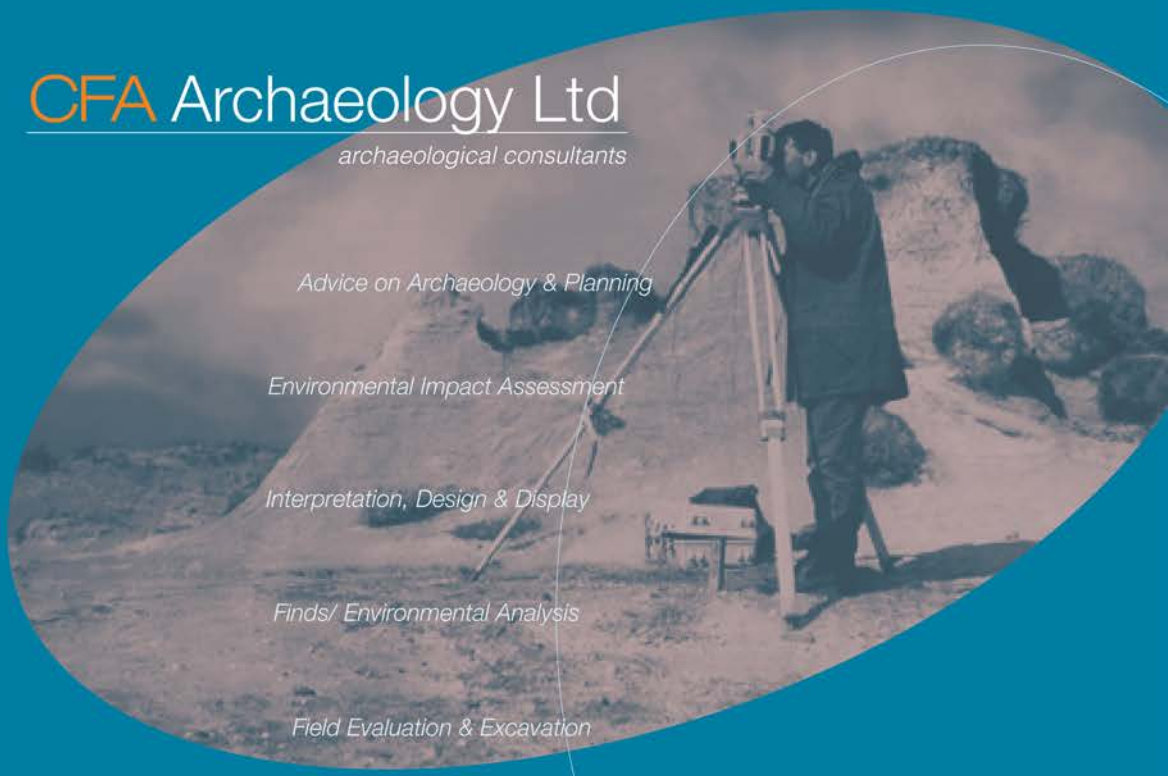
CFA Archaeology Ltd

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

Archaeological Watching Brief on repairs to the foundations of Pylon G037B.

Whitemoss Roman Fort, 175m SW of Rosarymount (Index No 1652)

Written Scheme of Investigation (WSI)
15 August 2016

t 0131 273 4380 f 0131 273 4381 e info@cfa-archaeology.co.uk w www.cfa-archaeology.co.uk

1. Background

Scottish Power Energy Networks are procuring and managing a programme of repairs to the foundations of one of the electricity pylons (Pylon G037B) (See attached map) located within the Scheduled Monument of Whitemoss Roman Fort, 175m SW of Rosarymount (Index No 1652). The repair work will require small excavations so an archaeological watching brief on the excavations and the metal detecting of excavated spoil has been recommended by Historic Environment Scotland (HES) as a condition of the SMC. This Written Scheme of Investigation (WSI) has been prepared CFA Archaeology Ltd on behalf of Scottish Power Energy Networks to meet the requirements of HES for the recommended programme of work.

The foundation repairs are required at each of the four corners of the pylon where the legs are secured in ti the ground by exiting foundations. The following table provides details of the size and reason for the excavations.

Area of Excavation	Area Size	Reason for excavation
Pylon foundation	1.5m x 1.5m	Repair to pylon foundation
Pylon foundation	1.5m x 1.5m	Repair to pylon foundation
Pylon foundation	1.5m x 1.5m	Repair to pylon foundation
Pylon foundation	1.5m x 1.5m	Repair to pylon foundation

The monument comprises the buried remains of a Roman fort and attached annex, visible from the air as cropmarks indicating the extent of the defensive ditches and some internal features. The area falls within three separate fields that are currently used for pasture. Excavations of the fort in the 1950s confirmed it was of Antonine date and consisted of three possible phases. The monument was originally scheduled on 2 February 1953 and rescheduled on 22 January 1993: the present rescheduling brings the documentation and mapping up to modern standards.

