

# EDINBURGH CASTLE CABLE REMEDICATION WORKS

ASSESSMENT AND RECORD OF ARCHAEOLOGICAL IMPACTS

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## PROJECT DETAILS

**PROJECT NAME** Edinburgh Castle Cable Remediation, Edinburgh  
**CLIENT REF** -  
**HEADLAND REF** ECCR18  
**SERVICE** Assessment of archaeological impacts

## PROJECT BACKGROUND

Headland Archaeology (UK) Ltd were commissioned by Cabling Resource to provide archaeological advice and recommendations on works undertaken in the Governors House at Edinburgh Castle. Installation of new cables within the building had resulted in the drilling of 13 holes in the south-east and south-west walls of the Daily Staff Rest Room, currently used as an office.

An experienced archaeologist inspected the drill holes, recorded their locations and took a series of record shots during an initial visit. The detail of future works required to complete the cabling was discussed and appropriate methodologies considered.

A second visit was conducted during the removal of rawl plugs from the drill holes as requested by Historic Scotland. A record of the depth of the drill holes was taken as well as additional record shots. During these works a small portion of the upper layer of plaster was damaged whilst a rawl plug was being removed.

A third visit was undertaken to perform a controlled investigation around the two deepest drill holes where it was believed the drill bit might have penetrated the plaster layer and damaged the underlying stone. Both holes revealed that the drill bit had caused small to negligible impact to the underlying structure.

This report presents the results of the site visits and recording and details the level of impact of the works on the historic fabric.

## ARCHAEOLOGICAL BACKGROUND

It is likely that the top of Castle Hill was fortified as early the sixth century, and possibly before, but the earliest surviving building within the castle dates from the twelfth century. The castle has been expanded and added to since the twelfth century, with the majority of the building work taking place on the summit of the hill and around the esplanade east of the summit.

The Governor's House was constructed in the mid-18<sup>th</sup> century during a wider scheme of enhancements to the castle as a whole. Originally it provided accommodation for the Governor of the garrison, as well as the Storekeeper and Master Gunner. In more recent years it has been used as accommodation for nurses from the castle hospital, and now houses the officer's mess for the Army.

Edinburgh Castle as a whole is a Scheduled Monument (SM 90130), and the Governor's House specifically is a Category A Listed Building (LB 48219).

## RECORD OF WORKS

A site visit was conducted on 5<sup>th</sup> February 2018 to inspect and record a series of holes drilled in the south-east and south-west walls of a room in the basement level of the Governor’s House, currently used as an office.

A total of 13 holes had been drilled in the walls, all c6mm in diameter (Table 1). The depth of the holes could not be established with certainty during the first visit due to the presence of rawl plugs; Of the 13 holes, 10 had been filled with rawl plugs prior to the inspection. The holes were arranged in an upturned ‘U’ shape (Illus 1 and 2); running up the side of a noticeboard on the south-west wall, along the top both walls above a cupboard door and utilities box, and down the side of a door on the south-east wall. The highest hole was drilled c2.4m above the floor level, and the lowest, c0.6m.

A second visit was conducted on 8<sup>th</sup> March 2018 to monitor the removal of the rawl plugs from the drill holes, as requested by Historic Scotland, and to record their depth. During this process additional damage was caused to the upper layer of plaster in the lowest hole on the south-west wall (Hole 13), adjacent to the noticeboard (Illus 3). Measurements of the depths was achieved by the use of a depth gauge and a metal probe to feel for the nature of the material the drill had impacted upon.

A third visit was conducted on Monday 21<sup>st</sup> May 2018 with the intention of removing plaster from around the two deepest holes (holes 11 and 12) so that the impact of the drill bit could be properly ascertained. Plaster was removed with a chisel in controlled spits of no more than 10mm at a time. The surface of the stone was not touched by the chisel as the last layers of plaster was removed with a wooden trowel. Each hole was roughly square and measured between 40mm and 50mm wide and 30mm and 40mm high.

## IMPACT OF WORKS

The maximum depth of drilling observed was 60mm, seen in two of the holes, both on the south-west wall. In both of these cases the drill bit had fully penetrated the plaster and it was apparent that stonework had been encountered at the back of the hole. Excavation of the plaster from around Hole 11 (Illus 4) revealed that the drill bit had penetrated between what appeared to be a wooden beam and masonry. The drill had made a c 4mm hole into the wooden beam which itself protruded approximately 3mm from the face of the masonry where the damage was approximately 1mm deep. Excavation of Hole 12 (Illus 5) revealed that the drill had made a minimal impact to the face of the stone beneath. The tip of the drill had caused some scuffing which was easier to feel due to the change in texture than it was to see. The other holes varied in depth between 38mm and 54mm with the average depth being 50mm. In all other cases the holes had not broken through the plaster which appears to have a uniform thickness of 60mm.

