tunnel, leading from the former canal basin north into the Granary complex. This was sealed by layer [5], a firm, grey, sandy-silty-clay, observed from 23.47m OD. Layer [5] was interpreted as C19th backfill/made ground. Sealing this was deposit [4]. This comprised a brown-grey coarse sandy silt containing moderate angular pebbles and was recorded from 23.72m OD, measuring 0.25m (thickness). The layer was therefore interpreted as further C19th made ground. An additional exploratory hole, 12mm diameter, was drilled into [24] to test the thickness of the arch. After 0.80m, no void was reached, suggesting either the arch was backfilled with similar red brick masonry, or the arch is thicker than 0.80m. Further information was impossible to ascertain.

7.1.3 Above [4] lay a series of cast iron pipes, extending E-W across the trial pit. These were recorded as [19], [20], [21], [22] and [23], from north to south respectively. Pipe [19] measured 0.09m diameter from 24.02m OD, [20] and [21] measured 0.12m diameter from 24.00m OD and 23.94m OD. Pipes [22] and [23] measured 0.16m diameter at 23.90m OD and 23.70m OD. These were interpreted as hydraulic pipes of probable late C19th date. The pipes were all sealed with concrete layer [3]. This was recorded from 23.97m OD, measuring 0.30m thick, comprising a grey-white concrete. Overlying this was cobbled surface [1]. This comprised a 0.18m thick cobbled road surface, abutting the Granary building, recorded from 24.10m OD. The cobbles were interpreted as a road surface of probable C19th date, with [3] representing a levelling deposit.

7.1.4 Truncating surface [1] was cut [93]. This was recorded from 24.32m OD and comprised a linear, concave cut with steep sides measuring 0.76m (N-S) x 0.28m (deep). The cut was orientated E-W and was filled by grey concrete [92]. These deposits were interpreted to be C20th truncations, possibly for hydraulic and water pipes.

### 7.2 TP2A/B

- 7.2.1 Trial pits 2A and 2B were located within the Granary building, towards the southern extent. These were excavated to a maximum depth of 20.31m OD and 20.97m OD respectively. Natural ground was not observed.
- 7.2.2 Walls [98] and [99] comprised the earliest observed deposits in this trial pit. Wall [99] consisted of red/yellow bricks measuring 230mm x 100mm x 70mm, bonded with a dark brownish purple, fine mortar, containing sand and brick flecks. This was recorded from 23.89m OD, measuring 0.40m deep to the limit of excavation and was not fully exposed, 5.46m to the west of this lay wall [98], observed from 24.01m OD. This utilised bricks of the same type and size as [99], and similarly was not fully exposed. This wall was recorded at 1.87m deep with a granite 'bumper' at 20.94m OD, which extended 20mm from the face of [98], measuring 0.16m deep. Walls [98] and [99] were interpreted as the eastern and western walls of a former canal channel of C19th date. Abutting both walls was deposit [100], a black-grey silt with glass and brick fragments, recorded from 21.17m OD, measuring 0.43m thick, and extending beyond the limit of excavation. Comprising a dark silty sludge, this deposit was interpreted as C19th silting from the former canal. This was sealed by [97], a firm, yellow/grey-green silty clay 0.75m thick from 22.87m OD. With no inclusions, deposit [97] was interpreted as alluvial silting following the abandonment of the canal, and therefore of early C20th date.
- 7.2.3 Wall [98], in trial pit 2B was sealed by deposit [102]. This comprised a firm, grey-brown silty clay, recorded from 21.67m OD, measuring 0.35m thick and continuing beyond the limit of excavation. The lack of anthropogenic inclusions suggest this may represent redeposited natural, used as backfill/levelling and therefore of probable C19th date. Sealing [98] was deposit [101], a firm, grey-brown silty clay containing frequent inclusions of brick dust and rubble. This was recorded from 23.27m OD, measuring 1.60m thick and interpreted as C19th made ground.
- 7.2.4 Overlying deposit [97] was layer [96]. This consisted of loose, dark grey-brown sandy silt, containing frequent brick, glass and metal fragments plus occasional blocks of bonded bricks, tiles and clinker. Observed from 23.73m OD, and 1.08m thick, this was interpreted as deliberate backfill of rubbish and debris, to infill the former canal channel, and therefore of early C20th date. Deposit [95] sealed both [96] and [101] from TP2B. Recorded from 23.94m OD, this comprised a firm, red-brown sandy silt with frequent brick fragments, 0.22m thick. This was overlain by 0.23m thick concrete surface [94], recorded from 24.17m OD. Deposits [94] and [95] were interpreted as C20th made ground layers.

### 7.3 TP3

- 7.3.1 Trial pit 3 lay within the Western Transit Shed, along the east flanking wall. This was intended to investigate the form and materials of foundations at the junction of the pier and infilled opening. The pit was excavated to a maximum depth of 19.68m OD, natural soil was not observed.
- 7.3.2 The earliest feature observed was deposit [33]. This measured 3.00m (N-S) x 0.50m (E-W) x 0.98m (thick) from 20.66m OD, and comprised a grey concrete strip footing. The footing followed a N-S alignment for the internal wall and was interpreted as of probable C19th date. Above this lay cast iron pipes [31] and [32], both on a N-S alignment. Each measured 0.12m and 0.16m in diameter respectively from 23.20m OD. Pipes [31] and [32] were interpreted as possible hydraulics of late C19th date and were found within layer [27]. This consisted of firm, grey sandy-silty-clay 3.52m thick from 23.20m OD, and was interpreted as made ground. Overlying [27] was N-S cast iron pipe [30], 0.08m in diameter. The pipe was contained within layer [26], a red-brown sandy-clayey-silt with frequent inclusions of CBM, angular pebbles and flint. Recorded from 24.06m OD, measuring 0.86m thick, this was interpreted as made ground, and of probable C19th date.
- 7.3.3 Deposit [29] sealed [26] and comprised a concrete footing 0.47m thick. This measured 1.60m (N-S) x 0.48m (E-W), and represented the base for brick footing [28]. Footing [28] utilised red bricks bonded with sand and cement, and measured 1.48m (N-S) x 0.44m (E-W) x 0.30m (thick). This was interpreted as the possible remnants of a brick buttress footing of possible early C20th date. The trial pit was sealed by a 0.20m thick concrete surface, observed from 24.26m OD.

### 7.4 TP4

- 7.4.1 Trial pit 4 was located within the Western Transit Shed, along the west flanking wall. This was intended to investigate the structural form and material of strip foundations at the junction of the pier and opening. Excavated to a maximum depth of 20.36m OD, natural clay was observed at 20.94m OD. This deposit [65] consisted of firm, light brown clayey silt, 0.48m in thickness, extending beyond the limit of excavation.
- 7.4.2 Truncating natural was cut feature [64]. This was recorded from 20.94m OD, comprising a linear cut, orientated N-S, with steep sides and flat base measuring 2.70m (N-S) x 0.50m (E-W) x 0.48m (deep). Deposit [63] filled cut [64] and consisted of grey concrete. These features were interpreted as the cut and fill for the Granary footings. The brick footing [62] utilised red bricks 228mm x 103mm x 64mm, bonded with sand and cement. This feature was recorded from 22.06m OD, measuring 2.24m (N-S) x 0.06 (E-W) x 0.22m (thick), which included 3 stepped brick corbels. Features [62], [63]

### 7.3 TP3

- 7.3.1 Trial pit 3 lay within the Western Transit Shed, along the east flanking wall. This was intended to investigate the form and materials of foundations at the junction of the pier and infilled opening. The pit was excavated to a maximum depth of 19.68m OD, natural soil was not observed.
- 7.3.2 The earliest feature observed was deposit [33]. This measured 3.00m (N-S) x 0.50m (E-W) x 0.98m (thick) from 20.66m OD, and comprised a grey concrete strip footing. The footing followed a N-S alignment for the internal wall and was interpreted as of probable C19th date. Above this lay cast iron pipes [31] and [32], both on a N-S alignment. Each measured 0.12m and 0.16m in diameter respectively from 23.20m OD. Pipes [31] and [32] were interpreted as possible hydraulics of late C19th date and were found within layer [27]. This consisted of firm, grey sandy-silty-clay 3.52m thick from 23.20m OD, and was interpreted as made ground. Overlying [27] was N-S cast iron pipe [30], 0.08m in diameter. The pipe was contained within layer [26], a red-brown sandy-clayey-silt with frequent inclusions of CBM, angular pebbles and flint. Recorded from 24.06m OD, measuring 0.86m thick, this was interpreted as made ground, and of probable C19th date.
- 7.3.3 Deposit [29] sealed [26] and comprised a concrete footing 0.47m thick. This measured 1.60m (N-S) x 0.48m (E-W), and represented the base for brick footing [28]. Footing [28] utilised red bricks bonded with sand and cement, and measured 1.48m (N-S) x 0.44m (E-W) x 0.30m (thick). This was interpreted as the possible remnants of a brick buttress footing of possible early C20th date. The trial pit was sealed by a 0.20m thick concrete surface, observed from 24.26m OD.

### 7.4 TP4

- 7.4.1 Trial pit 4 was located within the Western Transit Shed, along the west flanking wall. This was intended to investigate the structural form and material of strip foundations at the junction of the pier and opening. Excavated to a maximum depth of 20.36m OD, natural clay was observed at 20.94m OD. This deposit [65] consisted of firm, light brown clayey silt, 0.48m in thickness, extending beyond the limit of excavation.
- 7.4.2 Truncating natural was cut feature [64]. This was recorded from 20.94m OD, comprising a linear cut, orientated N-S, with steep sides and flat base measuring 2.70m (N-S) x 0.50m (E-W) x 0.48m (deep). Deposit [63] filled cut [64] and consisted of grey concrete. These features were interpreted as the cut and fill for the Granary footings. The brick footing [62] utilised red bricks 228mm x 103mm x 64mm, bonded with sand and cement. This feature was recorded from 22.06m OD, measuring 2.24m (N-S) x 0.06 (E-W) x 0.22m (thick), which included 3 stepped brick corbels. Features [62], [63]

and [64] were therefore interpreted to be footing and foundations of probable C19th date.

7.4.3 Sealing [62] lay deposit [61], a 1.74m thick brown-grey silty clay, observed from 22.56m OD. This was overlain by mid-brown silty clay layer [60], which measured 0.48m thick from 23.07m OD, and was sealed by [59]. Layer [59] was recorded from 23.54m OD, measuring 0.46m thick and consisting of a light brown silty clay with frequent crushed CBM fragments. This was overlain by red-brown sandy-clayey-silt layer [58], which measured 0.48m thick from 24.02m OD. Layers [58], [59], [60] and [61] were all interpreted as made ground/levelling deposits of a probable early C20th date. These were then sealed by C20th concrete surface [57]. This was recorded from 24.22m OD, 0.20m thick.

## 7.5 TP4A

7.5.1 Trial pit 4A was located within the Western Transit Shed, in order to establish the depth of the footing along the west flanking wall. The maximum level of ground reduction was 22.42m OD, natural ground was not observed.

7.5.2 Layer [70] was the earliest observed deposit and was recorded from 24.06m OD, measuring 1.64m thick extending beyond the limit of excavation. This comprised a red-brown sandy-clayey-silt with frequent inclusions of CBM fragments. The layer was interpreted as made ground, of possible late C19th date.

7.5.3 Overlying [70] was a layer of large, rough, concrete blocks 0.30m thick. This was recorded from 24.36m OD and sealed by brown sandy silt layer [68]. Layer [68] was observed from 24.66m OD, measuring 0.30m thick. Layer [67] comprised a brown silty-clay containing frequent inclusions of CBM fragments and plastic. This measured 0.40m thick from 25.06m OD and sealed [68]. Layers [67], [68] and [69] were interpreted as C20th made ground deposits. Sealing the trial pit was 0.20m thick concrete floor surface [66], recorded from 25.26m OD.

## 7.6 TP5

7.6.1 Trial pit 5 was located along the external southern façade of the Western Transit Shed. Natural ground was not observed, with a maximum level of ground reduction at 22.94m OD.

7.6.2 Structures [11] and [51] comprised the earliest observed deposits in this trial pit. Feature [11] measured 2.80m (N-S) x 3.76m (E-W) and utilised red bricks measuring

228mm x 103mm x 64mm, bonded with sand and cement. This appeared to be orientated N-S and was interpreted as a roof of one of the C19th subterranean canals, extending north from the former canal basin into and under the Western Transit Shed. The masonry showed signs of damage from later pipework. At the western extent of TP5 was concrete footing [51]. This measured 1.40m thick at 23.40m OD and was composed of orange-brown concrete. This deposit was interpreted as the C19th external footing for the southern wall of the Granary complex and was sealed by [50]. Layer [50] was recorded at 23.30m OD, measuring 1.36m thick and consisted of brown sandy-silty-clay with occasional inclusions of small sub-angular flints and sub-rounded stones. This was interpreted as C19th made ground.

7.6.3 Overlying both [50] and [11] were a series of pipes running E-W across the trial pit. These included cast iron pipes [12], [13], [14], [15], [17] and [18], and lead pipe [16], which was orientated N-S. Pipes [12] and [13] both had diameters of 0.16m and were recorded from 23.60m OD and 23.66m OD respectively. Pipes [14], [15] and [18] measured 0.12m diameter, and were observed from 23.78m OD and 23.46m OD respectively, whereas pipe [17] measured 0.18m diameter. Lead pipe [16] had a 0.08m diameter. All pipes were interpreted as late C19th water pipes, some of which represent continuations of those observed in TP1 as pipes [19] - [23], to the east. All pipes were contained within layer [9], a brown-grey sandy silt recorded from 23.90m OD, 0.58m thick. This was interpreted as C19th backfill, and considered the same as deposit [4] observed in TP1. Above this layer was timber [10], measuring 0.14m (N-S) 0.19m (E-W) x 0.10m (thick), extending beyond the limit of excavation to the south. This consisted of a N-S railway sleeper in good condition and being considered an in situ C19th deposit was not removed. Sleeper [10] may relate to the still extant steel tracks running E-W across the road surface to the immediate south of TP5. Sleeper [10] was overlain by red-brown sandy-clayey-silt layer [2], which contained frequent inclusions of CBM fragments, flint nodules and angular pebbles. Layer [2] was recorded from 23.97m OD, measuring 0.15m thick, and was interpreted as C19th made ground. Sealing [2] was cobbled surface [103], a 0.16m thick road surface observed from 24.10m OD, and considered to be the same as deposit [1] as recorded in TP1. This was interpreted to be of probable C19th date.

