

Archaeological Watching Brief during Geotechnical Survey
of the
FORMER MAGISTRATES' COURT,
RUPERT STREET / NELSON STREET, BRISTOL.
for
Deeley Freed (Magistrates Court) Ltd



Report No. 2459/2011
BHER No. 24983

By Tim Longman



Bristol and Region Archaeological Services



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Archaeological Watching Brief during Geotechnical Survey
of the
**FORMER MAGISTRATES' COURT,
RUPERT STREET / NELSON STREET, BRISTOL.**

Centred on
N.G.R. ST 58734 73207

Client: Deeley Freed (Magistrates Court) Ltd
Agent: King Sturge LLP of Bristol

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<i>Date Issued:</i>	30 March 2011

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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.

March, 2011.

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SUMMARY

An archaeological watching brief was carried out during a geotechnical survey in advance of the demolition of the former Magistrates Court and the proposed redevelopment of the site on Nelson Street in central Bristol.

Site monitoring took place during late February/early March 2011. This involved an archaeological watching brief during the mechanical excavation of 4 trial pits and the drilling/coring of 2 boreholes and 3 window samples at specific locations across the site. These mostly revealed, not unexpectedly, varying depths of construction related disturbance. However, in three locations (TP4, BH1 & BH2) it appears that layers of stratified archaeological deposits, in the form of buried garden soils and a single layer of peaty clay, are present.

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1. INTRODUCTION

- 1.1 Bristol and Region Archaeological Services (BaRAS) was commissioned by King Sturge LLP, on behalf of Deeley Freed (Magistrates Court) Limited, to undertake an archaeological watching brief during a geotechnical survey at the former Magistrates Court, Nelson Street, Bristol BS1 2PZ. The watching brief was commissioned in advance of the proposed redevelopment of the site (Planning Application No. 11/00164/F) for *'a mixed use development comprising a 164 bed hotel, student residential accommodation, ground floor retail/restaurant/café/bar, with associated car parking'*.
- 1.2 The former Magistrates Court (**Cover; Fig. 1**; centred on NGR ST 58734 73207) is located within Bristol's historic city centre. It is surrounded on three sides by, but lies outside of, three of the city's designated conservation areas (St Michaels' Hill and Christmas Steps, College Green and the City and Queen Square Conservation Areas). The present building stands north of the medieval Church of St John the Baptist (BHER 145M) just beyond St John's Gate (BHER 96M), on the opposite side of Nelson Street, at a height of approximately 9.0m aOD. The eight-storey building, built in the early 1970s, is bounded south-west by Christmas Street, south-east by Nelson Street, north-west by Rupert Street, and north-east by Drake House (student flats).
- 1.3 The fieldwork (**Fig. 2**) was undertaken in late February/early March 2011 under the supervision of Andy King and Tim Longman (Project Officers, BaRAS), the latter of whom also wrote this report. The illustrations were prepared and the report compiled by Ann Linge (Design & Production Officer). The project was managed by John Bryant (Acting Manager, BaRAS).

2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 2.1 A detailed history of the site and its locality is given in a desk-based assessment (Townsend 2011; BaRAS Report 2405/2011). Key points are summarised below:
- 2.2 Historically, the site is located in the city parish of St John the Baptist. The site lies within the area of the medieval settlement of Bristol close to the course of the River Frome and had been intensively developed by at least the mid 18th-century with later buildings incorporating medieval elements. Many buildings on this site were destroyed in a fire in 1876 and although rebuilding occurred, further damage was caused by enemy bombing during the Second World War.
- 2.3 The construction of the Magistrates Court on this site in the early 1970's required the clearance of several standing buildings. Demolition work revealed standing medieval walls and part of the site was archaeologically excavated in 1969.
- 2.4 A substantial basement and the foundation piling for the Magistrates Court will have caused mass disturbance to the burial environment. However, it is thought that portions of the site beyond the basement area may contain undisturbed archaeological deposits and features.

3. AIMS AND METHODOLOGY

- 3.1 The purpose of the watching brief was to record any archaeological deposits or features revealed during the course of a programme of geotechnical survey work.
- 3.2 The recent programme of fieldwork complied with the methodology contained within the *Written Scheme of Investigation* (King 2011). The fieldwork also followed the *Standard and Guidance for Archaeological Watching Briefs* issued by the Institute of Field Archaeologists (1994, revised 2008), and *Management of Archaeological Projects* (MAP II) issued by English Heritage (EH 1991).
- 3.3 The watching brief involved monitoring all geotechnical work across the site, comprising the excavation of four test pits (TP1 - 4), three window samples (WS1 - 3) and three boreholes (BH1 - 3).

4. THE WATCHING BRIEF

Trial Pits

- 4.1 The mechanical excavation of four small trial pits (TP1 - 4) to varying depths of between 1-2 metres, was carried out over a couple of days (**Fig. 2; Plates 3-7**). The monitoring revealed no significant archaeology, except in TP4. The first two trial pits (TPs 3 & 4) were excavated within the ground floor car park, while the remaining two (TPs 1 & 2) were excavated next to two of the street frontages (Nelson Street and Christmas Street).

4.2 *Trial Pit 1*

This trial pit (**Plates 5 & 6**) was orientated NW-SE, measured 3.2m long by 1m wide and was excavated to a depth of 1.8m. Only modern structures/deposits, associated with the present building, were recorded. These consisted of a 1.5m+ thick fill deposit (101) of loose, Type-2 gravel scalpings in a sandy matrix overlying which was a 350mm thick layer of reinforced concrete (100). This latter surface formed a ramp allowing vehicular access between the basement and Nelson Street.

4.3 *Trial Pit 2*

This trial pit (**Plate 7**) was orientated SW-NE, measured 1.8m long by 0.9m wide and was excavated to a depth of 1m. Only modern structures/deposits, associated with the present building, were recorded. These comprised a 750mm+ thick fill deposit (202) of loose, Type-2 gravel scalpings, which were deposited up against the exterior of the basement wall. Overlying the latter deposit was a thin layer of hard, pale yellow coloured mortar (201). Onto this had been laid granite setts/cobble stones (200), which form a paved surface alongside the exterior of the building.

