University of Leicester

Archaeological Services

An archaeological field evaluation to the rear of the Victoria Building, Leicester Royal Infirmary, Infirmary Road, Leicester (SK 5870 0363)

Leon Hunt

ULAS Report No 2014-150

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for

Interserve Construction Limited

Checked by Project Manager

Signed: 

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Summary

An archaeological field evaluation was carried out by University of Leicester Archaeological Services (ULAS) to the rear of the Victoria Building, The Royal Infirmary, Infirmary Road, Leicester (SK 5870 0363).

The work was commissioned by Interserve Construction Ltd in advance of the proposed development of the site for a new Accident and Emergency Services building.

The site lies on a section of lawn to the rear of the Victoria Building. A trench measuring 10m x 5m was excavated on the site.

The site lies close to the line of a Roman road and the aqueduct for Roman Leicester may have passed through the site. The Royal Infirmary also lies on the site of the medieval chapel of St. Sepulchre and its graveyard, which was in existence before the 12th century and was possibly still in use by the end of the 16th century.

Previous excavations within the hospital grounds had exposed burials throughout the general area. The public gallows lay nearby and many of those interred there would have been execution victims.

The sequence within trench consisted of topsoil lying over layers of made-up ground and re-deposited clay, containing fragments of human bone. The made-up ground lay over a fairly undisturbed layer of buried soil over the natural sub-stratum of red clay. The trench was excavated to a depth of between 1.35m and 1.67m.

A single inhumation was discovered close to the south-western end of the trench. This was left in situ after being basically recorded. It was mostly intact, apart from the damage from the machine during its discovery. It lay facing north-east and was apparently 1.85m tall, suggesting a male individual, although this was not clear.

It presence suggests that the graveyard extended into this area and therefore there is potential for further burials to be disturbed during any development on the site.

Introduction

University of Leicester Archaeological Services (ULAS) were commissioned by Interserve Construction Ltd to carry out an archaeological field evaluation to the rear of the Victoria Building, The Royal Infirmary, Infirmary Road, Leicester (NGR: SK 5870 0363).

Planning consent is to be sought for the development of the site for the construction of a New Accident and Emergency Services building.

This archaeological work is in accordance with NPPF Section 12: Enhancing and Conserving the Historic Environment.

The line of the Tripontium Roman Road and the Roman water system known as the 'Rawdykes' may pass through the Infirmary site. The medieval chapel of St. Sepulchre lay in the area around the hospital, along with its associated burial ground.

A number of burials have been found during previous construction work in the Infirmary grounds.

Location and Geology

The site itself lies on a rectangular area of grass to the rear (south-west) of the Victoria Building, within the grounds of the Royal Infirmary. The Victoria Building lies on the western side of Infirmary Road, Leicester to the direct south of the city centre (Figure 1).

The grassed area covers around 1160 square metres, is flat and lies at a height of around 60m aOD. The grassed area and the walkway to the west lie upon a terrace around 2m above the car park to the south-west, suggesting that the land originally sloped down here.

The British Geological Survey indicates that the underlying geology of the area is likely to be Branscombe Mudstone Formation, overlain by Syston Member sand and gravel in places.

