Coleshill Uncovered

Season 1 fieldwork report

July 2011

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Acknowledgements

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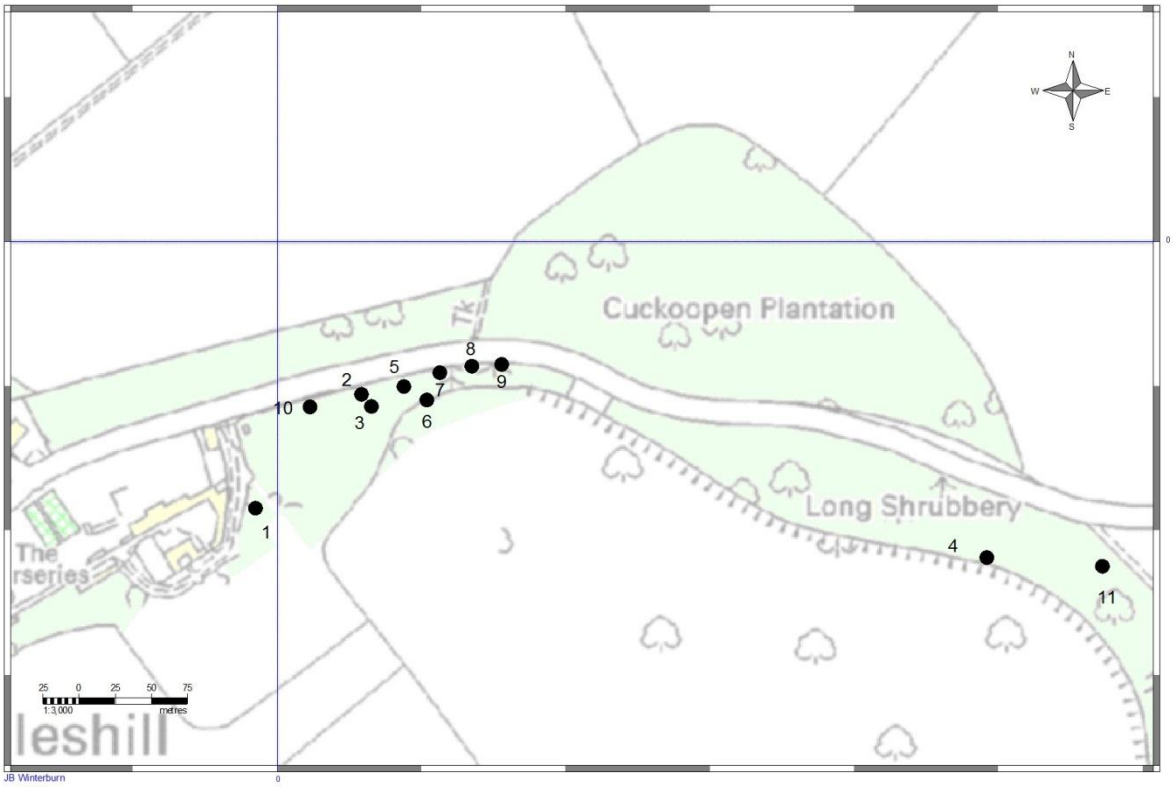
Introduction

This report details the results of the archaeological investigation undertaken at Coleshill House during the week Sunday 3 July – Thursday 7 July 2011. For this first week of fieldwork it was agreed with the National Trust that a number of invasive trenches could be opened up, along with some further metal detecting and surveying. In addition an assessment of the pit known as the 'Ammo Dump' was undertaken with a view to future stabilisation work. The map below shows the structure locations within the Coleshill estate (see Features Register in Appendix B for list of structures).



Sector 1 work

Building on the clearance work started in January the team continued investigating the concrete structural remains located in Sector 1. Some of the structures required further clearance and others that had not been looked at in January, needed to be cleared completely. Those structures

that had been cleared during the earlier work in 2011 now had a series of small trenches opened up next to them. It was hoped that this invasive investigation would provide information regarding the construction and original use of the structural remains.

Structure 1 (also known as the MT ramp)

Consisting of two large concrete plinths that run at approximately 35°, it has always been thought that this structure was a motor vehicle ramp. The two plinths are 4.40m long, by 0.43m wide, by 1.3m high, and they sit 0.44m apart. The area between the two plinths has, over time, become full of loose soil and vegetative matter. The key task for this structure therefore was to clear the area between the two plinths. The initial accumulation layer of soil and vegetative matter was fairly loose and easily removed.

The accumulation layer was approximately 0.19m at the southern end of the concrete plinths, deepening to approximately 0.80m at the northern end. Once cleared a hard concrete surface was revealed, believed to be the floor of the vehicle inspection pit. In-between the two concrete plinths, about half way along, several large pieces of broken concrete were uncovered as the accumulation layer was cleared away. These ranged in size from 0.31 x 0.16 x 0.23m to 0.50 x 0.45 x 0.22m. Due to the size and weight of these it was impossible to remove them and the clearance activity continued around them. Another large piece of concrete was discovered at the northern end of the structure, this along with the looseness of the vegetative matter made it impossible to clear right to the end of the concrete plinths. Clearance therefore stopped 0.12 – 0.27m before the northern end of the concrete plinths.

The plinths were constructed from concrete containing small rounded aggregate (less than 20mm) and horizontal ‘pour’ lines were visible on the vertical surface. These may be evidence of shuttering that was used as a form for the concrete. A 0.015m layer of ridged concrete (see photo to left) has then been laid on the top of the plinths. At the southern end of the concrete plinths, several steel reinforcing rods (0.03-0.04m long) protruded from the top face of the plinths.

Photo 1: Structure 1 - close-up of reinforcing rods & ridges in concrete, facing south (Photo No. CH07-11-0265)

Significant finds

A variety of finds were discovered at Structure 1 including good evidence for motor vehicle maintenance (see no's 117 – 140 below) and a possible oddity (Find no 138 below). An exterior 'Treble' knob (Find No. 120) was also found in amongst the build-up of matter in between the concrete plinths.

- No. 117 - Engine cylinder head gasket fragment.
- No. 118 - Automotive electrical junction box.
- No. 140 - Ceramic vent for a lead-acid vehicle battery, manufactured by Lucas.
- No. 138 - Part of a clear glass lens, possibly from an airfield runway light (maybe attributable to the Auxiliaries).

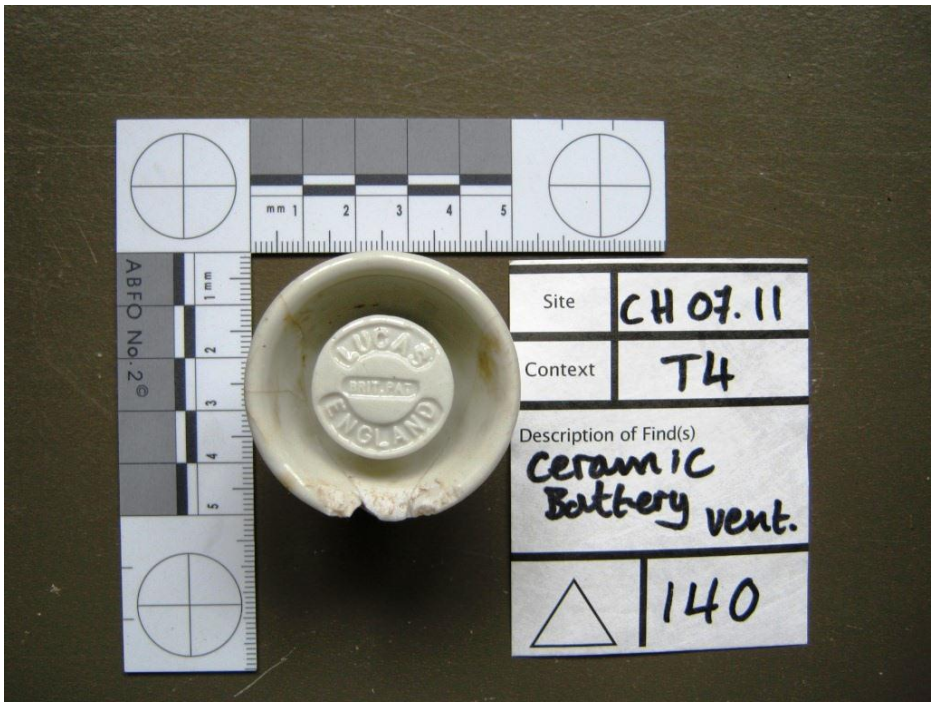


Photo 2: Find 140 – Ceramic battery vent (Photo No. CH07-11- 0168)

Conclusion

The large pieces of concrete that were found between the plinths are thought to be part of a ramp used to drive vehicles up onto the plinths. The ramp would have been attached to the plinths at their northern end. Further evidence to support the idea that vehicles were driven in from the north is the steel reinforcing rods located at the southern end of both plinths. Now bent over, but originally sitting upright in the top of the plinths, these rods possibly supported a concrete stop plate to ensure vehicles did not drive too far. The ridges in the concrete on the top of both plinths would have provided traction for any vehicle that was driven onto the structure. The vehicle parts that were collected also suggest this structure was related to vehicle centred activity. This may

have been vehicle maintenance or could have been as a teaching aid for instruction in acts of vehicle sabotage.

Structure 2 (also known as the Generator room)

The clearance work carried out in January 2011 had not provided any clues as to the original function of the two concrete plinths. It was therefore decided to open up two trenches by these structural remains; the first just north of the eastern concrete plinth (Trench 1) and the second around the eastern of the two concrete plinths (Trench 5) – see Drawing No. 10 in Appendix A.

Trench 1 – the topsoil (which varied in depth from 0.05m – 0.12m) was removed and a layer of rubble (1.2) was uncovered across the full area of the trench. Made up of medium lumps of broken-up concrete, rocks and some small pieces of brick, in a dark brown sandy soil, this layer extended beyond the limits of excavation in all directions. This rubble layer was removed, as was the layer of dark friable soil (1.3) that sat below it, again across the full extent of the trench. Below context (1.3) were a compacted layer of clunch (rough chalk rubble or building blocks) (1.4) and a light brown dirty clay (1.5). Located only on the western side of Trench 1, the clunch layer runs the full width of the trench (1m), runs 1.10m – 1.28m into the trench from the western side and extends beyond the trench in a northerly, southerly and westerly direction. Context (1.5), the dirty clay, sat at the eastern end of Trench 1 and was 0.60m – 0.75m long. Again it ran for the full 1m, width of the trench and extended beyond the trench boundaries to the north, east and south. Investigation at the juncture between the two contexts showed that the clunch sits on top of the clay and has therefore been laid down at some point in the past.

Trench 5 – here the topsoil was removed to a depth of between 0.04m – 0.13m south of the eastern concrete plinth, and between 0.04m – 0.07m north of the plinth. Below this were a rubble layer (5.2), similar in composition to that found in Trench 1 (1.2) that sat to the north and west of the concrete plinth, and also an orange brown sandy clay (5.4) that was located south and east of the plinth. The rubble layer was removed, as it had been in Trench 1, and below it was a dark friable soil, similar to context (1.3) in Trench 1. Excavated to a depth of approximately 0.14m this context was not fully removed.

Trench 1 extension – the layer of clunch (1.4) that had been uncovered in Trench 1 was not found in Trench 5, so it was decided to dig a 0.5m wide sondage from the western end of the south side of Trench 1 to connect with Trench 5, to see how far this context continued. Below the topsoil, both the rubble layer (1.2) and the friable soil (1.3) continued across the full dimensions of the sondage. The clunch layer (1.4) also continued south out of Trench 1 and along the sondage towards Trench 5. However it stopped approximately 0.30m from the northern edge of Trench 5 and again appears to overlie clay. There were three potential stake holes (all approximately 0.07m diameter) located

within this layer in the sondage (see Drawing No. 10 in Appendix A for locations).

