

# Silverstone University Training College Silverstone Circuit Northamptonshire



## Archaeological Strip and Map Report

oxfordarchaeology



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# Silverstone University Training College, Silverstone Circuit, Northamptonshire

## *Archaeological Recording Action Report*

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## Summary

*Between December 2012 and June 2013 Oxford Archaeology conducted an archaeological recording action during the construction of the new Silverstone University Training College on the Silverstone Racing Circuit, Buckinghamshire (centred at NGR: SP 6763 4286).*

*The recording action observed features associated with the former WWII airfield such as perimeter tracks and recorded significant areas of truncation and deposits of made ground which are also probably associated with the construction of the airfield. Later conversion of the airfield into the racing circuit had also resulted in the truncation of some areas.*

*No evidence for activity pre-dating the 20<sup>th</sup> century, either in the form of features or residual finds, was encountered during the course of the recording action, although it is unclear if this was due to the level of truncation observed, the extent of made ground, or to the absence of recordable activity.*



## 1 INTRODUCTION

### 1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA), was commissioned by Interserve Construction Ltd to undertake a strip and map recording action during construction of a University Training College at Silverstone Circuit, Silverstone, South Northamptonshire.
- 1.1.2 The work was undertaken as a condition of the granting of planning consent. A brief for evaluation was issued by the Local Planning Authority Northamptonshire County Council (Northamptonshire County Council Planning Services 2012), but following discussions with Lesley-Ann Mather, the Northamptonshire County Archaeologist, an alternative programme of work comprising supervision of the removal of existing hardstanding and WWII airfield runways and dispersal pans and stripping to the base of construction level, and mapping of any revealed archaeological remains, was agreed. OA produced a Written Scheme of Investigation (WSI) showing how it would implement those requirements (OA 2012).
- 1.1.3 All work was undertaken in accordance with local and national planning policies.

### 1.2 Location, geology and topography

- 1.2.1 The area of proposed development is on the northern edge of the Silverstone Racing Circuit, which is located on the border between Buckinghamshire and Northamptonshire (Fig. 1). The site is mostly under grass, except for the concrete runways and dispersal pans from the old airfield. Along the south part of the site there is tarmac hardstanding.
- 1.2.2 The area covered by the development is centred at SP 67625 42855, at the northern edge of a flat plateau at c. 147m AOD and covers an area of approximately 2.4 hectares. The ground slopes down to the north and to the north-west towards the village of Silverstone 1.5 km distant. Valleys containing streams exist some 500m to the east of the site, draining northwards, and a little over 1km to the west.
- 1.2.3 The geology of the site is the Blisworth Clay formation - Mudstone, although the eastern part of the site also contains a localised 'island' of Glacial Sand and Gravel (British Geological Survey, Sheet no. 202).

### 1.3 Archaeological and historical background

- 1.3.1 The archaeological and historical background to the Silverstone Circuit was described in detail in the Cultural Heritage part of the Environmental Impact Assessment prepared for Terence O'Rourke PLC in 2001 (OAU 2001). This has been supplemented from the Northamptonshire HER by data relating to more recent archaeological discoveries and interventions for an area covering the 0.5km immediately around the site (see OA 2012, figure 2 for more detailed information). Sites described below are numbered on the drawing, and referred to as OA1, OA2 etc.
- 1.3.2 To summarise, there is no record of previous archaeological discoveries on or immediately adjacent to the site.
- 1.3.3 A Bronze Age barrow was apparently excavated by WF Grimes some 900m south-south-east of the site in 1941 prior to the construction of the WWII airfield (OA18; BHER 0727).



- 1.3.4 Nearly 1 km due east of the site an oval enclosure 65m by 45m survives as a cropmark. The banks were previously recorded as 2ft (0.6m) high, and the ditch as 4ft (1.2m deep). This is described by the HER as a possible late Iron Age enclosure (OA13; NSMR 753), and a second cropmark enclosure of similar dimensions is visible just to the south on an aerial photograph taken in 1955 (AP 6842001).
- 1.3.5 The Roman road between Towcester and Alchester Roman towns runs N-S some 500m east of the site (Margary 1967, route 160a), and is visible as a soilmark on air photographs. The agger is still visible where the road passes east of the site (OA12; NSMR 725).
- 1.3.6 Soilmarks of rectilinear and linear features are visible on air photographs just east of the line of the Roman road north-east of the site, and around 1 km distant. These may represent an enclosure and a series of trackways, but are undated (OA3 and OA4; NSMR 751 and 752).
- 1.3.7 Between the rectilinear and oval enclosures, and a little further east, a rectilinear enclosure possibly representing a medieval moated homestead, was levelled in the 1950s (OA5; NSMR 754). A watching brief in 1998 to the south did not reveal any significant archaeological remains.
- 1.3.8 South of the oval enclosure, and adjacent to the line of the Roman road on the east side, another group of soilmarks possibly indicating rectilinear enclosures has been seen on aerial photographs (OA20; BHER 5107). These lie immediately east of the chapel of Thomas à Becket (OA19), about 1.2 km south-east of the site.
- 1.3.9 Just south and north of this, ploughing of fields on the line of the Roman road revealed a number of prehistoric struck flints and a quern fragment possibly of early Iron Age date, several Roman coins, some abraded Roman pottery and tiles (OA21 and OA26; BHER 0726).
- 1.3.10 A cemetery of skeletons and weapons may be associated with Litchlake Farm 1km to the west of the site, as there is a reference to burials and a pond called 'Lychlake' (Linnell 1932). The date, and indeed the location of this, is however uncertain, and it may instead relate to one of the ponds south of the site near to Luffield Abbey Farm (OA31).
- 1.3.11 Due north of the site, and some 750m distant, an earthwork was noted, comprising a possible hollow way of medieval or post-medieval date (OA1; NSMR 745). Further observations have established that there appear to have been three trackways meeting in a triangular area, the trackways leading off to the north, south-west and south-east. None of the trackways is heading for the site. The northern trackway met an east-west trackway 150m further north (MNN4129).
- 1.3.12 The area of Silverstone Circuit lay within the royal forest of Whittlebury. This was a royal game-preserve, divided by Henry III into sections known as 'walks' (Linnell 1932, 188). Medieval forests had a legal meaning, being areas subject to forest law (with its own courts and officials), within which game and timber were reserved for the crown. Forests were neither exclusively wooded nor devoid of settlement, although forest legislation would have protected much of the land and limited the growth of settlement to some extent.
- 1.3.13 The forest contained the royal hunting lodge at Silverstone, whose location is unknown, though thought to lie near the parish church, ie 1.5km north of the Circuit (RCHM iv, 132). A deer park was also recorded in the 13th century, but has not been located (ibid., 132).