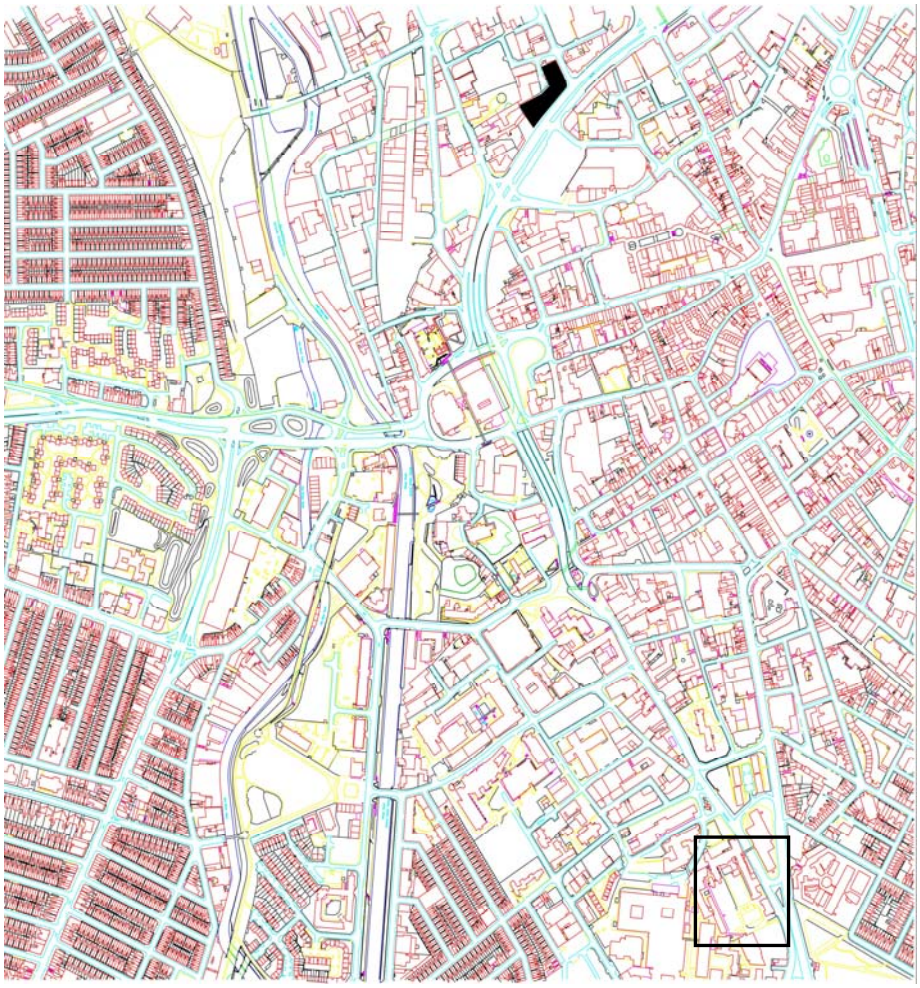

Figure 1: Site Location

Historical and Archaeological Background

Palaeolithic implements were identified during gravel extractions at Jarrom Street, near the River Soar close to the Infirmary.

The site is located approximately 700 metres outside the south gates of the Roman city and may be close to the line of the 'Tripotium' Roman road, and the aqueduct system for the Roman city, known as the 'Rawdykes'.

The Rawdykes excavations were carried out by Kenyon in the 1940s and exposed a section of the bank and ditch earthworks close to Aylestone and Saffron Lane, which is still visible. The remains are orientated north-east to south-west and are thought to follow the 60-metre contour. It is thought that they were partially reused by Royalist forces during the siege of Leicester in 1645. Early maps show that in the 19th century the earthworks were present as far as Brazil Street. There is no conclusive evidence that they existed as far north as the Royal Infirmary and excavations in the area have revealed no sign of them (APS 1998 and ULAS 1995).

The 'Tripontium' road was a Roman route believed to run from Leicester to Lutterworth. It is thought to follow the line of Aylestone Road out of Leicester, as indicated by the remains first uncovered during the excavations at Bonners Lane in 1994 (Finn 1994) and confirmed by more recent sites on Grange Lane. The suggested projection of the road may pass through the Royal Infirmary site.

During the medieval period the former chapel of St. Sepulchre was located beyond the south wall of the medieval town and formed the boundary of the Castle ward. It was not a parish church, but belonged to St. Mary de Castro church and is known that been in existence before the end of the 12th century (Billson 1920).

The public gallows were located nearby and the bodies of those executed were buried within the cemetery of the St. Sepulchre. By the beginning of the 16th century the chapel was known both as St. Sepulchre and St. James and was in poor state of repair. It was still present in 1572 and Nichols has said that some of the walls were still standing at the time of Reverend Samuel Carte, who died in 1740 (Billson 1920). A number of burials have been found during the construction of the Royal Infirmary buildings, towards the northern side of the site.