Significant finds

A 3d coin, dated 1933, was found in the topsoil of Trench 1. All other finds came from contexts 1.1, 1.2, 5.1 & 5.2 but none were significantly dateable.

Conclusion

The rubble layer that was located in Trench 1 (1.2), through the sondage and north of the concrete plinth in Trench 5 (5.2), has been interpreted as a dumping/collapse layer consisting of elements of the broken-up structure, and as such is likely to be post WWII. The clunch layer (1.4) yielded no dating evidence and did not appear to have any direct relationship with the eastern concrete plinth, it sits below the rubble layer which suggests that it is pre WWII. Maps from the 18th century indicate that the road alignment from Coleshill to Farringdon may have been located here. The sandy clay (5.4) could be part of a formation deposit for the concrete revetment that appears to surround the exterior of the structural remains. During the investigation of this area, no further structural remains were found and we do not have any new information that will help us understand whether or not these structural remains were originally part of a Generator Room.

Structure 3 (also known as the Ammo dump)

A risk assessment of this feature was carried out by Mike Dolamore (one of the project EOD officers). His report is as follows:

The feature known as the 'Ammo dump' is a large pit in the ground, approximately 2.5m wide by 3.5m long by 2.5m deep, with the long sides facing north and south. The pit has near vertical sides on Faces A, B and C, whilst Face D tapers up to ground level at an approximate angle of 45 degrees, permitting access (see photo overleaf). Two large trees sit close to the corners of Faces A-B and A- C with their root systems protruding from the faces. The ground structure appears to consist of 0.5m of soil overlying weathered stone. Sheets of 'wriggly tin' are visible at the base of Face A, although it is unknown if those are contemporary with the construction of the pit or later additions. The bottom of the pit contains some soil infill, leaves, branches and other general detritus. Some rotten plywood boarding has also been noted laid horizontally at the bottom, perhaps in a previous attempt to prevent infill of features below this. The deteriorated remains of modern camouflage netting are visible in places on Face A.

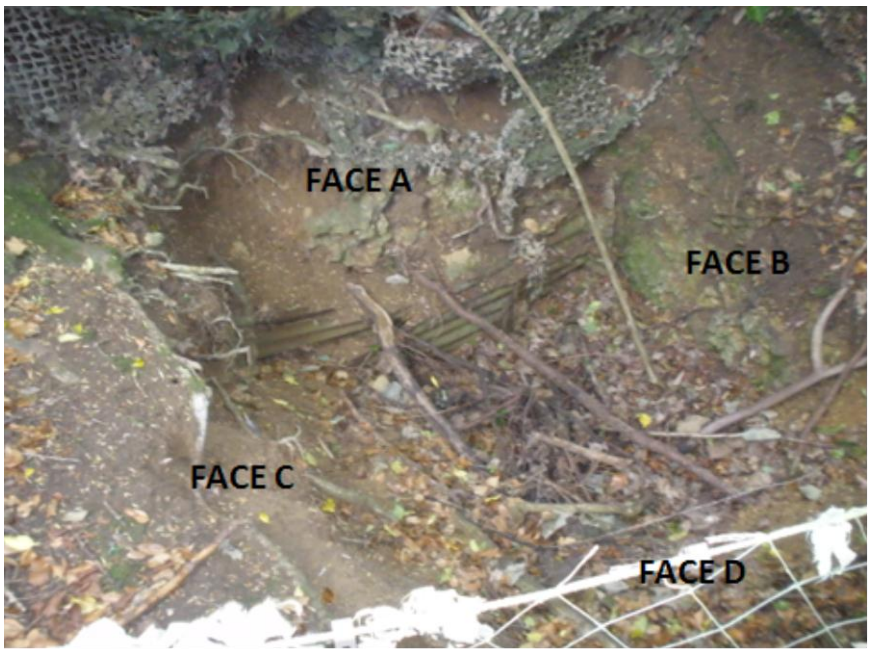


Photo 3: Structure 3 – general view

The pit has been partially excavated at some point and items of Nissen Hut furniture (stove pipes etc.) have been recovered. This suggests that the pit has at some point been used as a convenient place to dispose of demolition debris from the site. It is likely therefore that other items found on the site (including munitions) that required quick disposal may have been thrown into the pit (indeed this may be the reason why the pit has become known as the 'Ammo Dump' as opposed to any actual original use as a place to store munitions).

The pit is currently in a stable condition with the root systems of the trees acting as a living framework to prevent significant collapse of Face A. The top lips of Faces B and C have already been slightly cut back by natural weathering. Surface clearance of the detritus from the pit floor to ascertain exactly what detailed excavation may or may not be necessary could be undertaken safely, without any risk of collapse, by a team consisting of two people (no more and two required for mutual safety) wearing safety helmets and lines. The tops of Faces B and C could be further cut back to prevent any risk of top collapse from these sides if required. The most dangerous side is Face A and whilst 'cutback' of the top lip is advisable in most cases it is not recommended here as this would interfere with the tree root systems that are currently helping to stabilize that side and would probably cause instability rather than helping to stop any possible collapse. An area 2m around the top of the pit would need to be marked off as an exclusion zone to prevent 'kick-in' of material onto the heads of those working in the pit. If any further excavation other than preliminary surface clearance is required then it is recommended that Face A be shored up with a sheet of heavy duty plywood, braced back into the slope of Face D. Any work within the pit would require a surface supervisor in addition to the two diggers and the presence of a qualified Explosive Ordnance Disposal person. The cutting of steps into Face D to aid entry and exit is recommended

as a preliminary requirement to any other work taking place. Spoil from excavations would need to be deposited at least 3m from the pit and not close to the top of Face D, as has clearly happened in previous attempts to dig it.

Conclusion

It is recommended that some stabilisation work is undertaken on this structure and we would be happy to discuss this with the National Trust.

Structure 5 (also known as Hut 1)

After the clearance work done on this structure in January, it was decided to open a trench (Trench 2) around the NW corner of the concrete base. This trench was approximately 1m x 1m around the two sides, and 0.75m out from the concrete base (see Drawing No. 1 in Appendix A). Once the topsoil was removed across the full area of the trench a compacted gravel surface (2.2) could be seen that extended beyond the limits of excavation of the trench. It was agreed that we could extend the trench to the west by a metre. Once this was cleared of topsoil (which was approximately 0.035m deep) it could be seen that the gravel surface continued across most of the extension, but sloped away at the south-west end of the trench. There was also a small burnt area (approximately 0.30m wide) in the north-west corner of the trench.

Starting up against the western side of the concrete base, the compacted gravel layer was removed to reveal a layer of hard core rubble (2.3). Ranging in size from 0.05m to 0.20m across, this hard core abuts the concrete base and continues for approximately 0.50m to the west. It is believed that this rubble has been used as backfill to fill up the shallow depression cut into the ground for the concrete base to be laid into. The gravel has then been laid on top and compacted down to create a flat surface to walk on outside the building.

Photo 4: Trench 2 – view of completed trench, facing north-east (Photo No. CH-07-11-0014)

On the east side of the concrete platform, a piece of metal pipe was observed protruding from the ground at 3.95m from the north-east corner and 0.13m from the eastern edge. To investigate this, a small test pit (Trench 2.10) was opened up measuring 0.2m x 0.2m, with the aim of ascertaining if the pipe was used to carry services to the hut. The trench was enlarged to 0.6m x 0.4m, taken down to a depth of 0.3m and the pipe was removed from the trench. It was apparent that the pipe was not connected to further pipe work of any sort, and it appeared to have been just driven into the ground.

Significant finds

Context 2.3 produced a fragment of white clay tobacco pipe stem. Trench 2.10 yielded up a galvanised iron water pipe (Find No 237) and a park railing stand (Find No 238). It is possible that these were recycled as electrical earth-rods for this building.

Conclusion

The evidence observed would imply the following construction methodology for this hut base:

- Prior to construction ground clearance and removal of some of the topsoil took place. This was to a depth of 125mm and extended 500mm beyond the edges of the intended hut base.
- No gravel or hard core binding was laid prior to construction.

- Small stake holes were dug around the area identified for construction. Stakes were driven in to each of these holes and levelled with each other.
- Base plates were then fixed across the top of the stakes and once again levelled, then the ground inside the stakes was levelled.
- Plywood shuttering was then nailed to the exterior of the base plate, and variously held in position by nailing to the stakes, or some hard core. Where shuttering was nailed, the base is slightly under cut, where hard core was used the edges are more vertical. Both of these approaches to holding the shuttering are evident on this base hut.
- Concrete was then poured inside the shuttering perimeter and levelled with the top of the base plate.
- Finally the ground surface around the base of the hut was levelled off using gravel and hard core; it is presumed this last task would have been done prior to the hut being constructed onto the concrete base as this would give an easier surface for construction crews to work on.

Based upon a working knowledge of this type of construction from one of the team who was working in this trench, it can be estimated that the hut base would have taken 6 men, 1 day to complete. The lack of any form of gravel binding under the hut base implies that the hut was not viewed as being a long term structure, and that it was built either in a hurry, or with a lack of suitable materials. The presence of what appeared to be an earthing rod (in Trench 2.10) suggests that there was an electrical power supply to this hut. The varied approaches to securing the lower edge of the shuttering implies that either there were not sufficient materials available to work consistently or that the construction was hurried.

Structure 6 (also known as Hut 2)

This concrete platform had been partially cleared during the January evaluation weekend. Over the course of the July field week volunteers cleared the build-up of vegetative matter and piles of rubble from the rest of the platform. A huge task, it was initially decided to clear two 1m wide strips running north-south and east-west (forming a cross) across the centre of the platform. This then created four quadrants that could be tackled in a more manageable way. The National Trust forester assisted us by removing the small trees that had grown up on the platform. Two patches could not be cleared due to roots from established trees; one on the western side and one on the northern side, but in all approximately 95% of the concrete platform was cleared.

The rectangular post holes that had been noted in January and were located on the southern edge of the platform were investigated further. The second hole from the east corner (post hole 2) was measured and found to be 0.16m east-to-west and 0.23m north-to-south. The sides of the hole sloped inwards to a depth of 0.11m and the dimensions at the bottom were 0.065m east-to-west

and 0.11m north-to-south. On its' southern side at the bottom there was a semi-circular niche, 0.085m across. It appears that the holes were cut through the concrete down onto a hard sandy layer. It is possible that this sandy layer was laid down as a levelling layer prior to the concrete being poured. The post holes, which sat approximately 2.28m apart, were not uniform in size and shape (some sloped more than others). This, along with chisel marks inside one of the holes is evidence that they were handmade after the platform had been poured. The second hole contained traces of metal in the semi-circular niche. Was this a pin to wedge a wooden post in place in the main part of the post hole? On the northern edge of the platform four post holes were uncovered (the final two being underneath the vegetation that was not removed), all were located directly opposite a post hole on the southern edge.

Photo 5: Structure 6 - southern edge, Post hole 2 (Photo No. CH07-11-0117)

The March Interim Report noted evidence of corrugated metal having been used as part of the building construction. These 'wiggly' markings in the concrete are located on both the northern and southern long sides of the platform and it is likely that the metal sheets were supported by the posts located in the six post holes that run along these lengths. In all locations where the 'wiggly' lines are situated there are also drips of bitumen (see photo on next page), suggesting that this was used to seal the bottom of the metal walls to protect the building from damp. In places the bitumen runs over patches of white and red paint. Was the outside of the building painted?

