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Report on the excavations resulting from improvements to the paths and lighting at Fort Cumberland

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Summary

Fort Cumberland is an 18th-century fort built on the shingle spit of Eastney Point on the south-eastern corner of Portsea Island, Hampshire. It is a Scheduled Ancient Monument (Hampshire monument no. 26723) and is the home of English Heritage's Centre for Archaeology. It has been described as 'perhaps the most impressive piece of 18th-century defensive architecture in England' (Pevsner and Lloyd, 1967).
Between November 2001 and January 2002 works were carried out to improve the path network and lighting provision around the fort, and watching briefs were undertaken on the associated excavations.
The lighting excavation trench ran from the fort entrance gate to the right curtain sally port. The main trench for the new paths ran from the right curtain sally port around the outside of the parade ground to the Officers' Quarters.
The remains of the brick counterscarp wall of the dry ditch were revealed in the lighting trench, truncated to make way for the access road in the 1940s. In the excavations alongside the parade ground, the stratified build-up of the parade ground gravels were revealed, as were the cuts relating to the services to adjacent buildings.
The following report details the results of these excavations.

Keywords

Excavation
Post-medieval

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1 Introduction

English Heritage's Centre for Archaeology (CfA) is based at Fort Cumberland, Hampshire (see ***figure 1*** for location plan). The provision of lighting and of footpaths around the fort was reviewed as part of the general works programme upgrading the facilities at the fort, as well as in response to concerns expressed over the health and safety of employees working on site. It was decided that both footpaths and lighting needed upgrading, and a programme for these improvements was planned.

The following report summarises the results of a watching brief on the excavations for the laying of paths and improvements to the lighting at Fort Cumberland (Hampshire Scheduled Ancient Monument number 26723) undertaken between December 2001 and January 2002.

2 Methodology

The upgrading works were divided into two parts – lighting and paths.

2.1 Lighting

For the lighting, careful planning in consultation with the Inspector of Ancient Monuments (IAM) of the South East Region of English Heritage (Judith Roebuck) meant alterations to the historic fabric of the fort were kept to a minimum. Existing or historic fixing points were re-used, and all other brackets (as well as the surface-mounted wiring) were fixed into mortar joints, not into the brickwork.

A certain amount of excavation was necessary, both for the concrete bases of the standard lights and for the electrical cabling. Along the north-eastern side of the road from the main entrance gate towards the sally port in the right curtain wall, the existing bollard lighting was replaced by lights on columns, with the cabling renewed, and this entailed the excavation of a cable trench 110m long.

The trenches were excavated by the groundwork contractors (T Coleborn and Son) using a small mechanical excavator. Excavations in archaeologically sensitive and previously undisturbed areas were undertaken by hand to comply with the conditions of the Class 6 Scheduled Monument Consent, granted by the IAM.

A watching brief was maintained for the duration of the works on site. Where archaeological features were encountered during the excavation by the mechanical excavator, machining was halted and the features were excavated by hand, with the archaeological evidence revealed recorded and photographed to the specifications set down in the English Heritage CfA Recording Manual (CfA, 1998).

2.2 Paths

The provision of a series of safe access routes between all the buildings currently in use by the CfA was the second aim of the project.

