CFA Archaeology Ltd

archaeological consultants

Advice on Archaeology & Planning

Environmental Impact Assessment

Interpretation, Design & Display

Finds/ Environmental Analysis

Field Evaluation & Excavation

Historic Building Recording

Site & Landscape Survey

Geophysical Survey

18-22 Potterrow, Edinburgh: Festival Theatre Extension

Archaeological Recording

Report No. 2082

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Grid Ref	NT 25939 73252
OASIS Reference	cfaarcha1-130473

This document has been prepared in accordance with CFA Archaeology Ltd standard operating procedures.

18-22 Potterrow, Edinburgh: Festival Theatre Extension

Archaeological Recording

Report No. 2082

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Appendices

Illustrations (bound at rear)

1. INTRODUCTION

1.1 General

This report presents the results of an archaeological watching brief undertaken by CFA Archaeology Ltd (CFA) on 15th May 2012 at the site of a proposed extension to the Edinburgh Festival Theatre (Area B) at 18-22 Potterrow, Edinburgh (NGR: NT 25939 73252) (Fig. 1). The work was commissioned by Mott MacDonald Ltd.

A Written Scheme of Investigation (WSI) dated 20 January 2012 was produced by CFA and approved by the City of Edinburgh Council Archaeology Service (CECAS).

1.1 Background

The area to be evaluated lay within the historic late-medieval/post-medieval suburb of Potterrow, within both the UNESCO World Heritage site of Edinburgh's Old Town and also the Southside Conservation Area. This area is known to be an industrial centre lying outside of the city walls during the later medieval period.

A desk-based assessment has previously been carried out (Smith 2010) which describes map evidence from the late 16th and 17th centuries which shows the site as being occupied by properties constructed along a main access road leading into Edinburgh via a fortified gate on the line of the adjacent West College Street.

Recent excavations within the adjacent Quadrangle of Edinburgh University's Old College have located the remains of not only earlier post-medieval buildings but also remains of the 13th century Kirk O'Field's Collegiate Church. This church, demolished after the Reformation, originally stood outwith the limits of the medieval city, finally being incorporated within the town around the start of the 16th century by the Flodden Wall.

A trial trenching evaluation was carried out by CFA Archaeology Ltd in November 2011 (Blakeman 2011) across both parts of the development site, the theatre extension and the student accommodation.

The remains in the southern half of the site (Theatre extension) comprised utility services, concrete and brick surfaces, and a brick wall likely to be the remnants of part of the 20th century Empire Garage. Work required in mitigation in this area comprised a call-out system: if the on site contractors undertaking the ground works uncovered or disturbed any buried structural remains, or other artefacts of historical importance, then this would be reported on to CFA so that an archaeologist could be provided on a call-out. CFA's standard procedural document - *Guidance in Relation to Archaeology* - tailored to this development was issued to the on site contractors to ensure that proper reporting of any such discoveries was carried out and to allow a call-out archaeologist to attend site.

The archaeological remains identified in the evaluation were restricted to the northern half of the site (student accommodation) comprised the walls and foundations of several structures and included cobbled surfaces, main walls, internal walls, a slate

surface and a bitumen damp-proofing layer. Work required in mitigation in this area will be described and agreed under a separate WSI.

1.2 Aims and Objectives

The project's aims and objectives were:

- To provide a call-off watching brief during ground breaking works on the southern (Theatre extension) part of the development site

2. WORKING METHODS

2.1 General

CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance.

CFA were called out to conduct a site visit as the contractors had reported the discovery of a well. The well was confirmed as being of archaeological interest and a short programme of recording work (photography, drawing and survey) was undertaken. The deposits from the interior of the well were removed by tracked excavator to a depth of 3.5m and the arisings were examined and metal detected by the watching brief archaeologist to enable the retrieval of any small datable items.

The well's position on site meant that the foundations for the theatre extension needed to be redesigned and the well had to be filled in. This was all carried out with the agreement of John Lawson (CECAS).

3. ARCHAEOLOGICAL RESULTS

The well survived as a rock-cut shaft filled with water and black silt. There was no lining or capping visible, and the aperture of the well at existing ground level was 3m by 2.3m due to the collapse of the surrounding bedrock. The circular shaft of the well measured 1.8m across and was excavated to a depth of 3.5m (Fig. 1). The bottom of the well was not reached and the silt deposits were left in situ below this depth, with any remaining water pumped out by the contractors.