Photo 6: Structure 6 – evidence of corrugated sheeting & bitumen (Photo No. CH07-11-0128)

Approximately 0.50m in from the edge of the main platform there is a crack in the concrete. This was noted in January, but now that the majority of the platform has been cleared it can be seen that this crack runs all the way around the platform at about the same distance on all four sides. The concrete gully that runs around the outside of the structure was cleaned further and it's dimensions can now be seen clearer than when it was initially looked at in January. The north-east corner was reviewed and the gully (which is wider at the top than it is at the bottom) is 0.10m at the top and 0.05m at the bottom. It was also found to sit at slightly different heights below the level of the concrete platform and pathway on the northern and eastern sides. On the northern side the gully sits 0.12m below the level of the concrete platform and 0.036m below the level of the outer pathway. On the eastern side it sits 0.17m below the level of the concrete platform and 0.07m below the level of the outer pathway. The north and south sides show that the gully may have been painted with bitumen, however it is more likely that these patches are run-off from sealing the edges of the metal sheets.

Once cleared a series of pale white lines (approximately 0.10m wide) could be seen across the surface of the concrete platform. At various intervals there were gaps (of 0.80m) in these lines and, coinciding with the positions of these gaps, there were shallow depressions in the concrete. There are lots of scratches on the surface of the concrete platform and in places there are blobs of reddish brown and green paint.

It appears that there are two possible external doorways, one on the east side and one on the west. On the east side a gap in the white lines of 0.81m coincided with two shallow depressions in

the concrete platform. The northern end of this possible doorway sits 3.54m south of the north-east corner of the main platform and is directly next to one of the internal walls. On the west side the possible doorway is narrower at 0.61m wide and sits 3.17m south of the north-west corner of the main platform. We are less sure about this as a possible doorway.

Significant finds

A lot of good structural evidence from concrete to electrical fittings from both the clearance of this structure and from piles located close-by were collected. Of special interest is Find No.109 - internal string spool for the frequency display from the tuning dial of a civilian radio. It was likely discarded as not required in the military radio being built from recycled civilian parts. (An exterior 'Treble' knob was also found at Structure 1 = Trench 4 (Find No.120)).

Photo 7: Find 109 – radio tuning piece (Photo No. CH07-11-0146)

Conclusion

It is possible that the large crack around the main part of the platform is in fact from where the concrete was poured in two sections (see photograph on next page). The outer section (which includes the gully and outer pathway) may have been poured first, with the inner larger section being poured in afterwards.

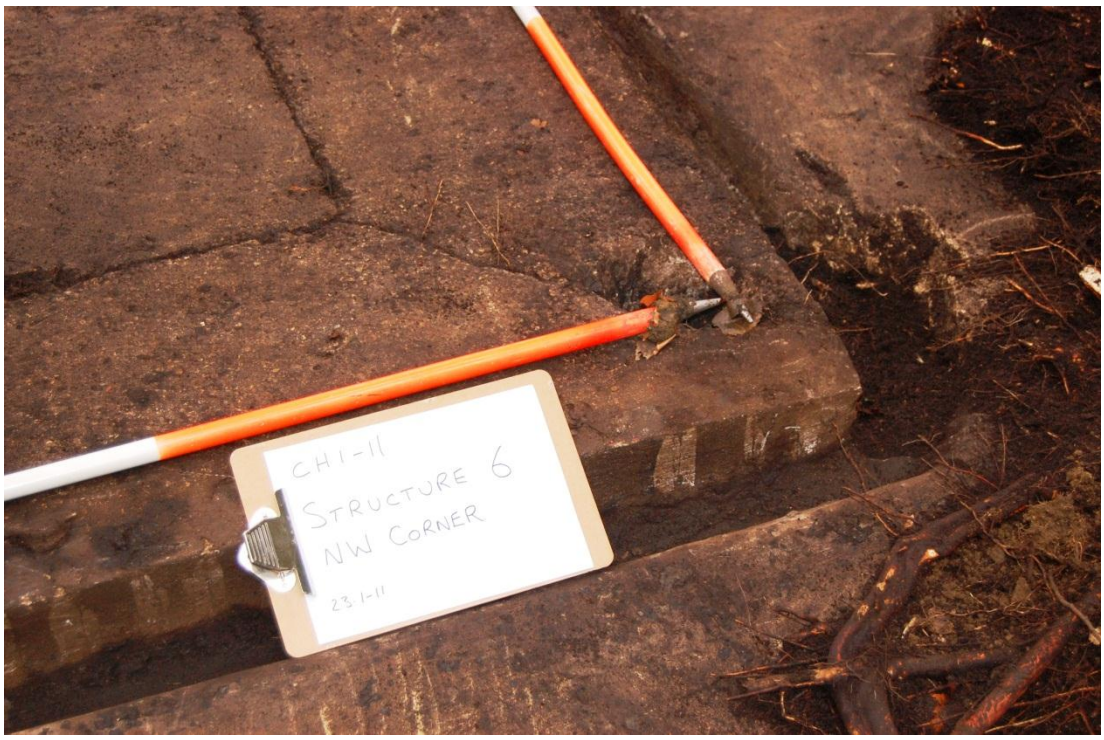


Photo 8: Structure 6 – crack around concrete base, NW corner (Photo No. CH1-11-0022)

Believed to be remains of concrete, the white lines are thought to represent the internal walls of the building. The gaps would therefore show the positions of doors, with the depressions being where the door frames were fixed into the concrete, possibly via Find No's 338 and 339. In this way we can now see much of the internal arrangement of the building (see Drawing No. 9 in Appendix A). All internal walls appear to have been approximately 0.10m thick.

Photo 9: Structure 6 – white marks believed to be location of internal walls, facing north (Photo No. CH07-11-0022)

Photo 10: Structure 6 – depressions indicating position of internal doorway (Photo No. CH07-11-0122)

The paint blobs and surface scratches may be evidence of some sort of production activity going on within the building however these may just as easily be due to post WWII activity. Without analysis of the paint we are unable to say for sure when this spillage occurred.

Structure 7 (also known as Hut 3)

Further to the clearance that was done on this structure in January, a trench (Trench 3) was opened up around the NW corner of the concrete base. Initially 1m x 3m around the two sides (and 1m out from the concrete base) Trench 3 was located to include the area where the entrance to the building was believed to be, and it was hoped would give us further clues as to construction.

After a depth of 0.05m an area of concrete (3.2) was uncovered. Located outside the structure doorway (represented by a concrete step up to the platform) this concrete was only 0.02m - 0.03m thick. Badly broken up and overlying a thin levelling layer of sandy gravel (3.4), the concrete continued beyond the limit of excavation to the west. Trench 3 was therefore extended by 0.5m to the west. More of the thin concrete layer was uncovered running in the direction of Structure 5. It is believed that the concrete layer represents the remains of pathways (see photograph on next page).

Photo 11: Structure 7 – evidence of pathway, facing east (Photo No. CH07-11-0028)

Around the step there was rubble (3.6) that may have been used as backfill in a similar way to that found in Trench 2 (although a cut was not found within the excavated area). However this fill only appeared on the western side of the plinth, along the northern edge it was not found. Here the trench was dug down to a depth of 0.30m. The topsoil was 0.15m deep and below that clay was encountered.

Significant finds

Some general construction related finds were discovered in the topsoil, for example iron bolts and nails, however nothing of any great significance was found.

Conclusion

The evidence of a path located in front of Structure 7 and heading towards Structure 5 suggests a well ordered site with constructed pathways running between the various buildings. This further suggests that those building and running the training site believed that the facility would be required for some time.

Structure 10

These structural remains were discovered during the January evaluation weekend and given the National Trust SMR number 154015 (see Feature Register in Appendix B). Located 36m west of Structure 2 this concrete platform is on a north-south orientation with its' short sides to the north

and south.

Believed to be a hut base the northern end of these remains are broken away, however it appears that it would originally have been of different dimensions to the other huts, the short side being 3.20m and the long sides being at least 8.4m. A large crack, running north-south along the length of the concrete structure divides the base, with other cracks spreading out from this central one. A concrete lip is located on both the east and south sides of the base with circular holes located along it. The lip is 0.11m wide, sits 0.04m below the main concrete platform and is at least 0.15m deep. There are two holes on the southern lip the distance between them being 1.35m (the eastern corner has broken off, but there was probably another located here) and three were found on the eastern long lip (again there were probably more originally but a combination of tree roots and an incomplete platform means that they cannot all now be seen). One of the holes on the southern end of the concrete base has the remains of a wooden post in-situ.

Photo 12: Structure 10 - Wooden stake in-situ (Photo No. CH07-11-0081)

Half-way along the eastern side of the concrete base there is a single piece of in-situ shuttering, possibly asbestos board (see photograph on next page). On the top face of the concrete base, towards its' western side, are the casts of inverted bricks.

Photo 13: Structure 10 – In-situ shuttering (Photo No. CH07-11-0090)

Significant finds

Clearance of this structure did not provide any significant finds all items collected were post WWII.

Conclusion

Clearly another hut base, Structure 10 is longer and thinner than the other bases on site. The concrete lip situated on the southern and eastern sides may also have been located on the northern side of the platform (due to that end of the platform being broken we cannot confirm this). However the western side of the platform is intact at the southern end and there is no evidence of an outer lip here. It may be therefore that this structure was a three-sided hut, with the western side open to the elements. This different construction may well have been due to the use that the building was put to. Unfortunately nothing was recovered from the area that would provide us with clues as to what this use was.

Systematic Metal Detecting survey

To verify conclusions from the initial Metal Detector (MD) sweep in January, a more thorough survey of part of Sector 1 was undertaken. The intention was to find out if a more detailed MD survey of the whole of Sector 1 would be worthwhile.

The following points regarding the area being surveyed were noted before and during the exercise.

- Sector 1 is a lightly wooded area with low ground cover of ivy and nettles.
- Some of the larger yew and oak trees appear to be old enough to have been growing

during the early 1900's.

- The presence of nettles may indicate disturbed areas of ground.
- Some areas, particularly near to the wall, are covered in rubble.
- Numerous dead/cut branches are scattered over the area.
- The leaf litter and top soil covers loose sandy/stony subsoil with some areas of clay.
- In strip B, a compacted surface was evident approximately 4cm below the surface of the dirt footpath that runs through the wood, alongside the ha ha.

Two pairs of detectorists undertook the survey, using a Viking VK 40 metal detector, a Garret Euro Ace metal detector and a Garret Pro-Pointer. Sector 1 was divided into 10m strip sections by running tapes down from the estate wall, over the footpath, to the nearside edge of the ha ha. These strips were coded alphabetically starting with 'A' at the most easterly end of Sector 1. Each pair of detectorists was allocated a strip and they walked over their area sweeping the detectors methodically in arcs of about 2m. Each signal was investigated and the Garret Pro-Pointer was used to more finely pinpoint the origin of the signal after initial clearance of the surrounding area. As requested by the National Trust any obviously non-period items discovered, were collected up to be disposed of in an attempt to clean up the area. Every metal find to be kept was bagged and identified with positional coordinates: a southerly measurement from the wall along the tape bordering the east edge of that section and then a westerly measurement from that tape. After labelling, all finds were taken to the Finds Officer for processing.