7.6.4 Truncating surface [103] to the south of TP5 was cut [8]. This measured 0.82m (N-S) x 4.82m (E-W) x 0.34m (depth) and appeared as an E-W linear cut, with vertical sides. The cut seemed to follow southern C19th pipe [14] and was recorded from 24.10m OD, with a depth of 23.76m OD. This was filled by deposits [6] and [7]. Fill [7] consisted of grey-yellow mottled redeposited sandy silt and builders sand, 0.18m thick from 23.94m OD. This fill also contained plastic warning tape and was overlain by [6]. Fill [7] and cut [8] were interpreted as a C20th inspection pit with associated backfill. Deposit [6], also filling [8], consisted of a cobbled road surface, recorded from 24.10m OD, containing

0.18m thick cobbles. This was only seen in section, but appeared to follow the southern edge of TP5. This was interpreted as a C20th repair to the former C19th surface [103].

## 7.7 TP6

- 7.7.1 This trial pit was located along the external, northern façade of the Eastern Transit Shed. The maximum level of ground reduction was to 23.14m OD, natural ground was observed as deposit [88]. This comprised firm, light brown clayey silt, 0.80m thick, extending beyond the limit of excavation.
- 7.7.2 Layer [86] overlay natural [88] and comprised a 0.80m deep concrete footing. It measured 0.60m (N-S) x 2.02m (E-W), at 23.05m OD. This was interpreted as the footing for the Granary building, and for plinth [87] and therefore of probable C19th date. Brick plinth [87] comprised 230mm x 110mm red bricks in English bond, utilising a light sandy mortar. Its full dimensions were 0.52m (N-S) x 0.70m (E-W) x 0.40m (deep), and continued beyond the limit of excavation to the south. This was also interpreted of probable C19th date, representing a footing/buttress for the Granary building. Also overlying [86] were parallel walls [83] and [84] to the west and east of TP6 respectively. Both walls utilised 230mm x 110mm x 60mm red bricks, bonded with sandy mortar, set in an irregular bond. Each wall measured 2.10m (N-S) x 0.23m (E-W) x 0.80m (deep), extending beyond the limit of excavation to the north and south and were recorded from 23.94m OD and 24.04m OD respectively. In the central portion of each wall was an arch formed with a soldier brick head. Walls [83] and [84] were interpreted as C19th foundation walls for an extension to the south of the granary, the archway possibly designed to go over cast iron pipes [90] and [91]. These pipes measured 0.12m and 0.13m in diameter and followed an E-W alignment. Pipes [90] and [91] were interpreted as possible late C19th hydraulics. Both pipes, and structures [83] and [84] were sealed by a thin interface of made ground [85]. This comprised firm, brown-grey silty clay containing clay and crushed CBM, and measuring 0.70m (N-S) x 2.18m (E-W), its full depth is unknown.
- 7.7.3 Layer [82] was recorded from 23.46m OD, measuring 0.27m thick. This comprised red-brown clayey-sandy-silt containing frequent inclusions of crushed CBM (red brick) and charcoal flecks. This was interpreted to be demolition material of probable early C20th date. Overlaying [82] was deposit [81], a layer of loose yellow-grey silty sand containing frequent inclusions of CBM fragments, crushed chalk and concrete. This measured 0.50m thick and was observed from 23.88m OD. Layer [81] was sealed by [80] and interpreted as C20th infill. C20th black tarmac surface [80] sealed the trial pit and was recorded from 24.28m OD, 0.20m thick.



## 7.8 TP9

- 7.8.1 Trial pit 9 was located along the external east flanking wall of the Eastern Transit Shed. The maximum level of ground reduction was 22.42m OD, with natural soil observed from 23.56m OD. This was recorded as deposit [48], and comprised a mid brown silty clay, extending beyond the limit of excavation.
- 7.8.2 Natural was sealed by deposit [49] to the west of TP9. This comprised grey concrete 2.00m (N-S) x 1.10m (E-W), and was interpreted as the base of a column footing, also comprising deposits [47] and [46]. Column footing [47] utilised red bricks bonded with sand and cement, measuring 1.84m (N-S) x 0.72m (E-W). This was sealed by concrete slab [46], which measured 1.28m (N-S) x 0.36m (E-W). Deposits [46], [47] and [49] were interpreted as part of a C19th column base. Also overlying deposit [47] were pipes [38], [40] and [42]. Cast iron pipe [38] followed an E-W alignment, measuring 0.12m in diameter and was possibly connected to ceramic pipe [40], which had a 0.16m diameter, following a NNW-SSE alignment. Directly below [40] was cast iron pipe [39], this followed a N-S alignment with a diameter of 0.20m. To the west of these, lead pipe [42] was observed following a N-S alignment, with a 0.06m diameter. Sealing [46] and pipes [42], [38] and [40] was 0.68m (N-S) x 0.67m (E-W) concrete block [45], which connected pipes [38] and [40]. These features were interpreted as late C19th pipes for drainage, with [42] possibly for water. This pipe was also overlain by drainage pipe [41], NW-SE ceramic pipe [41] measuring 0.16m in diameter. This was connected to a down pipe from a roof gully outside of the pit. Overlying both [41] and [45], lead pipe [43] was observed. This had a 0.06m diameter, following a N-S alignment and was interpreted to be of contemporary late C19th date, possibly for water.
- 7.8.3 To the north-west of TP9 lay pipes [36] and [37]. These comprised cast iron pipes following E-W and N-S alignments with diameters of 0.08m and 0.16m respectively. These may have originally been connected and were interpreted as late C19th features. To the east of these lay brick structure [44]. This measured 1.10m (N-S) x 0.96m (E-W) and utilised 222mm x 110mm x 69mm bricks, bonded with sand and cement, with unclear coursing. This was interpreted as a late C19th inspection hatch, with external walls facing west and south. Feature [44] may have also comprised pipe [39], which appears to feed into [44] from the south. Deposit [35] was observed from 23.94m OD, measuring 0.38m thick and sealed features [44], [36] and [37]. This consisted of firm red-brown, sandy-clayey-silt, containing frequent fragments of CBM, sub-angular flints and sub-rounded pebbles. Layer [35] was interpreted as made ground of probable late C19th date.

7.8.4 Sealing TP9, and therefore deposits [35] and [43], was 0.20m thick concrete surface [34], interpreted to be of probable C20th date.

## 7.9 TP10

7.9.1 Trial pit 10 was located along the northern façade of the Midland Goods shed, at the north-eastern corner. The maximum level of ground reduction was to 22.81m OD, natural ground was not observed.

7.9.2 Deposit [110] comprised red brick corbelling at the base of TP10 and was the earliest observed feature. This was formed of four steps, each measuring 60mm (N-S) x 70mm (thick), utilising red bricks bonded with sand and cement. The top step was observed at 23.00m OD and base of bottom step at the limit of excavation. This was interpreted as the C19th external footing for the northern façade of the Midland Goods Shed. At 23.10m OD, a 0.25m thick layer of brown-grey silty clay was observed, containing fragments of CBM. This was identified as deposit [109] and interpreted as C19th made ground, sealing footing [110]. Above layer [109] were two lead pipes [111] and [112]. These were both orientated E-W, following the line of the Goods shed, and were recorded from 23.35m OD and 23.16m OD respectively, each with an approximate diameter of 0.06m. Sealing the pipes was layer [108]. This was observed from 23.35m OD, comprising a 0.25m thick deposit of concrete with red brick aggregate. Layer [108] with pipes [111] and [112] were interpreted as late C19th features.

7.9.3 Layer [107] sealed [108] from 23.70m OD, measuring 0.35m thick. This deposit comprised mottled red/grey-brown sandy silt containing frequent inclusions of CBM fragments and was interpreted as demolition material of probable C20th date. Overlying [107] was a 0.30m thick layer of concrete, identified as deposit [106] and recorded from 24.00m OD. This was interpreted as a C20th levelling layer and was sealed by [105]. Deposit [105] comprised a layer of grey, cemented screed containing cobbles. This was recorded from 24.07m OD, measuring 0.07m thick and was interpreted as a C20th surface. Tarmac surface [104] sealed trial pit 10 and measured 0.04m from 24.11m OD.

## 7.10 TP13

7.10.1 Trial pit 13 was located along the external, northern basement wall of Regeneration House. The maximum level of ground reduction was 20.87m OD, natural ground was not observed.

7.10.2 Deposit [55], a brown-grey, sandy-silty-clay was recorded from 21.81m OD, 0.97m thick. This layer contained occasional inclusions of small sub-angular flints and sub-rounded stones, and was interpreted as made ground of probable C19th date. Its full extent was not revealed. Truncating [55] was cut [56], which measured 0.62m (N-S) x 0.88m (E-W) x 0.97m (deep) from 21.81m OD. This appeared to follow an E-W alignment, with steep sides and flat base. Cut [56] was filled by deposit [54], comprising grey concrete. Features [54] and [56] were interpreted as the cut and fill for a foundation for the rear E-W wall of Regeneration House. Sealing [54] was brick feature [53]. This consisted of a block 2.08m (N-S) x 0.35m (deep), with bricks of 100mm x 70mm x 210mm bonded with sand and cement, recorded from 22.17m OD. Deposit [53] was interpreted as the brick footing for the N-S wall of Regeneration House. Features [53], [54] and [56] were therefore considered to be of probable C19th date.

7.10.3 Concrete layer [52] sealed TP13, measuring 0.20m thick. This was interpreted as a late C19th/early C20th floor surface.

## 7.11 TP15

7.11.1 This trial pit was located within the infilled former canal basin, along the southern retaining wall, north of Wharf road. The maximum level of ground reduction was down to 23.64m OD, natural ground was not observed.

7.11.2 Layer [79] comprised the earliest observed deposit, consisting of a 0.65m thick red-brown sandy-clayey-silt with frequent CBM, slate and angular flint inclusions. This was recorded from 24.28m OD, and interpreted as made ground of probable C20th date. Layer [78], a 0.34m thick concrete deposit was observed from 24.54m OD and sealed this. Deposit [78] was interpreted as a C20th floor surface.

## 7.12 BH2

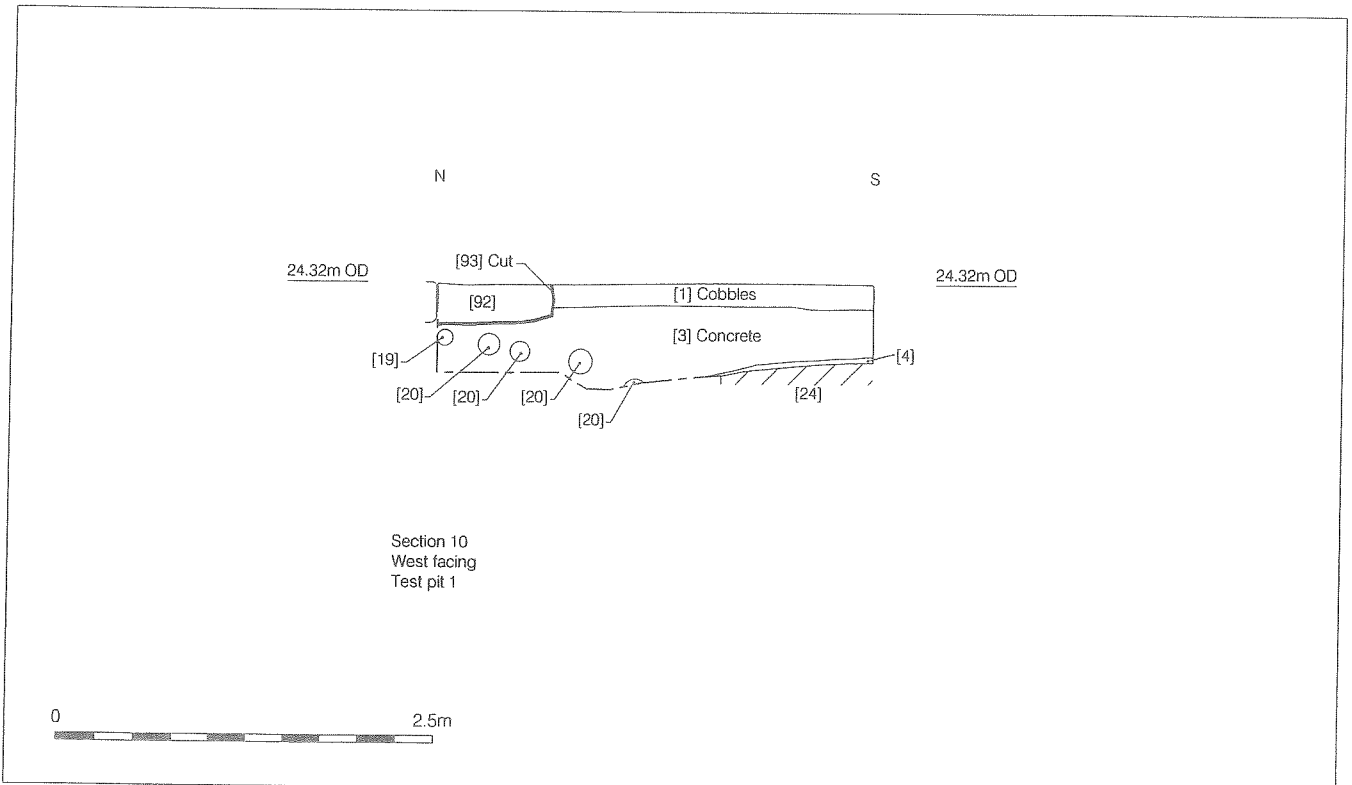
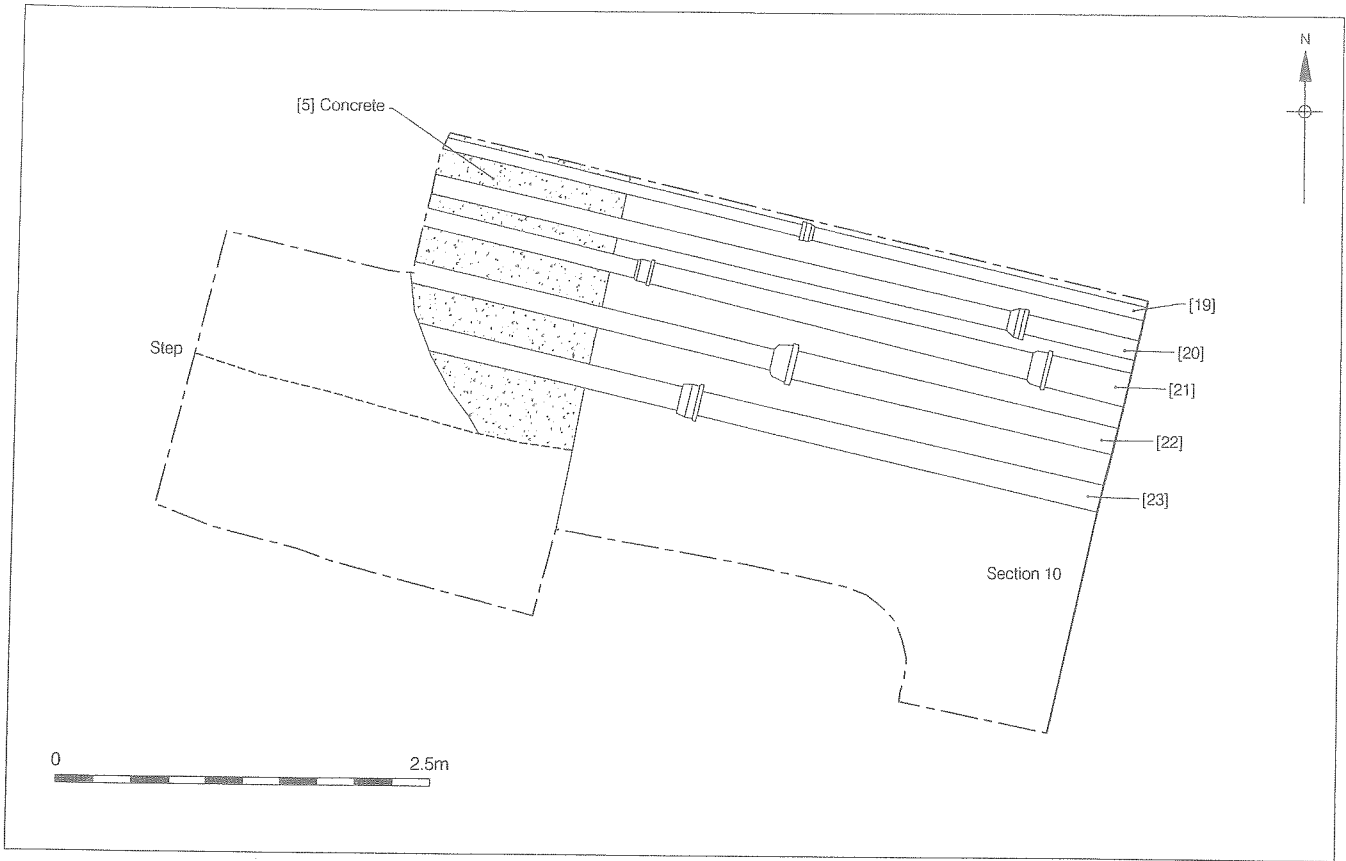
7.12.1 Bore hole 2 lay within the Granary building, to the south of the Assembly shed:

| <u>Context Number</u> | <u>Context Description</u>   | <u>Height m OD</u> | <u>Thickness (m)</u> |
|-----------------------|--|--------------------|----------------------|
| 25                    | Grey concrete: C20th surface   | 24.26              | 0.20                 |
| 76                    | Red-brown, sandy-clayey-silt, with CBM, gravel and flint: Made ground, C19th | 24.06              | 0.64                 |
| 77                    | Black clinker: Made ground, C19th  | 23.72              | 0.56                 |

### 7.13 BH3

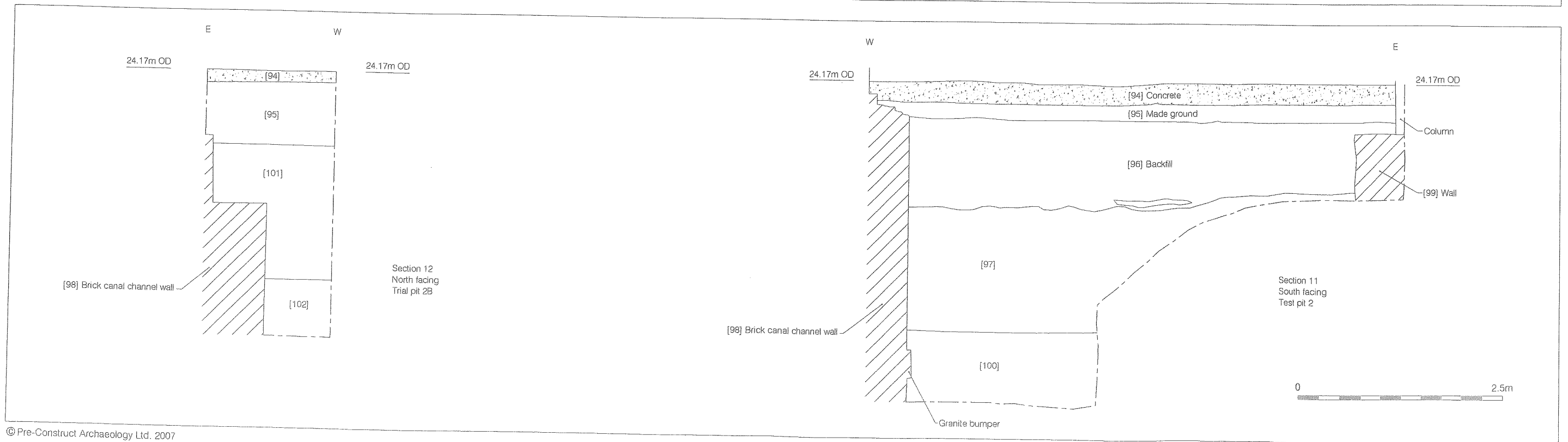
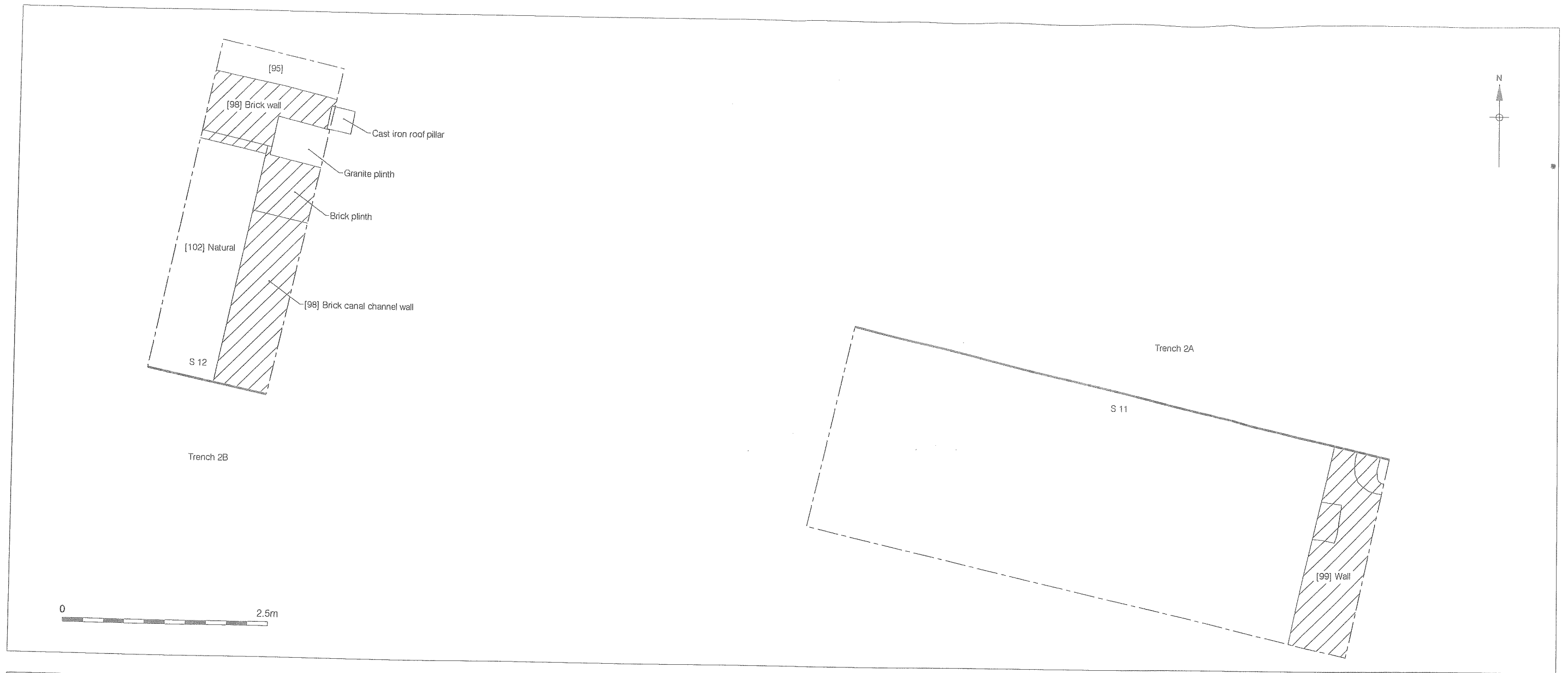
7.13.1 Bore hole 3 was located to the north-west of the western Transit Shed:

| <u>Context Number</u> | <u>Context Description</u>   | <u>Height m OD</u> | <u>Thickness (m)</u> |
|-----------------------|--|--------------------|----------------------|
| 71                    | Grey concrete: C20th surface   | 24.21              | 0.08                 |
| 72                    | Cobbled surface: C19th   | 24.13              | 0.18                 |
| 73                    | Pale grey concrete: Bedding for cobbles, C19th                               | 23.95              | 0.16                 |
| 74                    | Loose black clinker: C19th made ground                                       | 23.79              | 0.12                 |
| 75                    | Firm grey, sandy-silty-clay with occasional CBM fragments: C19th made ground | 23.65              | 0.40                 |



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Figure 3  
Trial Pit 1  
1:50 at A4



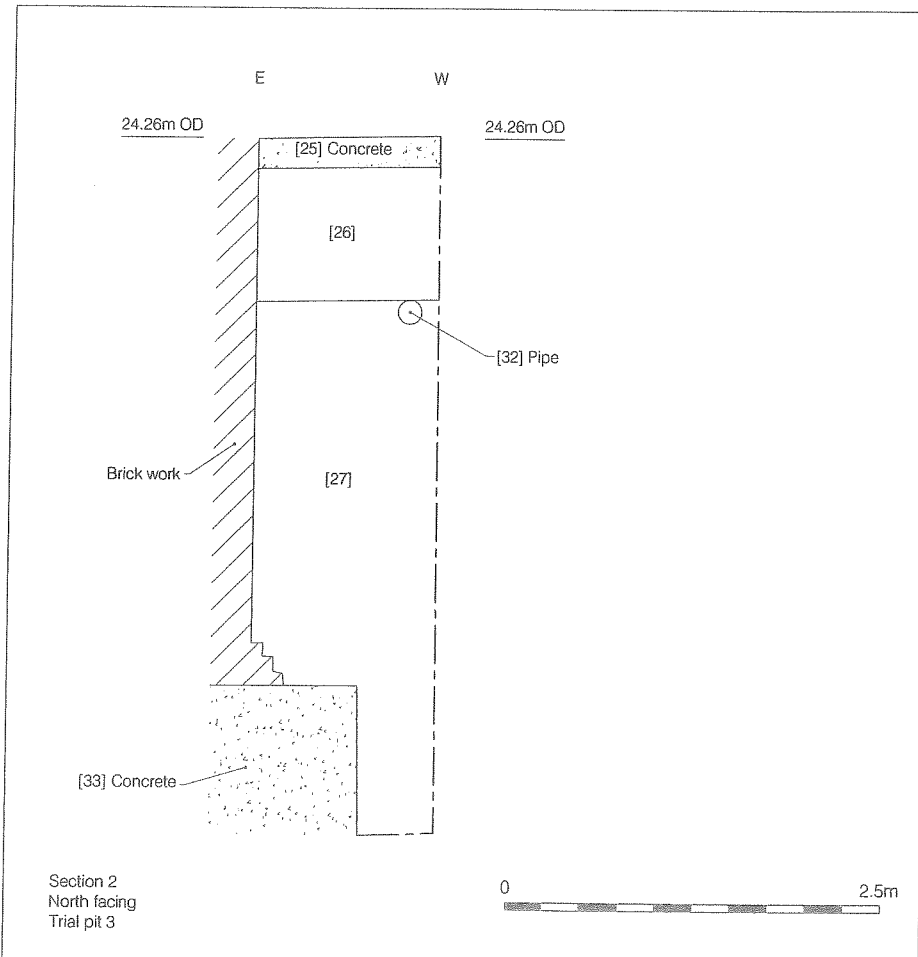
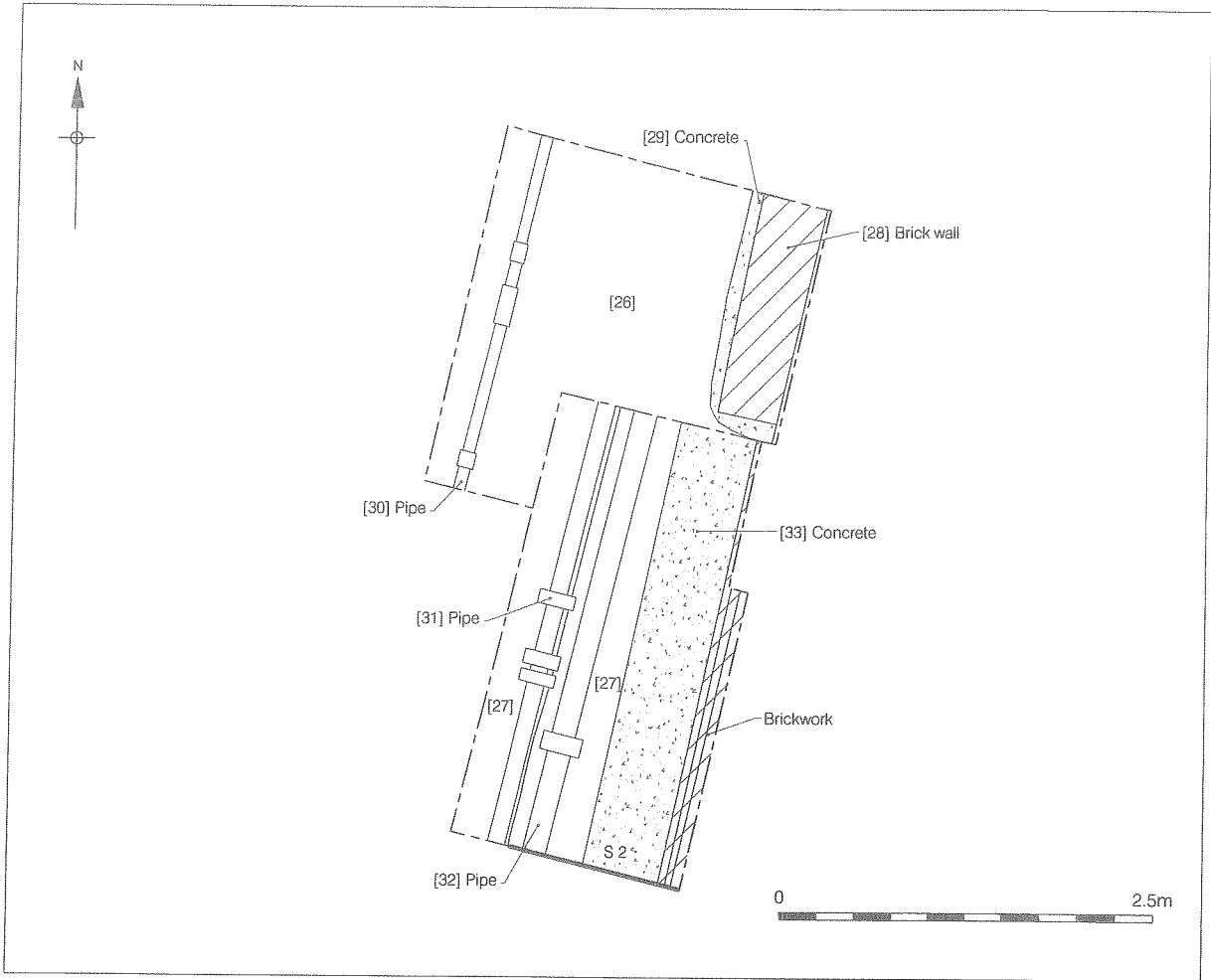