4.4 *Trial Pit 3*

This trial pit (**Plate 3**) was excavated to a depth of 1.03m. Beneath the concrete floor and underlying fill (sub-base), a modern concrete structure (possibly the foundation underpinning an existing brick partition wall) was recorded. At the base of trial pit 3 a bitumen-coated slab surface was exposed, possibly the remains of a rainwater collection tank.

4.5 *Trial Pit 4*

This trial pit (**Plate 4**) was orientated SW-NE, measured 1m long by 0.5m wide and was excavated to a depth of 2m. The stratigraphically earliest recorded deposit was a 700mm+ thick layer of mid brown silty clay (404) with inclusions of pink and orange mortar and fragments of wall plaster. In addition, fragments of oyster shells and animal bone were also noted, but no datable finds were recovered. A mixed deposit of black sandy clay with inclusions of pale grey mortar flecks and small stones (403) was present between 800mm and 1.3m depth, sealing the latter deposit. Fragments of oyster shells and animal bone were also recorded in this possible garden soil, but no dating evidence was recovered. Overlying the latter soil horizon was a 355mm thick layer of fill/demolition rubble (402), comprising a mixed deposit mostly of fragments of brick and stone. The remaining 450mm comprised a bedding layer (401) of scalpings, which was in turn sealed beneath a layer of concrete (400), the surface of which formed the floor of the car park.

Boreholes

- 4.6 Three boreholes (**Fig. 2; Plates 1, 2 & 9**) were drilled outside the footprint of the building, one next to the building on Nelson Street (BH1), a second near the corner of Christmas Street and Rupert Street (BH2) and a third next to the building on Christmas Street (BH3). Two (BH1 & BH2) produced samples containing possible archaeologically significant deposits.

4.7 *Borehole 1*

BH1 (**Plate 9**) was located next to Nelson Street. This borehole recorded a single deposit of possible archaeological significance. Beneath layers of modern concrete and fill, between depths of 3.2m and 3.5m below ground level (9.2m aOD), a 300mm layer of brown silty sandy soil containing inclusions of brick, coal and mortar (1003), similar in character to the possible garden soils recorded in TP4, was present. The borehole was terminated at 9.5metres due to difficult drilling.

4.8 *Borehole 2*

This borehole (**Fig. 2; Plates 1 & 2**) located close to the corner of Christmas Street and Rupert Street, near the course of the River Frome, produced archaeologically significant deposits, including 'organic material'. A 0.5m thick brown to black peaty clay (2006), which included some plant fragments, was recorded at a depth of between 3.7 – 4.2m (approximately 5.97m aOD). The latter deposit was sealed beneath a 0.5m thick layer of stiff friable light grey alluvial clay (2005) overlying which, in turn, between 2.10m (7.57m aOD) and 3.2m deep was a horizon of made ground comprising very soft light grey/brown clay with fine to coarse angular to subangular limestone gravel, brick, mortar and coal fragments (2004). The borehole was terminated at 20.1metres.

4.9 *Borehole 3*

This borehole was drilled on the west side of the former Magistrates Court, next to the Christmas Street frontage. This extra borehole was made necessary by technical difficulties encountered at the location of BH1. Modern disturbance extended some 3.4m deep below the ground surface (9.18m aOD) before natural grey alluvial clay (3003) was encountered. No archaeologically significant deposits were recorded at this location and the borehole was terminated at a depth of 25 metres (15.82m below OD).

Window Samples

- 4.10 Three window samples (**Fig. 2; Plate 8**) were core-drilled, at the east-end of the ground level car park, over the course of a single day. However, a series of technical problems meant that the interpretative value of the data obtained was severely limited. The geotechnical engineers were utilising a 6 inch (150mm) diameter core barrel to obtain samples.

4.11 *Window Sample 1*

WS1 was located towards the north-east corner of the ground level car park. The core shaft was drilled to a depth of just 0.73m before the drill bit shattered on an undefined obstruction. Beneath the concrete floor (1100) and underlying gravel fill (1101) only some 80mm of dark grey gravelly clay (1102) was sampled. No significant archaeology was recorded in this limited investigation.

4.12 *Window Sample 2*

WS2 was located just a few metres to the south-east of WS1. Here the core shaft was drilled to a depth of just 0.81m, before the lack of clearance (head room) for the drilling rig brought the operation to a premature end. The data obtained was limited and virtually identical to that from WS1, specifically, beneath the concrete floor (1200) and underlying gravel fill (1201) only the top few centimetres of dark grey gravelly clay (1202) was sampled. No significant archaeological deposits were encountered.

4.13 *Window Sample 3*

WS3 was located just a few metres north of the Nelson Street entrance into the ground level car park (**Plate 8**). Once again technical difficulties (lack of head room when extracting the core barrel on the rig) curtailed this exercise before it could provide meaningful data. The maximum depth achieved was just 0.7m, the core drill having cut through just the 0.31m thick concrete floor (1300) and the underlying 0.4m thick layer of gravel fill (1301). No archaeological deposits were recorded.

5. CONCLUSIONS

It is known that the floor level within the basement is considerably lower (*c.*3.5-4.0m) than the surrounding areas. It is likely that this substantial basement along with the foundation piling belonging to the present building will have had a severe negative impact on the burial environment across much of the central portion of the site.

It was observed in the area of the ground level car park that construction-related disturbance continues, in places, for at least 1m below the present floor level. However, below 0.8m (on the site of TP4) there was found to be stratified but undated archaeology in the form of deep soil deposits (contexts 403 & 404). This data was recovered exclusively from one of the trial pits (TP4) excavated in that area. Unfortunately, largely due to technical difficulties, the results of the three window samples (WS1, 2 & 3) were not very informative.

Possibly significant archaeological deposits were recorded in both BH1 and BH2. The boreholes initially recorded modern concrete and fill deposits to depths of between 2.10m to 3.2m below ground level. However, in BH1, between 3.2m and 3.5m (at 6m aOD) was recorded a 300mm thick deposit of brown silty sandy soil which included small to medium sized fragments of coal and brick along with mortar flecks (1003). Due to drilling difficulties associated with a bedding fracture the borehole was terminated at 9.5m deep. A third borehole (BH3) was subsequently sunk a few metres away next to Christmas Street, but no further archaeologically significant deposits were recorded.