- 1.3.14 The site of Luffield Priory, a Benedictine monastery founded after AD 1118 and dissolved in AD 1494, lay from 500m to 100m to the south (OA14; MNN 11530). There are no visible surviving above-ground remains, but inhumation burials were recovered in 1967, there was an excavation in 1974, and numerous fragmentary ditches may indicate the position of the former monastic layout (NSMR 748; MNN124013).
- 1.3.15 The site of the 15th century chapel of St Thomas à Becket lay 1km south-south-east at Becketts Corner of the racing circuit. This later became a dwelling house, and was still standing, though derelict, until demolished for the aerodrome in 1943 (OA19; BHER 0728).
- 1.3.16 The Map of Whittlewood Forest, which dates to around AD 1600, is the earliest map of the site, and shows the area as largely wooded, though there are several assarts (clearings) within the woodland, as well as the larger cleared area around Luffield Priory.
- 1.3.17 The Northamptonshire extension of Stowe Park ran east-west some 500m to the south of the site, across part of what is now Silverstone Circuit (MNN136982). A corridor extended north-west up to the Brackley Road, but at no point was Stowe Park closer than 500m away.
- 1.3.18 The former WWII airfield (OA7), which was slightly larger than the present Silverstone Circuit, included concrete runways and dispersal pans on and crossing the site (MNN17558). The northern limits of the airfield appear to have been just north of the site. The main airfield buildings lie between 500m and 1km to the west and south-west.
- 1.3.19 The north-west corner of the Silverstone Circuit, and an area extending further to the north-west, were considered in a desk-based assessment (JSAC 2001), including an area of geophysical survey carried out in 1997. Subsequently an area of development was monitored by archaeological watching brief (OA16; ENN101951). No archaeological deposits were found (Abrams 2003).
- 1.3.20 Geophysical survey of 42 ha., comprising large areas immediately around the circuit and including a small area immediately north of the site, was carried out in 2011 (Northamptonshire Archaeology 2011). The surveys identified only two possibly archaeological features earlier than the WWII airfield, some 600m west of the site (north of OA16). The survey was however hampered by extensive spreads and below-ground features relating to the airfield, so this may not provide a true picture of previous archaeological activity, although it does suggest significant truncation over large areas.

### ***Previous Investigations***

- 1.3.21 Although no archaeological investigations had been conducted on the site, geotechnical investigations were carried out by Structural Soils Ltd (2012) prior to the start of construction. These comprised two boreholes (BH1-2), four machine-dug test-pits (TP1-4) and three concrete core holes.(CC1-3) The last of these only deal with surface modern concrete and asphalt. The others were widely spread around the northern half of the site (Fig. 2).
- 1.3.22 In TP1 and TP4 a brown or orange-brown clay extending to respectively 1.4m and 1m below ground was interpreted as Made Ground. A similar deposit was found in BH2 between them, but was not given an interpretation. In TP1 this was underlain by a layer blue-grey clay only 0.2m deep, and overlay a brown clay only 0.15m deep, both of which were also interpreted as Made Ground.
- 1.3.23 In BH1 a band of brown clay was encountered at 1.5-1.6m down, overlain by orange-brown clay, and overlaying a very similar clay. The level of the brown clay band is close



to the level of brown clay in TP1 to the north-east. In TP1 this clay overlay a grey and black clayey sand with a strong hydrocarbon odour, and this was also interpreted as Made Ground.

- 1.3.24 In TP2 and TP3 the deposits below topsoil or concrete were not interpreted as Made Ground. TP2 had a brown clay 1.6m deep, and TP3 an orange-brown clayey and sandy gravel 1.7m deep. These deposits are not similar to one another. In TP 3 this overlay a grey-brown clay with orange-brown mottles, and this appears to be the same as the deposit in TP4 to the south that underlies the orange-brown clay called Made Ground. In TP4 this grey-brown clay was also interpreted as Made Ground.
- 1.3.25 In TP2 a yellow-brown sand underlay the brown clay to a depth of 2.3m.
- 1.3.26 In attempting to interpret this information, it must be remembered that description of these deposits is not archaeological, and geologists often lump 'superficial deposits' because they of limited interest.
- 1.3.27 No particular modern inclusions are described to substantiate the modern date of Made Ground, although the deposit with hydrocarbon odour may well indicate that everything above it is indeed of recent origin. The brown clay found at 1.6m depth might be a buried topsoil. If these deposits are indeed modern, then links between the deposits across the site would appear to suggest that the whole area has been either excavated and backfilled, or raised by dumping, to a very considerable depth. The most plausible explanation would be that this area was subject to dumping to level the ground up for the WWII aerodrome.

### ***Potential***

- 1.3.28 The potential of the site is likely to have been severely truncated, or deeply buried, by the construction of the WWII airfield. If there are areas that were less affected by this, any archaeological remains within these parts of the site might still survive at depth.
- 1.3.29 Earlier prehistoric activity (Mesolithic, Neolithic and Early Bronze Age) is often sparsely scattered, consisting of small numbers of pits and treethrow-holes, and sometimes consists entirely of lithic material deposited on the ancient ground surface. There remains therefore a possibility that remains of any of these periods may be encountered. The discovery of prehistoric struck flints south-east of the site (see 2.1.9 above), together with the Bronze Age round barrow, shows that there was earlier prehistoric activity in the vicinity.
- 1.3.30 Later prehistoric activity in the vicinity is suggested by the quern fragment and the oval enclosure east of the site. Some of the rectilinear enclosures could also be of Iron Age date. On current evidence the potential for archaeological remains of the later prehistoric period is low to moderate.
- 1.3.31 Potential for Romano-British activity connected with the Roman road to the east is slightly higher, although this road is 500m away, and it is likely that settlement was concentrated closer to the road, as the evidence of cropmark enclosures seems to suggest.
- 1.3.32 It has previously been thought that the Boulder Clay of this area would have been thickly forested during this period (Steane 1974, 63), though this is unproven. Potential for activity of the Early Medieval period is uncertain, but probably low.
- 1.3.33 Luffield Abbey was clearly the focus of activity in the High Medieval period, but other possible settlements are also known, such as the moated enclosure to the east and the village of Silverstone to the north-west. There is a possible sunken lane or trackway



junction some way north of the site, but potential for High Medieval settlement within the site would appear to be low.