The fort occupies the top of a promontory that rises above the surrounding landscape; the slope falls off steeply on three sides with a more gradual slope to the SE of the fort. Cropmarks of the site, visible on aerial photographs, show the outline of the internal buildings, roads and external defences of the fort. The internal area of the fort is approximately 1.72ha, excluding the area covered by the external defences. The ditches and ramparts on the NE, NW and SW sides are 22m wide. Those on the SE side are more elaborate, with five defensive ditches totalling 33m in width, most likely to compensate for the slighter natural defences on this side. The S gate is 3.2m wide with a causeway over the ditches.

Excavations conducted in 1950-1954 and 1957 by Frank Newall and Stuart Piggott confirmed the internal layout of the timber fort. The headquarters building, measuring 30m by 36m, contained two shrines: a stone-built Aedes (shrine) that held the unit's standards; and a small shrine in the SE corner of the courtyard. A granary measuring approximately 26m by 11m was excavated east of the headquarters building. Two barrack blocks were excavated in the SE corner, indicating that the fort possibly housed a cavalry unit. Paved areas and building foundations were discovered north of the fort but not excavated, and these, together with a ditch running north from the fort's outer defences, indicate that a defended annex exists on the northern side of the

fort. A large number of early quarries are visible around the fort on the aerial photographs.

The scheduled area is irregular on plan, to include the remains described above and an area around them within which evidence relating to the monument's construction, use and abandonment may survive. The scheduled area extends up to, but excludes, all modern roads and verges. To allow for their maintenance, the scheduling specifically excludes the above-ground remains of post-and-wire fences, telegraph poles, pylons and boundary walls; the top 200mm of existing paths and the above-ground elements of all street furniture and signage

2 Objectives

The objectives of the programme of archaeological works are:

- To conduct an appropriate programme of archaeological investigation (watching brief) to monitor all ground breaking works as described above and to undertake metal detection of the excavated spoil

- To record any archaeological features or deposits uncovered during the site investigation works and wherever possible to ensure that they are preserved is situ during this phase of work;

- To produce a report on the results of the watching brief to inform the future design of the development and any future mitigation that may be required.

3. Method Statement

3.1 General

CFA follows the Chartered Institute for Archaeologists' Code of Conduct, Standards and Guidelines as appropriate.

All staff will be suitably qualified and experienced for their project roles.

All staff will familiarise themselves with the archaeological background of the site, and the results of any previous work in the area, prior to the start of work on site. All staff will be aware of the work required under the specification, and will understand the project's aims and methodologies.

No ground-breaking works will take place without the presence of CFA personnel. The archaeological work shall be open to monitoring by HES, who shall be kept informed of the timescale of fieldwork by CFA.

The current foundations of the pylon consist of an excavated pit at each corner of the pylon filled with poured concrete within which the pylon superstructure is set. The repairs to the foundations of the pylon require the concrete for the existing foundation to be partially broken out with a pneumatic drill (or similar) and an area around the former foundation to be excavated by a mechanical excavator fitted with a smooth bladed bucket. This is to allow for a repair to be made to the pylon leg. The excavated

area will then be shuttered and a new concrete foundation poured. Any part of the excavation not filled with concrete will be backfilled.

Currently it is thought that the required excavations will all take place in ground previously disturbed to erect the pylon.

3.2 Watching brief

All excavations within the scheduled area will be monitored by an appropriately qualified archaeologist.

We provide the following code of practice to allow the Watching Brief to be conducted as efficiently as possible.

To enable proper monitoring, the client will ensure that CFA are timeously informed of the work programme.

The client will appoint a representative to liaise with CFA. All communications will be directed through this individual. The archaeological work shall be open to monitoring by HES.

Given the disturbed nature of the ground around the pylon legs it is unlikely that any archaeological deposits or features will be uncovered. However, if, during the course of the excavations for the repairs any features or deposits of potential archaeological interest are revealed, the archaeologist will prevent further excavation that might cause damage to the identified remains. The identified remains will then be fully excavated and recorded by the archaeologist within the confines of the area requiring excavation for the repairs. Following this the repairs can recommence.

Sections of all excavations will be recorded to either finished level or natural subsoil (whichever comes first) even if no archaeological features or deposits are identified.

The spoil from the excavations will be scanned with a metal detector with no discrimination set in order to recover any metal artefacts. CFA use Garret Ace 150 model detectors.

CFA uses the Museum of London's single context recording system, with minor adaptations. Full details of CFA's on site recording strategy are contained within the document *CFA Archaeology Ltd – On Site Recording*. All CFA staff are issued with this document. Details of CFA's recording system have previously been submitted to HES.