Possibly significant archaeological deposits in the form of layers of light grey/brown clay soil with inclusions of gravel, brick, mortar and coal fragments (2004) and 'organic material' in the form of brown to black peaty clay (2006) were recorded in the borehole (BH2) drilled near the north-west corner of the building next to Christmas Street/Rupert Street. The peaty clay deposit (context 2006) included some plant fragments and was sandwiched beneath stiff grey alluvial clay (2005) and sealed very soft, grey slightly silty clay (2007). The proximity of the borehole location to the historic course of the River Frome lends support to the theory that the peaty deposit (2006) is located on the edge of the river channel and formed prior to the construction of riverside walls by the late medieval period.

The buried soil horizons (contexts 1002, 2004, 403 & 404) recorded in BH1, BH2 and TP4 may then represent garden soils formed after the reclamation of land, immediately south of the river, belonging to medieval tenements fronting on '*Gropecunte Lane*' (modern Nelson Street).

6. THE ARCHIVE

The project archive will be deposited with Bristol Museums & Archives Service under the accession number BRSMG 2011/4 and a digital copy of this report will be available to the National Monuments Record Centre (NMRC) in Swindon, which is maintained by English Heritage. The project has been entered in the Bristol Historic Environment Record (BHER) database as BHER 24983 and has also been allocated the OASIS reference number bristola1-93624.

7. SOURCES CONSULTED

Published Material

Bristol City Council, 2003 *Bristol Local Plan* (Adopted 1997; altered 2003). Bristol: Bristol City Council.

Bristol City Council, 2006 *Archaeology and Development. Bristol Local Development Framework Supplementary Planning Document Number 7* (Adopted March 2006). Bristol City Council: City Centre Projects and Urban Design Team.

Institute of Field Archaeologists, 1999
Standard and Guidance for an Archaeological Watching Brief.

Unpublished Material

King, A., 2011 *Written Scheme of Investigation for an Archaeological Watching Brief at the former Bristol Magistrates Court, Rupert Street/Nelson Street, Bristol* (BaRAS Report 2459/2011; unpublished client report).

Townsend, A. 2011 *Archaeological Desk-based Assessment of the former Magistrates Court, Rupert Street/Nelson Street, Bristol* (BaRAS Report No. 2405/2011; unpublished client report).

8. ACKNOWLEDGEMENTS

BaRAS would like to thank Stuart Tillet (Geoenvironmental Engineer) of Clarke Bond (Engineering & Management Consultants) for his assistance and co-operation during the programme of monitoring (and for permission to use the borehole log data), as well as Mac Bailey (mini digger operator) of Reed Bros. and Bailey Ltd (Plant Hire & Operators), and the drilling team from CJ Associates (Ground Investigations). Thanks also to Elfyn Haycock (Senior Associate) of King Sturge LLP and Chris Whale of Clarke Bond.

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):




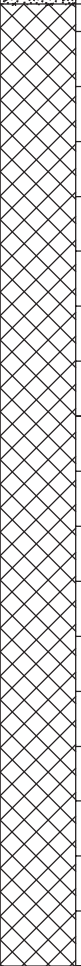

- (i) There will be a presumption in favour of preserving any archaeological features or sites of national importance, whether scheduled or not.
- (ii) Development which could adversely affect sites, structures, landscapes or buildings of archaeological interest and their settings will require an assessment 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

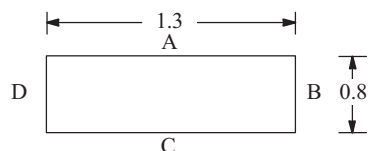
Trial Pits/Boreholes/ Window Samples	Context Nos.	Description
TP1	100	Reinforced Concrete
	101	Gravel
TP2	200	Granite setts/cobble stones
	201	Mortar
	202	Gravel
TP3	300	Concrete
	301	Demolition rubble (brick, stone, etc)
	302	Concrete surface/slab/beam
TP4	400	Concrete
	401	Gravel
	402	Demolition rubble (brick, stone, etc)
	403	Black silty clay with inclusions of mortar flecks, stone, oyster shells, animal bone
	404	Mid brown silty clay with inclusions of mortar flecks, wall plaster, oyster shells, animal bone
BH1	1000	Concrete
	1001	Gravel
	1002	Concrete
	1003	Brown silty, sandy soil with inclusions of brick, coal and mortar
	1004	Grey brown silty clay
	1005	Red brown silty clay with sandstone gravel inclusions
	1006	Quartzitic Sandstone
BH2	2000	Granite setts/ cobble stones
	2001	Light brown silty sand
	2002	Concrete
	2003	Gravel
	2004	Light grey/brown clay with inclusions of gravel, brick, mortar and coal fragments
	2005	Light grey alluvial clay
	2006	Brown to black peaty clay. Peat includes some plant fragments
	2007	Grey slightly silty alluvial clay
	2008	Soft red silty sand
	2009	Quartzitic Sandstone
BH3	3000	Reinforced concrete
	3001	Building rubble
	3002	Gravel
	3003	Grey alluvial clay
	3004	Grey silty alluvial clay
	3005	Quartzitic Sandstone
WS1	1100	Concrete
	1101	Gravel
	1102	Brownish grey gravelly clay
WS2	1200	Concrete
	1201	Gravel
	1202	Brownish grey gravelly clay
WS3	1300	Concrete
	1301	Gravel

TRIAL PIT LOG

Project Redevelopment of Bristol Magistrates Courts				TRIAL PIT No TP1
Job No WB01727	Date 21-02-11	Ground Level (m) 9.20	Co-Ordinates () E 358,748.0 N 173,190.0	
Contractor CJ Associates				Sheet 1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
0.40	D			9.05		(0.15) 0.15	MADE GROUND: Comprising granite cobbles.		
				8.95		0.25	CONCRETE.		
1.00	D					(1.75)	MADE GROUND: Comprising reddish pink fine to coarse angular limestone gravel. ... Earth Wire encountered at 0.73m.		
1.50	D								
				7.20		2.00	End of hole due to pit side instability.		