- 1.3.34 On the Map of Whittlewood Forest of AD1600 the site appears to have been wooded, and is still shown as wooded on the First Series Ordnance Survey 1" map of 1833, Wild Wood extending right across the site. This suggests that the site remained wooded for much of the post-medieval period, forming part of the area that incorporated rides laid out by Bridgeman in the 18th century, and preserved thereafter. It is possible that these rides were only formalised and extended by Bridgeman, and had existed previously in the ancient forest, as they were aligned on surrounding hamlets and churches (Pevsner and Williamson 1994, 671). Overall, the potential for post-medieval archaeology of significance is low.

## 2 PROJECT AIMS AND METHODOLOGY

### 2.1 Aims

2.1.1 The general aims of the archaeological recording action were ;

- (i) To determine or confirm the approximate extent of any surviving remains within the limits of the stripped area and within the constraints of the impact depth.
- (ii) To estimate the date range of any surviving remains from surface finds.
- (iii) To determine the degree of complexity of any surviving horizontal stratigraphy evident from intercutting features visible in the stripped surface.
- (iv) To assess the associations and implications of any remains encountered with reference to the historic landscape.
- (v) To use the already-recorded geotechnical test-pits to assess the character and depth of any vertical stratigraphy.
- (vi) To disseminate the results through deposition of an ordered archive at the local museum and the deposition of a detailed report at the Sites and Monuments Record.

2.1.2 The specific aims and objectives of the archaeological recording action were:

- To identify any archaeological features, layers or structures that may be present in plan through monitoring and supervision of the mechanical stripping for construction
- To signal the presence of archaeological activity as early as possible, and to ensure that this is preserved intact for further archaeological mitigation
- To record the extent of any such surface indications in plan to inform further archaeological mitigation strategy
- To recover artefacts uncovered in the surface of any archaeological features to assist in their dating and characterisation
- To look for artefactual evidence of surface activity in the past, such as spreads or individual finds of struck flint, burnt flint etc.
- To identify any deposits or features that may have potential for archaeological environmental information



## 2.2 Methodology

- 2.2.1 The recording action was conducted as a series of site visits to monitor operations that had the potential to disturb or destroy archaeological deposits.
- 2.2.2 These operations included the diversion of existing services, excavation of new service trenches, topsoil stripping, breaking out of existing surfaces, excavation of foundations pits and ground reduction (Fig. 2).
- 2.2.3 These excavations were accomplished using a tracked excavator fitted with a toothless bucket where practical. Where the presence of services made this impractical, hand tools were used.
- 2.2.4 All spoil generated by both the machine and hand excavations was examined for the presence of archaeological artefacts.
- 2.2.5 During the groundworks features and deposits were issued with unique context numbers, and context recording was in accordance with established OA practices (OA, 1991). Bulk finds were collected by context. Black-and-white negative photographs and a digital photographic record was taken of all excavations, general settings and archaeological sections.
- 2.2.6 Site plans showing the location of any excavations and any recorded sections were maintained. Section drawings of features and sample sections were drawn at a scale of 1:20.

## 3 RESULTS

### 3.1 Description of deposits (Figures 2 and 3)

- 3.1.1 The work was undertaken in two separate phases: works relating to the preparation of the site prior to the start of construction, and those relating to the construction of the building. Each phase of work will be described separately followed by an overall discussion and conclusion.
- 3.1.2 The preparation of the site included service trenching, topsoil stripping and the laying down of a pile mat.

#### ***Service Trenching***

- 3.1.3 These involved the re-routing of existing telecom and electric cables and the excavation of new foul water drains. These operations were undertaken concomitantly with the preparation of the site, including the demolition of the existing building on the site and the breaking out of the hardstanding, and continued during the excavation of the new building's foundations.
- 3.1.4 The re-routing of the cables consisted mostly of the removal of redundant cabling following the demolition of the original building, and followed the line of the original trenching without exposing any archaeologically significant deposits. The new cable trenching was within the footprint of the new building and duplicated the observations made during the excavation of the foundation pads (see below).
- 3.1.5 The new drain system consisted of a major deep trunk main running alongside the southern edge of the development area and connecting to existing services at either end, with a smaller, shallower spur running off to the north.
- 3.1.6 The trenching within the trunk main was 1.6m deep at its western end (Fig. 3, Section 4), increasing in depth to 2.2m at the eastern end (Fig. 3, Section 8).

- 3.1.7 At the deepest point a layer of orange-brown silty clay containing quantities of small sub-angular flint gravel (5) was encountered at a depth of 1.6m below ground level (Section 8). Above this layer was a 0.35m deep band of a pale reddish brown silty clay containing chalk flecking (3). This deposit ran the length of the trench, increasing in depth towards the west, and was at least 0.55m deep at the base of Section 4.
- 3.1.8 Overlying layer 3, and also running the length of the trench, was a deposit of light yellow-brown silty clay with chalk flecking and gravel inclusions (4) measuring between 0.8m and 0.9m in depth.
- 3.1.9 Lying directly above layer 4 was a layer of crushed and compacted sandstone up to 0.25m deep (1). This formed the hardcore base for a layer of tarmac, areas of which had been removed during the preliminary stripping of the site.
- 3.1.10 No finds were observed in any of these deposits throughout the length of the trench, nor any evidence for a buried topsoil horizon.
- 3.1.11 The spur running to the north was excavated to a maximum depth of 1m, rising towards the north.
- 3.1.12 At the base of the trench a continuation of the light yellow-brown silty clay (4) was observed (Fig. 3, Section 2). This was overlaid by a clean greenish-grey silty clay 0.22m deep (layer 2). Overlying 2 was a 0.3m deep layer of brown silty clay loam (6), the present day topsoil and turf.