Figure 5  
Trial Pit 3  
1:50 at A4

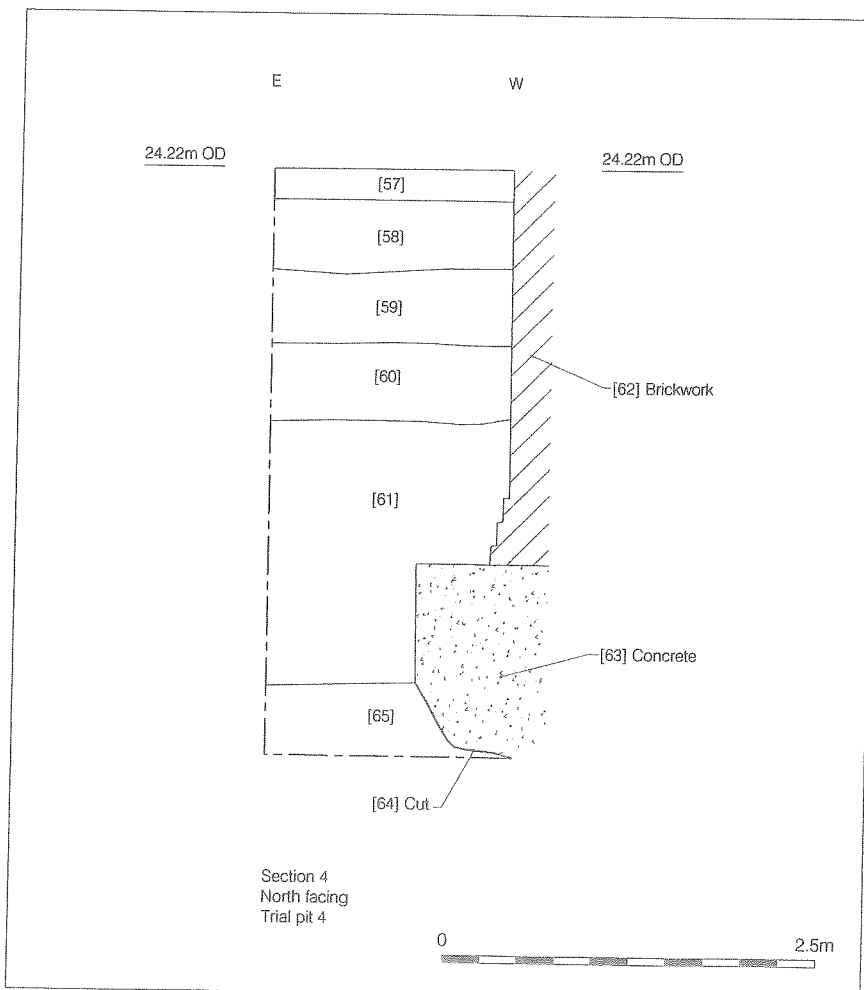
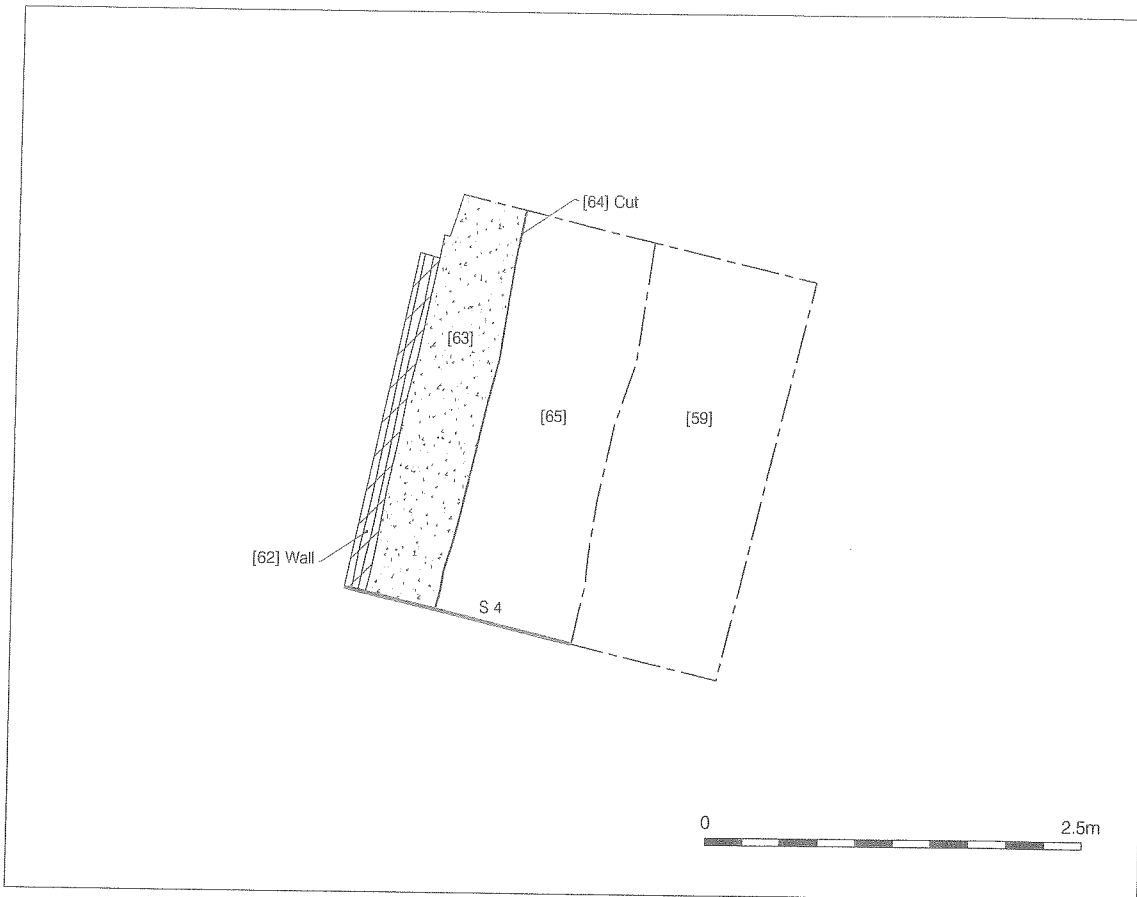
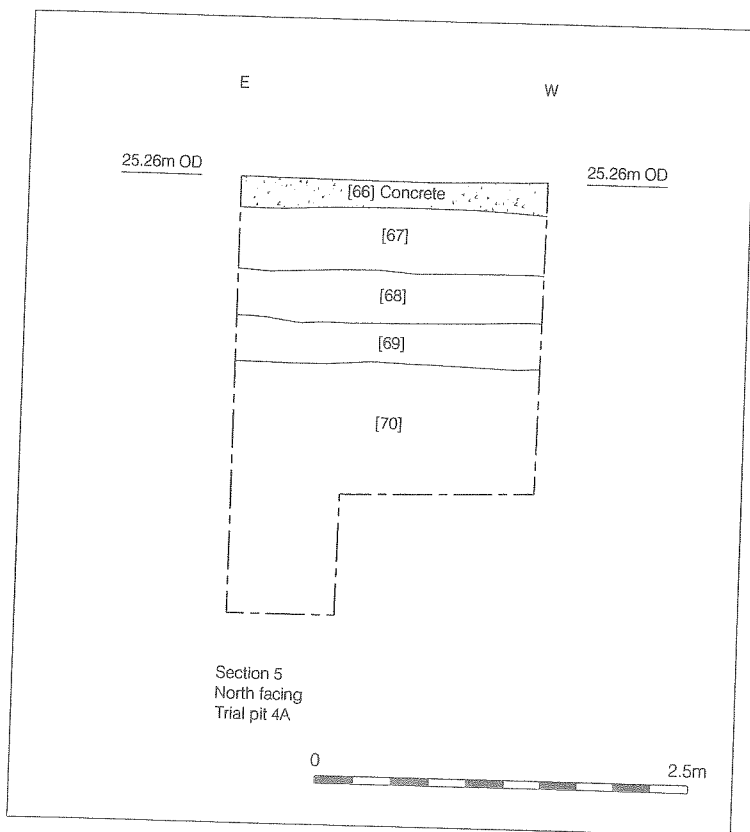
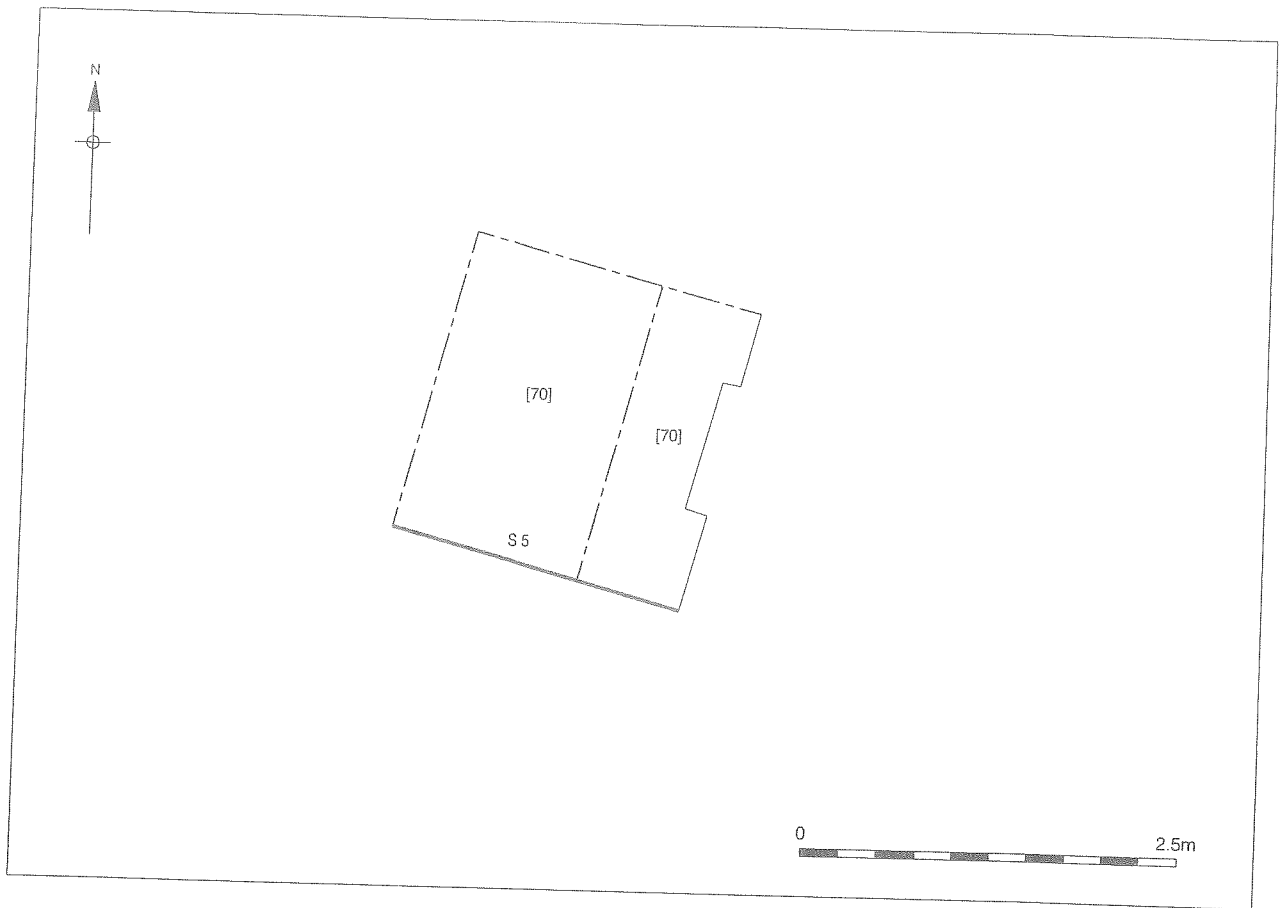