The existing ground level at the well aperture was bedrock, suggesting that the upper part of the well had been lost. The east side of the well was abutted by a concrete slab relating to the construction of the existing Festival Theatre but there was no covering present over the well when it was discovered, and no surviving superstructure or associated pipework was noted (Fig. 2-3).

The deposits removed from the interior of the well between the depth of c.2.5m and 3.5m from existing ground level were examined and metal detected by the watching brief archaeologist to enable the retrieval of any small datable items. There were no finds recovered.

Health and safety restrictions, due to the instability of the edges of the feature and the presence of hydrocarbons within the standing water inside the well (likely to be leached from the former Empire Garage which occupied the site), meant that more detailed recording was not possible.

Appendix 3 comprises the engineer's report on the infilling of the excavated portion of the well with sterile clay (glacial till) to form an impermeable barrier, and includes the engineer's drawing for the capping of the well and re-location of the extension's foundations.

4. CONCLUSION

A well was uncovered by the main works contractors during ground works for the theatre extension. This was recorded and subsequently filled with sterile clay and capped, and thus survives in situ.

The well is of unknown date and no finds were recovered from the fills. The well is not recorded on any of the historical maps held online by the National Library of Scotland but it is likely to pre-date the Ordnance Survey Town Plan (1853).

The project archive, comprising all CFA record sheets, maps and reports, will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with the City of Edinburgh Council Sites and Monuments Record.

A summary statement of the results of this evaluation will be submitted for publication in *Discovery and Excavation in Scotland* (Appendix 2) and the project will also be reported on through *OASIS Scotland*.

5. REFERENCES

Blakeman, B 2012 *18-22 Potterrow, Edinburgh. Archaeological Evaluation.* CFA Archaeology Ltd Report No. 1986.

Ordnance Survey Town Plan of Edinburgh, sheet 36, 1853.

Ordnance Survey Town Plan of Edinburgh, sheet 36, revised 1877.

Ordnance Survey First Edition County Series of the City of Edinburgh, Sheet III.8.21, 1894.

Smith, AN 2010 *Festival Theatre Extension: archaeological desk-based assessment.* Headland Archaeology (UK) Ltd, unpublished archive report.

APPENDIX 1: Photographic Register

Shot No.	Summary description of subject	Taken from	Conditions
1	The well on first call out	SE	Overcast
2	The well on first call out	SE	Overcast
3	The well on first call out	S	Overcast
4	The well on first call out	SE	Overcast
5	The well on first call out	S	Overcast
6	The well on first call out	SE	Overcast
7	The well on first call out	E	Overcast
8	The well on first call out	NE	Overcast
9	The well on first call out	NE	Overcast
10	The well following further removal of interior deposits	E	Overcast
11	The well following further removal of interior deposits	E	Overcast
12	The well following further removal of interior deposits	SE	Overcast
13	The well following further removal of interior deposits	SE	Overcast

APPENDIX 2: Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	City of Edinburgh
PROJECT TITLE/SITE NAME:	18-22 Potterrow, Edinburgh
PROJECT CODE:	FEST
PARISH:	Edinburgh
NAME OF CONTRIBUTOR:	Ben Blakeman
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Evaluation
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	Buildings
SIGNIFICANT FINDS:	None
NGR (2 letters, 10 figures)	NT 25939 73252
START DATE (this season)	November 2011
END DATE (this season)	May 2012
PREVIOUS WORK (incl. *DES* ref.)	N/A
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	A trial trenching evaluation was carried out by CFA Archaeology Ltd in November 2011 across both parts of the development site, the theatre extension and the student accommodation. Five trenches were excavated, covering 136m^2 (8.6% of the development site). The evaluation demonstrated that the remains of walls and foundations of several structures survive below the current ground level, in places only 0.15m below it, and often backfilled with modern debris. The archaeological remains identified in the evaluation were restricted to the northern half of the site (student accommodation) comprised the walls and foundations of several structures and included cobbled surfaces, main walls, internal walls, a slate surface and a bitumen damp-proofing layer. Examination of the Ordnance Survey 1st Edition map (1853) with trench plans superimposed shows a correlation between several mapped structures and the walls found during the evaluation. A cobbled surface found in Trenches 3 and 4 also corresponds to an external yard area