### **Topsoil Stripping (Fig. 2)**

- 3.1.13 Topsoil stripping took place in three locations, to the east, north and north-west of the new building. In the north-west of the development area an area of approximately 3000m<sup>2</sup> was stripped, exposing a layer of light yellow-brown silty clay (layer 4) 0.3m below the current ground level. Along the northern edge of this area this was overlaid by a layer of grey brown silty clay (8) containing lenses of dark grey-brown clayey loam and inclusions of fragmented brick, tarmac and concrete. The full depth of this deposit was not exposed, but it was at least 0.15m deep.
- 3.1.14 Cut into the surface of both layers 4 and 8 were two features (17 and 18) aligned roughly north-south (Fig. 2).
- 3.1.15 Feature 17 was a concrete track 2.8m wide running NNE-SSW across the stripped area. This was constructed using a hardcore base of crushed and broken brick 0.12m deep covered by approximately 0.14m of concrete. The concrete had later been broken up (presumably to aid drainage), but had been left *in situ*.
- 3.1.16 Feature 18 was a road or track surfaced with tarmac, also 2.8m in width. This ran at a slightly different alignment to 17 across the stripped area, closer to NE-SW. The tarmac surface was 0.12m deep, and overlay a layer of hardcore composed of crushed concrete and brick 0.12m deep.
- 3.1.17 Both features had been covered over by the present day topsoil and turf (6), a clean layer of dark brown silty clay loam up to 0.25m deep, which also overlay layers 4 and 8 elsewhere.
- 3.1.18 No other features were seen in the surface of layers 4 or 8.
- 3.1.19 Surveying of the area after the topsoil strip showed it to be below the proposed formation level, and no further ground reduction was undertaken.



- 3.1.20 To the east of the new building an area of approximately 1500m<sup>2</sup> was stripped and reduced in height. Originally intended as games pitches, it was decided to use this area for car parking, rather than the area north-west of the building.
- 3.1.21 As part of the new scheme an area measuring 50m by 30m was reduced in level by approximately 0.25m. This ground reduction was wholly contained within a layer of dark yellow-brown silty clay loam (19) containing small sub-angular river flints and gravels. The present day turf layer formed the top of this deposit.
- 3.1.22 North of the new building an area of approximately 400m<sup>2</sup> was stripped in order to provide additional hardstanding. This exposed a clean deposit of orange-brown clayey silt (9) across the whole area. Layer 9 was overlaid by a layer of dark brown silty clay loam 0.25m deep; this was probably a continuation of layer 7.
- 3.1.23 No other features or deposits were observed during the either the topsoil stripping or ground reduction in these areas.

#### ***Breaking out of the hardstanding***

- 3.1.24 Prior to the start of piling and the excavation of the foundation pads for the new building, the area around its footprint, which was formed of a mixture of concrete and tarmac hardstanding up to 0.25m deep, was broken out and removed. Exposed throughout the area was an overall layer of pale reddish brown crushed sandstone (1). Subsequent work showed this deposit to be between 0.12m and 0.25m deep. Following the removal of the hardstanding surveying established that there was no need for any further ground reduction within this area.

#### ***Excavations for the New Building***

- 3.1.25 The piles, consisting of compacted stone within a shaft driven using a vibrating former, were driven directly through the pile mat into the ground below.
- 3.1.26 Following the driving of the piles, a series of holes for foundation pads was excavated, the holes measuring between 2m square and 7m by 3m across and up to 1m deep (Fig. 2). All the excavations were monitored, and even though no significant archaeology was observed a selection of sections showing the prevailing stratigraphy was recorded (Fig. 3).
- 3.1.27 At the south-east corner of the site excavation for a foundation pad created a hole 3m square by 1m deep (Section 1). At the base of the section a continuation of the pale reddish brown silty clay (3) was observed. This was overlaid by a 0.2m deep layer of greenish grey silty clay (2). Lying directly above this deposit was the crushed sandstone hardcore (1), 0.25m in depth. The piling mat measured 0.25m deep at this point.
- 3.1.28 Excavation for a larger foundation pad, 7m by 3m and 1.5m deep, was carried out within the north-east corner of the site (Section 3). At the base of this a layer of light yellowish brown silty clay (a continuation of layer 4) was encountered. Above this was a 0.3m deep continuation of layer 2. Here the sandstone hardcore, 1, was 0.12m deep, and was overlaid by the piling mat. The same stratigraphy was observed within a foundation pad on the southern edge of the site (Section 6).
- 3.1.29 On the northern edge of the building footprint a second large hole for a pad was excavated, but only to a depth of 0.9m (Section 7). The reddish-brown silty clay (3) was exposed in the base of the excavation, and was directly overlain by a 0.12m deep layer of the crushed sandstone (1). The depth of the piling mat at 0.55m reflects the underlying slope.



- 3.1.30 A group of three holes for foundation pads, roughly within the centre of the footprint, all displayed similar stratigraphy (Fig. 3, Sections 5, 9 and 10). The light yellow-brown silty clay 4 was exposed within the base of all three pads. Directly overlying this was the crushed stone hardcore, 1, measuring up to 0.18m in depth. The piling mat had been laid above this (Plate 1).
- 3.1.31 Towards the western edge of the new build two further holes for pads exposed the reddish brown silty clay (3) at the base of the excavations (Fig. 3, Sections 11 and 12). Overlying this layer was a 0.22m deep layer of green-grey silty clay, a probable continuation of layer 2. In both pads this was covered by the crushed stone hardcore, 1. The piling mat had been laid directly above this (Plate 2).
- 3.1.32 Towards the north-west corner of the build identical stratigraphy was recorded within the holes for another two foundation pads (Fig. 3, Sections 13 and 14). As with the holes immediately to the east, the reddish brown silty clay (2) was observed at the base of the excavations. Within the area of these holes this was overlaid by a layer of light yellow-brown silty clay, a continuation of layer 4 measuring between 0.3m and 0.4m in depth. As elsewhere the crushed sandstone 1 had been laid directly over layer 4, with the piling mat laid over layer 1.

