Archaeological Watching Brief

at

BRISTOL MATERNITY HOSPITAL, ST. MICHAEL'S HILL, BRISTOL.

for

Bristol Royal Infirmary (Estates Department)

Report No. 2128/2010
BHER No. 24793

Bristol and Region Archaeological Services

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Centred on
N.G.R. ST 58493 7356

Client: Bristol Royal Infirmary (Estates Department)

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Signature:	Bruce Wilson
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CONTENTS

Abbreviations

AD	Anno Domini	Km	Kilometre
aOD	Above Ordnance Datum	m	Metre
BaRAS	Bristol & Region Archaeological Services	NGR	National Grid Reference
BC	Before Christ	NMR	National Monuments Record
c.	Circa	OS	Ordnance Survey
HER	Historic Environment Record		

NOTE
Notwithstanding that Bristol and Region Archaeological Services have taken reasonable care to produce a comprehensive summary of the known and recorded archaeological evidence, no responsibility can be accepted for any omissions of fact or opinion, however caused.

July, 2010.

SUMMARY

An archaeological watching brief was carried out during groundworks associated with enablement and development groundworks for the construction of a 2-storey extension block at the rear of the Maternity Hospital on St. Michael's Hill, Bristol.

During the development groundworks deposits recorded largely comprised modern surfaces of concrete and asphalt sealing garden soils and/or made-ground deposits, natural clays and mudstone. A length of post-medieval wall was recorded in section in a service trench and a large diesel fuel storage tank was removed from between three of the pile-caps (pile-caps I, J and K). Evidence of modern, mostly brick built structures, possibly relating to garden structures, were recorded in a number of foundation boxes. Service trenches were excavated to a depth that remained wholly within the modern overburden deposits.

No features or deposits of archaeological significance were observed during these works.

LIST OF ILLUSTRATIONS

Figures

Plates

1. INTRODUCTION

1.1 Bristol and Region Archaeological Services (BaRAS) were commissioned by Sven Howkins of the Bristol Royal Infirmary (Estates Department) to undertake an archaeological watching brief during enablement and development groundworks for the construction of a new restaurant facility at St. Michael's Maternity Hospital, Bristol.

1.2 The watching brief was commissioned to comply with the condition of planning consent (Bristol City Council Planning application number 08/04453/F) and in accordance with a Written Scheme of Investigation prepared by Bristol and Region Archaeological Services (BaRAS 2009). The project was also designed to comply with the IfA *Standard and Guidance for an Archaeological Watching Brief* (Institute of Field Archaeologists 1999).

1.3 Recording of the enablement works was undertaken between 7 and 30 July 2009 and groundworks between February 18 and March 5 2010 by Raymond Ducker who also wrote this report.

1.4 The project archive will be deposited with Bristol City Museum & Art Gallery under the Accession Number 2009.39 and a copy of the report will be made available to the National Monuments Record maintained by English Heritage. The project has been entered in the Bristol Historic Environment Record as: BHER 24793 and in the OASIS Online Access to the Index of Archaeological Investigations as: bristola1-61163.

2. THE SITE

2.1 The site (centred on NGR ST 58493 73562) lies on the southern slopes of St. Michael's Hill, Kingsdown, at the rear of the existing Bristol Maternity Hospital and is bounded by Southwell Street, St. Michael's Hill, Horfield Road and Robin Hood Lane.

2.2 The site lies within the designated Conservation Area of St. Michael's Hill and Christmas Steps. There are no Listed Buildings adjoining or affected by the development and no Scheduled Ancient Monuments are known to exist in the area.

2.2 The geology of the study area comprises Quartzitic Sandstone of Upper Carboniferous (Numerian) date (British Geological Survey 1967).

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Prior to the present project no archaeological desk-based assessment of the study area had been undertaken. An outline of the historical and archaeological background to the site is given below.

3.2 As stated previously, the site is located within the designated Conservation Area of St. Michael's Hill and Christmas Steps, a summary history of the St. Michaels Hill area is given in the *St Michaels Hill & Christmas Steps Character Appraisal* (BCC 2008). The same area is also covered by Leech (2000).