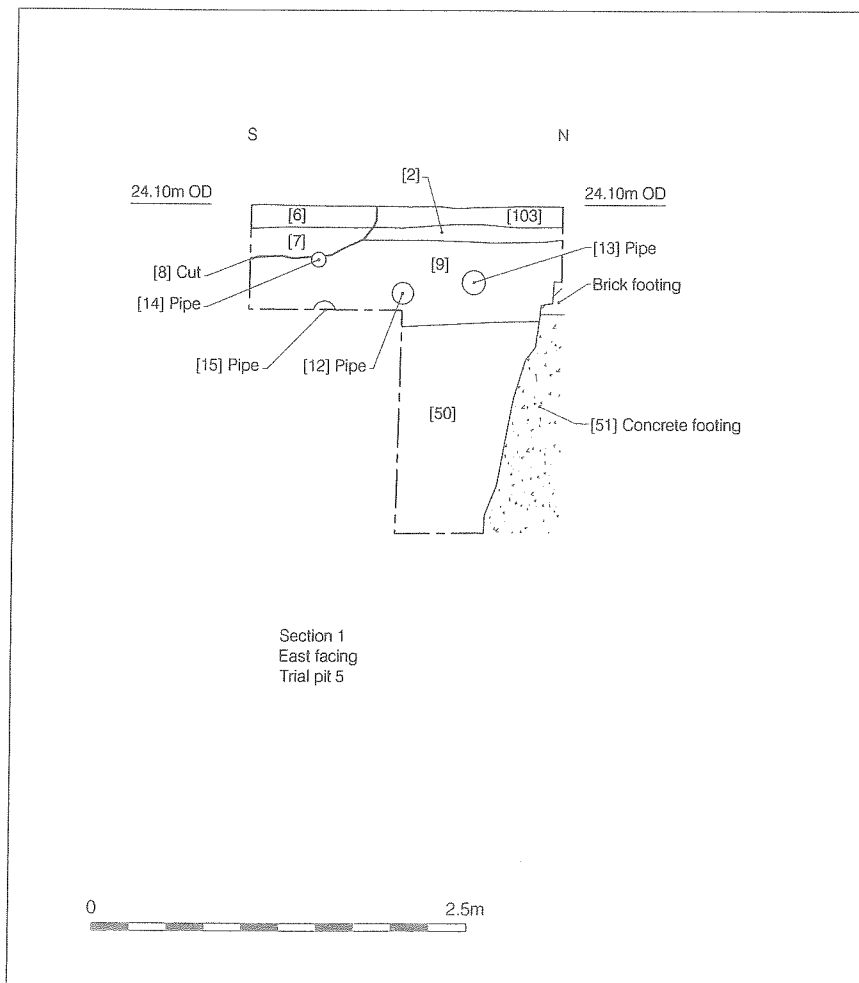
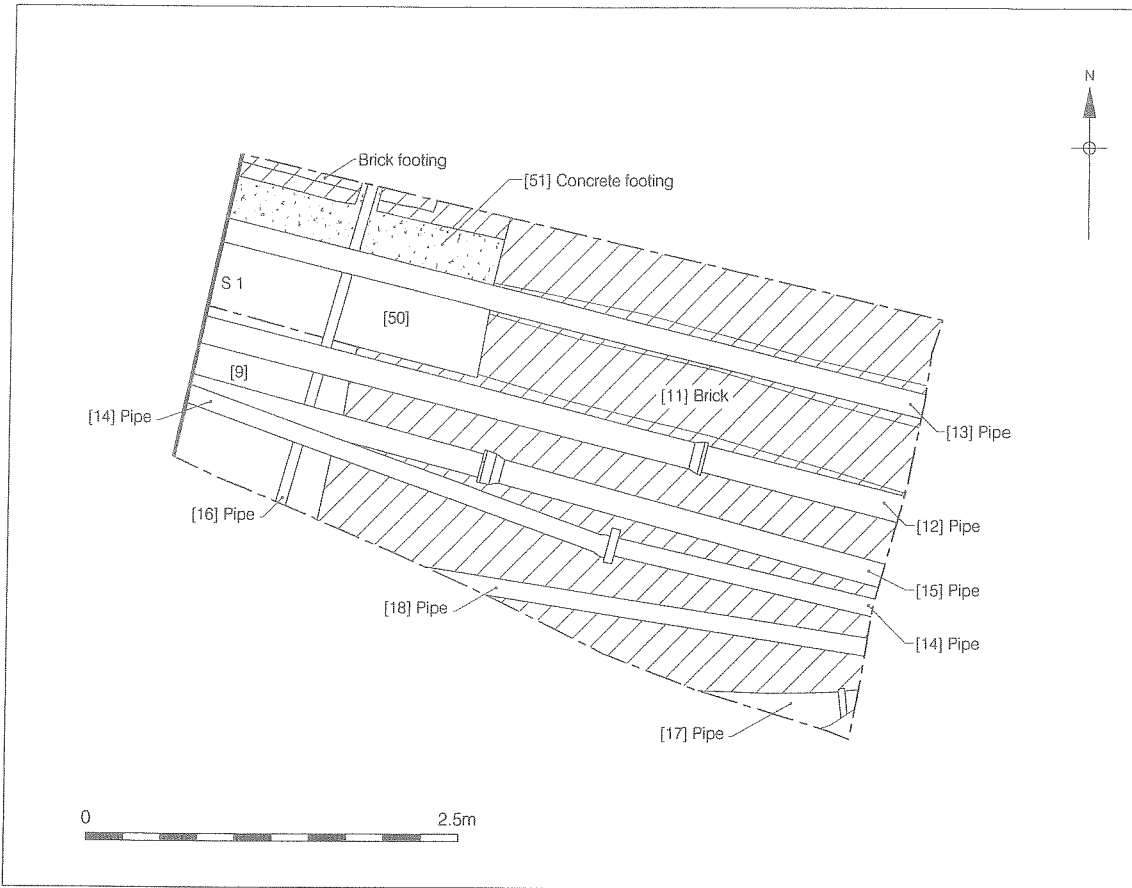
Figure 6  
Trial Pit 4  
1:50 at A4





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Figure 7  
Trial Pit 4A  
1:50 at A4



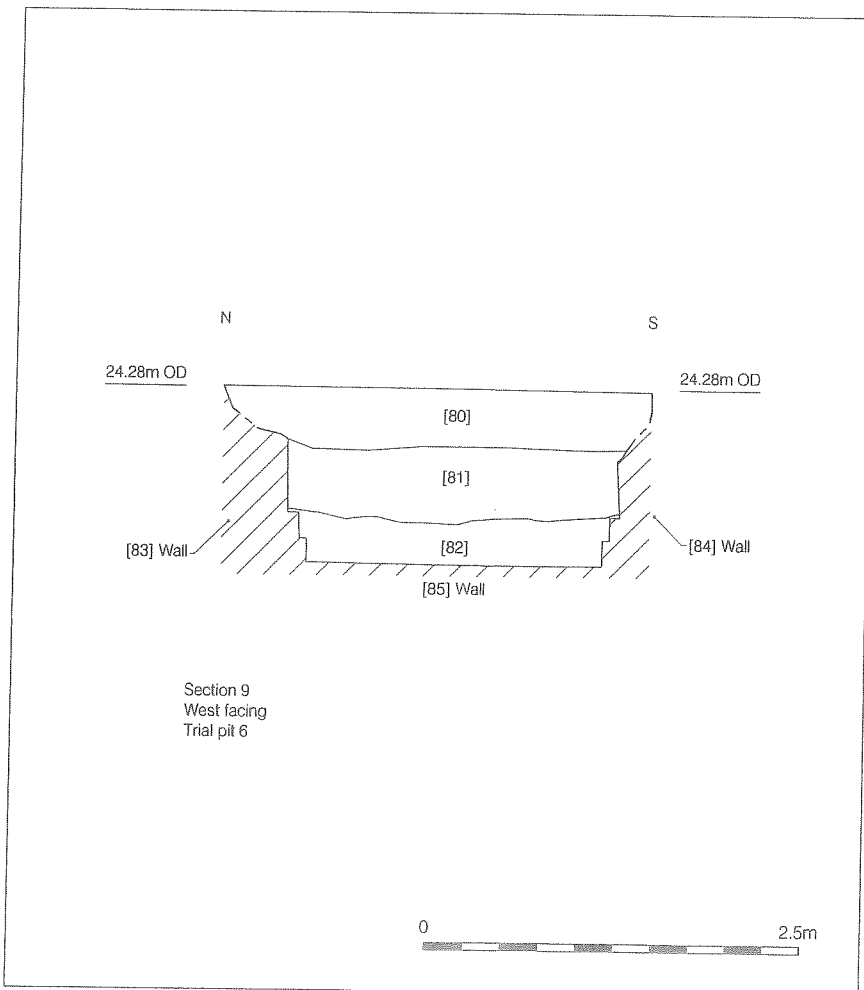
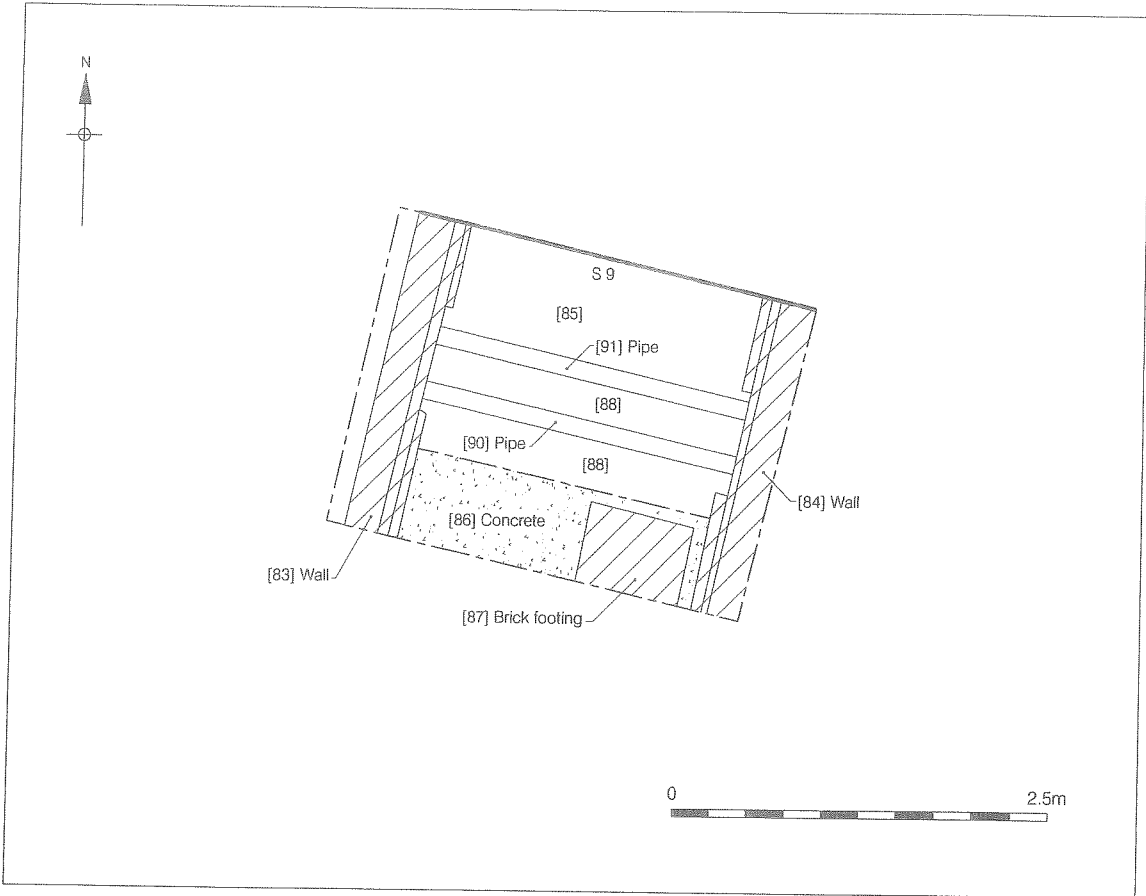
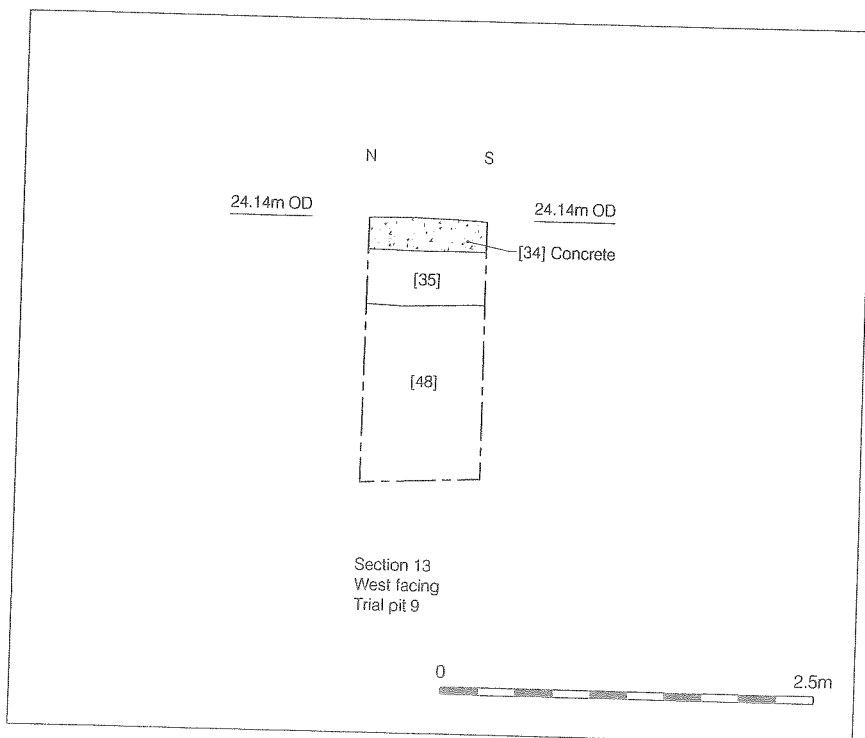
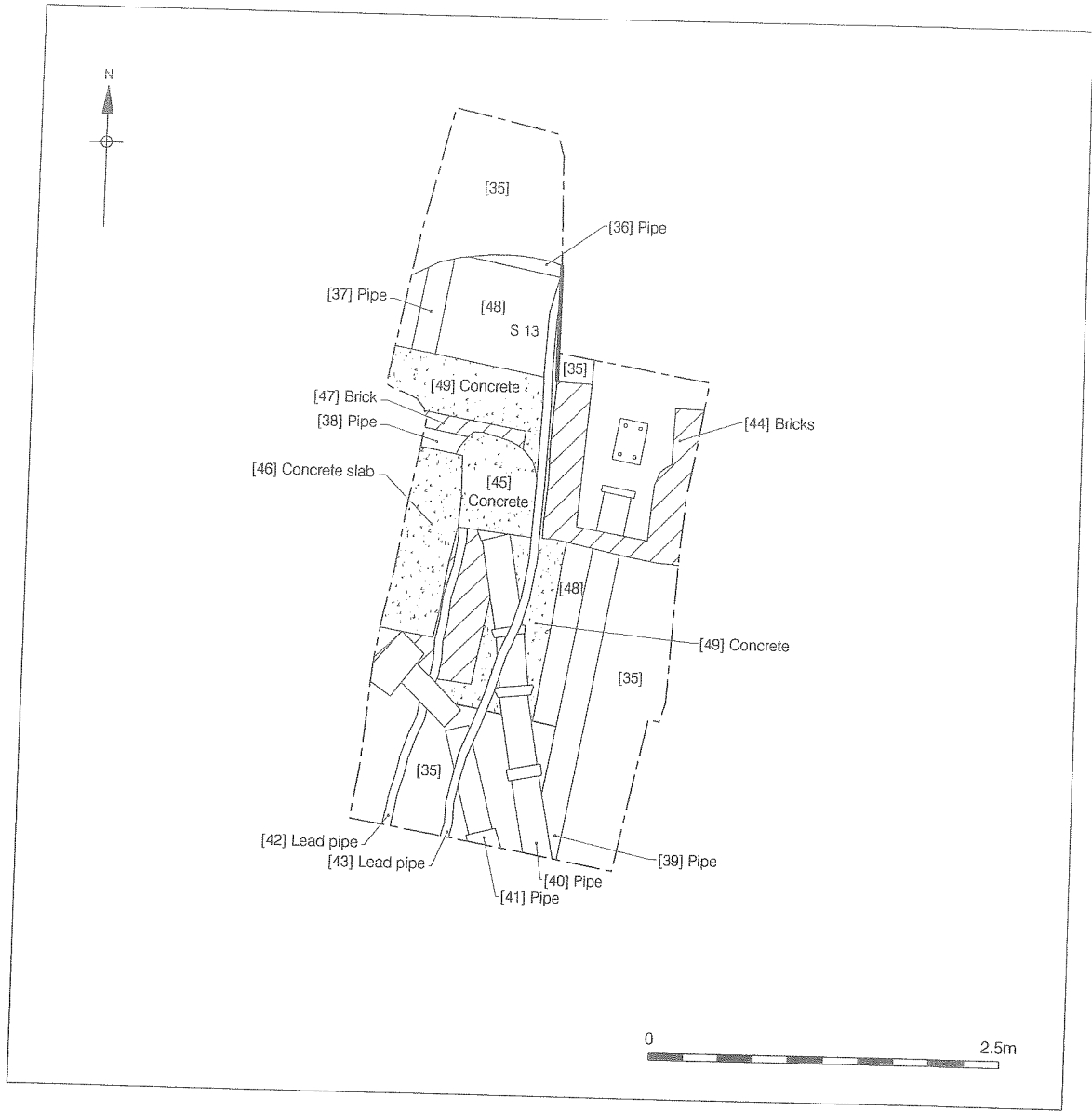