#### ***Excavation for the Attenuation Tank***

- 3.1.33 A large pit approximately 35m x 5.5m and up to 3.5m deep was excavated to accommodate a tank holding rain and grey water. This was sited within an area of tarmac hardstanding to the south of the new building (Fig. 2).
- 3.1.34 This work was carried out using a 21 tonne tracked excavator in two stages. During the first stage a trench roughly 0.7m wide was dug around the perimeter of the tank, and the sheet metal piling and reinforcing frame installed. The second stage included the excavation of the material inside the piling box and the insertion of additional shoring.
- 3.1.35 Excavation of the material was monitored until undisturbed natural deposits were exposed within the base of the excavation, after which the machining proceeded without monitoring. The stratigraphy observed was similar throughout the length of the excavation and only sample sections will be described (Fig. 3).
- 3.1.36 During the excavations for the sheet piles a clean layer of yellowish grey gravel (16) was exposed at a depth of 1.5m below the level of the tarmac (Fig. 3, Section 17). Above this was a layer of greenish grey clay (15) some 0.35m deep (Sections 16 and 17; Plate 3).
- 3.1.37 During the reduction of the interior it became clear that this layer was overlaid by a layer of yellow-brown silty clay (14) between 0.25m and 0.35m deep (Sections 15, 16 and 17). Above layer 14 was a band of dark greenish grey-brown silty clay (13), which was 0.55m deep. A layer of crushed sandstone (12) measuring between 0.1m and 0.22m deep had been laid directly upon layer 13.
- 3.1.38 At the eastern end of the excavation the crushed sandstone had been overlaid by a deposit of crushed limestone (11) (Section 15). This was 0.1m deep. Both of these layers of crushed stone formed a hardcore base supporting the tarmac hardstanding (10).
- 3.1.39 No buried soil horizons or archaeological features were observed during the excavation of the pit.



### 3.2 Finds

- 3.2.1 Little dating evidence was recovered during the course of the recording action. Artefacts mainly consisted of building material such as brick fragments and short lengths of piping, wire and reinforcing bar, all of which came from deposits either associated with the construction of parts of the airfield or from their subsequent demolition. The presence of this material was recorded, but it was not retained.
- 3.2.2 No evidence pre-dating the 20th century was recovered.

### 3.3 Environmental remains

- 3.3.1 No deposits suitable for palaeo-environmental sampling were encountered during the course of the watching brief.

## 4 DISCUSSION AND CONCLUSIONS

- 4.1.1 The observations from the watching brief will be discussed individually followed by an overall discussion and conclusion.
- 4.1.2 The deeper excavations were largely confined to the southern half of the site, and did not reach its western or eastern limits. The deposits exposed were generally consistent across the area examined, with the exception of the very southern edge of the site, where the lowest deposits exposed included gravel (16) in Section 17, which was overlain by a layer of clay (15) not seen further north.
- 4.1.3 The trial pits and boreholes made before the works began largely lie in the peripheral areas of the site, outside the areas examined during the archaeological watching brief. Only BH2, TP2 and TP4 lie close enough for confident comparison of the deposit sequence.
- 4.1.4 The excavations exposed several layers of undisturbed natural throughout the area of the investigation. The earliest deposits were the gravel (16) in Section 17 and gravelly silt (5) in Section 8. Layer (16) is presumably equivalent to the gravel in TP4, and possibly also to the sand in TP2, while layer (5) is presumably equivalent to the orange-brown clay and gravel that overlies the gravel in TP4. These are probably part of the island of natural glacial sands and gravels recorded in the geological survey.
- 4.1.5 Layers 15, 3, 4 are all probably layers of natural clay. The presence of chalk flecking may indicate the inclusion of weathered material from elsewhere, deposited by water or glacial action. The differing colour of layers 4 and 3 may be due to post-depositional leaching, although layer 4 also included gravel inclusions. Certainly no distinction was made in TP2 and BH2 between these deposits, which were described as grey-brown or brown clays. These probably result from weathering of more local origin. Layer 14 is most probably a continuation of layer 4.
- 4.1.6 Although these layers were very clean, the engineers on site thought that layer 4 might be Made Ground, due to the chalk inclusions. In TP4 the equivalent deposits are also described as Made Ground. It is certainly true that the change between layers 4 and 8 seen on the north-west side of the site was both straight and very clean (Fig. 2; see also 4.1.9 below), and the depth of made ground in TP1 only 15m north of this boundary was 1.75m, meaning that, if layer 4 is natural, the slope down to the north-west would have had to be very steep here. If layer 4 (and its proposed equivalent layer 14) were Made Ground, then all of the site is covered by made ground to a considerable depth. It is also then possible that layer 3 represents a buried topsoil, much compacted by the made ground deposited on top.





- 4.1.7 The similarities between layers 2 and 13 suggest that they are probably part of the same deposit. With the exception of section 11, these deposits were restricted to the southern and south-eastern parts of the site. Although no dating evidence or evidence of activity was observed within them, their appearance and compaction made it unclear if they were natural deposits or layers of Made Ground composed of redeposited natural.
- 4.1.8 Layer 9 lies close to the positions of both TP2 and BH2, and is probably equivalent to the brown clay described within them. The composition of layer 9 may indicate a possible earlier ploughsoil horizon towards the top of this clay, but again the lack of evidence of activity makes this conclusion tentative.
- 4.1.9 Both the position and composition of layer 8 show that it was a layer of Made Ground, described in TP1 as 1.4m deep, and overlying further layers of made ground to a combined depth of 1.75m. Its composition is of redeposited natural clays and 20th century construction debris, while its location as the natural slope tips down towards the north-west indicates that it was laid as a levelling layer. Its stratigraphic relationship with the natural clay 4, which it overlay with no intervening layer of topsoil, appears to indicate that the area had been stripped before its deposition. No evidence of layer 8 was seen in either section 7 or section 3. The eastern boundary presumably lay between the two stripped areas, as it was not seen in the area north-east of the new college building.
- 4.1.10 The two trackways observed, 17 and 18 appear to be contemporary despite the differences in construction and are most likely part of the same event as the deposition of layer 8.
- 4.1.11 Layer 6 is a layer of topsoil and turf, and is most likely to be a landscaping layer composed of the topsoil stripped from the area prior to the deposition of layer 8. Although the deposit appeared to cover the two trackways, the observation that the two trackways had been broken up but not removed (an action commonly done to aid drainage when surfaces are landscaped over) may suggest that they were covered over at a later date with similar material.
- 4.1.12 Layer 7 is similar to layer 6, and is probably a continuation of it.
- 4.1.13 The layers of crushed (Type 1) stone 1, 11 and 12 (Fig. 3) appear to be contemporary and provide a hardcore base for the tarmac and concrete surfaces numbered 10.