During the development of the Infirmary in the 1860s a stone coffin containing a female burial was discovered. These were not the only remains recovered as the governors ordered that two coffins be made available to contain the human remains that were revealed. Nine more skeletons were found in May 1961. These were two feet below the surface of a trench dug across the Infirmary Road entrance (Leicester Historic Environment Record).

The programme of research carried by APS in 1999 revealed over twenty full or partially surviving burials and the remains of at least thirty individuals were recorded (Taylor 2000). The orientations of the graves suggested two phases of burial and their distribution also indicated the possible northern and eastern limits of the cemetery, although no formal boundaries were revealed. Only one coffin burial was clearly identified. A possible shroud pin was recovered from a separate burial and few sherds of 12th-century pottery from one burial represented the only dating evidence retrieved from graves.

The Royal Infirmary was established in 1771 south of Leicester on a five-hectare site immediately south of the city known as 'Chapel Close' (Frizelle 1971). After severe

damage caused in 1645, the town gates had been finally taken down in 1774 (Frizelle 1971). This provided impetus for settlement outside the earlier town limits. Within a few years the expansion of the city was already threatening to engulf the hospital.

In the 1830s the Infirmary acquired more land. The hospital limits were now defined by Cow Lane (Bridge Street), Infirmary Street and Parliament Street (Frizelle 1971). In the 19th century, there was further expansion southwards resulting in the demolition of houses on Parliament Street, which dated to the 1820s. Since the early 20th century, the Royal Infirmary had been buying houses close to the hospital with a view to expansion. A large scale programme of 'slum clearance' was undertaken in the middle of the century in order to make way for further expansion of both the Royal Infirmary and the former Polytechnic (De Montfort University). This expansion began with the destruction of Knighton Street in the 1930s and continued until the 1970s (Courtney and Courtney 1992).