Figure 9  
Trial Pit 6  
1:50 at A4



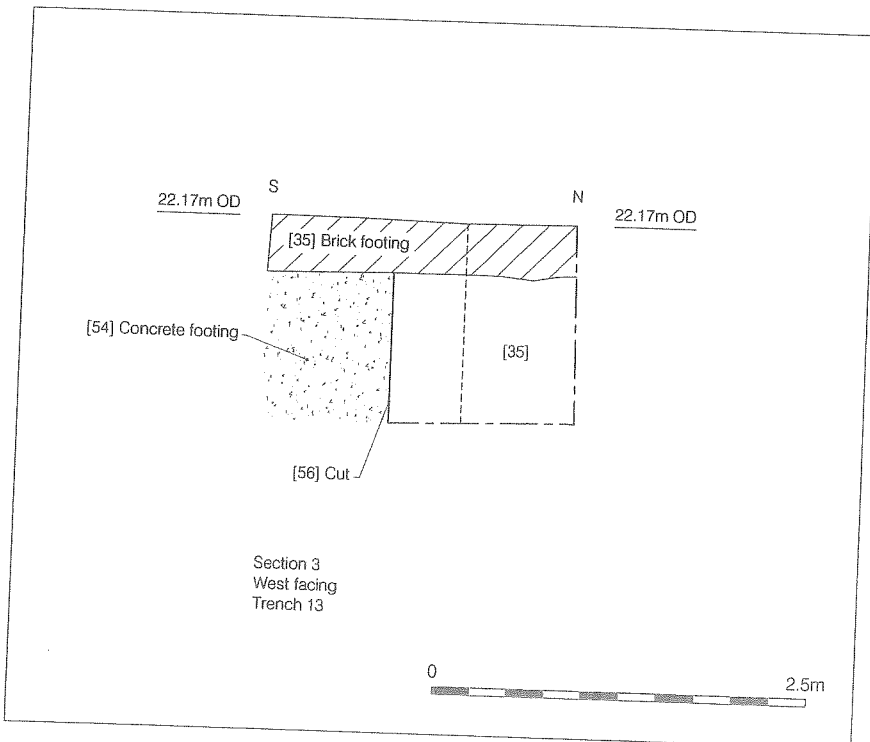
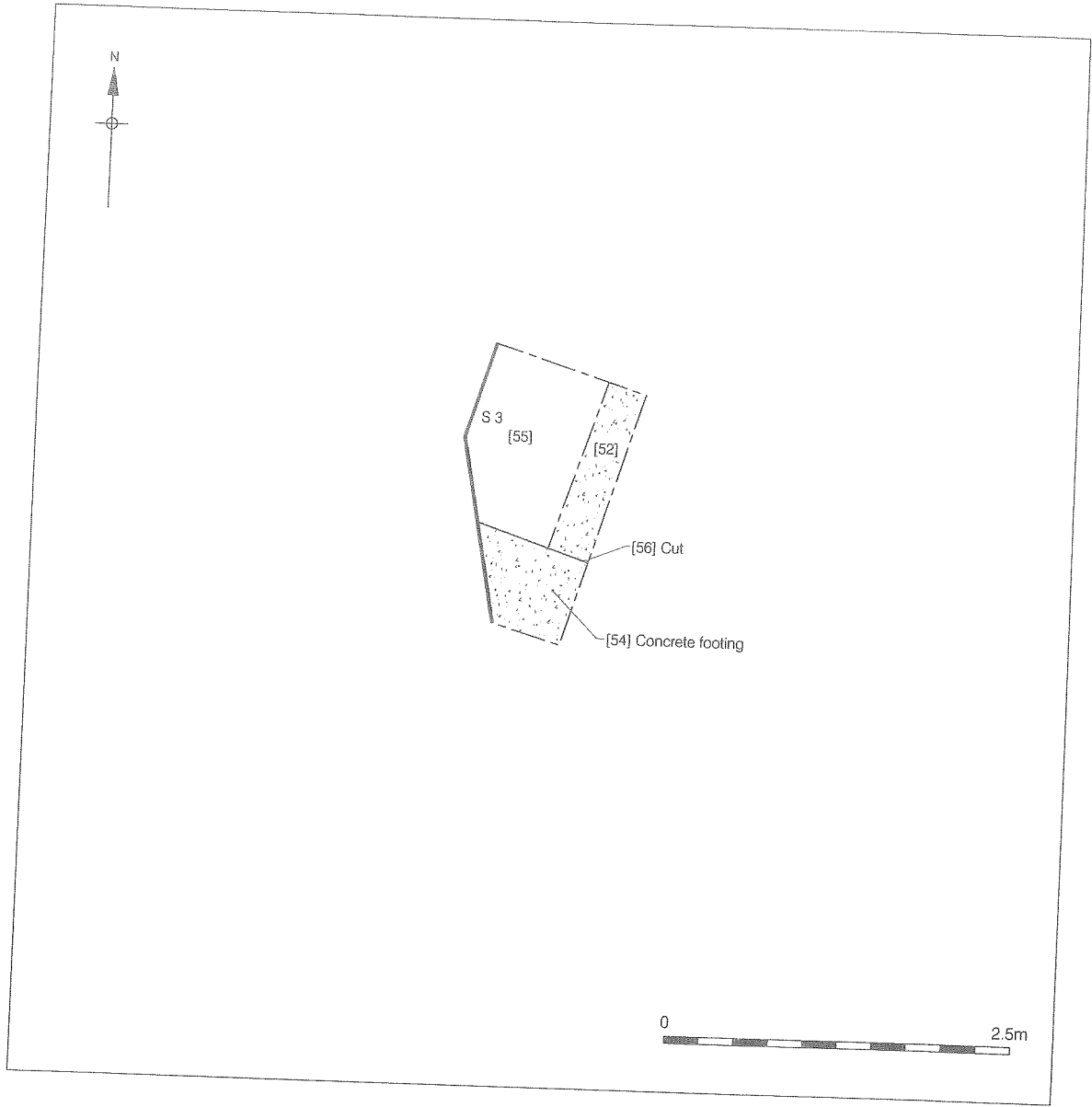
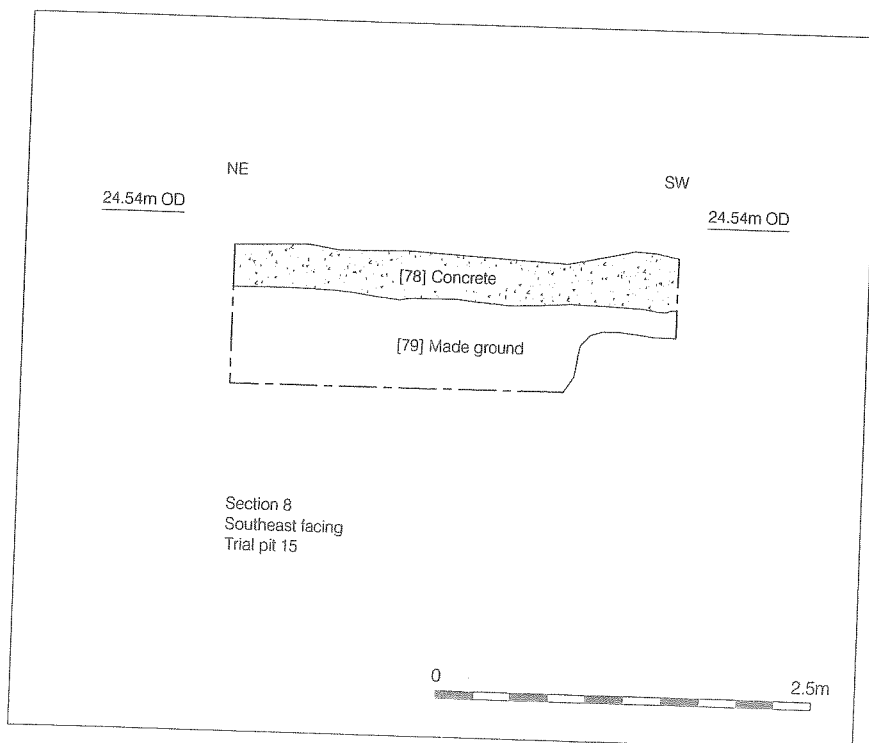
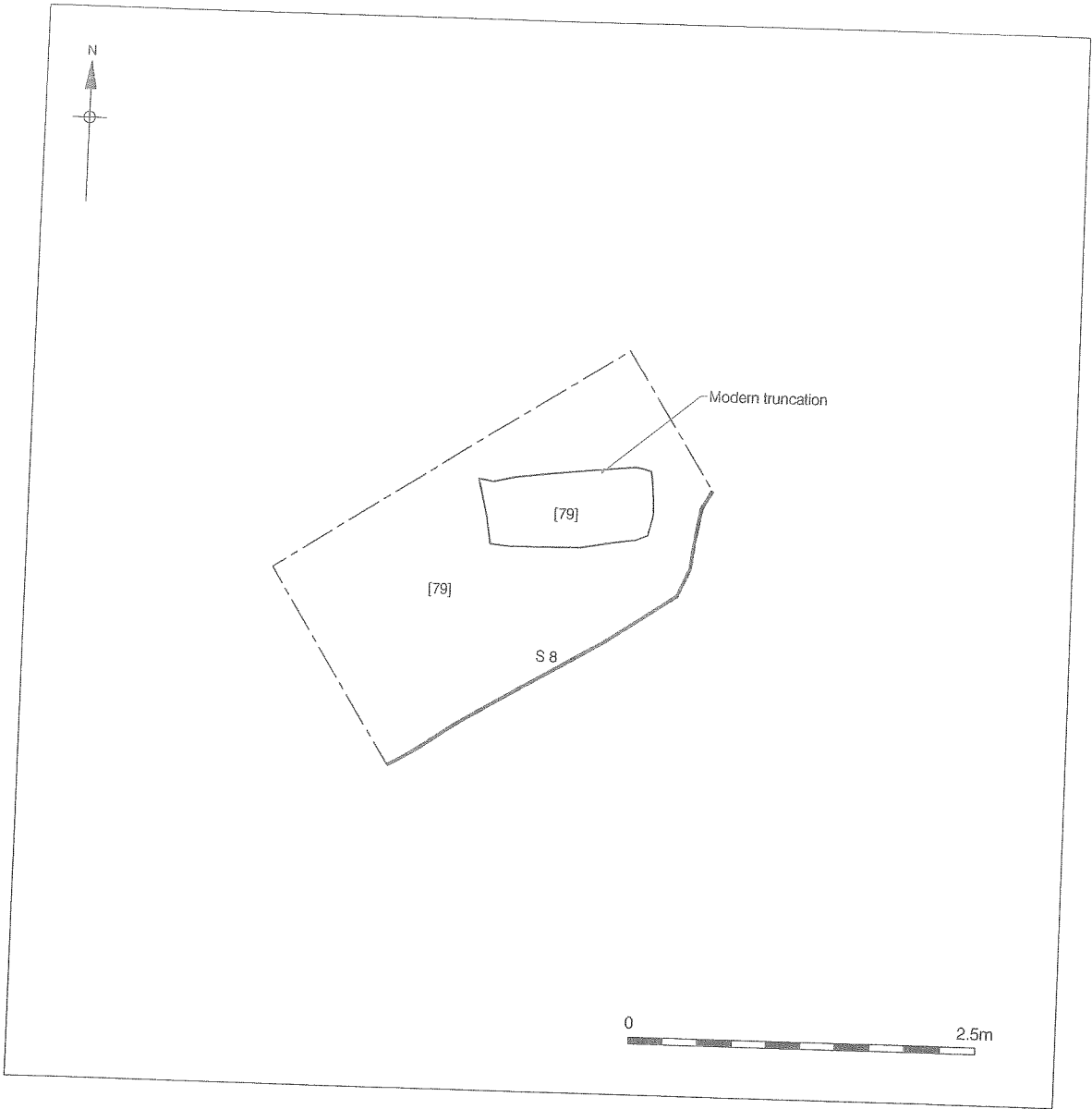
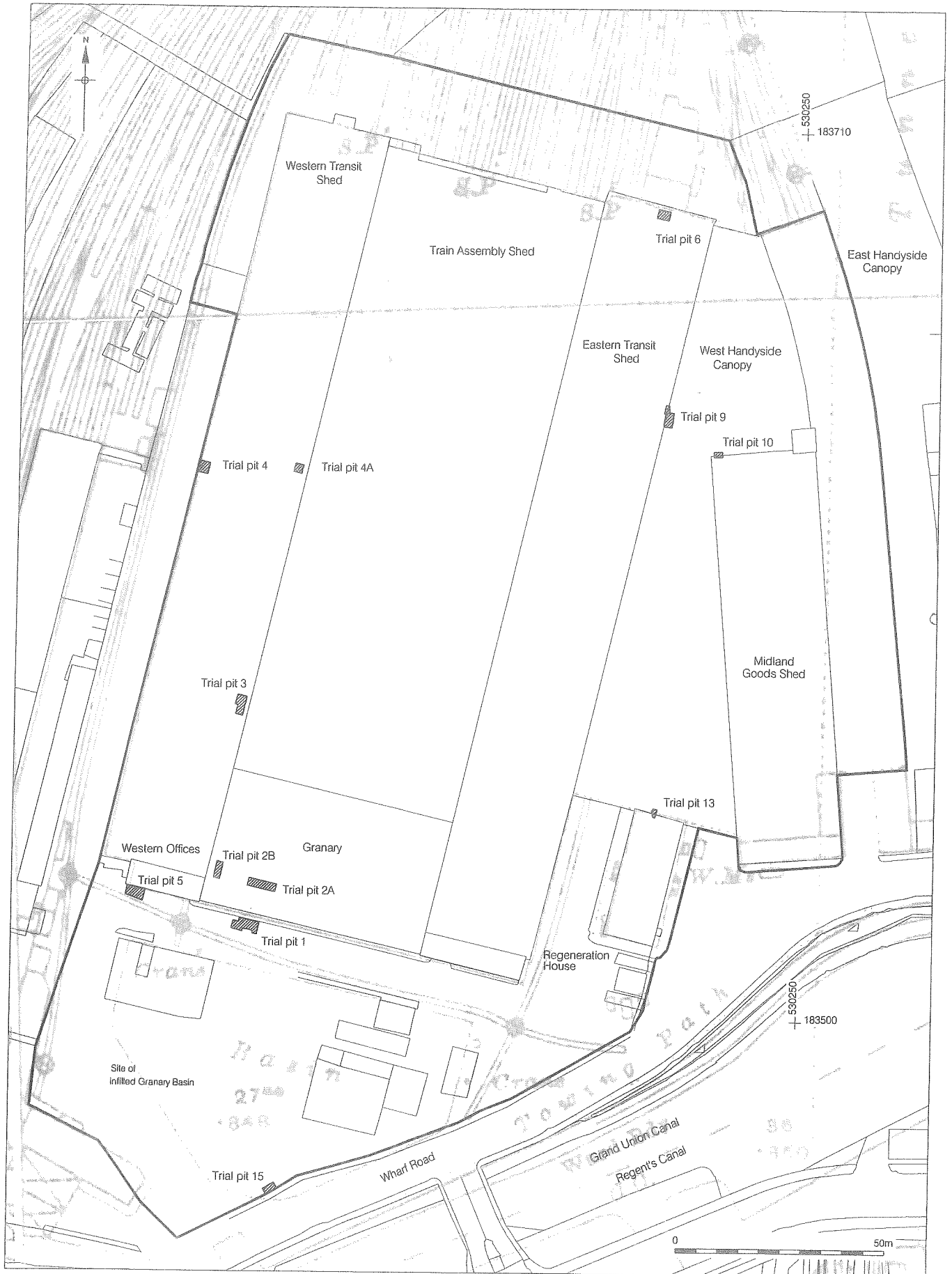