Table1: List of Drill holes and impact recorded

Hole Number	Wall	Depth of Impact of Drill Bit (mm)	Level of Impact/Notes
01	South-East	44	All within plaster layers
02	South-East	50	All within plaster layers
03	South-East	50	All within plaster layers
04	South-East	48mm	All within plaster layers
05	South-East	Unknown	No access possible due to position of utilities box
06	South-East	50	All within plaster layers
07	South-East	45	All within plaster layers
08	South-West	54	All within plaster layers
09	South-West	50	All within plaster layers
10	South-West	38	All within plaster layers
11	South-West	60	Stone of wall and timber beam impacted upon
12	South-West	60	Minimal impact on stone
13	South-West	42	All within plaster layers. Additional damage to plaster from rawl plug removed

Where observable the upper 10mm of plaster was of a pale creamy colour with small to medium dark brown particle inclusions. The number of layers of underlying plaster could not be ascertained but appeared to be mostly made up of a pinkish-orange plaster containing white sand inclusions. In the two excavated holes horse hair inclusions to the plaster were noted immediately adjacent to the face of the stonework. The plaster is covered with a thin layer of paint which is unlikely to be original.

From the inspection it appears that the drilling has resulted in some minor damage to the underlying structure in two instances. The largest impact is in Hole 11 where the drill encountered a wooden beam and penetrated to a depth of approximately 4mm through the wood and 1mm into the stone. The damage in Hole 12 is minimal and comprises scuffing to the surface of the stone. There has been a minor impact to the visual appearance of the plaster surface within the room, however, there does not appear to have been any further impact on the structural fabric of the building in the other 11 holes.

# LIST OF ILLUSTRATIONS

**ILLUS 1** HOLES 1–7 ON THE SOUTH-EAST WALL

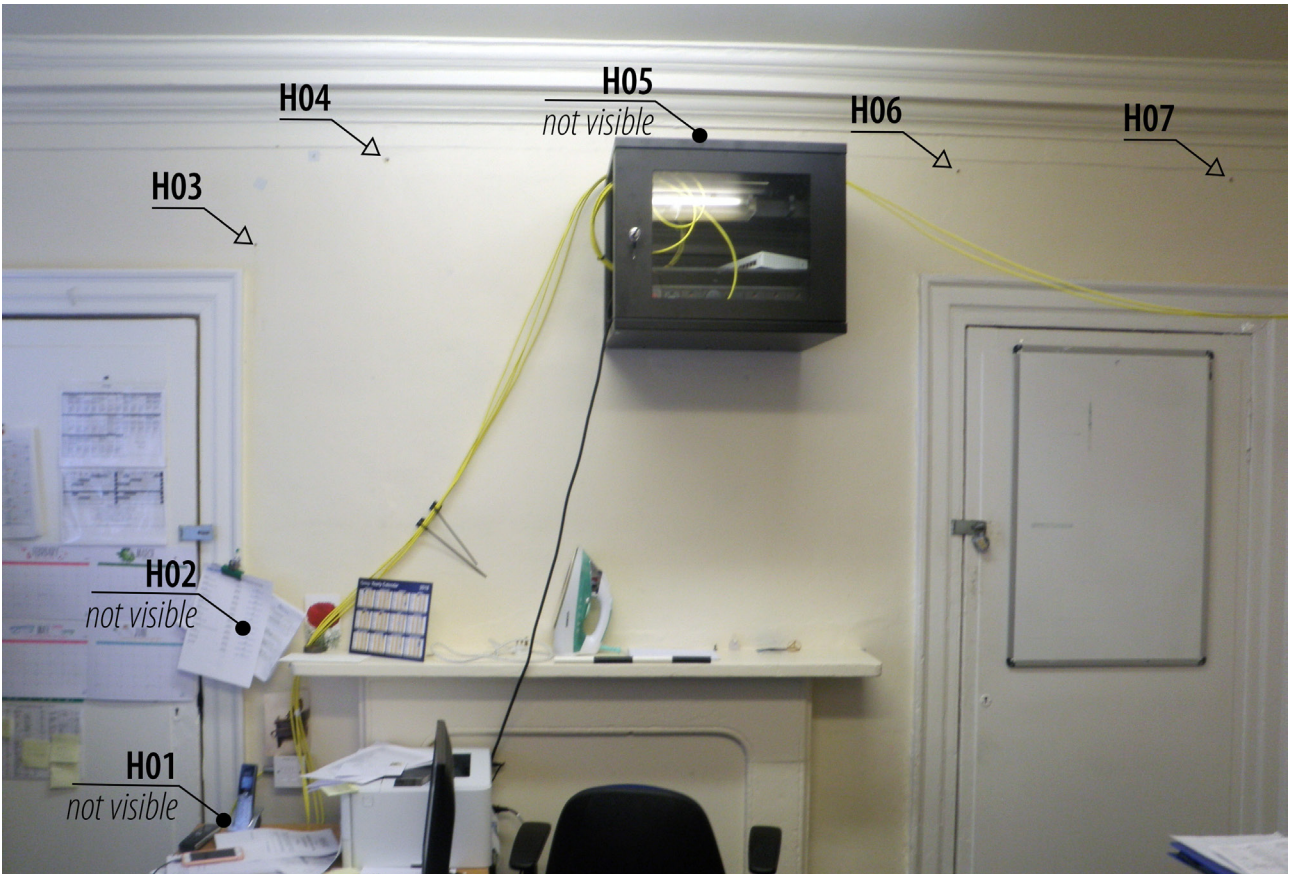
**ILLUS 2** HOLES 8– 13 ON THE SOUTH-WEST WALL