Almost all of the signals from the detectors resulted in a find of some sort, some were very small items e.g. an air rifle pellet and a hobnail. The thorough approach to the task meant that it took each pair of detectorists a whole day to cover each 10m strip. There were lots of metal finds along the line of the estate wall amongst rubble consisting of tarmac and concrete. This rubble appeared to be debris from road making/repairing whilst the finds were mostly non-period items such as car parts and rubbish thrown over the wall from the verge on the other side e.g. car trim, aluminium foil, crisp packets and tin cans. The frequency of signals in the vicinity of the footpath was high, but generally the finds were not relevant to the time period in question. Strips A and B were swept on the first day. The finds were very varied and included nails, tarpaulin pegs, buttons and two coins. One of the coins was a penny from the WWII era. In section C, a strip 8m wide from the easterly tape was covered. In this area a spent rifle grenade was found and also a brass alloy sighting mount scale from a Howitzer gun.

Significant finds

- No. 316 - A No. 68 Mk (3/4/5/6?) High Explosive Anti-Tank (HEAT) grenade manufactured by "GTL". For firing from a Cup launcher attached to a 0.303 Lee Enfield rifle, or from a Northover Projector. (See photograph on next page).

Photo 14: Find 316 – rifle grenade (Photo No. CH07-11-0241)

- No. 303 - The range drum from the sight on a German 105mm leichte FeldHaubitze 18 (=light field howitzer) – see photograph on next page. Two office markings have been deciphered; manufactured by the Spandau factory between 1932 and 1938. There may be a Finnish connection with this item and the Mauser cartridges from the January MD survey (Find No.9)

Photo 15: Find 303 – range drum graduated ring (Photo No. CH07-11-0240)

Conclusion

It would appear that the methodology adopted in the Systematic MD Survey described above has been effective in picking up the vast majority of metal objects in the area. The equipment was sensitive enough to register signals from the smallest of finds and the Pro-Pointer was extremely useful in locating the exact position of these small metal objects.

The less formal methodology of the initial MD survey may have given a misleading impression of the use of Sector 1. From the important finds found in strip C it would appear that this area was indeed used for munitions training of some description. Due to the close proximity of the huts it is unlikely that weapons were fired in this area. However it maybe that the items were used as classroom aids or they could have been part of more practical exercises in weapons disabling/sabotage.

The larger significant finds from strip C, which were actually missed by the initial broad MD survey sweep in January, indicate that it would be worth continuing with a more structured MD survey of Sectors 1 and 2 at a future date to gain a better understanding of the use of these areas. However, a similarly detailed survey of the rest of Sector 1, and also of Sector 2, would be very time consuming unless more people are involved. We would therefore recommend that a dedicated MD event should be held, with more detectors. Probably a weekend or two would be necessary depending on the number of volunteers. This type of event is likely to generate a large

number of finds, so would require the involvement of the Project Finds Officer and some volunteers to assist him in processing the artefacts.

Surveying

The site was surveyed at a scale of 1:200 using a Total Station. A base line was established and its position with the Ordnance Survey (OS) National Grid established by averaging 700 measurements from a navigation grade GPS receiver. The relative position of features are accurate to better than 100mm and the position within the OS grid to 3m. A 1:1000 scale (surveyed at 1:200) plan of Sector 1 has been produced from the data and can be found in Appendix A.

Sector 2 work

In January 2011 a random metal detecting survey was carried out in Sector 2. Several very strong signals were recorded and it was decided to open up three 1m x 1m test pits over these during the week long fieldwork in July.

Trench 6

The area of the signal was surveyed again using a Whites TM 808 hoard hunter, followed by a metal detector for confirmation and the trench (Trench 6 – T6) was centred over the area that gave the strongest signal. After removing approximately 0.15m of topsoil a layer of rough concrete (6.2) was discovered. Cleaning back with a trowel initially uncovered the top edge of an upright corrugated iron sheet (wiggly tin) approximately 0.25m from the eastern edge of the trench and further cleaning revealed more sheets placed in a rectangular shape. Trench 6 was extended by 0.30m to both the west and south so that the full profile of the feature could be revealed.

Orientated north to south with its' two long sides facing north and south, this rectangular hole was 0.80m by 0.50m – see drawing no. 5 in Appendix A. The full extent of the concrete surround was never fully revealed, but was at least 1.30m square, with the feature sitting towards its' south-east corner. The hollow centre of the feature, that suggests it may be a shaft or entranceway of some kind, was full of a rich black organic soil (6.4). Clearing this fill revealed that the corrugated sheets had been placed vertically on the east and west sides, but horizontally on the north and south. Both of the horizontally placed sheets had folded over on the top as a partial collapse, presumably when rubble was thrown into the feature at the end of its' useful life.

Photo 16: Trench 6 – facing north (Photo No. CH07-11-0046)

On the east face of the feature a hollow metal pipe was attached by a bracket to the face of the tin sheeting (see photograph below). Another was revealed opposite on the west face. The fill was removed to a depth of 0.30m whereupon a reasonably compacted layer of concrete rubble filled the feature. Two hollow pipes were also set within the concrete which seals the possible shaft. These appear to be of a diameter that allowed them to fit inside the hollow tubes that are bracketed to the west and east faces of the feature. Cleaning the concrete within the shaft revealed a small void. One of the project EOD officers took a look inside this void and determined that at this time it was unsafe to continue. Digging in Trench 6 stopped at this point, with the feature being cleaned up, photographed and planned.

Photo 17: Trench 6 – metal pipe attached to corrugated iron by C bracket (Photo No. CH07-11-0051)

Significant finds

The work done at this trench produced some of the most significant finds for our investigation, as they are parts of a structure attributable to the Auxiliaries. All are recycled civilian materials:

- No. 252 - a bracket for attaching a pipe to a surface. Reused to hold the vertically extending pipe work for the vertical lift door.

Photo 18: Find 252 – C bracket (Photo No. CH07-11-0225)

- No's 250 & 251 - sash window pulleys spindled on wood screws and packed with washers. Reused as part of the counterweight mechanism for the vertical lift door (see photographs on next page).

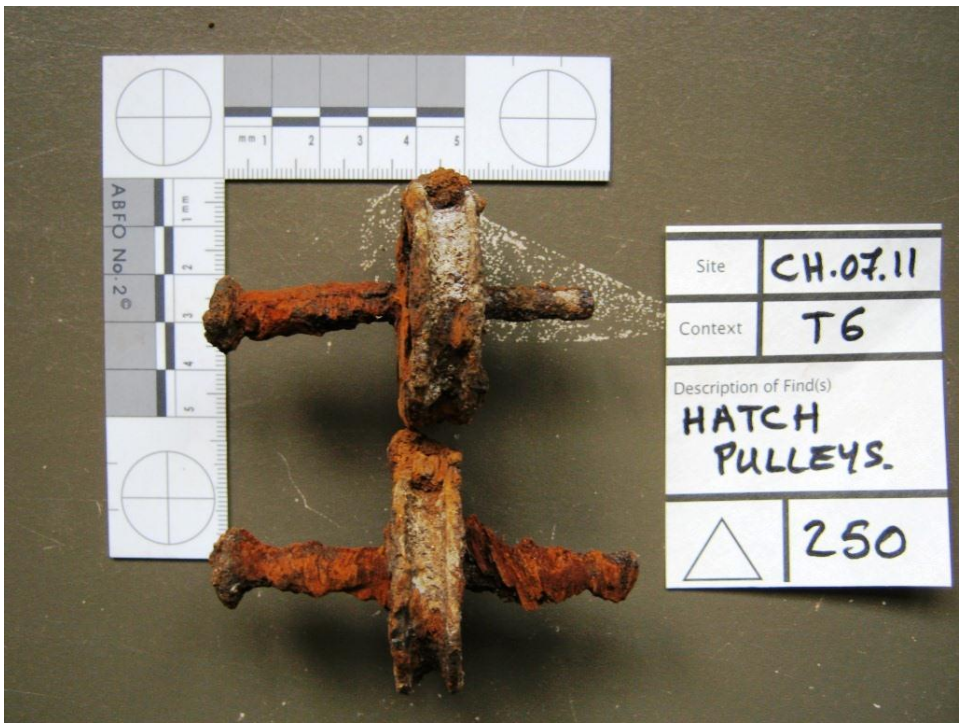


Photo 19: Find 250 – hatch pulleys (Photo No. CH07-11-0221)

Photo 20: Find 251 – hatch pulleys (Photo No. CH07-11-0223)

Conclusion

It is believed that this feature, now given the National Trust SMR number 154016 and termed Structure 11, is an example of a vertical lift door for an Operational Base (OB). A set of drawings for such a door were drawn by one of the trainees at Coleshill and are part of the CART archives (see Appendix C). These show a flat 'door', fixed to long metal tubes, being lifted up and down by

a system involving pulleys and weights. The hollow pipes found clamped to the east and west faces of the feature seem to be in-situ parts of this counterweight mechanism. It also appears that once the 'useful life' of the feature ended broken up concrete rubble was thrown into the shaft to seal it up.

What is unknown at this time is whether this shaft is an entrance to another OB or whether it is in fact just a training example of one possible type of entranceway. It is 75m east of the existing OB, and may be a training shaft, however further work is needed to determine the nature of this feature. We are currently investigating the use of Ground Penetrating Radar to determine if there are further structures beneath the surface in this area.

Trench 7

25 metres to the south-east of Trench 6, at the base of a lime tree another 1m x 1m test pit (Trench 7 - T7) was opened up, again centred over one of the strong signals. Soil was removed to a depth of 0.40m when the corner of a sheet of corrugated iron was uncovered in the north-east corner of the trench. Further excavation in this corner uncovered more of the sheet and also revealed a vertical piece of rotten timber. At a depth of 0.65m a second sheet of corrugated iron was revealed lying almost flat and below the first sheet. On clearing back the area, the rim of a metal drum was uncovered between the two sheets.

Soil in the north-east corner was very dark and similar to the topsoil that had been removed. The rest of the pit was a mixture of local stone and loose sandy soil. Around the sheeting and drum lid the soil was very loose and the base of the trench at this depth sounded hollow when hit. At this point Trench 7 was closed down. After the trench was cleaned, photos were taken for the project archive.

Significant finds

No dateable finds were recovered from the trench.

Conclusion

There appears to have been a pit at this location, whether this was a natural dip or a man-made pit is unknown at this time. At some point the pit seems to have been used as a dumping ground. Nothing was discovered that would help us date the activity related to this pit.

Trench 8

The last test pit (Trench 8 – T8) was opened up over a strong signal to the west of Trench 6 (from the south-west corner of T6 to the south-west corner of T8 was 20m). The soil was removed to a depth of 0.14m at which point a poorly compacted stone rubble layer was encountered. The rubble

continued for a depth of 0.40m, at which point a piece of steel was revealed close to the northern edge of the trench. Careful cleaning showed the item to be a spring-loaded hinge mechanism, 0.30m in length at its' longest point. It was impossible to determine whether the mechanism was 'open', 'closed' or somewhere in-between the two, but the distance between the fastening plates on the inside was 0.11m. The edge of the item was 0.19m from the northern face and 0.25m from the western face of T8.

Photo 21: Trench 8 – facing north (Photo No. CH07-11-0063)

A matching item, with identical dimensions, was discovered, at the same height, 0.25m to the west and its' northern end was partially buried in the western baulk of the trench.