	shown between several buildings on the map. The correlation between the features recorded in the trial trenches and the structures shown on the 1st Edition map suggest that the excavated remains are potentially early 19th century in date. The remains in the southern half of the site (Theatre extension) comprised utility services, concrete and brick surfaces, and a brick wall likely to be the remnants of part of the 20th century Empire Garage. Work required in mitigation in this area comprised a call-out system for a watching brief: a call out was required as the main works contractors discovered a rock-cut well. The well was uncovered during ground works for the theatre extension. This was recorded and subsequently filled with sterile clay and capped, and thus survives in situ. The well is of unknown date and no datable material was recovered from the fills. The well is not recorded on any of the historical maps held online by the National Library of Scotland but is likely to pre-date the Ordnance Survey Town Plan (1853).
PROPOSED FUTURE WORK:	-
CAPTION(S) FOR ILLUSTRS:	-
SPONSOR OR FUNDING BODY:	Ardmuir Developments Ltd
ADDRESS OF MAIN CONTRIBUTOR:	The Old Engine House, Eskmills Park, Musselburgh, EH21 7PQ
EMAIL ADDRESS:	cfa@cfa-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	National Monuments Record of Scotland (archive) City of Edinburgh Council Sites and Monuments Record (report)

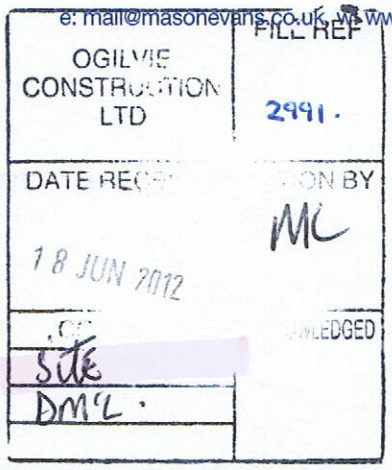
APPENDIX 3: Engineer's report on infilling

masonevans
geo-environmental consultants

The Piazza, 95 Morrison Street, Glasgow G5 8BE
t: 0141 420 2025 f: 0141 420 2057
e: mail@masonevans.co.uk w: www.masonevans.co.uk

Our ref: E2008/151B-05/NMT/DM

15 June 2012



Mr David Arundel
Ogilvie Construction Limited
Ogilvie House
Pirnhall Business Park
200 Glasgow Road
Whins of Milton
STIRLING
FK7 8ES

Dear David

SITE REMEDIATION WORKS
FESTIVAL THEATRE EXTENSION, POTTEROW

Mason Evans Partnership were requested by Ogilvie Construction (the Client) to provide recommendations regarding the treatment of contaminated soils at the above captioned site.

It was understood that an historic 'well' or 'pit' was encountered within the bedrock at the site during routine foundation works undertaken in May 2012. The feature had previously been infilled with cohesive soil and approximately 3.0m of this material was excavated to be disposed of off-site. The spoil was noted to have a strong hydrocarbon odour.

Samples of the remaining contaminated soils and water were retrieved from the 'well' on 17th May 2012 and were analysed for TPH-CWG to allow an assessment of the potential risk to sensitive receptors. The results (included in Appendix 1) indicated that the soils were not significantly impacted by hydrocarbon contamination, however concentrations within the water samples were recorded to be elevated above WHO guidelines.

On the basis of the above, it was proposed to remove the water that was ponded above the clay infill from the 'well' feature and backfill the excavation with clean, inert, clay to be compacted in layers.

The 'well' was initially pumped dry on 28th May 2012 and was monitored over the next 2 days for any evidence of groundwater ingress. As no groundwater ingress was recorded during this time, it was concluded that the water originally noted within the pit was as a result of surface water run-off and that backfilling of the 'well' could commence.

The backfilling operations were undertaken on 6th June 2012. The 'well' was once again pumped free of surface water prior to any filling and glacial till was excavated from within the site to be used as the backfill material. The glacial till was placed within the 'well' in layers approximately 200 mm thick with each layer compacted. Photos of the backfilling process are included in Appendix 2.