**ILLUS 3** ADDITIONAL DAMAGE TO THE PLASTER AFTER REMOVAL OF THE RAWL PLUG FROM THE BOTTOM HOLE ON THE SOUTH-WEST WALL

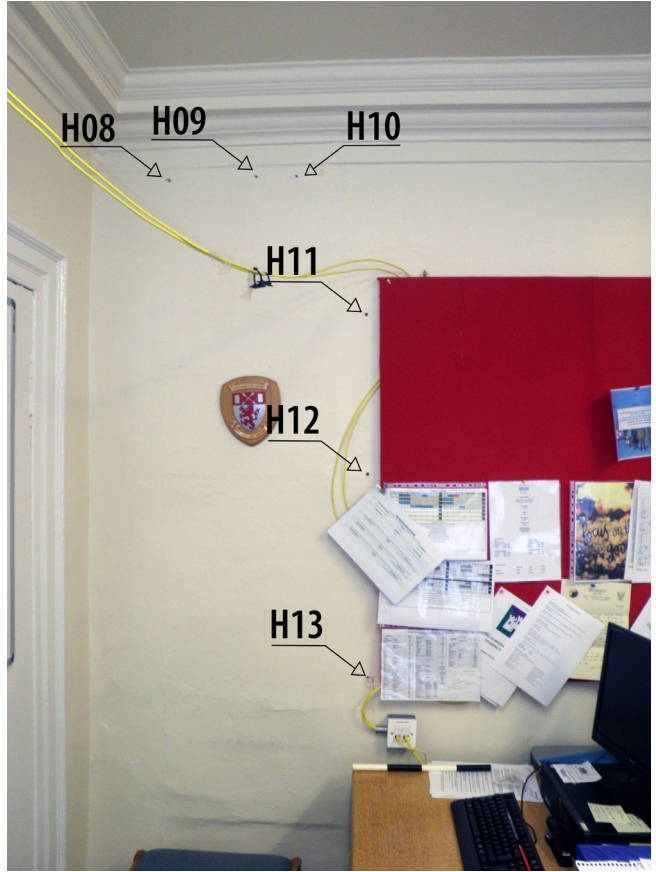
**ILLUS 4** EXPLORATORY HOLE INTO PLASTER AROUND HOLE 11 SHOWING AREA OF DAMAGE

**ILLUS 5** EXPLORATORY HOLE INTO PLASTER AROUND HOLE 12





ILLUS 1 Holes 1–7 on the south-east wall



**ILLUS 2** Holes 8– 13 on the south-west wall





**ILLUS 3** Additional damage to the plaster after removal of the rawl plug from the bottom hole on the south-west wall **ILLUS 4** Exploratory hole into plaster around Hole 11 showing area of damage **ILLUS 5** Exploratory hole into plaster around Hole 12