### **Conclusions**

- 4.1.14 The north-west part of the site was clearly infilled with Made Ground to a considerable depth. The presence of a probable buried topsoil beneath the Made Ground in TP1 suggests that this material was being used to level up a natural slope.
- 4.1.15 It is possible that redeposited material was also spread across most of the rest of the site as layer 4. There was however no buried topsoil observed below layer 4, unless this was in fact layer 3, much compressed by the made ground on top.
- 4.1.16 Whether these deposits were natural or Made Ground, no archaeological finds or features were recovered from them or from the layers exposed beneath.
- 4.1.17 Elsewhere, the fact that layers of hardcore 1, 11 and 12 directly overlay clay deposits, together with the apparent absence of any original topsoil or ploughsoil horizons (except perhaps for layer 9), suggest that the whole of the development area has been truncated, possibly by removing topsoil as a preliminary to facilitate the levelling of the area. The most likely explanation for these actions is the construction of the WWII



Silverstone Airfield, RAF Silverstone, in 1942. The airfield became operational in 1943 (Plate 4).

- 4.1.18 The trackways observed, 17 and 18 are also probably associated with its construction and represent internal trackways linking dispersal areas. Their alignment matches that of the tracks linking the dispersal areas and they may represent different phases of construction during the airfield's life.
- 4.1.19 It is probable that the layers of hardcore, and also possibly parts of the tarmac and concrete surfaces that were encountered, formed part of the airfield, and were later incorporated into the present day racing circuit when the airfield was decommissioned in 1960.
- 4.1.20 It is unclear to what degree, in both in depth and extent, this truncation has destroyed any potential archaeology within the development area. Topsoil stripping will have removed any evidence of earlier agricultural practises and potential residual finds, while additional ground reduction may have removed any evidence for features pre-dating the 20<sup>th</sup> century within the area. The absence of any truncated features may be due to the depth of truncation, but it is equally possible that there had been little activity within the area.
- 4.1.21 There is still potential for archaeological deposits and features to have survived to the north-west of the development area where a visual survey suggests that the natural topography of the area has been terraced over. Layer 8 represents only the southern edge of these levelling deposits.



## APPENDIX A. ARCHAEOLOGICAL CONTEXT INVENTORY

Context	Type	Depth	Width	Length	Comments	Finds	Date
1	Layer	0.12m – 0.25m	> 30m	> 60m	Layer of crushed (Type 1) sandstone, base for areas of tarmac and concrete hardstanding	Iron piping, brick	C20th
2	Layer	0.15m – 0.25m	-	-	Clean deposit, possibly levelling layer of redeposited natural ?	-	C20th ?
3	Layer	> 0.3m	-	-	Natural clay (or buried topsoil?)	-	-
4	Layer	Up to 0.8m	-	-	Natural clay or redeposited natural clay	-	-
5	Layer	> 0.6m	-	-	Natural gravels within a clay matrix	-	-
6	Layer	0.15m – 0.25m	-	-	Topsoil and turf, probable landscaping layer	-	C20th
7	Layer	0.25m	-	-	Topsoil and turf, probable landscaping layer	Brick	C20th
8	Layer	>0.15m	> 12m	> 30m	Made Ground, levelling layer of mixed material probably associated with the 1930s airfield construction	Brick, tarmac, concrete	C20th
9	Layer	> 0.1m	> 12m	> 15m	Subsoil, unclear if earlier ploughsoil or Made Ground similar to 8	-	-
10	Surface	0.2m	> 10m	> 30m	Tarmac hardstanding, unclear if part of the old airfield or later reuse as a racing circuit	-	C20th
11	Layer	0.1m	6m	> 2m	Lens of crushed (Type 1) limestone hardcore	-	C20th
12	Layer	0.1m – 0.25m	> 10m	> 30m	Layer of crushed (Type 1) sandstone, hardcore base for tarmac hardstanding 10	Iron piping, brick	C20th
13	Layer	Up to 0.45m	> 10	> 30m	Clean deposit, possibly layer of redeposited natural ?	-	C20th ?



14	Layer	Up to 0.3m	-	-	Natural clay or redeposited natural clay, probably = layer 4	-	-
15	Layer	0.4m	-	-	Natural clay	-	-
16	Layer	> 1m	-	-	Natural gravels	-	-