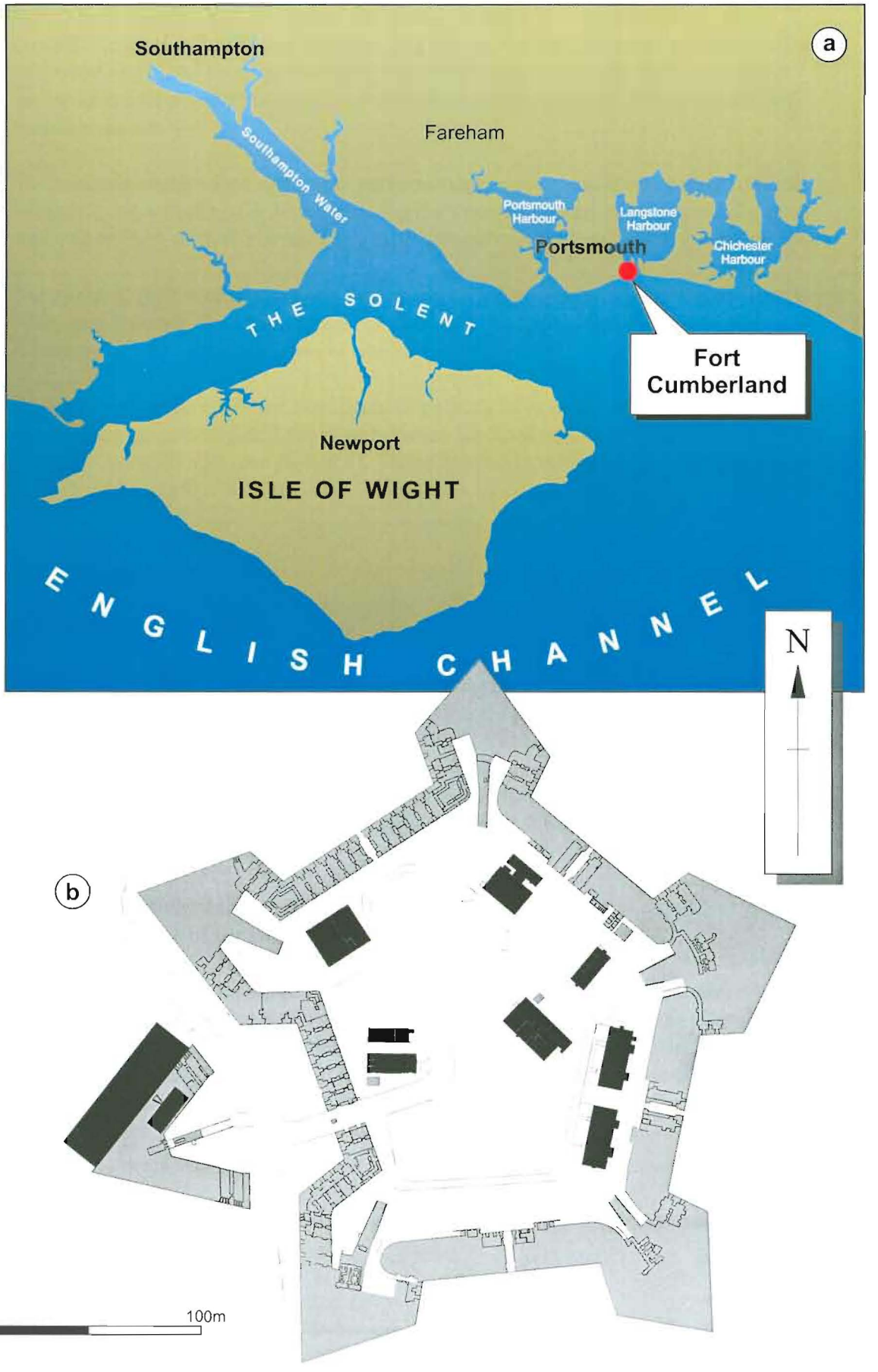

Figure 1. Fort Cumberland's position on the south coast (a), and plan of the Fort (b)

Prior to the newly planned path network, the perimeter road of the parade ground with its inherent dangers had been used for access, especially for transporting goods around site on hand-carts and trolleys. The new paths ran alongside and outside the perimeter road, and to minimise their visual intrusion to the site, they were to be surfaced in a fine gravel bonded to the hardcore make-up layer with a vulcanised bonding matrix.

To create the secure footings to the paths as required for health and safety reasons, excavation to a depth of 0.30m removing the unconsolidated parade ground gravel was undertaken, with the level being built up again using compacted gravel hardcore.

The planned path width was 1.2m, with a border along each edge of granite setts 0.1m wide, and between the existing road surface and the inner edge of the footpath, a 0.5 – 0.6m wide safety margin of gravel was proposed.