Photo 22: Trench 8 – close-up of spring-loaded hinge in-situ (Photo No. CH07-11-0068)

The two bracket mechanisms (that together make up Find No. 333) overlay an irregularly shaped piece of tin. The edges of this tin sheet had been bent over 0.03m to form a lip which appears to have been covered in wood and felt. The wood, which disintegrated when touched, seemed to fill the shaped tin and was covered by the, now hard and brittle, felt. Various nails and tacks were recovered from the area. This irregularly shaped construction overlay several large pieces of corrugated iron sheet. These were at various angles and continued into the trench baulk.

In the southern baulk, projecting northwards into the trench, a triangular piece of metal plate with pins and a broken stump of a car door handle attached to it was uncovered (see photograph on next page).

Photo 23: Trench 8 – close-up of handle in-situ (Photo No. CH07-11-0074)

Significant finds

Again the work done at this trench produced some of the most significant finds for our investigation as they are parts of structures attributable to the Auxiliaries. All are recycled civilian materials:

- No. 333 - a spring-loaded hinge (similar to an ‘angle-poise’ lamp), possibly from car boot. Reused as the hinges of a lift-up hatch.

Photo 24: Find 333 – hatch hinge (Photo No. CH07-11-0252)

- No. 332 - chromed car door handle with attachment plate. Reused as a closing handle on the inside of a lift-up hatch.

Photo 25: Find 332 – hatch handle (Photo No. CH07-11-0255)

Conclusion

It is thought that these bracket mechanisms and the corrugated iron sheet make up a sprung lid for an underground hideout. The irregularly shaped iron sheeting may well be designed to look like a tree stump. The brackets would spring the door open and the car door handle may have been attached on the inside to lock the trapdoor shut again. If this is such a door, it has at some point been broken up and thrown into this hole. What we are unable to determine at this time is whether this is the original location of the door. Like the shaft discovered in Trench 6 is this the location of another training exercise to provide the Auxiliaries with examples of different types of doors or is it the location of another full OB? Ground Penetrating Radar may be used over this feature to determine if there are structures beneath the surface.

Other Finds

Un-stratified: Various estate workers kindly donated some of the items they had found over the years. While this was mainly inert ammunition and was largely not diagnostic, there were three items of note:

- No. 324 - Four 0.303 cartridges. One has been crimped and drilled; could this be an

Auxiliaries' improvised detonator?

Photo 26: Find 324 – 0.303 cartridge cases (Photo No. Ch07-11-0243)

- No. 172 - Fragment from an Artillery shell nose fuse, believed to be an illumination round. Possible evidence of 3rd Air Landing Brigade (Royal Artillery)'s presence in the spring of 1944?
- No. 173 - "Operational Limits" data plate from a Merlin MK3 engine; probably from the Spitfire suspected of crashing in Cuckoo-pen Wood (see photograph on next page).

Find No. 173 was a surface find and therefore not subject to the Preservation of Military Remains Act. Find No's 10, 91 and part of 39 (all from the January evaluation weekend) are also aircraft parts and having been recovered via metal detector, must be considered property of the Crown, under the Act, until notified otherwise (enquiries in progress).

Photo 27: Find 173 – data plate (Photo No. CH07-11-0192)

Other periods were also represented in the finds: medieval, 'London ware' and willow pattern pottery shards, as well as white-clay tobacco pipe fragments, some buttons, and an 18th century shoe pattern (Find No.211).

Photographs of all finds from the July 2011 (and the January 2011) fieldwork are available to view online at http://www.flickr.com/photos/mcarchaeology/

Future work

It is intended to carry out further fieldwork on the estate, under consultation with the Trust. This will include

- Finds identification workshops, which will be used to inform the interpretation of the field archaeology.
- Ground Penetrating Radar surveys in the areas around Trench 6 and Trench 8.
- Additional Metal Detecting surveys together with an archaeological investigation of target areas previously identified by these surveys.
- Further landscape surveys will be undertaken to determine the position of the various features in relation to the late 19th century paths and tracks.

Appendix A – Drawn record

Drawings Register

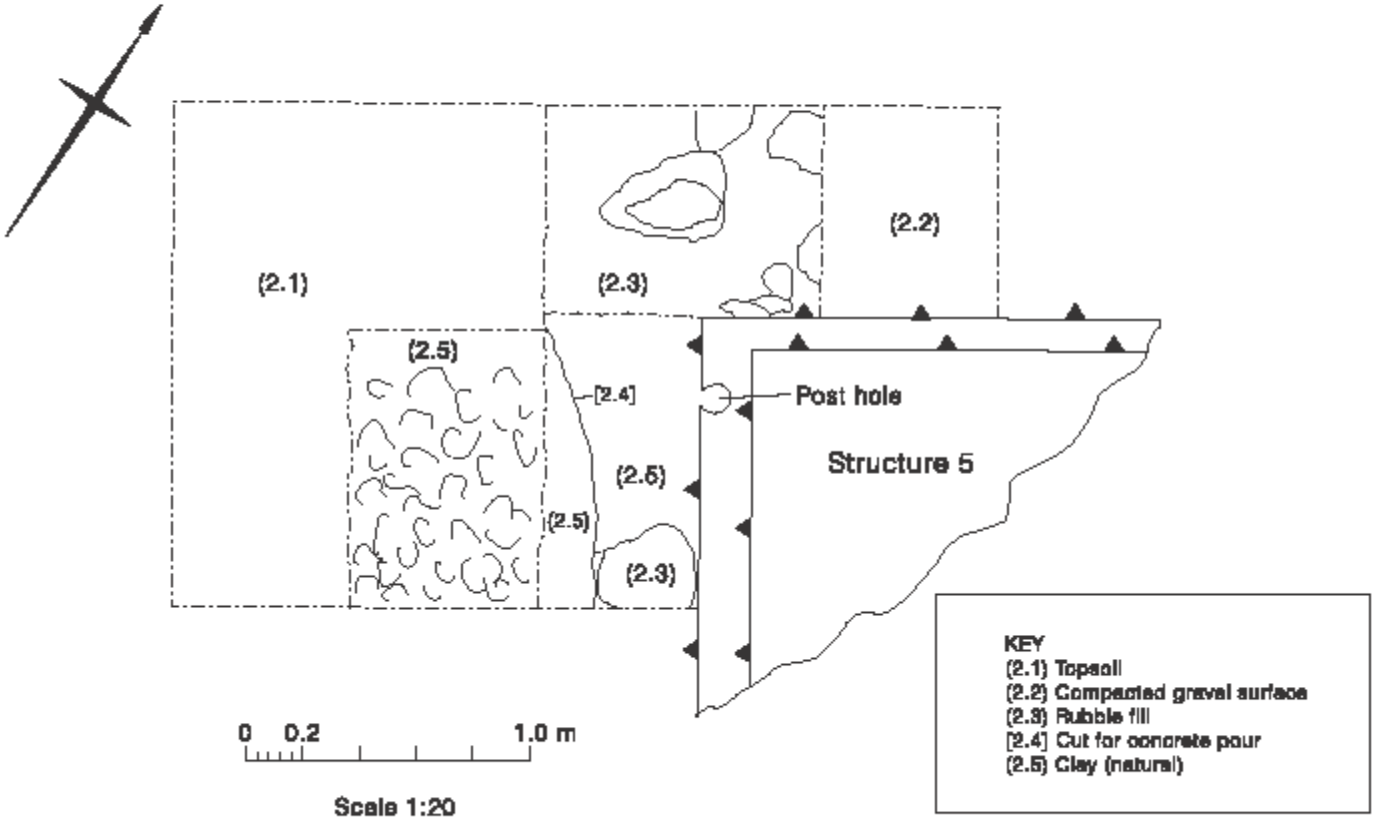
Drawing number	Plan/Section	Scale	Description	Notes
1	Plan	1:20	Plan of trench 2	
2	Section	1:10	West facing elevation of structure 5	Drawn at 1:20 Digitised at 1:10
3	Section	1:10	Section A-B of trench 3	Drawn at 1:20 Digitised at 1:10
4	Plan	1:20	Plan of trench 3	
5	Plan	1:20	Plan of trench 6	
6	Plan	1:20	Plan of structure 10	
7	Plan	1:20	Plan of structure 5	
8	Plan	1:1000	Plan of structures in Sector 1	Drawn at 1:200 Digitised at 1:1000
9	Plan	1:50	Plan of Structure 6	
10	Plan	1:20	Plan of trench 1, trench 5 & connecting sondage	