Figure 11  
Trial Pit 13  
1:50 at A4



Section 8  
Southeast facing  
Trial pit 15



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Figure 13  
 Trial Pit & Borehole Locations Superimposed on 1914 Ordnance Survey Map  
 1:1,000 at A4

## 8 INTERPRETATION AND CONCLUSIONS:

- 8.1 Natural clay was only recorded in 3 of the 12 trial pits across the study site, and may represent an alluvial deposit. This was recorded as a silty clay at heights of 23.56m OD in TP9 and 20.94m OD in TP4. The watching brief revealed no evidence of archaeological remains for the prehistoric, Roman, Saxon or medieval periods.
- 8.2 A large number of C19th features and deposits were observed across the study site. These took the form of footings and foundation deposits relating to still extant buildings, subterranean structures, associated services and made ground/levelling layers. Footings and foundation deposits were recorded in trial pits 3, 4, 5, 6, 9, 10 and 13 as features [28], [62], [51], [87], [47], [110], and [53] respectively. Trial pits 1 and 5 observed masonry relating to the former subterranean tunnels leading from the former canal basin into the Granary complex. These features were identified as [24] and [11] respectively, and may represent 2 of the former 4 tunnels present at the site. Trial pits 2A and B furthermore, identified two parallel walls [98] and [99] relating to a former canal channel within the Granary complex. Given the location of this pit, the channel may have led from the tunnel identified to the immediate south in TP1. Other subterranean constructions identified were extension walls [83] and [84], with arched brick-work, as found in TP6.
- 8.3 Contemporary services were recorded in pits 1, 3, 5, 6 and 9. These took the form of ceramic, lead and most commonly cast iron pipes. The prevalence of cast iron hydraulic pipes observed across the site, testifies to the extent to which hydraulic power was utilised at this time. It is estimated that the main Granary building was designed to store up to 60,000 sacks of grain, each requiring lifting by hydraulic crane and transport by a series of rail links. This infrastructure of hydraulic power was therefore vital to the successful running of the goods yard, enabling large volumes of goods to be processed and redistributed.
- 8.4 Sealing all 19<sup>th</sup> century features were a series of made ground layers and resurfacings dating from late 19<sup>th</sup> and 20<sup>th</sup> centuries. These layers appeared to merely seal the preserving archaeology rather than impacting upon it. The former 19<sup>th</sup> century industrial landscape appears therefore to have survived relatively intact within the areas investigated. With many features preserved at a comparatively high level, such as the canal arches, any future groundworks extending below the uppermost made ground layers are likely to have a significant impact upon the archaeology.



## 9 ACKNOWLEDGEMENTS

- 9.1 Pre-Construct Archaeology Limited would like to thank Argent (Kings Cross) Limited for commissioning the project and Cameron Taylor who carried out the work, and in particular the assistance of Andy Passmore. Thanks to the digging crew who undertook the excavation of the pits and the safe maintenance of them.
- 9.2 The author would like to thank Gary Brown for his project management and the geotechnical crew for their on-site co-operation. Illustrations were produced by Dave Harris. Finally thanks to Richard Hughes and Michael Bussell, IHCM

## 10 BIBLIOGRAPHY

Hunter, M and Thorne, R, 1990, *Changes at King's Cross: from 1800 to the present*  
Historical Publications

IHCM, 2004, *King's Cross Central: Heritage Study Part 1 Historic Building Baseline Reports*

IHCM, 2004, *King's Cross Central: Environmental Statement, Volume 2: Part 10 Archaeology Specialist Report*

Over Arup and Partners International Ltd, 2004: *King's Cross Central: Supporting Statement for a Conservation Area Consent Application to demolish various non-listed buildings and structures*

[www.argentkingscross.com/live/planning-applications/index.cfm?id=124](http://www.argentkingscross.com/live/planning-applications/index.cfm?id=124)

<http://safety.camden.gov.uk/ccm/content/environment/planning-and-built-environment/development-plans-and-policies/camdens-udp/short-udp-policies/udp-policy-section-9---kings-cross-opportunity-area---area-action-plan.en?page=17>

APPENDIX 1: CONTEXT INDEX

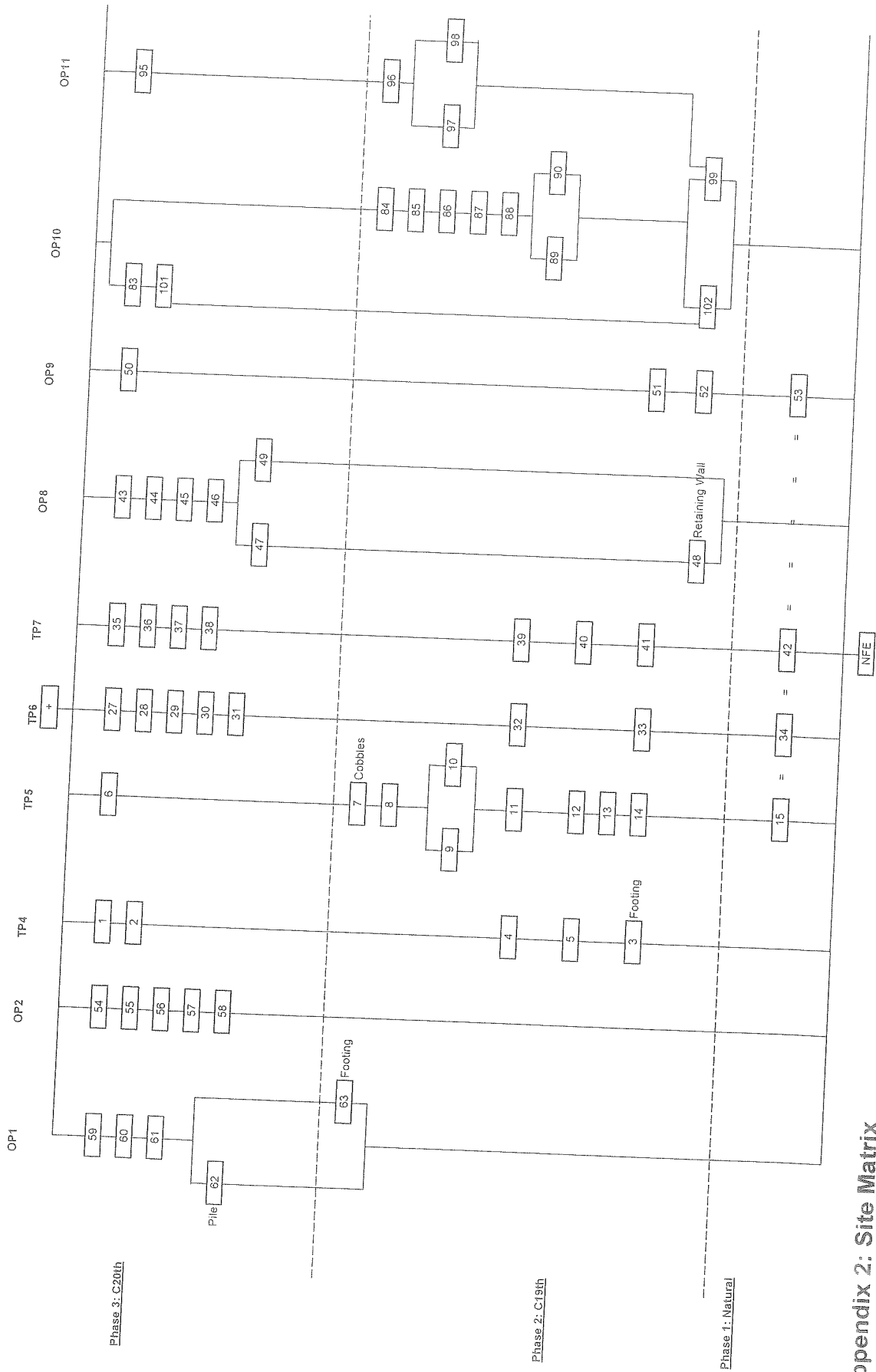
| Context Number | Trench | Plan Number | Section Number | Phase | Type    | Description   | Highest (m OD) | Lowest (m OD) |
|----------------|--------|-------------|----------------|-------|---------|---|----------------|---------------|
| 1              | 1      |             | 1, 10          | 2     | Surface | Cobbled surface                                       | 24.1           |               |
| 2              | 5      |             | 1              | 2     | Layer   | Made ground. Red-brown sandy/clayey/silt              | 23.97          |               |
| 3              | 1      | TP1         | 10             | 2     | Layer   | Concrete bedding                                      | 23.97          |               |
| 4              | 1      |             | 10             | 2     | Layer   | Made ground. Brown-grey sandy silt                    | 23.72          |               |
| 5              | 1      | TP1         |                | 2     | Layer   | Made ground. Grey sandy/silty clay                    | 23.47          |               |
| 6              | 5      |             | 1              | 3     | Surface | Cobbled surface                                       | 24.1           |               |
| 7              | 5      |             | 1              | 3     | Fill    | Fill of [8]. Grey/yellow sandy silt and builders sand | 23.94          |               |
| 8              | 5      |             | 1              | 3     | Cut     | Modern inspection pit                                 | 24.1           | 23.76         |
| 9              | 5      | TP5         | 1              | 2     | Layer   | Made ground. Brown-grey sandy silt                    | 23.9           |               |
| 10             | 5      | TP5         |                | 2     | Timber  | Railway sleeper                                       | 24.1           |               |
| 11             | 5      | TP5         |                | 2     | Masonry | Roof of subterranean canal (red brick)                |                |               |
| 12             | 5      | TP5         | 1              | 2     | Pipe    | E-W iron pipe   | 23.6           |               |
| 13             | 5      | TP5         | 1              | 2     | Pipe    | E-W iron pipe   | 23.66          |               |
| 14             | 5      | TP5         | 1              | 2     | Pipe    | E-W iron pipe   | 23.78          |               |
| 15             | 5      | TP5         | 1              | 2     | Pipe    | E-W iron pipe   | 23.46          |               |
| 16             | 5      | TP5         |                | 2     | Pipe    | N-S lead pipe   |                |               |
| 17             | 5      | TP5         |                | 2     | Pipe    | E-W iron pipe   |                |               |
| 18             | 5      | TP5         |                | 2     | Pipe    | E-W iron pipe   |                |               |
| 19             | 1      | TP1         | 10             | 2     | Pipe    | E-W iron pipe   | 24.02          |               |
| 20             | 1      | TP1         | 10             | 2     | Pipe    | E-W iron pipe   | 24             |               |
| 21             | 1      | TP1         | 10             | 2     | Pipe    | E-W iron pipe   | 23.94          |               |
| 22             | 1      | TP1         | 10             | 2     | Pipe    | E-W iron pipe   | 23.9           |               |
| 23             | 1      | TP1         | 10             | 2     | Pipe    | E-W iron pipe   | 23.7           |               |