Provision was also made for two disabled parking bays at the south-western corner of the existing gravel-surfaced car park between the Laying Out Shed and the northern of the Officers Blocks (see ***figure 2***). These required excavation of an area measuring 6.7 x 5m to a depth of 0.30m.

3. Results

3.1 Lighting Trenches

The main excavation associated with the lighting improvements was located along the side of the road between the right curtain wall sally port and the main gateway into the fort (to the north west). This trench was to house the new cables and wiring for the lights, as well as the concrete footings onto which the lights were bolted. Five 4.5m high lamp posts were used to light this section of the fort. The trench excavated was rectangular in cross section measuring 0.40m wide x 0.60m deep, and ran for a distance of c.110m.

Where practicable, this trench was excavated through previously-disturbed ground, following the line of the earlier services along the side of the road.

This trench exposed the breached brick counterscarp wall of the dry ditch (see ***figure 3***). This wall had been partially dismantled when the access route was altered and the road from the north west constructed. This followed the damage to the land curtain during the bombing raid of 1940, after which the main entrance moved from its position in the left curtain wall to the breach in the land curtain wall. Also seen during the excavation were the general build up of gravel and soil deposits

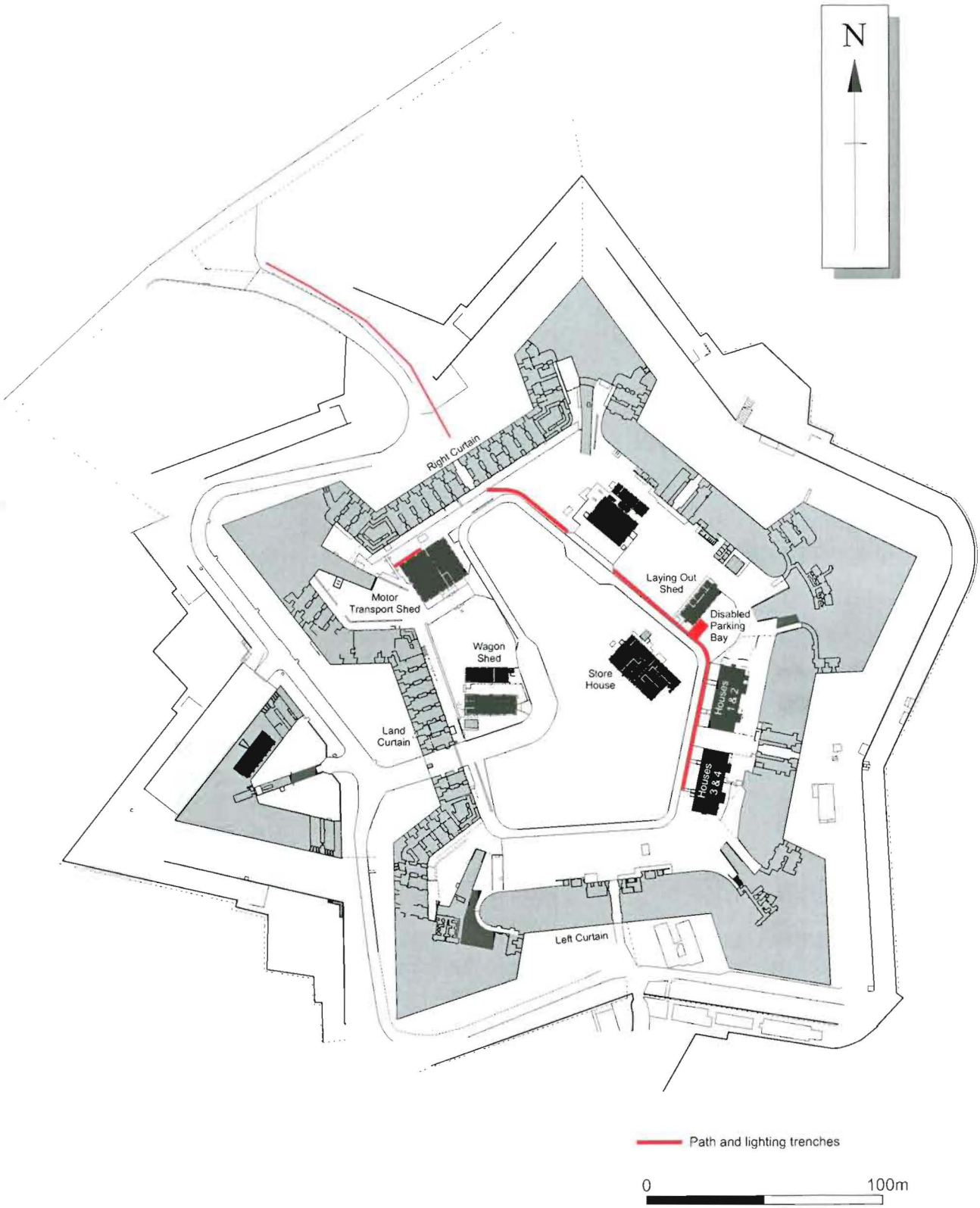

Figure 2. Plan of Fort Cumberland showing the location of the Path and Lighting Trenches

Figure 3 - Photograph showing remains of breached dry ditch counterscarp wall exposed during excavations

Other smaller excavations were undertaken to house the footings for the lamp posts. One was located immediately adjacent to and to the north-western corner of the Wagon Shed; one was adjacent to and to the north-eastern corner of the Laying Out Shed; and a further excavation was necessary for the lamp post located by the side of the perimeter road to the north west of the Garage (see ***figure 2*** for location plan). The excavations measured 0.75 x 0.75 m, and were to a depth of 0.25m. Other than the gravel layers of the build up of the parade ground, no further archaeological features were encountered.

3.2 Path Trenches