3.3 At the time of the Domesday survey in 1086, Kingsdown lay within the manor of Barton Regis, which, as the name implies was held in the name of the King. When the church of St. Michael was built - sometime before 1193, the area of that which is today the Hospital precinct on St. Michaels Hill lay just inside the eastern bounds of its parish. The boundary of the county and City of Bristol in 1373 was recorded to lay to the north and west of the study area.

3.4 The area of St Michaels Hill later became the home of many of Bristol's respectable citizenry, such as Alderman Jones who lived at the top of the hill during the 1640's. With the crisis of 1642 the authorities decided to construct defensive works around the city, these consisted of a ditch two yards wide and five feet deep surmounted by a wall with forts along it at crucial points. On the northern side the line was stretched between Windmill Hill fort (later the Royal Fort) and Prior's Hill Fort and ran slightly to the north of Southwell Street. A battery was located on the crest of St. Michaels Hill by the house occupied by Alderman Jones. Kingsdown was prominent in the storms of Bristol during the First Civil War, but St. Michaels Hill was largely bypassed by the fighting in 1643 and again in 1645.

3.5 Millards 1673 map shows the study area as being largely undeveloped and probably in agricultural use, although residential properties are shown fronting St. Michaels Hill just outside the study area to the northeast. Subsequently, Rocques 1742 map of Bristol shows the study area as occupied by gardens and possible garden structures with residential buildings immediately adjacent the study area to the northeast and northwest.

3.6 By the time of the Plumley and Ashmead 1828 map of the City an increasing amount of residential development had occurred adjacent the study area, though the study area itself appears to have still been largely occupied by gardens and associated structures. This appears to remain the case until WW2 when parts of the site and surrounding area suffered bomb damage. After this the site appears to have been utilised by the hospital authorities as a yard and vehicle garage.

3.7 St. Michaels Maternity Hospital was built on the site in 1974 after which point the development site was utilised by a service road and storage areas immediately to the rear of and adjoining the Maternity Hospital building.

3.8 No previous archaeological assessment has been carried out on the site or within close proximity to the site.

4. AIMS AND METHODOLOGY

4.1 The fieldwork complied with the methodology contained within the Written Scheme of Investigation (BaRAS 2009) and the *Standard and Guidance for an Archaeological Watching Brief* issued by the Institute for Archaeologists (1999). The aim of the watching brief was to record any archaeological features or deposits revealed during the course of intrusive groundworks.

4.2 The watching brief initially involved monitoring the enablement works and later the monitoring of development groundworks. The enablement works comprised mechanical excavation of services and small areas of reduced level excavation, mainly to provide a working area from which services could be excavated. The development groundworks comprised the excavation of pile-cap boxes, some with adjoining beam-slots and shallow trenches for services.

5. RESULTS

Enablement Works

These largely comprised small areas of reduced level excavation and the excavation of trenches for services.

Service Trench 100 **Fig.2, Plates 2-3**

Was excavated to between 800mm and 850mm deep. A simple sequence of concrete slabs and bedding over mixed made-ground/demolition material was recorded. An iron service pipe protected with a covering of concrete crossed the trench. No features or deposits of archaeological significance were observed during these works.

Service Trench 200 **Fig.2, Plate 2**

Except at the northern end, this trench was excavated after reduction of a bank above it (see below). The trench was excavated to a maximum depth of 1.2m. Those deposits recorded comprised a thin topsoil (north end only) sealing mixed made-ground/demolition rubble. At the north end of the trench a short length of post-medieval wall (Wall 201) was recorded.

Bank Reduction **Fig.2, Plate 2**

Part of a small landscaped area, between the hospital buildings and the service road, was reduced prior to the excavation of a new service trench (Service Trench 200, above). Also concrete retaining walls, surfaces and steps were removed as part of this work. The amount of material removed reached up to 1m in depth. Up to half of the material (decreasing in depth to the north) removed comprised topsoil/garden soil, the remaining material was mixed made-ground/demolition rubble.

Groundworks

This comprised the excavation of larger pits for pile-caps and adjoining slots for beams. A total of 25 pile-cap boxes of varying size were excavated during the groundwork. Thirteen of the boxes, spread over the area of the building footprint, were monitored archaeologically.