| Context Number | Trench | Plan Number | Section Number | Phase | Type    | Description   | Highest (m OD) | Lowest (m OD) |
|----------------|--------|-------------|----------------|-------|---------|---|----------------|---------------|
| 24             | 1      | TP1         | 10             | 2     | Masonry | W wall and roof of subterranean canal                       |                |               |
| 25             | 3      |             | 2, 7           | 3     | Surface | Concrete internal surface                                   | 23.8           |               |
| 26             | 3      | TP3         | 2              | 2     | Layer   | Made ground. Red-brown sandy/clayey/silt                    | 24.26          |               |
| 27             | 3      | TP3         | 2              | 2     | Layer   | Made ground. Med gray sandy/silty/clay                      | 24.06          |               |
| 28             | 3      | TP3         |                | 3     | Masonry | Brick buttress footing?                                     | 23.2           |               |
| 29             | 3      | TP3         |                | 3     | Deposit | Concrete footing for brickwork [28]                         |                |               |
| 30             | 3      | TP3         |                | 2     | Pipe    | N-S iron pipe   |                |               |
| 31             | 3      | TP3         |                | 2     | Pipe    | N-S iron pipe   |                |               |
| 32             | 3      | TP3         | 2              | 2     | Pipe    | N-S iron pipe   |                |               |
| 33             | 3      | TP3         | 2              | 2     | Deposit | Concrete footing for internal wall                          | 23.2           |               |
| 34             | 9      |             | 13             | 3     | Surface | c20 concrete surface  | 20.66          |               |
| 35             | 9      | TP9         | 13             | 2     | Layer   | Made ground. Red-brown sandy/clayey/silt                    | 24.14          |               |
| 36             | 9      |             |                | 2     | Pipe    | E-W iron pipe   | 23.94          |               |
| 37             | 9      | TP9         |                | 2     | Pipe    | N-S iron pipe   |                |               |
| 38             | 9      | TP9         |                | 2     | Pipe    | E-W iron pipe   |                |               |
| 39             | 9      | TP9         |                | 2     | Pipe    | N-S iron pipe   |                |               |
| 40             | 9      | TP9         |                | 2     | Pipe    | NNW-SSE ceramic pipe  |                |               |
| 41             | 9      | TP9         |                | 2     | Pipe    | NW-SE ceramic pipe  |                |               |
| 42             | 9      | TP9         |                | 2     | Pipe    | N-S lead pipe   |                |               |
| 43             | 9      | TP9         |                | 2     | Pipe    | N-S lead pipe   |                |               |
| 44             | 9      | TP9         |                | 2     | Masonry | late c19/early c20 brick inspection hatch                   |                |               |
| 45             | 9      | TP9         |                | 2     | Deposit | Concrete block connecting pipes [38] and [40]               |                |               |
| 46             | 9      | TP9         |                | 2     | Deposit | Concrete slab - part of column base for [46], [47] and [49] |                |               |
| 47             | 9      | TP9         |                | 2     | Masonry | Part of column base = [46] and [49]                         |                |               |
| 48             | 9      | TP9         | 13             | 1     | Layer   | Natural. mid brown sandy/silty/clay                         |                |               |
| 49             | 9      | TP9         |                | 2     | Layer   | Base of column footing                                      | 23.56          |               |
| 50             | 5      | TP5         | 1              | 2     | Layer   | Made ground. mid brown sandy/silty/clay                     |                |               |
| 51             | 5      | TP5         | 1              | 2     | Layer   | Concrete footing for S wall of granary building             | 23.3           |               |
|                |        |             |                |       |         |   | 23.4           |               |

| Context Number | Trench | Plan Number | Section Number | Phase Type | Description                              | Highest (m OD) | Lowest (m OD) |
|----------------|--------|-------------|----------------|------------|--|----------------|---------------|
| 52             | 13     | TP13        |                | 3          | Surface                                  |                |               |
| 53             | 13     |             | 3              | 2          | Masonry                                  |                |               |
| 54             | 13     | TP13        | 3              | 2          | Fill                                     | 22.17          |               |
| 55             | 13     | TP13        | 3              | 2          | Layer                                    | 21.81          |               |
| 56             | 13     | TP13        | 3              | 2          | Cut                                      | 21.81          |               |
| 57             | 4      |             | 4              | 3          | Surface                                  | 21.81          |               |
| 58             | 4      |             | 4              | 3          | Layer                                    | 24.22          |               |
| 59             | 4      | TP4         | 4              | 3          | Layer                                    | 24.02          |               |
| 60             | 4      |             | 4              | 3          | Layer                                    | 23.54          |               |
| 61             | 4      |             | 4              | 3          | Layer                                    | 23.07          |               |
| 62             | 4      | TP4         | 4              | 2          | Masonry                                  | 22.56          |               |
| 63             | 4      | TP4         | 4              | 2          | Fill                                     | 22.06          | 21.62         |
| 64             | 4      | TP4         | 4              | 2          | Cut                                      | 21.62          |               |
| 65             | 4      | TP4         | 4              | 1          | Layer                                    | 20.94          |               |
| 66             | 4A     |             | 5              | 3          | Surface                                  | 20.94          |               |
| 67             | 4A     |             | 5              | 3          | Layer                                    | 25.26          |               |
| 68             | 4A     |             | 5              | 3          | Layer                                    | 25.06          |               |
| 69             | 4A     |             | 5              | 3          | Layer                                    | 24.66          |               |
| 70             | 4A     | TP4A        | 5              | 2          | Layer                                    | 24.36          |               |
| 71             | BH3    |             | 6              | 3          | Surface                                  | 24.06          |               |
| 72             | BH3    | BH3         | 6              | 2          | Surface                                  | 24.21          |               |
| 73             | BH3    |             | 6              | 2          | Layer                                    | 24.13          |               |
| 74             | BH3    |             | 6              | 2          | Layer                                    | 23.95          |               |
| 75             | BH3    | BH3         | 6              | 2          | Layer                                    | 23.79          |               |
| 76             | BH2    |             | 7              | 2          | Layer                                    | 23.65          |               |
| 77             | BH2    | BH2         | 7              | 2          | Layer                                    | 24.06          |               |
| 78             | 15     |             | 8              | 3          | Surface                                  | 23.72          |               |
| 79             | 15     | TP15        | 8              | 3          | Layer                                    | 24.54          |               |
|                |        |             |                |            | Made ground. Red-brown sandy/clayey/silt | 24.28          |               |

| Context Number | Trench | Plan Number | Section Number | Phase Type | Description                                      | Highest (m OD) | Lowest (m OD) |
|----------------|--------|-------------|----------------|------------|--|----------------|---------------|
| 80             | 6      | TP6         | 9              | 3          | Surface  |                |               |
| 81             | 6      |             | 9              | 3          | Layer  | 24.28          |               |
| 82             | 6      |             | 9              | 3          | Layer  | 23.88          |               |
| 83             | 6      | TP6         | 9              | 2          | Masonry  | 23.46          |               |
| 84             | 6      | TP6         | 9              | 2          | Masonry  | 23.94          |               |
| 85             | 6      | TP6         | 9              | 2          | Layer  | 24.04          |               |
| 86             | 6      | TP6         |                | 2          | Deposit  | 23.14          |               |
| 87             | 6      | TP6         |                | 2          | Masonry  | 23.05          |               |
| 88             | 6      | TP6         |                | 1          | Layer  |                |               |
| 89             | VOID   |             |                |            | Natural. Light grey-brown clayey/silt            |                |               |
| 90             | 6      | TP6         |                |            | VOID   |                |               |
| 91             | 6      | TP6         |                | 2          | Pipe   |                |               |
| 92             | 1      |             |                | 2          | Pipe   |                |               |
| 93             | 1      |             | 10             | 3          | Fill   |                |               |
| 94             | 2      |             | 10             | 3          | Cut  | 24.32          |               |
| 95             | 2      | TP2B        | 11, 12         | 3          | Surface  | 24.32          | 24.04         |
| 96             | 2      |             | 11, 12         | 3          | Layer  | 24.17          |               |
| 97             | 2      |             | 11             | 3          | Layer  | 23.94          | 23.92         |
| 98             | 2      | TP2B        | 11             | 3          | Layer  | 23.73          | 23.71         |
| 99             | 2      | TP2         | 11, 12         | 2          | Masonry  | 22.87          | 22.63         |
| 100            | 2      |             | 11             | 2          | Masonry  | 24.01          | 20.94         |
| 101            | 2B     |             | 11             | 2          | Layer  | 23.89          | 23.61         |
| 102            | 2B     | TP2B        | 12             | 2          | Layer  | 21.17          |               |
| 103            | 5      |             | 12             | 2          | Layer  | 23.27          |               |
| 104            | 10     |             | 1              | 2          | Surface  | 21.67          |               |
| 105            | 10     |             | 3              | 3          | Surface  | 24.1           |               |
| 106            | 10     |             | 3              | 3          | Layer  | 24.11          |               |
| 107            | 10     |             | 3              | 3          | Layer  | 24.07          |               |
|                |        |             |                | 3          | Layer  | 24             |               |
|                |        |             |                | 3          | Demo. Mottled grey/red-brown sandy silt with CBM | 23.7           |               |

| Context Number | Trench | Plan Number | Section Number | Phase Type | Description                    | Highest | Lowest |
|----------------|--------|-------------|----------------|------------|--------------------------------|---------|--------|
|                |        |             |                |            |                                | (m OD)  | (m OD) |
| 108            | 10     |             |                | 2          | Concrete with brick aggregate  |         |        |
| 109            | 10     |             |                | 2          | Rubble/made ground.            | 23.35   |        |
| 110            | 10     |             |                | 2          | Brown-grey silty clay with CBM | 23.1    |        |
| 111            | 10     |             |                | 2          | Footing for Midland Goods Shed | 23      |        |
| 112            | 10     |             |                | 2          | E-W iron pipe                  | 23.35   |        |
|                |        |             |                |            | E-W iron pipe                  | 23.16   |        |



Appendix 2: Site Matrix



### APPENDIX 3:

17-11-2006 - 05-04-2007

17-11-2006  
05-04-2007

Project name An Archaeological Watching Brief at the Granary Complex, King's Cross Central

Short description of the project An archaeological watching brief of geotechnical trial pits was carried out across the Granary Complex, Wharf road, King's Cross. Natural clay was recorded in few of the trial pits. Extensive evidence was revealed for late 19th and early 20th century redevelopment of the study site. Footings for still extant buildings were observed, in addition to subterranean structures and services of contemporary date. The area was sealed by 20th century levelling and made ground deposits.

Project dates Start: 17-11-2006 End: 05-04-2007

Previous/future work Yes / Not known

Any associated project reference codes KXC-06 - Sitecode

Type of project Recording project

Site status Conservation Area

Current Land use Industry and Commerce 2 - Offices

Current Land use Industry and Commerce 4 - Storage and warehousing

Monument type CANAL TUNNEL Post Medieval

Monument type CANAL TUNNEL Post Medieval

Investigation type 'Watching Brief'

Prompt Direction from Local Planning Authority - PPG16

Project  
number

Country England

Site location GREATER LONDON CAMDEN CAMDEN The Granary Complex, King's Cross Central

Site coordinates TQ 3010 8349 51.5348091642 -0.124018322582 51 32 05 N 000 07 26 W Point

Height OD Min: 20.94m Max: 23.56m

Project  
number

Name of Organisation Pre-Construct Archaeology Ltd

Project brief originator Cameron Taylor

Project design originator Pre-Construct Archaeology Ltd

Project director/manager Gary Brown

Project supervisor Amelia Fairman

Type of sponsor/funding body Development Company

Name of sponsor/funding Argent (King's Cross) Limited

body

Physical LAARC  
Archive  
recipient

Physical 'Ceramics', 'Glass'  
Content  
s

Digital LAARC  
Archive  
recipient

Paper LAARC  
Archive  
recipient

Paper 'Stratigraphic', 'Survey'  
Content  
s

Paper 'Context  
Media sheet', 'Correspondence', 'Drawing', 'Map', 'Matrices', 'Photograph', 'Plan', 'Report', 'Section',  
availabl Unpublished Text'  
e

in fact -  
1999 - 2007

Publication type Grey literature (unpublished document/manuscript)

Title An Archaeological Watching Brief at the Granary Complex, King's Cross  
Central

Author(s)/Editor(s) Fairman, A

Date 2007

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Entered by Amelia Fairman (afairman@pre-construct.com)

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## APPENDIX 4

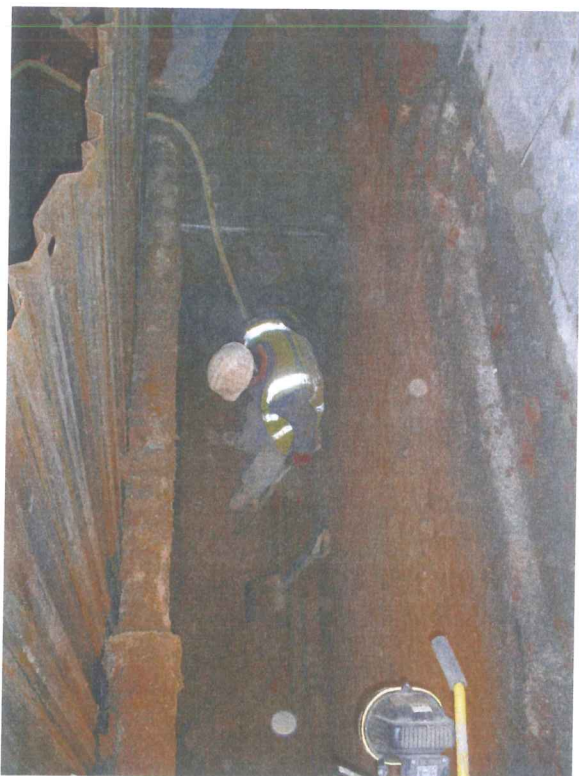
Representative selection of photographs of Geotechnical Investigations



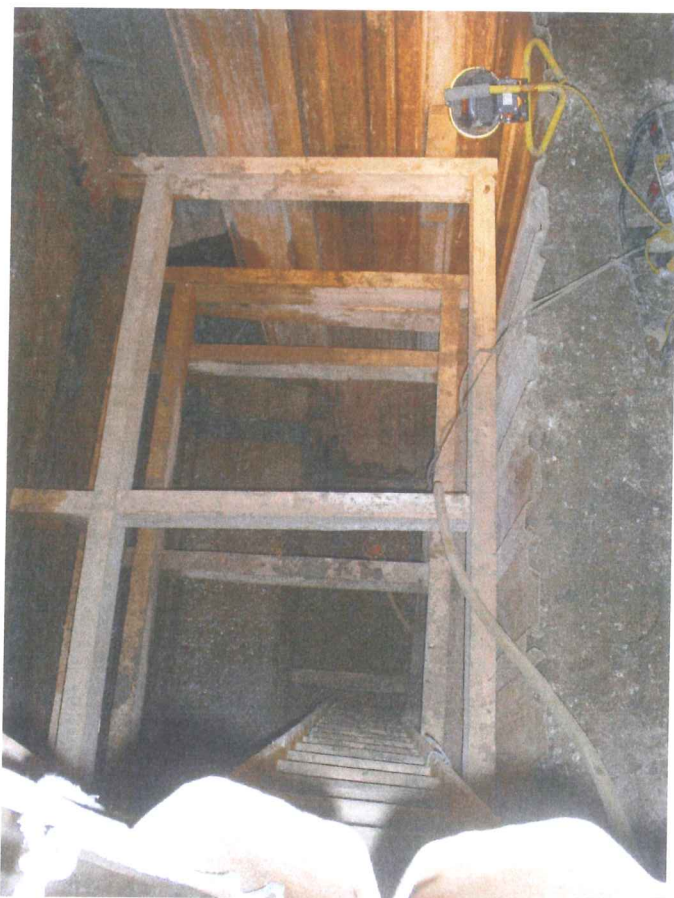
Trial Pit 1



Trial Pit 2B



Trial Pit 3



Trial Pit 4



Trial Pit 6



Trial Pit 9