Shoring/Support: None
Stability: Stable



GENERAL
REMARKS

No Groundwater encountered.

All dimensions in metres
Scale 1:13.75

Client Deely Freed (Magistrates)
Ltd.

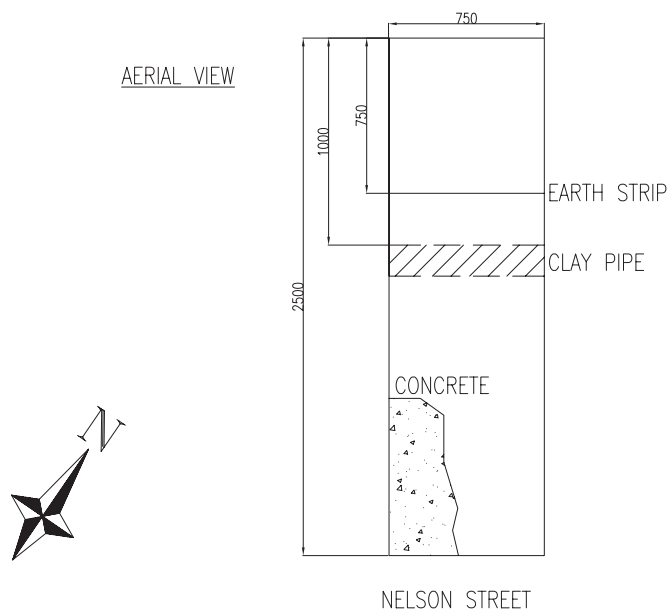
Method/
Plant Used 360° Excavator

Logged By
ST

Log: 08c CBGE TRIAL PIT LOG M:\CB SOUTH WEST & WALES\BRISTOL PROJECTS\WB01727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS\PRODUCTION\DATA - GEO ENV\CB DATA\GINT\WB01727.GPJ CLARKE BOND GDT 18/03/2011 15:53:17

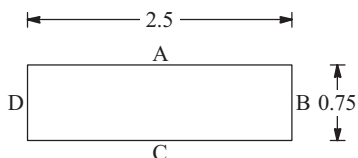
TRIAL PIT LOG (Photo/Sketch)

Project Redevelopment of Bristol Magistrates Courts				TRIAL PIT No TP2
Job No WB01727	Date 21-02-11	Ground Level (m) 9.15	Co-Ordinates () E 358,731.0 N 173,188.0	
Contractor CJ Associates				Sheet 1 of 1



STRATA			Legend	SAMPLES & TESTS		
Depth	No	DESCRIPTION		Depth	No	Remarks/Tests
0.00-0.25		CONCRETE with 5mm mesh.				
0.25-1.80		MADE GROUND: Comprising light brown silty sandy fine to coarse angular limestone gravel. ... Some polystyrene, kerb stones, concrete, sandstone and tarmac. ... Plastic sheeting. ... Service at 0.75m bgl, 150mm clay pipe and earthing strip.				
1.60		... Large area of concrete in southern zone of pit at 1.6m.				
1.80		End of hole at 1.8m - pit side unstable and would cause issues with replacing services.				

Shoring/Support: None
Stability: Stable



GENERAL
REMARKS

No Groundwater
encountered.

All dimensions in metres
Scale 1:27.5

Client Deely Freed (Magistrates)
Ltd.

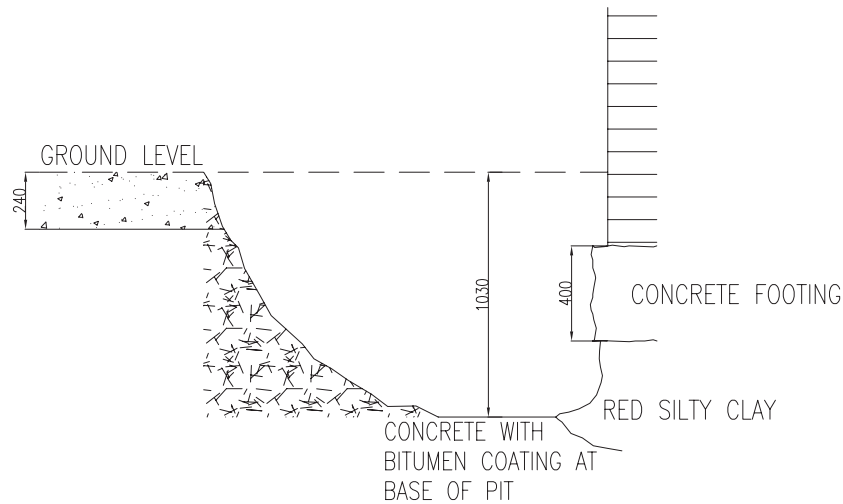
Method/
Plant Used

360° Excavator

Logged By
ST

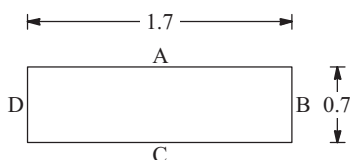
TRIAL PIT LOG (Photo/Sketch)

Project Redevelopment of Bristol Magistrates Courts				TRIAL PIT No TP3
Job No WB01727	Date 21-02-11	Ground Level (m) 12.33	Co-Ordinates () E 358,750.0 N 173,235.0	
Contractor CJ Associates				Sheet 1 of 1



STRATA				SAMPLES & TESTS		
Depth	No	DESCRIPTION	Legend	Depth	No	Remarks/Tests
0.00-0.24		Concrete with 5mm mesh.				
0.24-1.03		MADE GROUND: Comprising brown silty sandy fine to coarse angular GRAVEL of limestone with whole and broken bricks. ... Under wall footing was red silty clay with pockets of brown silty sand.		0.50	D	
1.03		Pit terminated on a concrete layer with bitumen coating at 1.03m.		1.00	D	

Shoring/Support: None
Stability: Stable



GENERAL REMARKS

No Groundwater encountered.