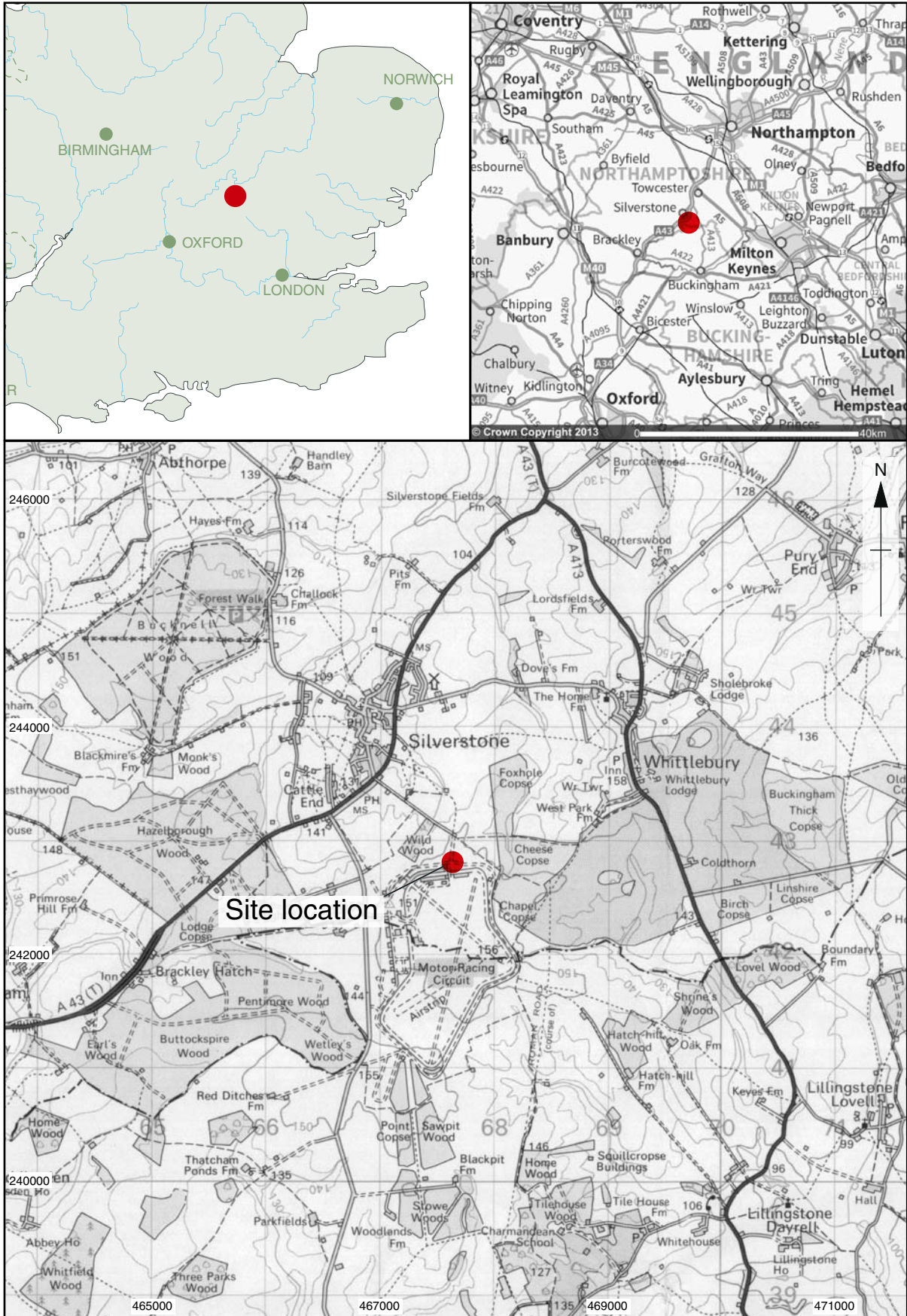
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## APPENDIX C. SUMMARY OF SITE DETAILS

Site name:	Silverstone University Training College, Silverstone Circuit, Northamptonshire
Site code:	SITC 12
Grid reference:	Centred at NGR SP 6763 4286
Type of watching brief:	Machine excavation of service trenching and foundations, topsoil stripping and ground reduction.
Date and duration of project:	Between December 2012 and June 2013, 7 months
Area of site:	Approximately 1 hectare
Summary of results:	<p>The watching brief observed features associated with the former WWII airfield such as perimeter tracks and recorded significant areas of truncation and deposits of made ground which are also probably associated with the construction of the airfield. Later conversion of the airfield into the racing circuit had also resulted in the truncation of some areas.</p> <p>No evidence for activity pre-dating the 20th century, either in the form of features or residual finds, was encountered during the course of the watching brief, although it is unclear if this was due to the level of truncation observed or to the absence of recordable activity.</p>
Location of archive:	The archive is currently held at Janus House and will be deposited with an appropriate museum when space becomes available.