Pile-cap A **Fig.2**
Was excavated to a maximum depth of 2.1m. Below a modern concrete surface, deposits of modern made-ground sealed a brick wall that had been constructed over natural red clay (Keuper Marl). No features or deposits of archaeological significance were recorded.

Pile-cap B **Fig.2**
Excavated to a maximum depth of 2.0m. A simple sequence of concrete over redeposited natural clay, foundations of concrete and archaeologically sterile red clay was recorded. A brick wall was also located that was sealed below the concrete foundations. No features or deposits of archaeological significance were recorded.

Pile-cap C **Fig.2**
Excavated to a maximum depth of 1.0m. A simple sequence of concrete and gravel over redeposited natural clay sealed the fill of a modern service cut that truncated archaeologically sterile red clay. No features or deposits of archaeological significance were recorded.

Pile-cap D **Fig.2, Plate 4**
Actually comprised two pits excavated as one. The Box reached a maximum depth of 2.3m and revealed a simple stratigraphic sequence of concrete and bedding sealing archaeologically

sterile clay and mudstone deposits. No features or deposits of archaeological significance were recorded.

Pile-cap E **Fig.2**
No features or deposits of archaeological significance were recorded.

Pile-cap F **Fig.2**
Excavated to a maximum depth of 2.22m deep. A simple sequence of concrete and gravel sealed the fill of a modern service trench, which cut a layer of redeposited natural clay and subsequent archaeologically sterile red clay. No features or deposits of archaeological significance were recorded.

Pile-cap G **Fig.2**
Excavated to a maximum of 3.3m deep through a thin topsoil and archaeologically sterile clay and mudstone deposits. No features or deposits of archaeological significance were recorded.

Pile-cap H **Fig.2, Plate 5**
Excavated to a maximum depth of 1.4m. A simple stratigraphic sequence of excavation was observed, spoil from the box was dumped along the top of the section sealing gravel/scalpings a former topsoil horizon and subsequently deposits of red clay and tea-green marl clay. No features or deposits of archaeological significance were recorded.

Pile-cap I **Fig.2, Plate 6**
Excavated to a maximum of 1.4m deep. The box was excavated into a simple sequence of deposits comprising topsoil, redeposited clay, made-ground material and subsequently archaeologically sterile natural clay. In the west facing section of the box part of the brick retaining wall to house a diesel fuel tank was recorded. The diesel tank was 2m wide and 3m in length and sat in a rectangular structure of brick, bonded with cement. Sheets of corrugated Iron were also used to cover the tank. Later the diesel tank was removed and the upper part of the retaining structure demolished. The diesel tank and structure were only recorded in the edge of this pile-cap, whereas Pile-caps K and M were situated wholly within the hole created by its removal.

Pile-cap J **Fig.2**
Was relatively shallow (up to 500mm deep) and seemed to have formerly been occupied by a tree-bole. The pile-cap was excavated through a mix of redeposited natural clay and topsoil that sealed archaeologically sterile deposits of red clay.

Pile-cap K **Fig.2, Plate 6**
The area of this pile-cap was situated wholly within the area of the diesel storage tank, the removal of the tank meant no further excavation was required. Deposits and structures observed comprised the diesel tank, retaining walls and backfill and the cut and fill for the construction of the retaining structure.

Pile-cap L **Fig.2**
Excavated to a maximum depth of 1m. The pile-cap appeared to have been excavated wholly within archaeologically sterile deposits of red and greyish-green clay.

Pile-cap M **Fig.2, Plate 6**
Situated wholly within the area of the removed diesel storage tank. The results of the excavation were identical to those recorded for pile-cap K.

5.2 No features or deposits of archaeological significance were observed and no artefacts predating the modern period were recovered during intrusive groundworks at the site.

6. CONCLUSION

6.1 Those enablement works monitored comprised the excavation of trenches for services and reduced level excavation. During these works other than a length of post-medieval wall recorded in section in a service trench, the only deposits observed comprised modern surfaces (concrete and tarmac) and bedding material over mixed, made-ground material and subsequently archaeologically sterile natural clays.