It is understood that a 200mm thick concrete slab will be placed over the backfilled 'well' and that this will be situated beneath the proposed building. This will minimise any future infiltration of surface water into the feature presenting a low risk to any deeper lying groundwater.

We trust this meets with your current requirements. However, if you require any further information, please do not hesitate to contact us.

Yours sincerely
MASON EVANS PARTNERSHIP LIMITED

Neil Thomson
Director

Encs

Appendix 1

Chemical Analysis Results

Exova (UK) Ltd
70 Montrose Avenue
Hillington Park
Glasgow
G52 4LA

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E: info@exova.com
W: www.exova.com

Test Certificate

Client: Mason Evans Partnership
The Piazza, 95 Morrison Street, Glasgow, G5 8BE
Site: Potterrow, Edinburgh - E2008/151 - Water
Date Tested: 23/05/12
Date Reported: 24 May, 2012
Date Received: 21 May, 2012
Sample Type: Liquid

Certificate No: 12/1417/C/C1
File No: 12/1417/C
Client Ref: E2008/151

Lab sample ref: C139145
Client sample ref: Water sample

Date sampled: 17/05/12
Sample matrix: Liquid

Determinand	Method	Units	ISO17025	LOD	
TPH Banded(Ali/Aro) (w)					
>C6-C8 Aliphatic (w)	AN15-1	mg/l	N	0.01	188
>C7-C8 Aromatic (w)	AN15-1	mg/l	N	0.01	3.30
C5-C6 Aliphatic (w)	AN15-1	mg/l	N	0.01	<0.01
C5-C7 Aromatic (w)	AN15-1	mg/l	N	0.01	21.3
>C8-C10 Aliphatic (w)	AN34A/1	mg/l	N	0.01	147
>C8-C10 Aromatic (w)	AN34A/1	mg/l	N	0.01	<0.01
>C10-C12 Aliphatic (w)	AN34A/1	mg/l	N	0.01	45.4
>C10-C12 Aromatic (w)	AN34A/1	mg/l	N	0.01	<0.01
>C12-C16 Aliphatic (w)	AN34A/1	mg/l	N	0.01	<0.01
>C12-C16 Aromatic (w)	AN34A/1	mg/l	N	0.01	<0.01
>C16-C21 Aliphatic (w)	AN34A/1	mg/l	N	0.01	<0.01
>C16-C21 Aromatic (w)	AN34A/1	mg/l	N	0.01	<0.01
>C21-C36 Aliphatic (w)	AN34A/1	mg/l	N	0.01	<0.01
>C21-C36 Aromatic (w)	AN34A/1	mg/l	N	0.01	<0.01

Notes
1. Tests marked * indicate subcontracted analyses.
2. The laboratory has tested the material/items supplied by the client as sampled in accordance with the client's own requirements.
3. Results reported for metals are 'dissolved' unless otherwise stated.
4. Dates of testing for all parameters are available upon request.

Signed for, and on behalf of Exova (UK) Ltd.

Prepared by:
Julia McEleny

J McEleny
Laboratory Manager

Approved by:
C McGinty

C McGinty
Inorganics Head of Section

Exova (UK) Ltd
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G52 4LA

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W: www.exova.com

Test Certificate

Client: Mason Evans Partnership
The Piazza, 95 Morrison Street, Glasgow, G5 8BE
Site: Potterrow, Edinburgh - E2008/151
Date Tested: 21/05/12
Date Reported: 21 May, 2012
Date Received: 17 May, 2012
Sample Type: Solid