All dimensions in metres
Scale 1:27.5

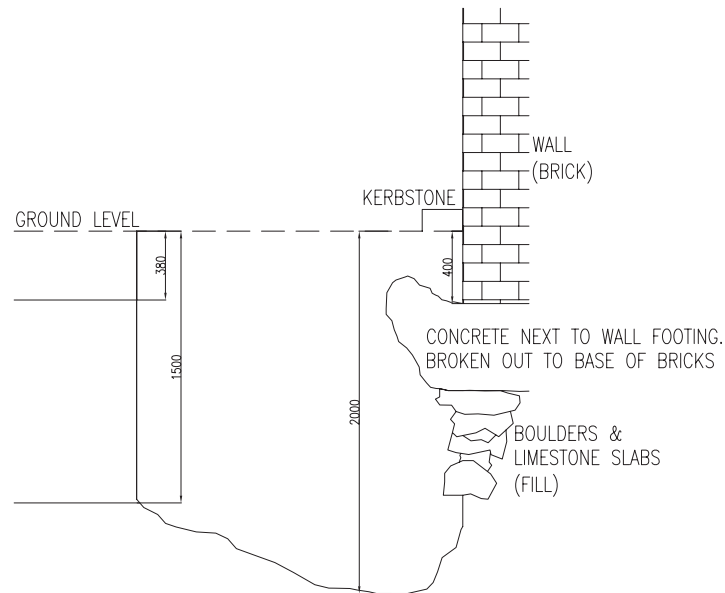
Client Deely Freed (Magistrates)
Ltd.

Method/
Plant Used 360° Excavator

Logged By
ST

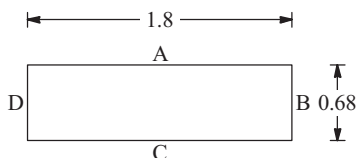
TRIAL PIT LOG (Photo/Sketch)

Project Redevelopment of Bristol Magistrates Courts				TRIAL PIT No TP4
Job No WB01727	Date 21-02-11	Ground Level (m) 12.41	Co-Ordinates () E 358,761.0 N 173,218.0	
Contractor CJ Associates				Sheet 1 of 1



STRATA				SAMPLES & TESTS		
Depth	No	DESCRIPTION	Legend	Depth	No	Remarks/Tests
0.00-0.38		Concrete with 5mm mesh. Possible wall footing enclosed on eastern side of pit.				
0.38-1.50		MADE GROUND: Comprising broken limestone flags and bricks in a brown slightly silty sand with pockets of black silty sand with coal, ash and masonry. ... Some oyster shells and animal bone.		0.50	D	
				1.00	D	
1.50-2.00		MADE GROUND: Comprising reddish brown slightly sandy SILT with occasional fine to coarse angular to subrounded sandstone and limestone gravel and masonry.		1.50	D	
2.00		End of hole at 2.0m.		2.00	D	

Shoring/Support: None
Stability: Stable



GENERAL REMARKS

No Groundwater encountered.

All dimensions in metres
Scale 1:27.5


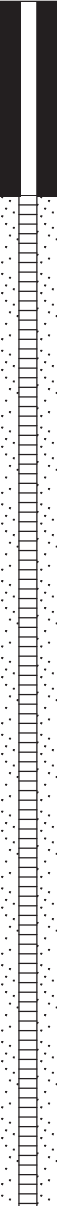










Client Deely Freed (Magistrates)
Ltd.

Method/
Plant Used 360° Excavator

Logged By
ST

ROTARY BOREHOLE LOG

Project Redevelopment of Bristol Magistrates Courts				ROTARY BOREHOLE No BH1
Job No WB01727	Date 21-02-11	Ground Level (m) 9.20	Co-Ordinates () E 358,749.0 N 173,191.0	
Contractor CJ Associates				Sheet 1 of 2

RUN DETAILS					STRATA						Geology	Instrument/ Backfill
Depth	TCR	(SCR)	RQD	(SPT) FI	Legend	Depth (Thick- ness)	Reduced Level	DESCRIPTION				
								Discontinuities	Detail	Main		
4.50				(8)		(0.30) 0.30	8.90			CONCRETE with 5mm bar.		
						(2.50)			MADE GROUND: Comprising light brown silty sandy fine to coarse angular limestone gravel. ... Some polystyrene, kerb stones, concrete, sandstone and tarmac. ... Plastic sheeting.			
				(1/0.15)		(0.40) 3.20	6.00		CONCRETE			
						(0.30) 3.50	5.70		MADE GROUND: Comprising brown silty sandy fine to medium angular brick, coal and mortar GRAVEL.			
						(0.40) 3.90	5.30		Grey brown silty CLAY. (Alluvium)			
						(0.60) 4.50	4.70		Red brown silty CLAY with fine to coarse subangular gravel of grey sandstone. Increasing gravel content with depth but still with red brown silt. (Alluvium)			
												
												
												
												

Drilling Progress and Water Observations								Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Strike	Water Standing		From	To	Type	Returns	
					4.2	4.05						Borehole terminated due to difficult drilling.
All dimensions in metres Scale 1:31.25			Client	Deely Freed (Magistrates) Ltd.			Method/ Plant Used	Commachio MC300			Logged By ST	

Log: 08b CBGE ROTARY BOREHOLE LOG M/CB SOUTH WEST & WALES/BRISTOL PROJECTS/WB01727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS/PRODUCTION DATA - GEO ENV/CB DATA/INT/WB01727.GPJ CLARKE BOND GDT 23/03/2011 13:44:58











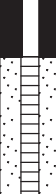










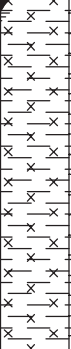
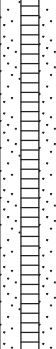
Project Redevelopment of Bristol Magistrates Courts				ROTARY BOREHOLE No BH1
Job No WB01727	Date 21-02-11	Ground Level (m) 9.20	Co-Ordinates () E 358,749.0 N 173,191.0	
Contractor CJ Associates				Sheet 2 of 2