Appendix A

CH 07 11

Drawing 1

Trench 2

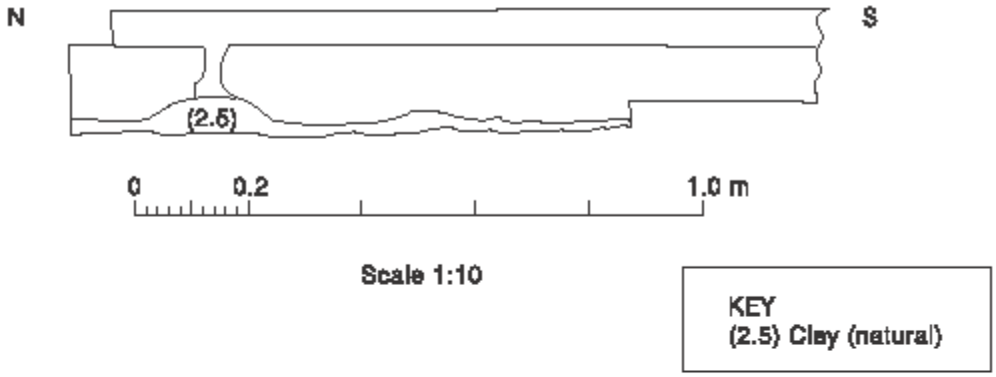


Appendix A

CH 07 11

Drawing 2

West Facing Elevation of Structure 5

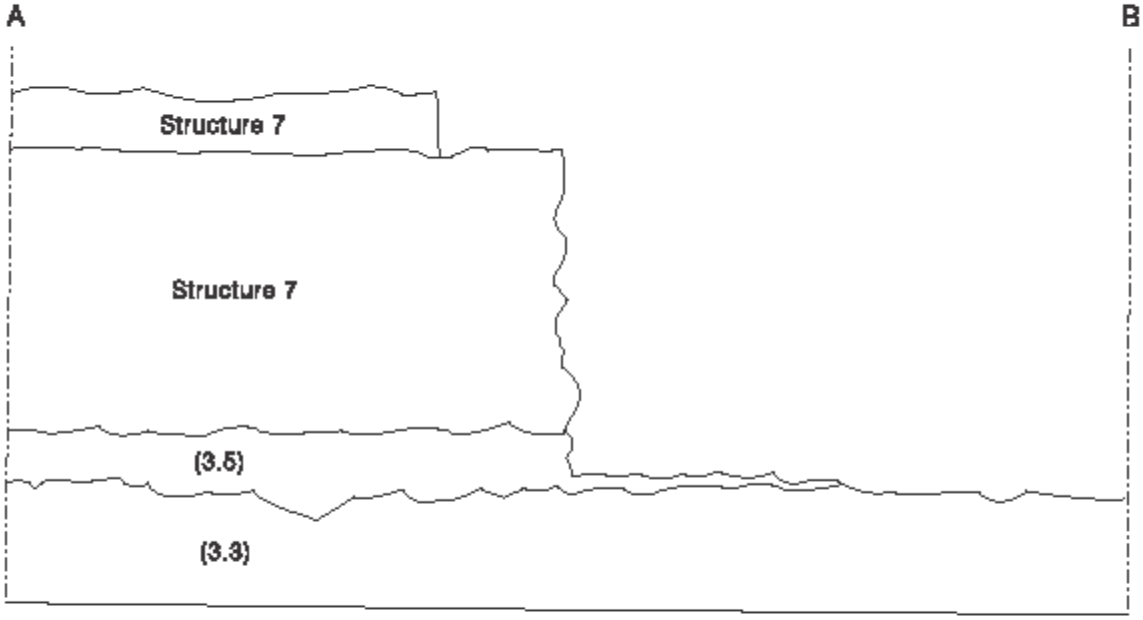


Apendix A

CH 07 11

Drawing 3

Section A - B of Trench 3



KEY
(3.3) Clay (natural)
(3.5) Contemporary topsoil

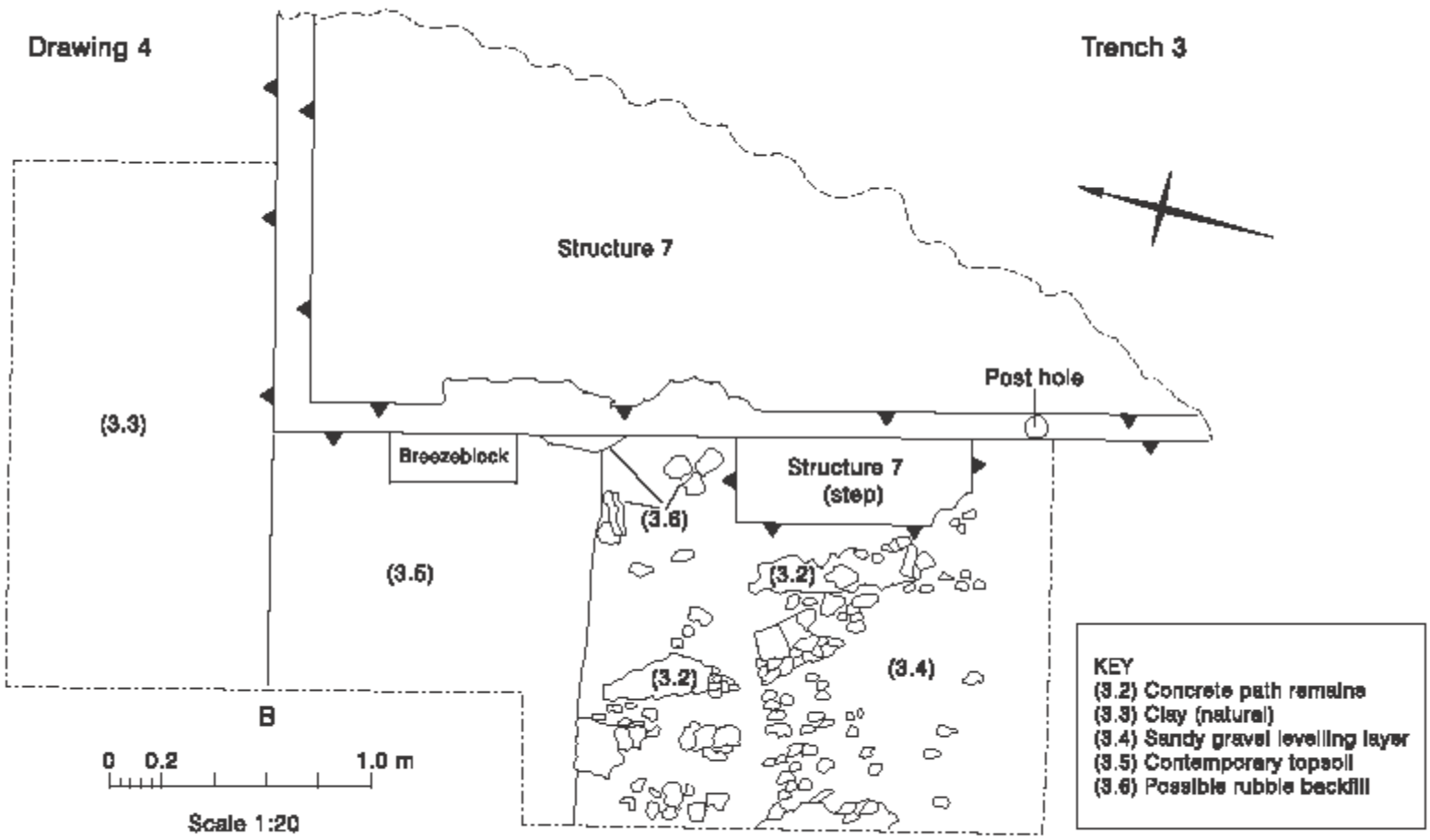
Scale 1:10

Appendix A

Drawing 4

Ch 07 11

Trench 3

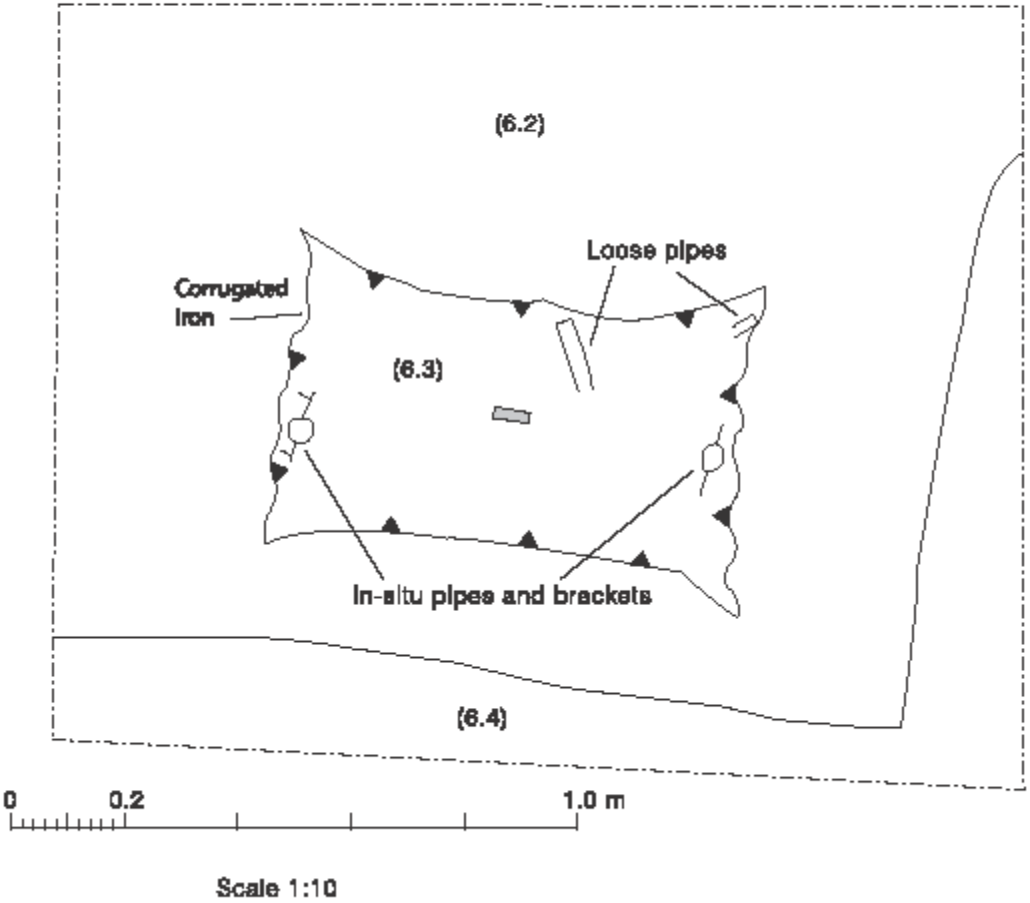


Appendix A

CH 07 11

Drawing 5

Trench 6



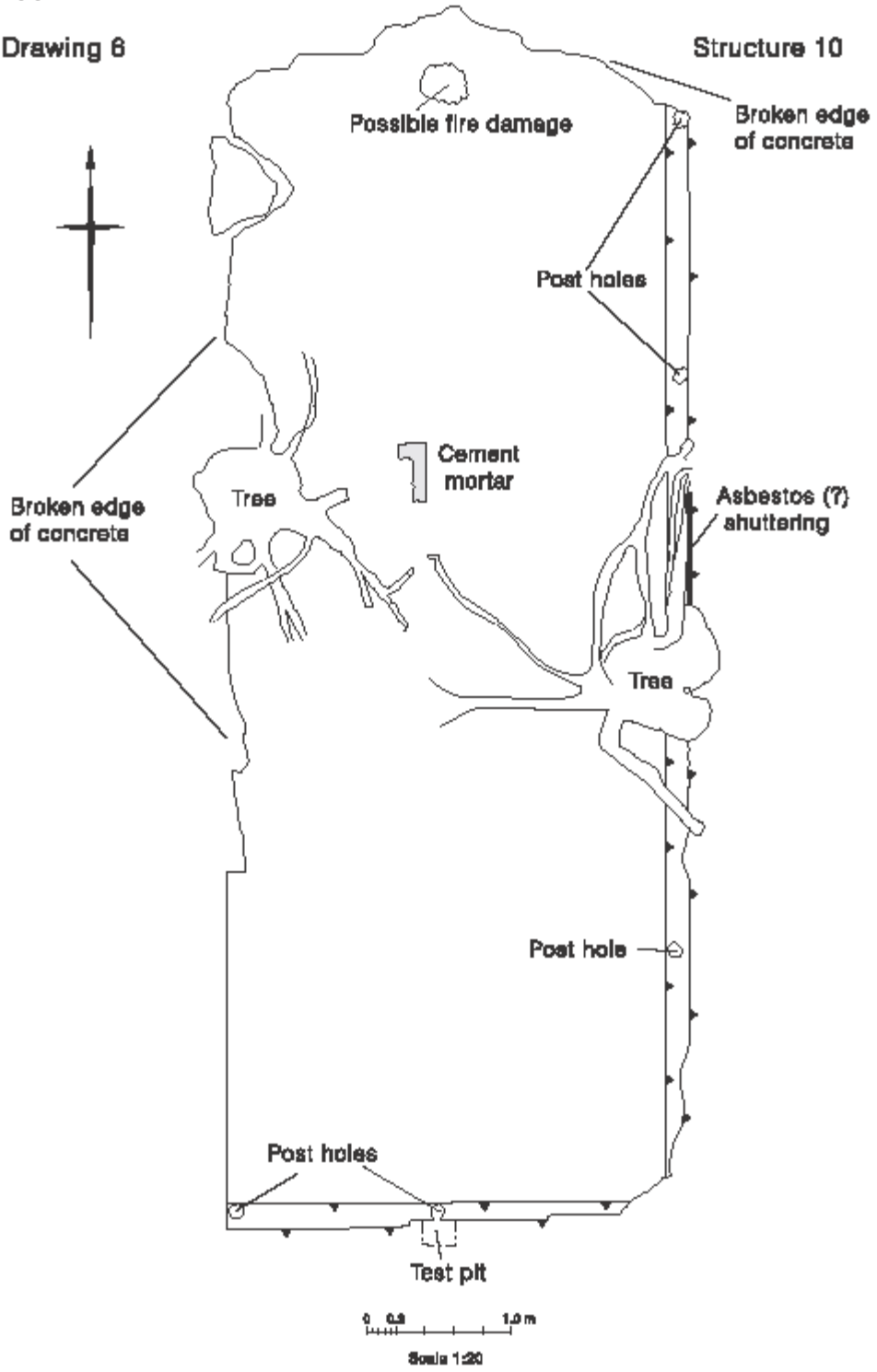
KEY
(6.2) Rough concrete
(6.3) Concrete/rubble fill (inc 2 pipes)
(6.4) Subsoil
Void