Certificate No: 12/1397/C/C1
File No: 12/1397/C
Client Ref: No order supplied

			Lab sample ref:		C139076
			Client sample ref:		J1
			Date sampled:		17/05/12
			Sample matrix :		Soil
Determinand	**Method**	**Units**	**ISO17025**	**LOD**	
TPH Banded(Ali/Aro)					
C6-C8 Aliphatic	AN34A	mg/kg	N	10	41
C6-C8 Aromatic	AN34A	mg/kg	N	10	<10
>C8-C10 Aliphatic	AN34A	mg/kg	N	10	141
>C8-C10 Aromatic	AN34A	mg/kg	N	10	<10
>C10-C12 Aliphatic	AN34A	mg/kg	N	10	108
>C10-C12 Aromatic	AN34A	mg/kg	N	10	<10
>C12-C16 Aliphatic	AN34A	mg/kg	N	10	<10
>C12-C16 Aromatic	AN34A	mg/kg	N	10	<10
>C16-C21 Aliphatic	AN34A	mg/kg	N	10	<10
>C16-C21 Aromatic	AN34A	mg/kg	N	10	<10
>C21-C36 Aliphatic	AN34A	mg/kg	N	10	<10
>C21-C36 Aromatic	AN34A	mg/kg	N	10	<10

Notes
1. Analysis was performed on the sample as received.
2. The laboratory has tested the material/items supplied by the client as sampled in accordance with the client's own requirements.

Signed for, and on behalf of Exova (UK) Ltd.