008 CBGE ROTARY BOREHOLE LOG M:\CB SOUTH WEST & WALES\BRISTOL PROJECTS\WB01727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS\PRODUCTION\DATA - GEO ENV\CB DATA\GINT\WB01727 2FJ CLARKE BOND.GDT 23/03/2011 13:44:58

08b/08

ROTARY BOREHOLE LOG

Project Redevelopment of Bristol Magistrates Courts				ROTARY BOREHOLE No BH2
Job No WB01727	Date 21-02-11	Ground Level (m) 9.67	Co-Ordinates () E 358,708.0 N 173,207.0	
Contractor CJ Associates				Sheet 1 of 4

RUN DETAILS					STRATA						Geology	Instrument/ Backfill
Depth	TCR	(SCR)	RQD	(SPT) FI	Legend	Depth (Thick- ness)	Reduced Level	DESCRIPTION				
								Discontinuities	Detail	Main		
						0.15	9.52			Cobble sets.		
						0.20	9.47			MADE GROUND: Comprising light brown silty sand.		
						0.40	9.27			CONCRETE - No reinforcement.		
				(7)		(1.70)				MADE GROUND: Comprising pink to brown fine to coarse angular limestone gravel with silty sand.		
						2.10	7.57					
				(5)		(1.10)				MADE GROUND: Comprising very soft light grey/brown clay with fine to coarse angular to subangular limestone gravel, brick, mortar and coal fragments.		
						3.20	6.47					
				(2/0.15)		(0.50)				Stiff friable light grey CLAY. (ALLUVIUM)		
						3.70	5.97			Brown to black peaty CLAY. Peat shows some plant fragments. (ALLUVIUM)		
						(0.50)						
				(6)		4.20	5.47			Very soft grey sightly silty CLAY. (ALLUVIUM)		
				(4)								

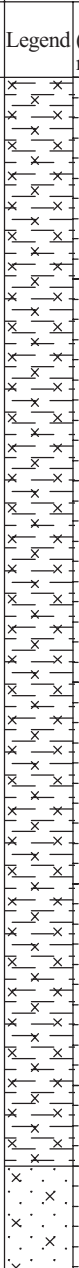
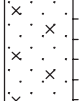
Drilling Progress and Water Observations								Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Strike	Water Standing		From	To	Type	Returns	
					4.3	3.75		4.5				

All dimensions in metres Scale 1:37.5	Client Deely Freed (Magistrates) Ltd.	Method/ Plant Used Commachio MC300	Logged By ST
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Log: 08b CBGE ROTARY BOREHOLE LOG MACB SOUTH WEST & WALES/BRISTOL PROJECTS/WB01727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS/PRODUCTION DATA - GEO ENV/CB DATA/GINT/WB01727.GPJ CLARKE BOND GDT 18/03/2011 15:51:44

ROTARY BOREHOLE LOG

Project Redevelopment of Bristol Magistrates Courts				ROTARY BOREHOLE No BH2	
Job No WB01727	Date 21-02-11	Ground Level (m) 9.67	Co-Ordinates () E 358,708.0 N 173,207.0		
Contractor CJ Associates				Sheet 2 of 4	

RUN DETAILS					STRATA					Geology	Instrument/ Backfill
Depth	TCR	(SCR)	RQD	(SPT) FI	Legend	Depth (Thick- ness)	Reduced Level	DESCRIPTION			
								Discontinuities	Detail	Main	
						(7.20)				Very soft grey sightly silty CLAY. (ALLUVIUM) <i>(continued)</i>	
				(10)		11.40	-1.73			Soft red silty SAND. (WEATHERED REDCLIFFE SANDSTONE MEMBER)	

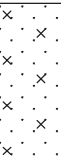
Drilling Progress and Water Observations								Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Strike	Water Standing		From	To	Type	Returns	
All dimensions in metres Scale 1:37.5			Client	Deely Freed (Magistrates) Ltd.			Method/ Plant Used	Commachio MC300			Logged By ST	

Log: "08B CBGE ROTARY BOREHOLE LOG MACB SOUTH WEST & WALES BRISTOL PROJECTS\WB01727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS\PRODUCTION\DATA - GEO ENVCB DATA\GINT\WB01727.GPJ CLARKE BOND.GDT 18/03/2011 15:51:44

08b/08

ROTARY BOREHOLE LOG

Project Redevelopment of Bristol Magistrates Courts				ROTARY BOREHOLE No BH2
Job No WB01727	Date 21-02-11	Ground Level (m) 9.67	Co-Ordinates () E 358,708.0 N 173,207.0	
Contractor CJ Associates				Sheet 3 of 4

RUN DETAILS					STRATA					Geology	Instrument/ Backfill
Depth	TCR	(SCR)	RQD	(SPT) FI	Legend	Depth (Thick- ness)	Reduced Level	DESCRIPTION			
								Discontinuities	Detail		
13.86	65	(48)	21	(50/0.015)		(1.40)			Soft red silty SAND. (WEATHERED REDCLIFFE SANDSTONE MEMBER) <i>(continued)</i>		
						12.80	-3.13				
14.10	26	(0)	0	(50/0.015)		(0.96)			Strong grey with red iron staining coarse grained quartzitic SANDSTONE. (QUARTZITIC SANDSTONE FORMATION) ... Joint open, stepped smooth. (13.57m)		
						13.76	-4.09				
						13.86	-4.19				
15.10	37	(0)	0	(50/0.012)		(1.09)			Thin bed of fine to coarse rounded quartz GRAVEL in mudstone and sandstone matrix, cemented with quartz. (QUARTZITIC SANDSTONE FORMATION) ... Joint open, underlying. Smooth, 5°. (13.8m)		
						15.10	-5.43				
17.87	18	(93)	72	(50/0.007)		(6.24)			Strong grey with orange/red iron staining very fine to fine grained quartzitic SANDSTONE. (QUARTZITIC SANDSTONE FORMATION) Boundary marked with joint, open stepped, rough. ... Joint open, planar, smooth, horizontal. (13.96m) ... From 14.01 poor recovery, no solid core. Strong grey with orange staining very fine to fine grained quartzitic SANDSTONE recovered as medium to coarse angular gravel and cobbles. (QUARTZITIC SANDSTONE FORMATION)		
17.87	18	(93)	72	(50/0.015)					Bed fracture open, underlining, smooth. 40°. (17.1m) ... Joint, open, planar, rough, 50°-60°. Iron staining along sides. (17.16m) ... Bedding fracture, open, planar, rough. (17.4m) ... Joint, open, underlining, rough, 90°. (17.45m)		