6.2 The development groundworks comprised the excavation of pile-cap boxes and shallow trenches for services. A total of 25 boxes for pile caps were excavated, 13 of these were monitored archaeologically. Those features and deposits recorded comprised modern surfacing and bedding deposits sealing made-ground material and archaeologically sterile clays and mudstone. In a small number of boxes a simpler sequence of topsoil over clay/mudstone was recorded. A large diesel fuel storage tank was removed from between three of the pile-caps (pile-caps I, J and K) this may be associated with the 20th century use of the site as a vehicle yard. Evidence of modern, mostly brick built structures may relate to the earlier garden structures recorded on the site but this remains conjectural. The service trenches were excavated to a depth that remained wholly within the modern overburden deposits.

6.3 No features or deposits that could be associated with the Civil War defences were located during the groundworks.

6.4 The watching brief identified no archaeological remains within the area of the intrusive groundworks. The lack of archaeological deposits may reflect the lack of activity (other than possible garden structures on/or within the study area) recorded on the earlier maps and plans within the Historical Background section.

No features or deposits of archaeological significance were observed during these works.

7. PROJECT TEAM

7.1 The fieldwork was undertaken by R. K Ducker who also produced this report. The illustrations were prepared and the report compiled by Ann Linge. The archive was compiled and prepared for deposition by R K Ducker and the project was managed by Bruce Williams.

8. BIBLIOGRAPHY AND SOURCES CONSULTED

Published Works

BCC, 2008 *St Michaels Hill & Christmas Steps Character Appraisal (Conservation Area 9)* Bristol: Urban Design and Conservation Team, Bristol City Council.

Leech, R.H. 2008 *The St. Michael's Hill Precinct of the University of Bristol: Medieval and Early Modern Topography*. Bristol: Bristol Record Society in Association with the University of Bristol.

Maps and Plans

Millard 1673 *An Exact Delineation of the Famous City of Bristol and its Suburbs.*

Jean Rocque 1742 A Plan of the City of Bristol.

J Plumley and G C Ashmead 1828. This Plan of the City of Bristol and Its Suburbs. J. Plumley and G. C. Ashmead. Commenced in 1813 and completed in 1828.

Ordnance Survey 1967 Geological Survey of England and Wales Map, Solid and Drift, (Bristol District).

Unpublished Material

BaRAS, 2010, *Written Scheme of Investigation for an Archaeological Watching Brief at St. Bristol Maternity Hospital, Bristol.*

9. ACKNOWLEDGMENTS

BaRAS would like to thank Mr Gary Latham of Kier Group and Mr Sven Howkins of the Bristol Royal Infirmary for their assistance during the project.

APPENDIX 1: Policy Statement

This report is the result of work carried out in the light of national and local authority policies.

NATIONAL POLICIES
Statutory protection for archaeology is enshrined in the Ancient Monuments and Archaeological Areas Act (1979), amended by the National Heritage Act, 1983. Nationally important sites are listed in the Schedule of Ancient Monuments (SAM). Scheduled Monument consent is required for any work that would affect a SAM.

GOVERNMENT POLICY GUIDANCE
Planning Policy Guidance Note 15: Planning and the Historic Environment (1994) and Planning Policy Guidance Note 16: Archaeology and Planning (1990) have been replaced (23 March 2010) by Planning Policy Statement 5: Planning for the Historic Environment (2010) which sets out the Government's national policies on conservation of the historic environment. Those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are called heritage assets.

Of particular relevance within the Planning Policy Statement are:

Policy HE6: Information Requirements for Applications for Consent Affecting Heritage Assets
HE6.1 Local planning authorities should require an applicant to provide a description of the significance of the heritage assets affected and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage asset and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum the relevant historic environment record should have been consulted and the heritage assets themselves should have been assessed using appropriate expertise where necessary given the application's impact. Where an application site includes, or is considered to have the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where desk-based research is insufficient to properly assess the interest, a field evaluation.

Policy HE9: Additional Policy Principles Guiding the Consideration of Applications for Consent Relating to Designated Heritage Assets
HE9.1 There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost, heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, protected wreck sites, battlefields, grade I or II* listed buildings and grade I and II* registered parks and gardens, World Heritage Sites, should be wholly exceptional.