The excavations of the trenches for the paths around the fort measured c.2.1m wide and were excavated to a depth of c.0.30m, and the combined length of the trenches excavated measured approximately 170m. A larger excavation measuring 6.7 x 5.0m was undertaken for the provision of disabled parking bays in the car park adjacent to the laying-out shed.

The excavations were predominantly excavated by a mechanical excavator, although some hand excavation was necessary where archaeological features were encountered.

The results of the excavations are most easily described if the trenches are split into four sections –

i) to the north east of the perimeter road of the parade ground
ii) the disabled parking bays
iii) in front of Houses 1-4

iv) to the north-west of the Motor Transport Shed

3.2.1 Excavation to the north east of the perimeter road of the parade ground

This section of trench ran from the right curtain sally port to the car park adjacent to the Laying Out Shed, a distance of 100m. Much of this length of excavation was through previously undisturbed ground.

The trench cut through the build-up layers of gravel used to surface the parade ground. In section, seven distinct layers of gravel were recorded. These consisted of alternating light and dark gravel bands – presumably resulting from the periodic refreshing of the gravel parade ground surface (see ***figure 4***).

It is possible that the layering may represent, in part, the levelling of the earthworks from the first fort. Previous excavations on the parade ground to the north and west revealed an extent to the lower layers that was thought to reflect the glacis of the first fort (J.B.Kerr, pers. comm.).

Figure 4 - Photograph of the banded gravel horizons that make up the parade ground (1m scale)

Other than recent service cuts, no other archaeological features were recorded in this section of excavation.

3.2.2 Excavation for the disabled parking bays

The excavation for the disabled parking bays measured 6.7 x 4.9m, and in common with the other excavations, was excavated to a depth of c.0.3m. The trench cut through similar banded gravel horizons seen elsewhere on site (see 3.2.1 above), from the make-up of the parade ground.

Also seen were three linear cuts. The most recent of these was a cut for a telecom cable running on an alignment between the north-western corner of House 1 to the south-eastern corner of the Laying Out Shed. The length revealed by the excavation

measured 5.5m, and the cut was 0.2m wide. The cable was set in a plastic pipe protected by granite setts and sand had been used to fill the cut.