Drilling Progress and Water Observations							Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Strike	Water Standing	From	To	Type	Returns	

All dimensions in metres Scale 1:37.5	Client Deely Freed (Magistrates) Ltd.	Method/ Plant Used Commachio MC300	Logged By ST
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Project Redevelopment of Bristol Magistrates Courts				ROTARY BOREHOLE No BH2
Job No WB01727	Date 21-02-11	Ground Level (m) 9.67	Co-Ordinates () E 358,708.0 N 173,207.0	
Contractor CJ Associates				Sheet 4 of 4

00 *08B CB9E ROTARY BOREHOLE LOG M:\CB SOUTH WEST & WALSLEY\BRISTOL PROJECTS\WB0727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS\PRODUCTION\DATA - GEO ENV\CB DATAGINT\WB0727.GPJ CLARKE BOND GDT 18/03/2011 15:51:44

Drilling Progress and Water Observations							Rotary Flush				GENERAL REMARKS	
Date	Time	Depth	Casing	Core Dia mm	Strike	Water Standing	From	To	Type	Returns		
All dimensions in metres Scale 1:37.5		Client		Deely Freed (Magistrates) Ltd.			Method/ Plant Used		Commachio MC300			Logged By ST



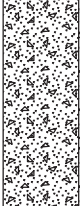


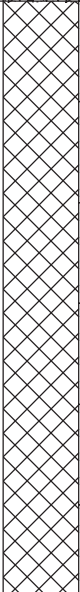



Project Redevelopment of Bristol Magistrates Courts				ROTARY BOREHOLE No BH3
Job No WB01727	Date 21-02-11	Ground Level (m) 9.18	Co-Ordinates () E 358,724.0 N 173,191.0	
Contractor CJ Associates				Sheet 1 of 1

0008 CBGE ROTARY BOREHOLE LOG M1/CB SOUTH WEST & WALES/BRISTOL PROJECTS/WB01727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS/PRODUCTION/DA - GEO ENV/CB DATAGINT/WB01727.GPJ CLARKE BOND GDT 18/03/2011 15:51:48

Drilling Progress and Water Observations							Rotary Flush				GENERAL REMARKS
Date	Time	Depth	Casing	Core Dia mm	Strike	Water Standing	From	To	Type	Returns	
					3.9						** - Driller's Description
All dimensions in metres Scale 1:162.5		Client Deely Freed (Magistrates) Ltd.				Method/ Plant Used Commachio MC300					Logged By ST

WINDOW SAMPLE LOG

Project Redevelopment of Bristol Magistrates Courts				WINDOW SAMPLE No WS1
Job No WB01727	Date 21-02-11	Ground Level (m) 12.45	Co-Ordinates () E 358,743.0 N 173,231.0	
Contractor CJ Associates				Sheet 1 of 1







SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill		
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick- ness)	DESCRIPTION				
0.90	D			12.39		(0.06) 0.06	CONCRETE.				
						(0.24)	CONCRETE with 5mm mesh.				
				12.15		0.30					
						(0.60)	MADE GROUND: Comprising grey slightly silty slightly sandy fine to coarse angular limestone gravel.				
				11.55		0.90					
				11.45		(0.10) 1.00	MADE GROUND: Comprising dark brown to black silty sandy silt with fine to coarse angular limestone gravel.				
----- End of hole at 1.0m.											

Boring Progress and Water Observations							GENERAL REMARKS	
Date	Time	Depth	Tube Depth	Tube Dia. mm	Water Dpt		No Groundwater encountered. Window sample terminated at 1.0mbgl due to low headroom.	
All dimensions in metres Scale 1:7.5		Client	Deely Freed (Magistrates) Ltd.			Method/ Plant Used	Hand Operated Window Sampler	Logged By ST

Log: 08f CBGE WINDOW SAMPLE LOG M:\CB SOUTH WEST & WALES\BRISTOL PROJECTS\WB01727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS\PRODUCTION\DATA - GEO ENV\CB DATA\GINT\WB01727 GPJ CLARKE BOND.GDT 18/03/2011 15:52:28

WINDOW SAMPLE LOG

Project Redevelopment of Bristol Magistrates Courts				WINDOW SAMPLE No WS2
Job No WB01727	Date 21-02-11	Ground Level (m) 12.45	Co-Ordinates () E 358,749.0 N 173,225.0	
Contractor CJ Associates				Sheet 1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
1.00	D			12.37		(0.08) 0.08	CONCRETE.		
						(0.24)	CONCRETE with 5mm mesh.		
				12.13		0.32			
						(0.68)	MADE GROUND: Comprising pinky grey silty sandy fine to coarse angular limestone gravel.		
				11.45		1.00	End of hole at 1.0m.		





Boring Progress and Water Observations						GENERAL REMARKS
Date	Time	Depth	Tube Depth	Dia. mm	Water Dpt	
						No Groundwater encountered. Window sample terminated at 1.0mbgl due to low headroom.

All dimensions in metres Scale 1:7.5	Client Deely Freed (Magistrates) Ltd.	Method/ Plant Used Hand Operated Window Sampler	Logged By ST
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Log 08f/08 CBGE WINDOW SAMPLE LOG M:\CB SOUTH WEST & WALES\BRISTOL PROJECTS\WB01727 - REDEVELOPMENT OF BRISTOL MAGISTRATES COURTS\PRODUCTION DATA - GEO ENV\CB DATA\GINT\WB01727 GPJ CLARKE BOND.GDT 18/03/2011 15:52:31

WINDOW SAMPLE LOG

Project Redevelopment of Bristol Magistrates Courts				WINDOW SAMPLE No WS3
Job No WB01727	Date 21-02-11	Ground Level (m) 12.41	Co-Ordinates () E 358,753.0 N 173,217.0	
Contractor CJ Associates				Sheet 1 of 1

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.70	D			12.35		(0.06) 0.06	CONCRETE.		
						(0.26)	CONCRETE with 5mm mesh.		
				12.09		0.32	MADE GROUND: Comprising pinky grey silty sandy fine to coarse angular limestone gravel.		
						(0.68)			
				11.41		1.00	End of hole at 1.0m.		