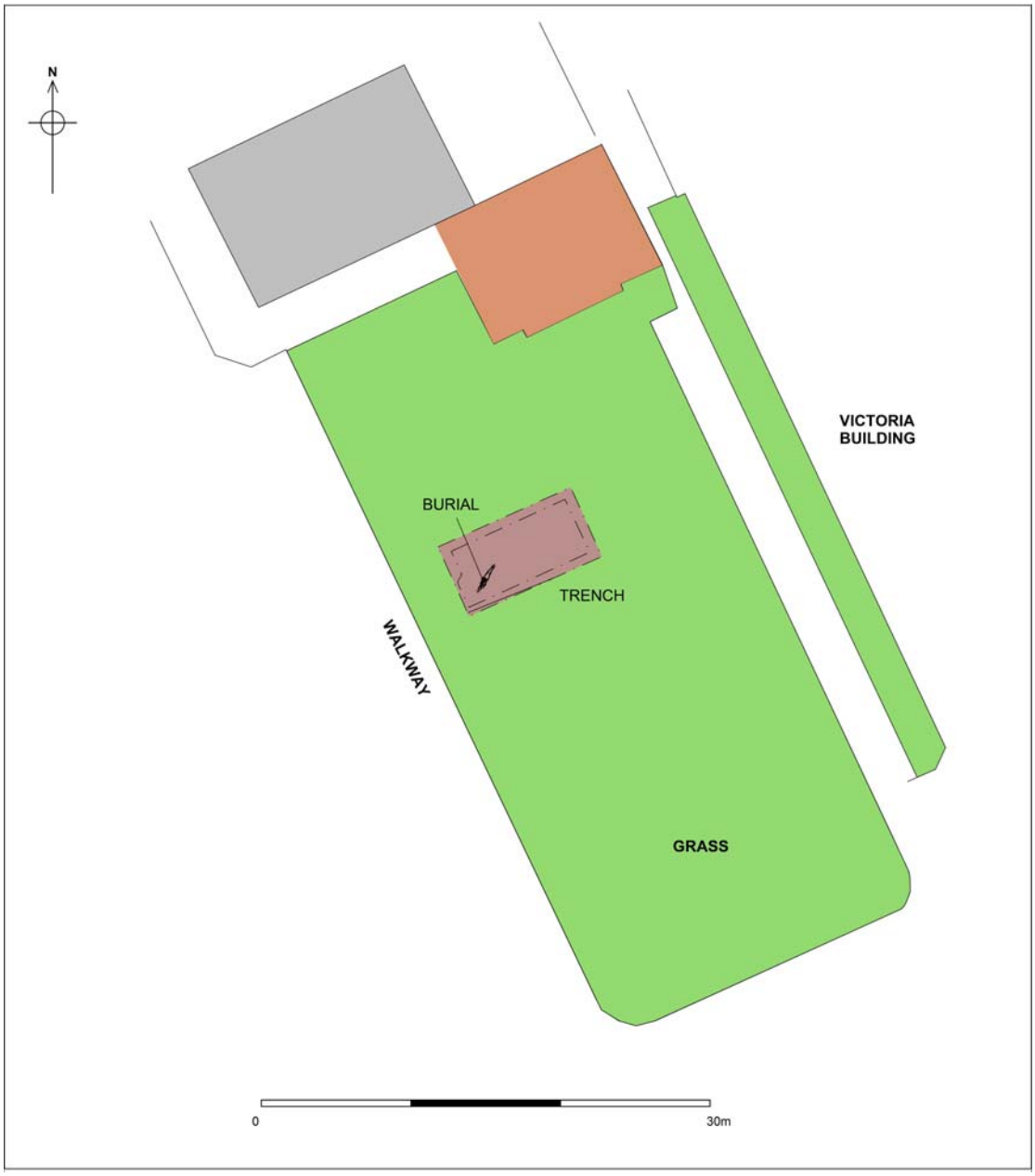

Figure 2: Plan of lawn area, Victoria Building, with trench and burial position indicated

Archaeological Objectives

The main objectives of the evaluation were:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To produce an archive and report of any results.

Within the stated project objectives, the principal aim of the evaluation is to establish the nature, extent, date, depth, significance and state of preservation of archaeological deposits on the site in order to determine the potential impact upon them from the proposed development.

Trial trenching is an intrusive form of evaluation that will demonstrate the existence of earth-fast archaeological features that may exist within the area.

Plate 1: Work in progress on trench, looking north-east

Methodology

All work followed the Institute for Archaeologists (IfA) *Code of Conduct* (2010) in accordance with their *Standard and Guidance for Archaeological Field Evaluation* (2010). The archaeological work followed the *Written Scheme of Investigation (WSI) for archaeological work* (WSI) prepared by ULAS (Appendix).

The WSI asked for one trench measuring 15m by 3m, possibly to be stepped and to a maximum depth of 2m. After viewing the site, the decision was taken to excavate a trench measuring 10m by 5m, in order to limit the movements of the excavator close to areas used by pedestrians (Figure 2 & Plate 1).

The trench was excavated by a JCB 3CX back-actor excavator fitted with a toothless ditching bucket under archaeological supervision. After recording the trench was backfilled.

Results

The trench oriented north-east to south-west and was excavated broadly from south-west to north-east and then north-west to south-east at the end of the excavation. The topsoil was removed first and stockpiled away from the trench, when the trench was found to extend beyond 1m in depth and produce a large amount of spoil.

When it was determined that the trench would be deep, the trench was stepped at around 0.7m for safety reasons, limiting the final interior size of the trench (Plate 2).

The topsoil consisted of around 0.23m to 0.38m of weak dark brownish grey silty-clay. This lay above deposits of made-up ground, consisting of soil, rubble, mortar and re-deposited red and grey clay. At the south-western end of the trench was a layer of mortar, lying over clay and soil with pockets of ash (Plate 3). To the north-east of the trench the made-up ground was more mixed. These layers were very variable and between 0.28m and 0.77m in depth. For most of the trench these layers lay over 0.25m of reddish grey clay, which peeled off onto sandy silt at the south-western end of the trench and a mid-brown buried soil layer at the north-eastern end. At the very north-eastern end of the trench the made-up ground, which overlay a layer of re-deposited clay, to the natural substratum at the base.