The cable trench cut through the fills of two earlier cuts. A 6m length of a 1.77m wide east-west aligned linear feature was exposed, and this was found to be a cut for a foul drain. The final linear feature was aligned ENE – WSW, and a length measuring 10.2m was exposed by the excavation. It measured 0.48m in width, and excavation revealed it to contain a lead water pipe, 1½" in diameter. Extrapolating the line of the pipe, it would have extended to the north-eastern corner of the 18th-century brick Storehouse building, and may date from 19th-century improvements to the plumbing and water supply, possibly from the time the Storehouse was converted into a Hospital (in the mid-late1850s).

Two further features were excavated in this trench. They consisted of two pits, side by side, located between 1 and 2m from the south-eastern corner of the Laying Out Shed.

The northern of the two pits was circular in plan, with a diameter of 0.66m. The southern pit was rectangular measuring 0.55 x 0.54m. The pits were half-sectioned – see ***figure 5***.

Figure 5 - South-east facing photograph showing the two pit features half-sectioned during the excavation (1m scale)

Both pits were filled with a dark greyish brown sandy fill with numerous gravel fragments, although with no other finds.

It was interesting to note the layers the pits had cut through. The upper level was an orange brown sandy gravel – one of the spreads of beach gravel presumably used to build up the parade ground levels. Beneath this was a 0.07m thick layer of mortar containing brick fragments – probably indicative of a demolition debris layer. Beneath the brick and mortar layer was a fairly deep (>0.25m) layer of mixed grey sandy gravel (10YR 5/3).

The 1886 plan of the fort shows a rectangular building occupying part of the site of the current Laying Out Shed. This building was wider than the Laying Out Shed and extended further to the north-east, and earlier excavations by Pete Busby of the CfA (Busby, forthcoming) recorded the stepped brick footings to the north-eastern wall of this earlier building.

The mortar and brick layer presumably resulted from the demolition of this brick structure in the early years of the 20th century. Following the demolition of this earlier building, a row of four single-storied barrack blocks of breeze-block wall and sheet-metal roof construction were built. These were badly damaged by the bombing raid in 1940, and were rebuilt in brick. Of the four built, only the Laying Out shed survives, the others having been demolished following severe storm damage in 1987 and 1990.

As the pits cut through the brick and mortar demolition debris layer from the original brick building, they post-date its early 20th-century demolition, but a more closely defined date is not known.

It is difficult to establish the function of the pits as they contained no finds or other significant evidence for use, and it is likely that they were only temporary features as nothing in their position appears in the archive photographs of Fort Cumberland.

3.2.3 Excavation in front of Houses 1-4

The excavations to the west and in front of Houses 1 to 4, the Officers' Blocks constructed in the 1860s, measured 55m in length, 1.4m in width, and were excavated by machine to a depth of 0.3m.

The trench cut through various parade ground gravel make-up layers and buried surfaces, as well as some mixed garden soil layers and layers containing varying amounts of brick hardcore. The dark soil layers were presumably from the beds that were laid in front of the officers' blocks. Photographs taken early in the 20th century (c.1920) show the gardens in front of the houses bounded by picket and hurdle fences – see ***figure 6***. The beds were subsequently grassed over, although by the early 1990s the present gravel beds in front of the houses had replaced the earlier lawns.

Figure 6 - Photograph showing the gardens in front of the Officers' Blocks
©Royal Marines Museum

3.2.4 Excavation to the north-west of the Motor Transport Shed

The trench to the north-west of the Motor Transport shed was 12.75m long, 1.4m wide, and was excavated to a depth of 0.30m. The trench cut through the stratified gravel layers of the parade ground, resulting from the periodic renewal of the gravel surface. The trench also cut through the upper fills of the water mains service cut.

Conclusions

The excavations for the paths and for the improvements to the lighting caused relatively little further damage to the sub-surface deposits at Fort Cumberland. The construction of the path has proved to be inadequate, and it will have to be re-laid, but no further archaeological monitoring will be necessary during the reconstruction works.

Acknowledgements

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