Approved by:
Julie McEleny

J McEleny
Laboratory Manager

Approved by:
Fiona Leckie

F Leckie
Logistics Manager

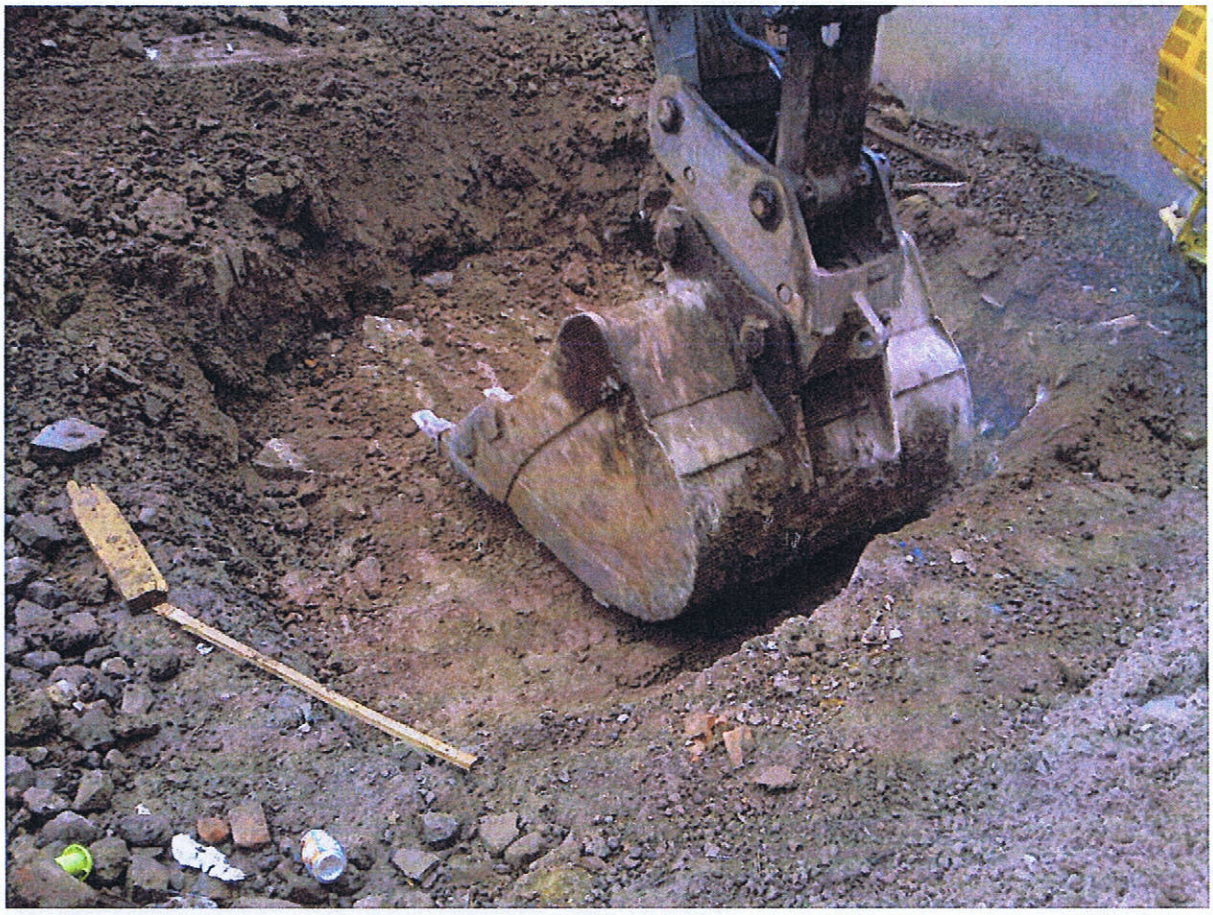
Appendix 2

Photographs


CLEE HILL


533


CLEE HILL
0141 647 8087



DO NOT SCALE THIS DRAWING.

HEALTH AND SAFETY INFORMATION

IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING

CONSTRUCTION.

FOUNDATIONS
1. Retaining wall backfilling sequence to be discussed with engineer to prevent overloading the wall and creating instability issues.
2. Care should be taken to prevent undermining the foundations of the adjacent Festival Theatre building during construction of the retaining wall.
3. Reference should be made to the ground contamination report such that arisings can be managed and disposed of appropriately.
4. Due to the stepped nature of the build, pad foundations are at varying levels, creating deep excavations and additional care should be taken.
5. Existing services have been identified at edge of pavement and care should be taken during foundation works to locate and protect these and any other services found.

SUPERSTRUCTURE
1. Erection sequence for precast frame to be progressed in a manner which prevents temporary stability issues.
2. Close proximity of adjacent buildings and public footpath may provide a constraint to the machinery used during the erection of the structural frame. It should also be considered that surrounding land and pavements are not level.

MAINTENANCE/CLEANING/OPERATION.

SUPERSTRUCTURE
1. Close proximity of adjacent buildings and highways may provide a constraint to the machinery used to clean the facade or for plant maintenance access. It should also be considered that surrounding pavements are not level.

DECOMMISSIONING/DEMOLITION.

FOUNDATIONS
1. Propping of retaining wall heads should be considered during demolition to prevent instability issues.

SUPERSTRUCTURE
1. Close proximity of adjacent buildings and highways may provide a constraint when demolishing the building. It should also be considered that surrounding land and pavements are not level.
2. The precast structural frame is tied together monolithically for the purpose of preventing progressive collapse.

Notes

1. DO NOT SCALE THE DRAWING.
2. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
3. FOR GENERAL NOTES REFER TO DRG. S001
4. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
5. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (AOD)
6. FOR DETAILS OF GLOBAL POSITIONING SETTING OUT OF BUILDING REFER TO ARCHITECTS DRAWINGS.
7. ANY DISCREPANCIES BETWEEN STRUCTURAL AND ARCHITECTURAL SETTING OUT DIMENSIONS MUST BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.
8. ALL WORK TO COMPLY WITH RELEVANT EURO CODE STANDARDS AND CODES OF PRACTICE.
9. ALL WORK IS TO COMPLY WITH THE CURRENT BUILDING REGULATIONS.
10. ALL WORKS TO ADHERE TO THE CDM REGULATIONS.
11. REFER TO DRAWING S003 FOR ALL REINFORCEMENT SCHEDULING.

Rev	Description	Date	Drn	Ch'd
O	ISSUED FOR BUILDING WARRANT	01/07/2011	HG	SN
1	ISSUED FOR TENDER	01/07/2011	HG	SN
2	ISSUED FOR 2nd STAGE TENDER	05/08/2011	HG	KM
4	SUBSTRUCTURE AMENDED AND ISSUED FOR CONSTRUCTION	06/04/2012	HG	KM
3	SUPERSTRUCTURE AMENDED TO PRECAST. OTHER AMENDMENTS AS CLOUDED. ISSUED FOR CONSTRUCTION	20/02/2012	HG	MB

CONSTRUCTION

Status of drawing.