Policy HE12: Policy Principles Guiding the Recording of Information Related to Heritage Assets
HE12.3 Where the loss of the whole or a material part of a heritage asset's significance is justified, local planning authorities should require the developer to record and advance understanding of the significance of the heritage asset before it is lost, using planning conditions or obligations as appropriate. The extent of the requirement should be proportionate to the nature and level of the asset's significance. Developers should publish this evidence and deposit copies of the reports with the relevant historic environment record. Local planning authorities should require any archive generated to be deposited with a local museum or other public depository willing to receive it. Local planning authorities should impose planning conditions or obligations to ensure such work is carried out in a timely manner and that the completion of the exercise is properly secured.

DISTRICT POLICY
Bristol City Council Supplementary Planning Document (2006) states (policy SPD No.7, p4):
(i) There will be a presumption in favour of preserving any archaeological features or sites of national importance, whether scheduled or not.
(ii) Development which could adversely affect sites, structures, landscapes or buildings of archaeological interest and their settings will require an assessment of the archaeological resource through a desktop study, and where appropriate a field evaluation. Where there is evidence of archaeological remains, development will not be permitted except where it can be demonstrated that the archaeological features of the site will be satisfactorily preserved in situ, or a suitable strategy has been put forward to mitigate the impact of development proposals upon important archaeological remains and their settings; or, if this is not possible and the sites are not scheduled or of national importance, provision for adequately recording the site prior to destruction is made, preferably by negotiating a planning agreement to ensure that access, time and financial resources are available to allow essential recording and publication to take place.

APPENDIX 2: Context Descriptions

Context No.	Description
100	Machine excavated service trench
101	Concrete slab surface
102	Sand/cement bedding for (101)
103	Made-ground material
200	Machine excavated service trench
201	Wall located in Service Trench 200
202	Made-ground/demolition rubble deposit
203	Deposit of garden soil/topsoil in Service Trench 2
204	Concrete foundation
205	Metalled road
206	Made-ground material removed prior to excavation of Service Trench 200
207	Made-ground material removed prior to excavation of Service Trench 200
208	Made-ground material below 206/207, into which Service Trench 200 was largely excavated
209	Modern retaining walls and concrete surfaces removed prior to reduction of deposits 206/207
300	Concrete surface over Pile-cap A
301	Made-ground deposit below (300)
302	Brick-wall removed during excavation of Pile-cap A
303	Natural clay at base of Pile-cap A
304	Bedding gravel for tarmac over pile-cap B
305	Redeposited red/brown clay below (304)
306	Concrete foundation pad, sealed by (305)
307	Made-ground material below (306) - presumably cut for the laying of the slab
308	Natural red/brown clay at the base of Pile-cap B
309	Concrete surface over Pile-cap C
310	Bedding gravel for concrete
311	Redeposited red/brown clay - below (310)
312	Fill of cut (313)
313	Cut for service pipe, filled by [312]
314	Natural clay - cut by (313)
315	Concrete slab adjacent Pile-cap B
316	Brick wall truncated by excavation of Pile-cap C
317	Concrete surface around Pile-cap D
318	Gravel bedding below (317)
319	Natural clay in Pile-cap D
320	Mudstone below (319)
321	Concrete surface around Pile-cap F
322	Gravel bedding below (321)
323	Fill of cut [324]
324	Modern service trench cut
325	Redeposited natural red/brown clay
326	Natural red/brown clay
327	Topsoil in Pile-cap G
328	Natural clay below (327)
329	Mudstone below (328)
330	Overburden from site works adjacent Pile-cap H
331	Gravel/scalpings in Pile-cap H
332	Buried topsoil in Pile-cap H
333	Red Keuper Marl in Pile-cap H
334	Tea-Green Marl lens in Pile-cap H
335	Topsoil over Pile-cap I
336	Redeposited clay below (335)
337	Made-ground deposit in Pile-cap I
338	Natural clay in Pile-cap I
339	Cut for wall (340) in base of Pile-cap I
340	Structure - rectangular brick structure to house oil tank in west facing section of Pile-cap I, also occupies whole area of Pile-caps K and M
341	Topsoil over Pile-cap J
342	Mixed topsoil and clay in tree-bole hole that occupies most of Pile-caps J and L