Appendix A

CH 07 11

Drawing 6

Structure 10

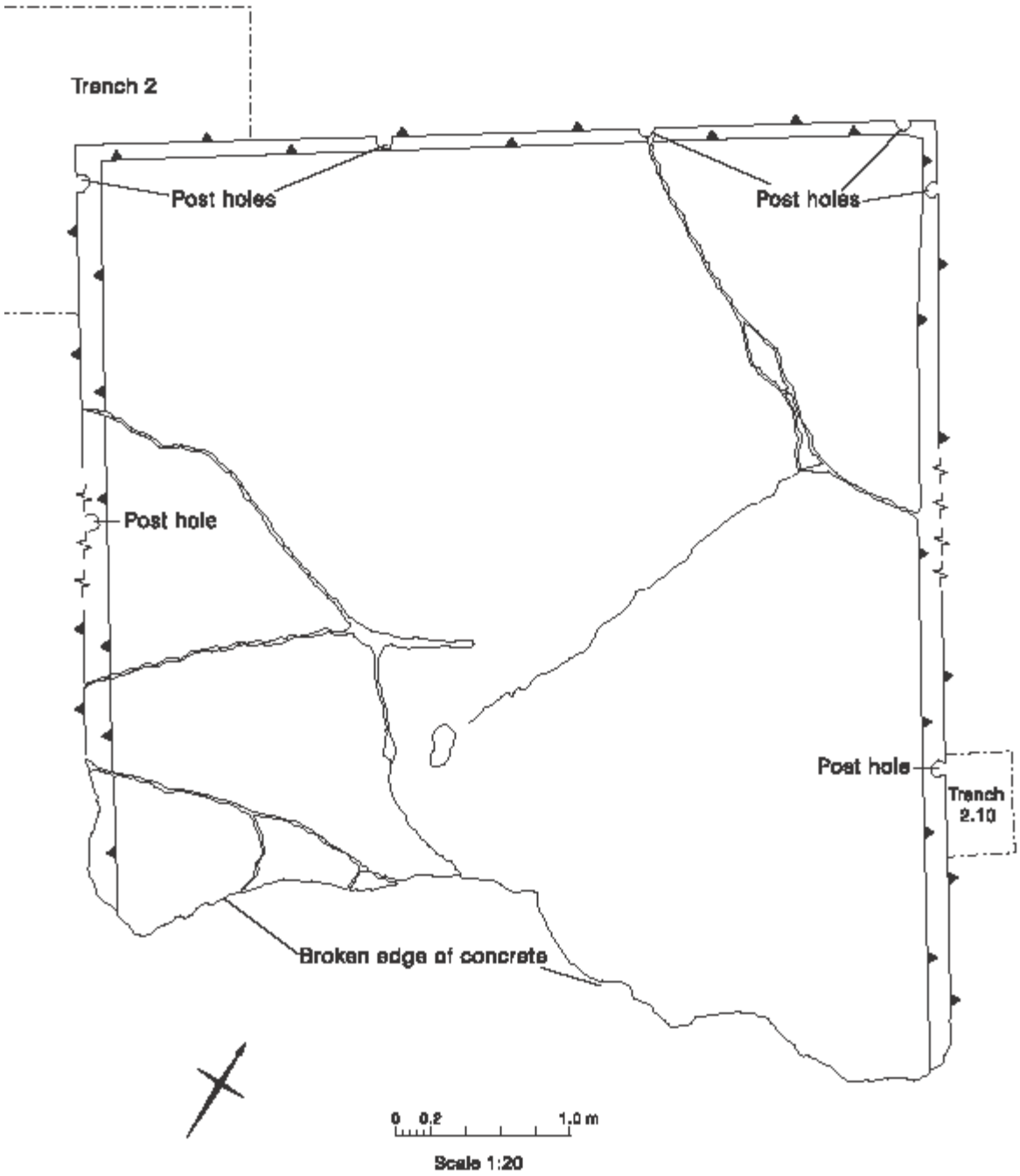


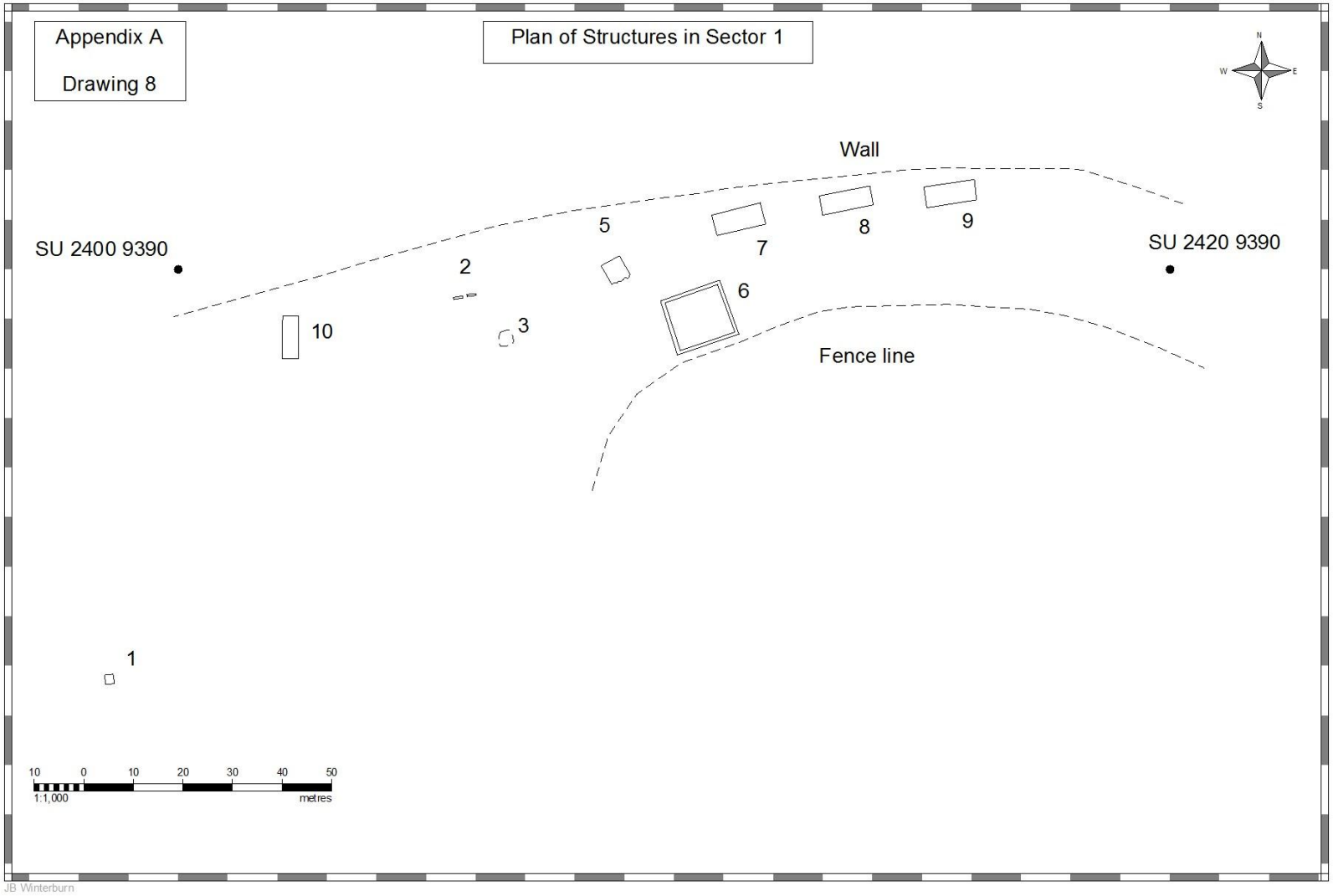
Appendix A

Drawing 7

CH 07 11

Structure 5



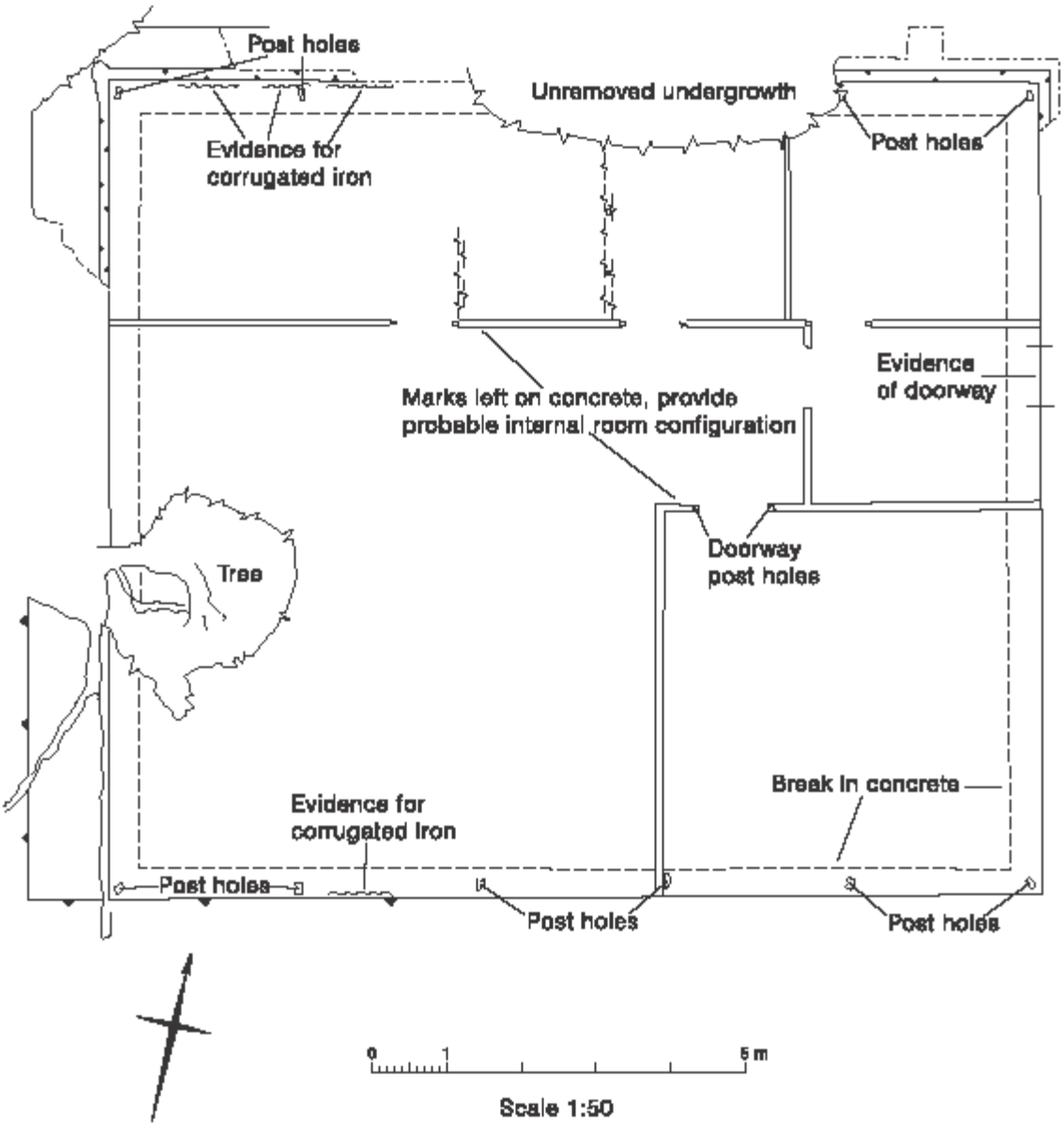

Appendix A
Drawing 8
Plan of Structures in Sector 1
N
W
E
S
Wall
SU 2400 9390
SU 2420 9390
1
2
3
5
6
7
8
9
10
Fence line
10 0 10 20 30 40 50
1:1,000
metres
JB Winterburn