All artefacts will be retained for further analysis. Post-excavation storage requirements will be assessed by Dr Melanie Johnson, CFA's Post Excavation Manager. Sensitive artefacts will be lifted in a block of soil and sent for detailed excavation during conservation, but if an artefact is discovered which needs conservation in the field or immediate laboratory treatment, an appropriately qualified conservation specialist will be contacted by telephone for advice on appropriate treatment.

The locations of features and trenches will be recorded using industry standard electronic surveying equipment. CFA uses Trimble GNSS/GPS systems to produce digital survey data. This equipment provides centimetre-accurate RTK corrections using the Trimble VRS Now RTK GNSS service. The survey data and any hand-drawn plans will be accurately tied in to the Ordnance Survey National Grid and Ordnance Datum.

Any alteration to this methodology will need to be agreed in advance with HES and may require an amendment/variation of Scheduled Monument Consent.

4. Products

The Products of the project will comprise:

- An illustrated Data Structure Report describing the results of the Watching brief and metal detector survey of the excavated spoil will be produced.
- A summary report for *Discovery and Excavation in Scotland.*
- An *OASIS Scotland* entry
- A Costed Assessment for post-excavation and publication (as appropriate).

The Data Structure Report will be produced within three weeks of the completion of the onsite works.

It is considered unlikely that sufficient significant remains will be uncovered to merit further post excavation and publication. However, if required a programme of work will be undertaken by CFA in agreement with the client and HES.

The project archive, comprising all CFA record sheets, plans and reports, will be deposited with the National Monuments Record of Scotland within six months of completion of fieldwork and any relevant post-excavation analyses. Finds will be subject to the Scots laws of Treasure Trove and Bona Vacantia, and will be reported to the Crown Agent for disposal. Appropriate conservation of finds will be conducted before disposal.

A digital copy of the full report with plans and DES entry on CD - in PDF and doc formats will be supplied to Historic Scotland and a copy will also be sent to the relevant local authority SMR. The inclusion of photographs, plans and illustrations will fall within the current guidelines for archival standards set by the Archaeology Data Service and HES. A minimum of 3-4 photographs will be provided in a digital format to give an overall impression of the site and to illustrate the archaeological remains discovered. The project will be archived with HES.

5. Monitoring

HES will be given notice of the commencement of on site works. The work shall be open to monitoring by HES.

CFA will liaise with HES to ensure they are aware of fieldwork dates and so able to schedule any monitoring visits. A mobile phone will be present on site at all times and its number will be notified to HES.

Important or unexpected discoveries will be communicated to the client and HES.
CFA recognises that it is vital for HES to be closely involved with the project and we will use our best endeavours to ensure that HES requirements in this matter are a priority in our conduct of the project.

6. Resources

6.1 Project Personnel

Bruce Glendinning BSc PgDip MCIfA will manage this project. Mr Glendinning graduated from the University of Glasgow in 1993 with a BSc in Archaeology. Since then he has worked as a professional archaeologist with many units throughout Scotland and England. He has extensive experience of managing large-scale archaeological projects in both rural and urban environments. In addition to project management he has acted as a consultant for Morrison Homes, Robertson Homes, Apex Hotels, Wimpey Homes and Persimmon Homes.

Field Director for CFA will be selected from CFA's pool of Project Officers, all of whom have appropriate experience.

Shelly Werner BA MPhil PhD MCIfA is CFA's Graphic's Manager. Shelly is responsible for the organisation and management of all GIS, CAD and Illustrative material. She is an experienced illustrator with specialist knowledge in GIS consultancy.

CVs of relevant staff can be provided on request.

6.2 Health and Safety

All CFA staff have been inducted into CFA's Health and Safety Policy. All work for the project will be subject to Risk Assessment procedures, a copy of which can be provided.

N
W E
S

GREENOCK ROAD
OLD GREENOCK ROAD
40.1m
51.0m
48.1m
51.6m
Gas Meter House
Lee
CROSSHILL L/BANK
HI.4
HI.3
Access Route to tower
G038
3 x 175 ACSR 132kV
ETL
HL3
Cora Campus
GSS-NS4172/001 GOOD SHEPHERD CENTRE
Pond
Burial
Marymount
Rosarymount
Lodge
Good Shepherd Support Establishment
OLD BISHOPTON PTE
Approx location of Gate
67.2m
(site of)
G037B
G037A
G037
65.0m
Cottage
Marydale
Hotel
INGLISTON EQUESTRIAN CENTRE
El Sub Sta
Ingliston Equestrian Centre and Country Club
Stables
PSS-NS4271/007 INGLISTON HOUSE
REL-NS4271/008 INGLISTON HOUSE FUSES
58.0m
House
Jetties
Jetty
Whitemoss Dam
Overflow
Issues
Track

Produced By:- Date:- 15/03/2016 Scale:- 1 : 2,500