Boring Progress and Water Observations						GENERAL REMARKS	
Date	Time	Depth	Depth	Tube Dia. mm	Water Dpt		
						No Groundwater encountered. Window sample terminated at 1.0mbgl due to low headroom.	
All dimensions in metres Scale 1:7.5		Client	Deely Freed (Magistrates) Ltd.		Method/ Plant Used	Hand Operated Window Sampler	Logged By ST



- Approx. footprint of existing basement and access stairs (Rupert Street)
- Approx. area of partly disturbed ground (working space, services etc.) possibly incorporates intact archaeology in areas
- Approx. area of possibly undisturbed ground - possibly incorporates intact archaeology
- Extent of study area
- Approx. outline of proposed building

Fig.1 Location plan (scale 1:1250)

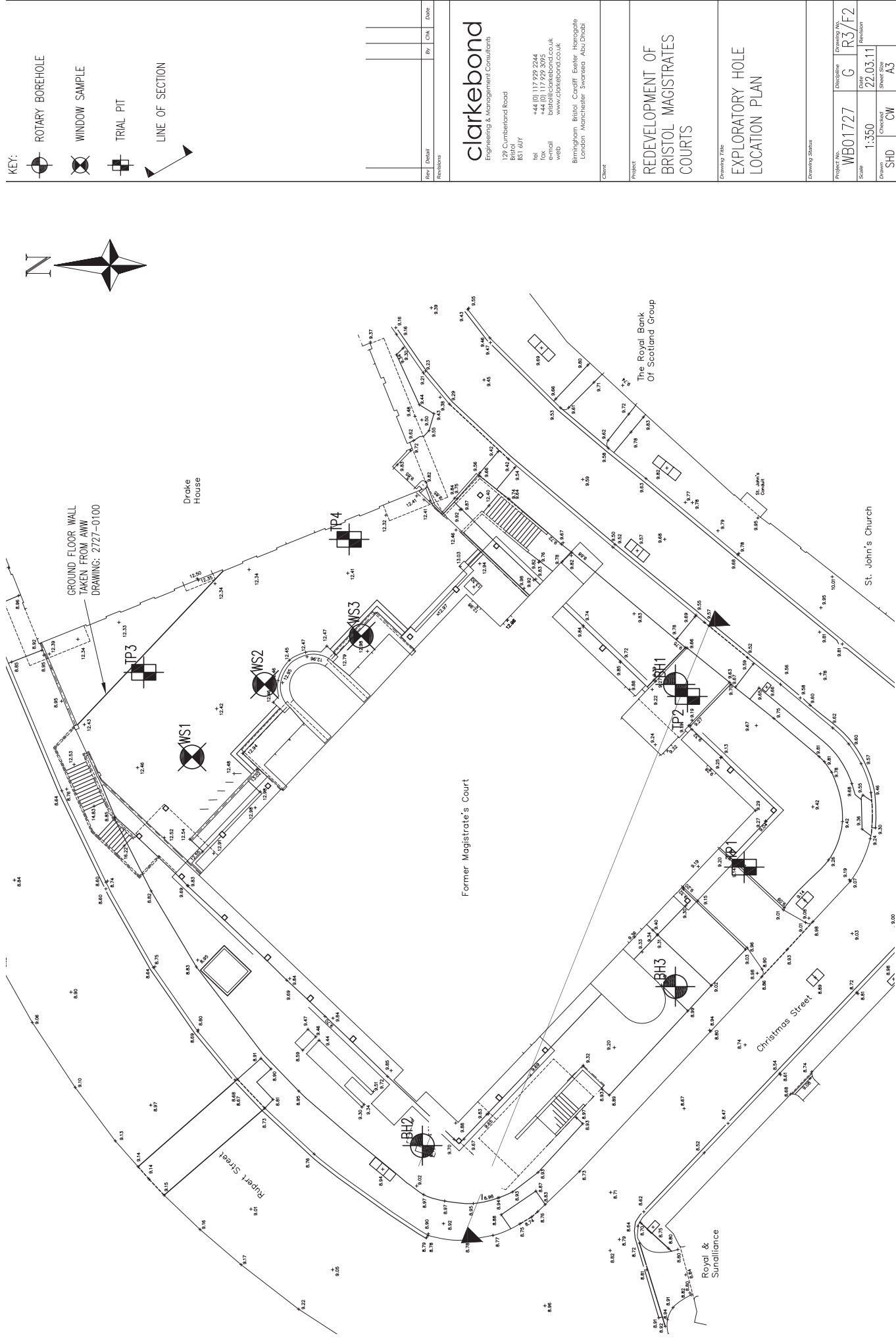


Fig.2 Plan of Magistrates Court (basement level) showing location of trial pits (TP1 - 4), boreholes (BH1 & BH2) and window samples (WS1 – 3)



Plate 1
Location of Borehole 2,
looking north-east along
Rupert Street



Plate 2
Borehole 2



Plate 3
Trial Pit 3, looking north-
east



Plate 4
Trial Pit 4, looking north-east



Plate 5
Location of Trial Pit 1,
looking south towards St
Johns' Church



Plate 6
Trial Pit 1, looking north-west



Plate 7
Trial Pit 2, during
excavation, looking west



Plate 8
Core-drilling, on the site
of WS3, looking south



Plate 9 Location of Borehole 1 on Nelson Street



Plate 10 View south-east down Christmas Street (from Rupert Street)
towards St Johns' Church & Gate. The former Magistrates
Court is on the left of the photograph