The natural sub-stratum of red clay was reached at a depth of around 1.35m and 1.67m.

Plate 2: Post excavation shot of trench, with burial in situ, looking north-east

Trench 01

Orientation: South-west to north-east

Length: 10m

Width: 5m

Interval	SW 0m	2m	4m	6m	8m	10m NE
Topsoil Depth	0.38m	0.28m	0.28m	0.30m	0.37m	0.23m
Made-up ground	0.30m	0.46m	0.77m	0.65m	0.98m	1.32m
Clay Layer (SWend only)	0.26m	0.24m	-	-	-	-
Buried soil (NE)/ sandy silt (SW)	0.30m	0.30m	0.33m	0.47m	-	-
Base of Trench (top of natural)	1.67m	1.54m	1.38m	1.42m	1.35m	1.55m

Plate 3: South-east facing section at south-western end of trench, showing layers of made-up ground and burial soil under topsoil

Two lead pipes were revealed at around 0.6m depth, running broadly west to east close to the south-western corner of the trench. This formed the basis of the level to which the trench was stepped.

Fragments of animal bone and modern pottery were recovered from the made-up ground, along with small quantities of human bone.

As the work progressed, part of a skull was revealed close to the south-west corner of the trench. The area was then hand cleaned revealing the upper body of a human inhumation.

The excavation continued to the north-east end of the trench but no further in situ burials were revealed; although several pieces of human bone, mostly parts of long bones were recovered from the upper deposits within the trench.

After the trench had been fully excavated the inhumation was revealed further and recorded in situ.

The individual appeared to lie broadly south-west to north-east, facing the north-east. The length of the individual appeared to be 1.85m (5 foot 11 inches). Most of the bones appeared to be in situ, although the face, feet and left leg were damaged by the machine on the first sweep of the bucket. The body was supine and appeared to have been facing front, with the left arm pulled slightly forward and slightly flexed at the wrist, and the right arm pulled behind the body (Figure 3 & Plate 4).

Due to the damage to the skull and as the fact that the body was not excavated fully, it was not possible to determine the gender, although the height of the individual and an apparently narrow pelvis would suggest an adult male.

The length of the femur of the right leg was 460mm and the tibia of the same leg was 430mm. The bone appeared to be in a fair condition and there was no obvious grave cut. The burial and the charnel were covered over prior to being reburied.