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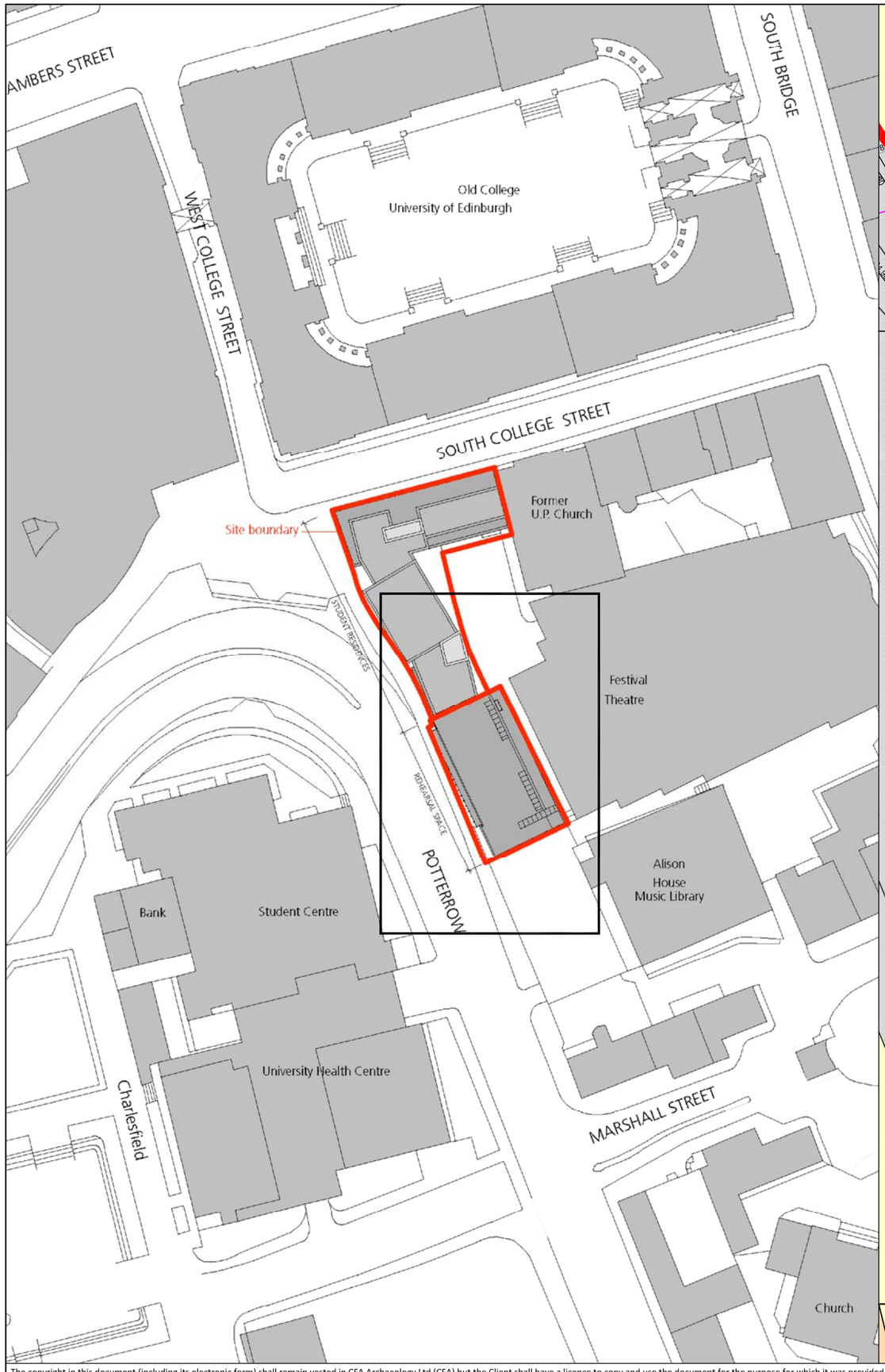
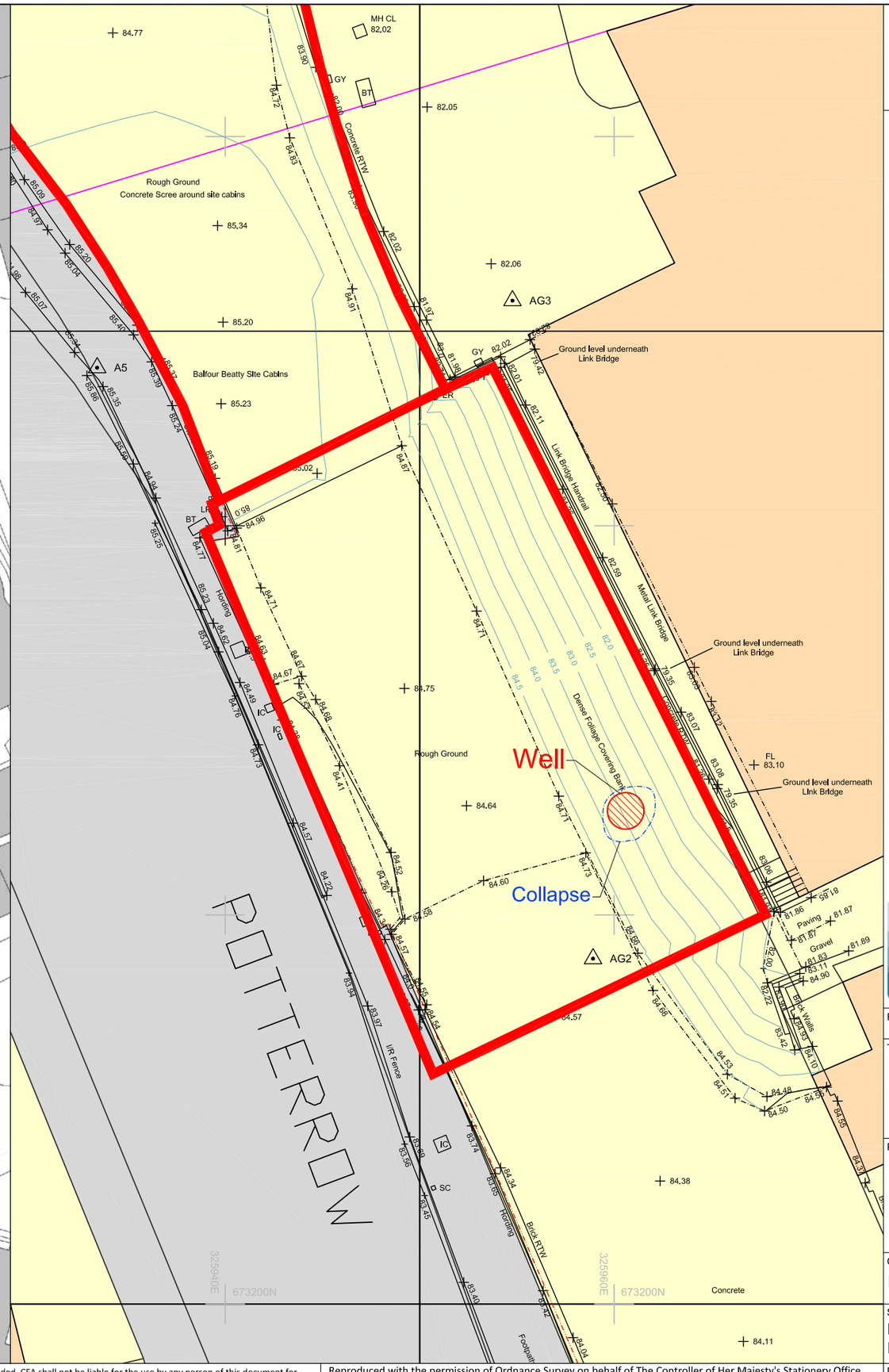
Buro Happold
Consulting Engineers

Architect *LDN Architects*
Project **Festival Theatre Extension**
Drg Title Foundation Plan

Scales@A1 1 : 50
Drawn By H Geddes
Checked By S Newbert
Date 07/06/2011

Job No. 028946
Drawing No. S090
Rev 4





Key:

Development Boundary

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Fig. No:	Revision:
1	A

Title:
Location maps

Project:
18-22 Potterrow
Edinburgh

Client:
Mott MacDonald

Scale at A3:
Location (left) 1:1000
Detail (right) 1:250

Drawn by:	Checked:	Report No:
KH	LW	2082

Fig. 2 - View of the well from the east

Fig. 2 - View of the well from the north-east

Fig. No: 2-3		Revision: A	Project: 18-22 Potterow, Edinburgh
Drawn by: KH	Checked: LW	Report No: 2082	Client: Mott MacDonald Ltd

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