Appendix A

CH 07 11

Drawing 9

Structure 6

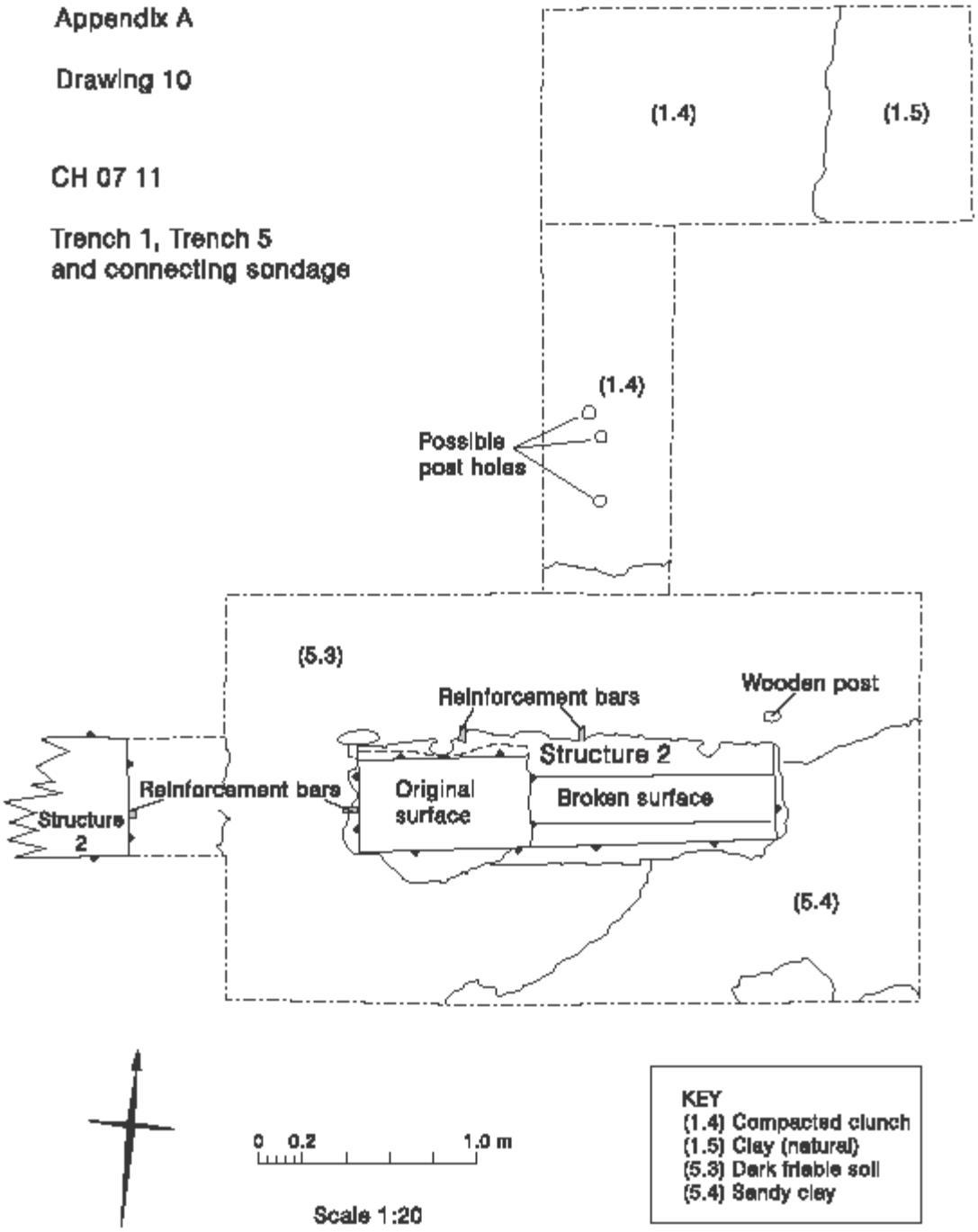


Appendix A

Drawing 10

CH 07 11

Trench 1, Trench 5
and connecting sondage



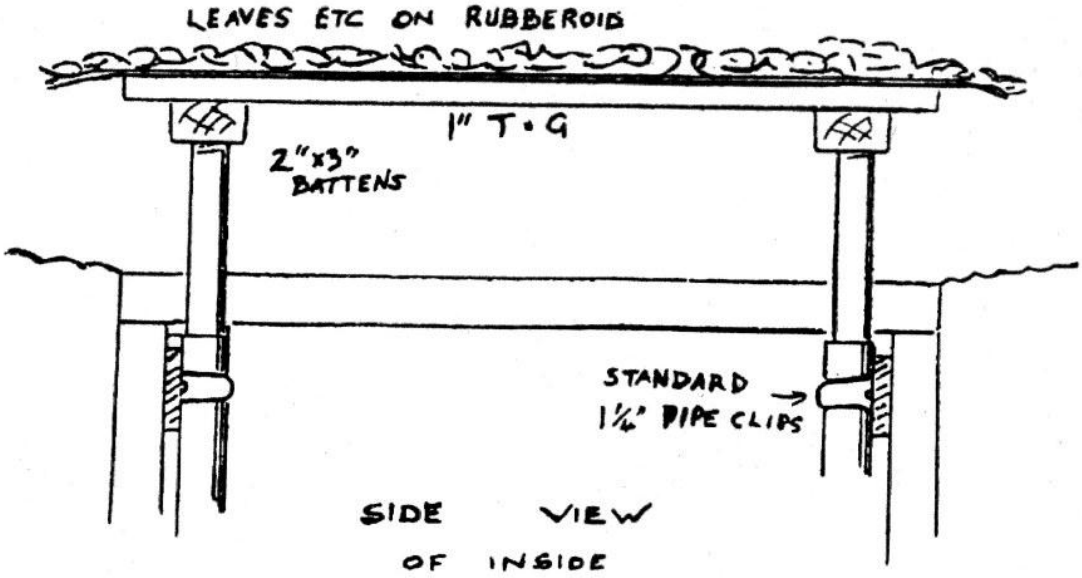
Appendix B – Updated Features Register

Primary Monument Record	NT SMR No.	Feature Name	Known Use	Suggested Use	Alternative Field Name	OS Grid Ref.		Notes
1	150697	Structure 1		Vehicle Inspection Ramp		SU 23986 93815		Excavated and recorded.
2	150698	Structure 2		Uncertain	Generator Room	SU 24063 93904		Recorded and planned. Archaeological investigation around the base of the structure.
3	150699	Structure 3		Uncertain	"Ammo Dump"	SU 24064 93885		A risk assessment report has been included within the Coleshill Uncovered report.
4	154009	Structure 4	OB		OB 1	SU 24487 93797		The NT restored OB.
5	154010	Structure 5	Hut Base		Hut 1	SU 24096 93898		Recorded and planned. Archaeological trench investigation.
6	154011	Structure 6	Hut Base		Hut 2	SU 24102 93890		Recorded and planned. Archaeological trench investigation.
7	154012	Structure 7	Hut Base		Hut 3	SU 24115 93911		Recorded and planned. Archaeological trench investigation.
8	154013	Structure 8	Hut Base		Hut 4	SU 24137 93915		Recorded.
9	154014	Structure 9	Hut Base		Hut 5	SU 24161 93921		Recorded.
10	154015	Structure 10	Hut Base		Hut 6	SU 24026 93891		Recorded and planned. Concrete hut base. 3 m x 7 m aligned N-S.
26	154016	Structure 11		Access hatch	Trench 6	SU 24570 93765		Possible Entrance shaft to OB.
11						SU 24140 93901		Hollow /depression 0.5m diameter.
13						SU 24698 93629		Area of significant disturbance. Approx 40m x 40m. Adjacent to building.
14						SU 24618 93566		Dry stone wall / building foundation. 6 m north of the ha-ha. Some worked stone and piles of rubble.

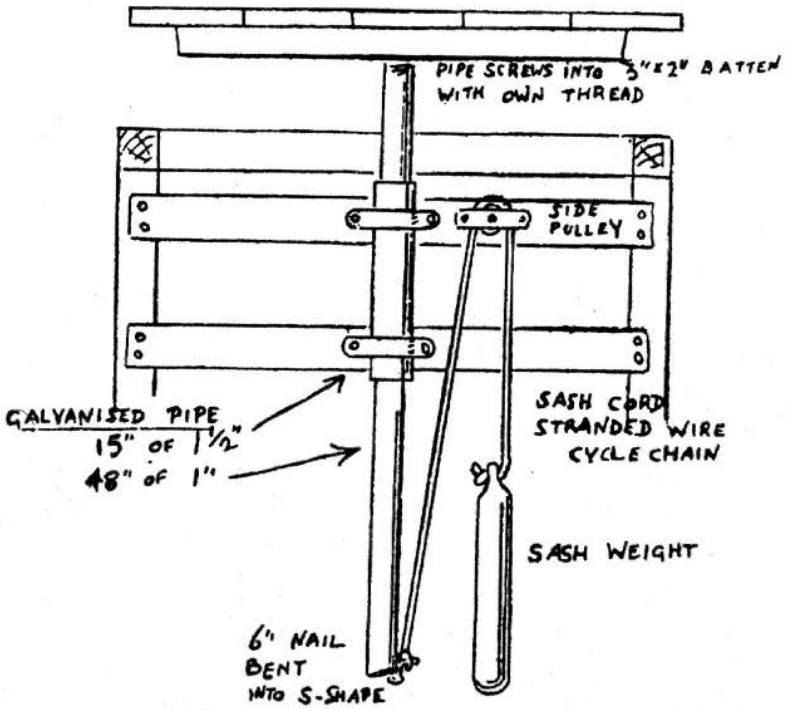
Primary Monument Record	NT SMR No.	Feature Name	Known Use	Suggested Use	Alternative Field Name	OS Grid Ref.		Notes
15						SU 24126 93904		Hollow, 1.5m diameter, up to 200mm deep. Adjacent to platform area and young trees.
16						SU 24083 93917		Rubble pile and concrete blocks adjacent to the wall.
17						SU 24051 93864		Hollow / depression, 1.5m x 2.5m aligned N-S.
18						SU 24293 93884		Depression and holes in the ground, 3m south of the perimeter wall. Ground surface is soft in this area.
19						SU 24099 93887		Concrete floor / base around the base of a tree stump.
20						SU 24072 93897		3 blocks of concrete / stone laid in the ground. Approx, 200mm x 200mm.
21						SU 24382 93835		A depression, 2m x 1m aligned N-S.
23						SU 24599 93778		Brick pier, toppled over, adjacent to the perimeter wall and piles of rubble.
24						SU 24621 93726		Depression 2m x 3m aligned E-W.
25						SU 24026 93829		A depression in the ground, 1m x 1.5m, aligned E-W.
27					Trench 8	SU 24556 93796		Spring-loaded hatch cover found at this location.
12		Not Used						The Primary Monument Number was previously used to record a find and is no longer required.
22		Not Used						The Primary Monument Number was previously used to record a find and is no longer required.

Appendix C - Drawing of vertical lift door

Kindly supplied by CART



VERTICAL LIFT O.B. DOOR



END VIEW OF INSIDE