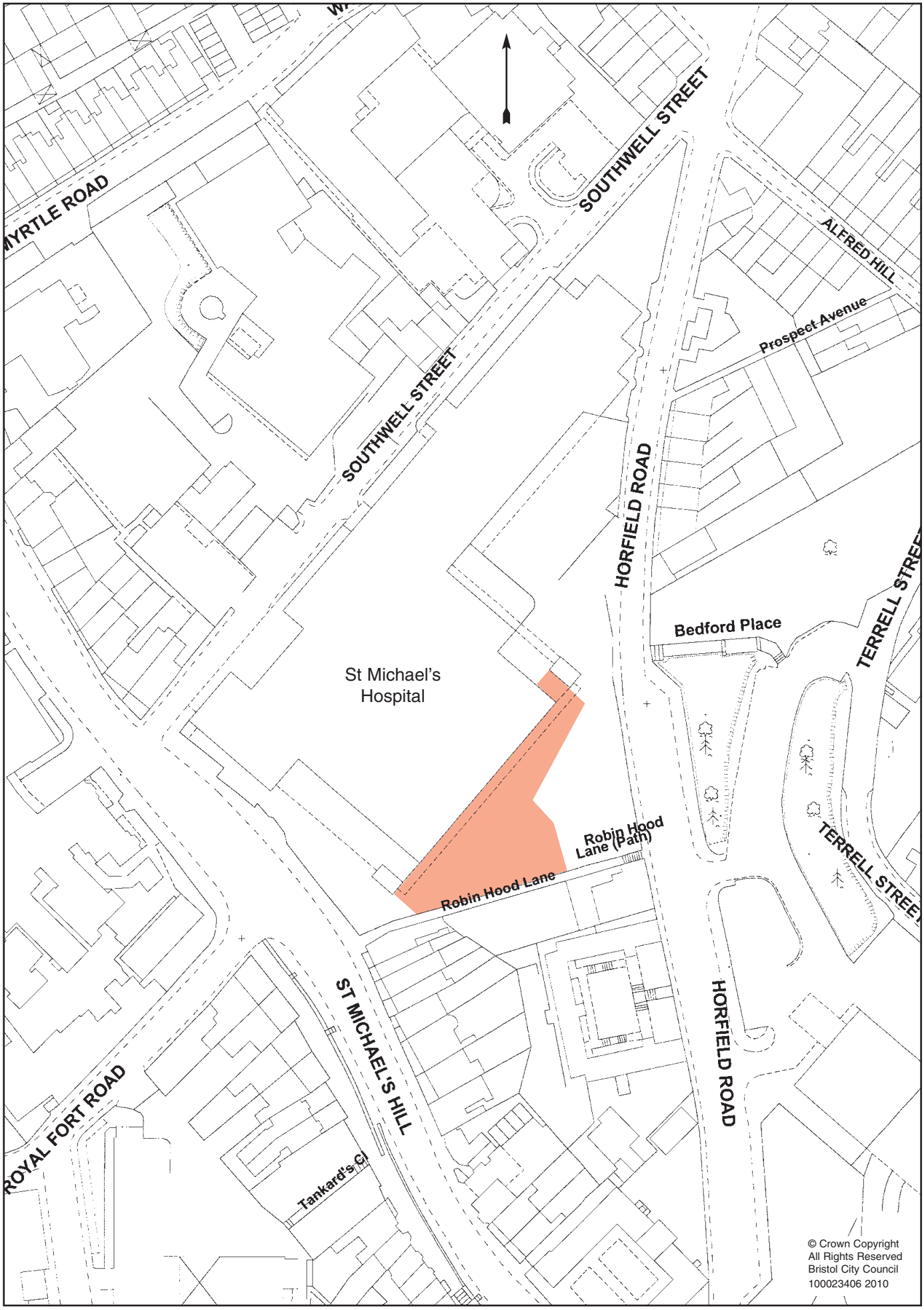

Fig.1 Site location plan, scale 1: 1250

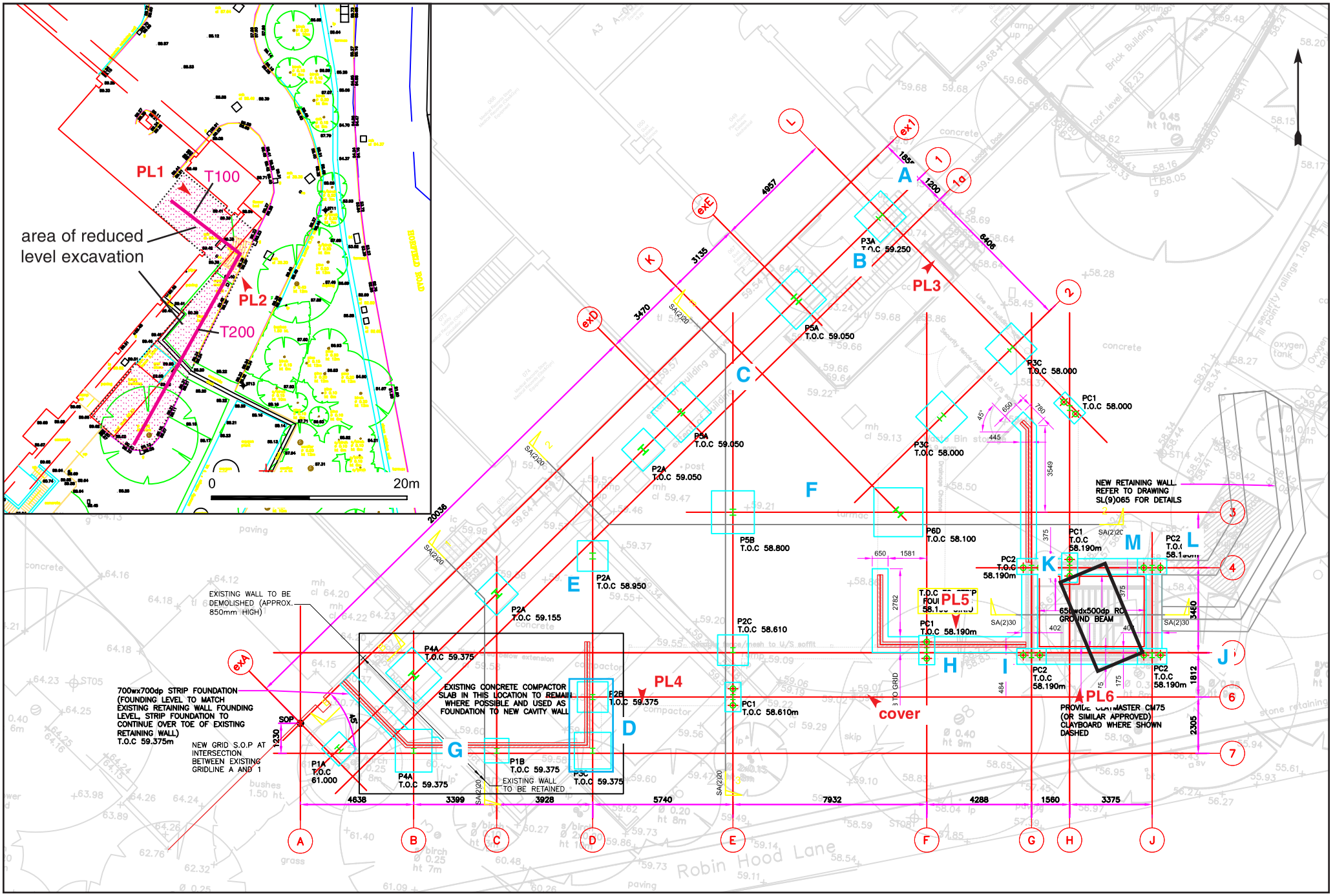

Fig.2 Distribution of pile-cap boxes and areas of reduced level excavation and service trenches

Plate 1
General view of Service Trench 100 after excavation

Plate 2
Reduced level excavation in area of Service Trench 200

Plate 3
Wall 201 and adjacent made-ground deposits exposed in Service Trench 200

Plate 4
Pile-cap box D at the completion of excavation

Plate 5
Pile-cap box H at the completion of excavation

Plate 3
Removal of the diesel tank in area of pile-cap boxes I, K and M