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Figure 1: Site location

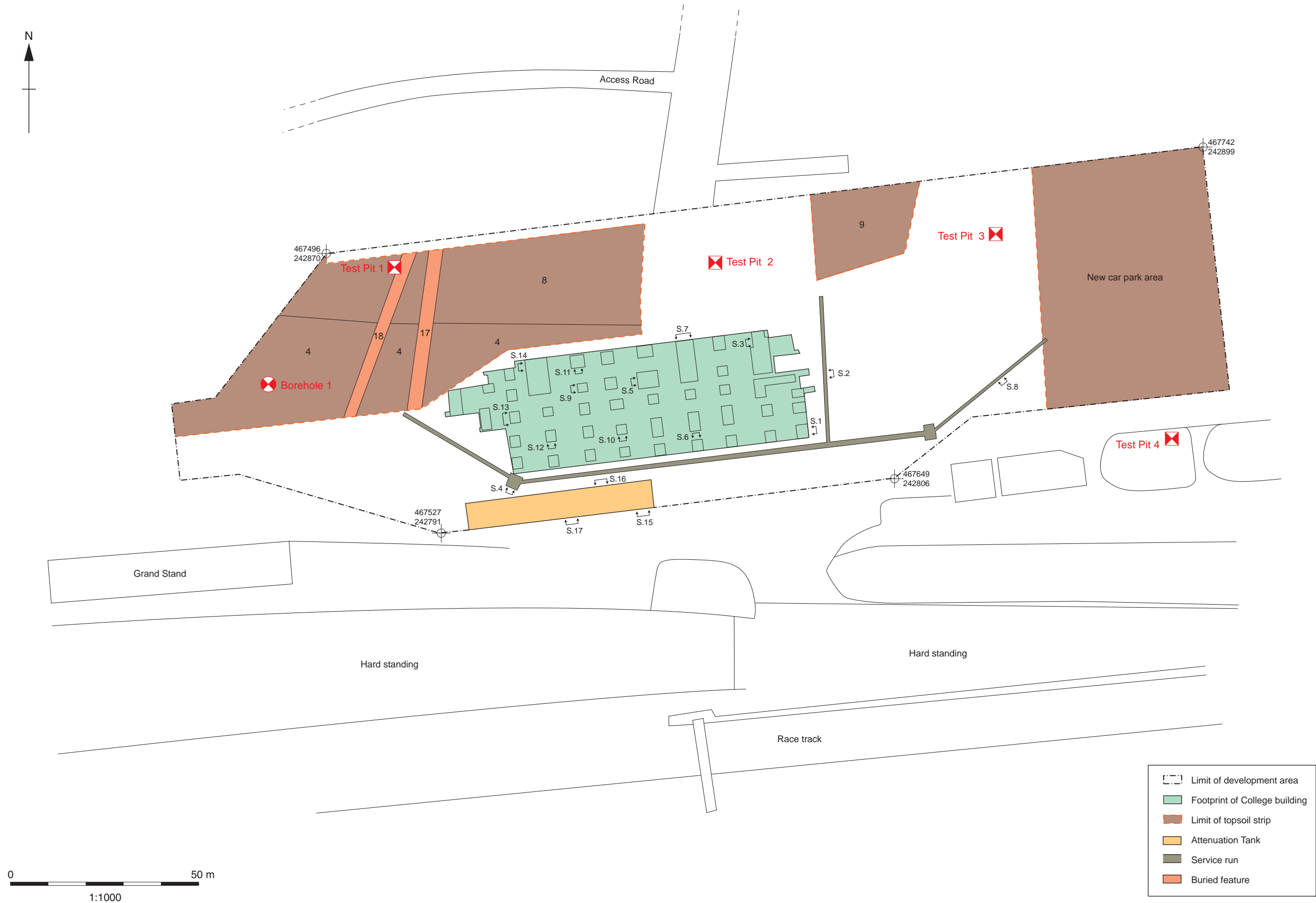


Figure 2: Site plan



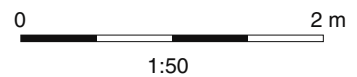
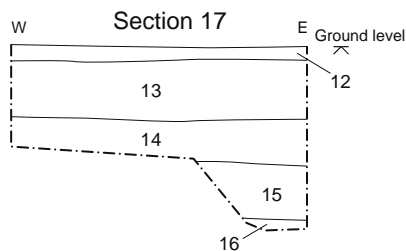
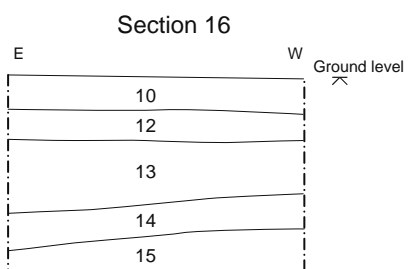
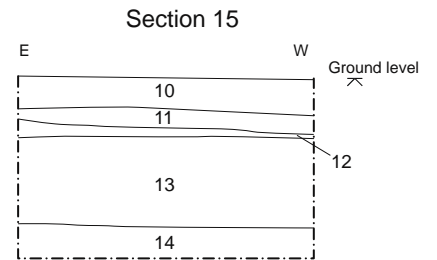
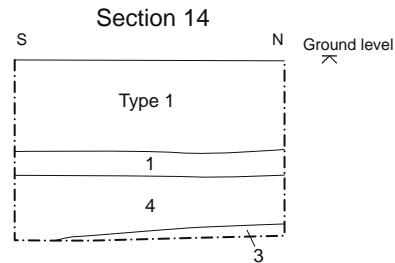
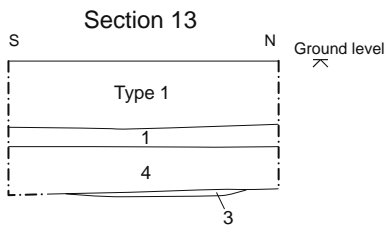
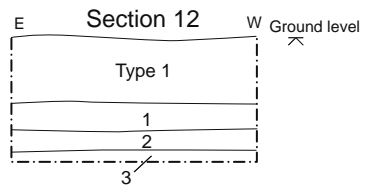
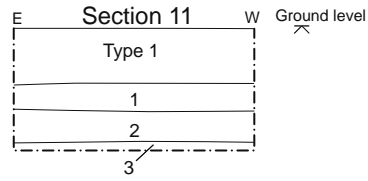
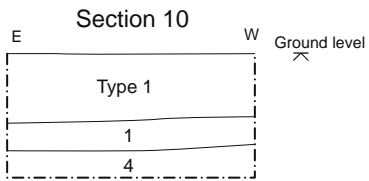
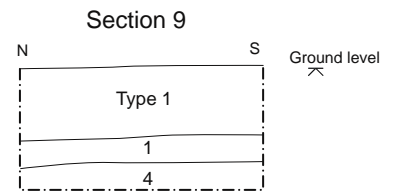
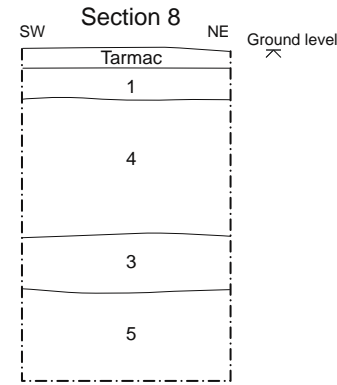
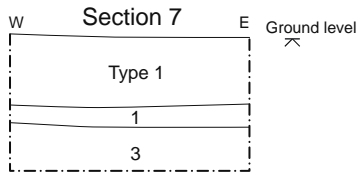
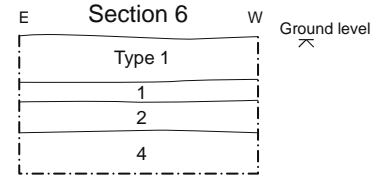
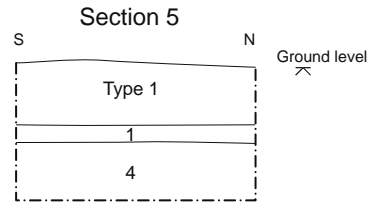
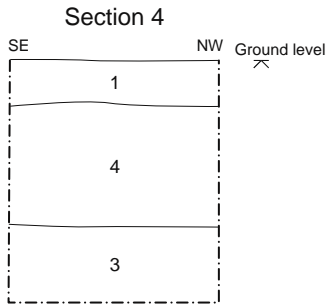
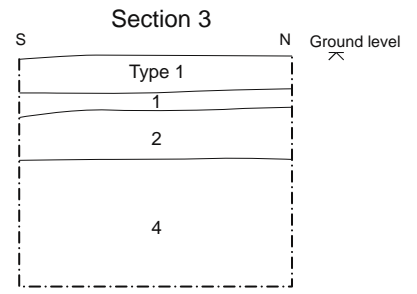
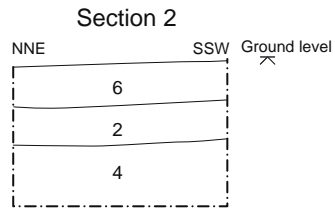
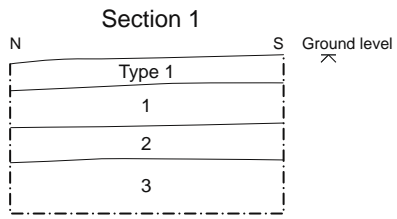


Figure 3: Sections





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