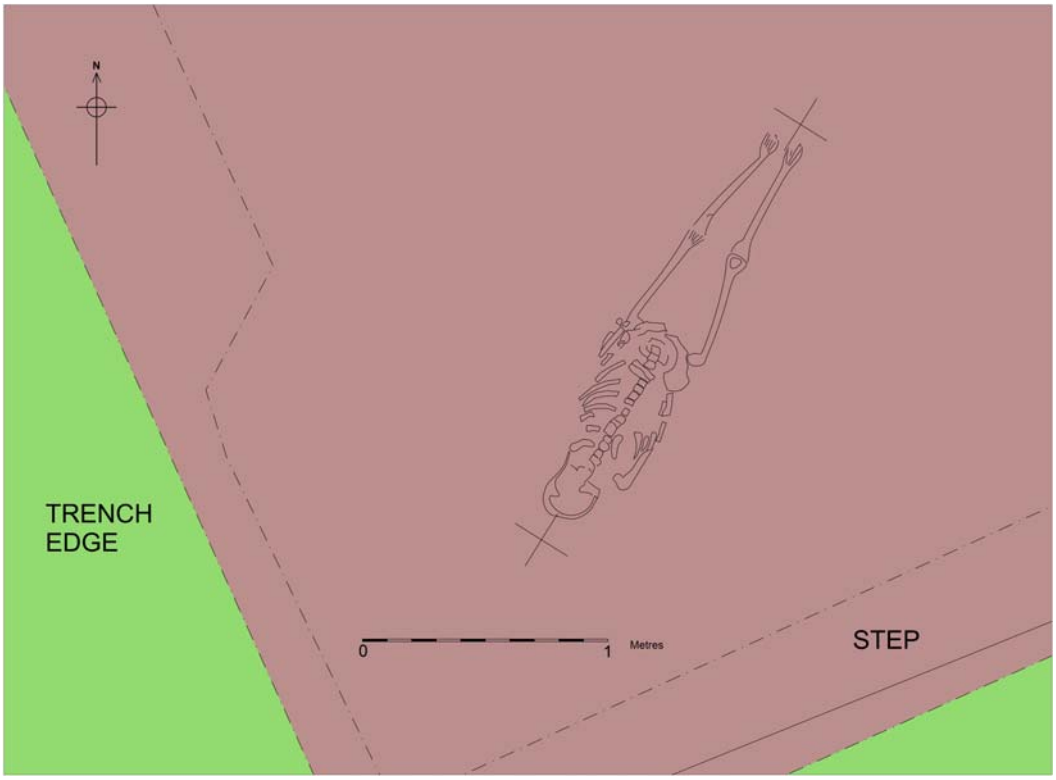

Figure 3: Close-up view of trench, showing position of burial

Conclusion

The trench on the grass lawn to the rear of the Victoria Building at the Royal Infirmary was excavated in an area to the south of where medieval burials had been discovered in the past.

The ground here appeared originally to have been sloped down to the south-west, judging by the buried soil deposits being mainly extant at the north-eastern end of the trench, with made-up ground mainly present within the north-east facing section. The ground here was probably made up into a terrace, perhaps at the same time as the Victoria Building was constructed at the end of the 19th century. The two lead pipes were presumably Victorian in date and could be seen cutting through the made-up ground at around 0.6m depth.

A layer of red-grey clay appeared to lay over the buried soils around 0.4m under the surface. This may have been laid over the soil to provide a base, with the made-up ground of rubble, soil and mortar laid over the top of that.

The buried soil layers were relatively undisturbed, but did contain human bone, suggesting that burials here had been disturbed during ground-works in the past.

The single inhumation is impossible to date with certainty. The depth of the trench and the fact that the grave had been cut into the natural sub-stratum would suggest that the burial pre-dates any development here. Therefore, the burial is probably medieval in date; the site lies beyond the known extent of the Roman cemeteries of Leicester.

No obvious grave cut or evidence of a coffin could be discerned. The left arm had been pulled round to the right and the right arm had been pulled around behind the body to the right, which may indicate that the body had been wrapped in a shroud from left to right, displacing the arms.

The medieval church of St. Sepulchre, which occupied the land in which the Infirmary now lies faced the public gallows, and the bodies of those who were hanged there were normally buried within the cemetery. It is possible that this was an execution victim, although without lifting the burial and studying the body closer it would be impossible to determine.

Although only a single burial was discovered during the evaluation it would be naïve to consider this to be an isolated individual. The extent of the graveyard here is not known but it has to be assumed that it extended at least to this point and therefore the potential for other inhumations to be encountered during any development here has to be high.

The inhumation was discovered at a significant depth (1.5m below ground surface) and so it is possible that the development will not penetrate to this depth. However, as undisturbed buried soil, possibly the remnants of graveyard soil was encountered at under 1m depth in some parts of the trench; there is the possibility that burials may lie

at lower depths. Disarticulated bone was encountered in upper layers of the trench, suggesting that burials have been disturbed here in the past.

References

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Acknowledgements

ULAS would like to thank Roger Bancroft of Interserve, Nicky Topham and Dave Finch for their help and co-operation with this project. The project was managed by Patrick Clay and the work carried out by the author. The work was monitored on behalf of the planning authority by the Leicester City Archaeologist, Chris Wardle.

Publication

Since 2004 ULAS has reported the results of all archaeological work through the *Online Access to the Index of Archaeological Investigations* (OASIS) database held by the Archaeological Data Service at the University of York.

A summary of the work will also be submitted for publication in a suitable regional archaeological journal in due course.

OASIS data entry

Project Name	Victoria Building, Leicester Royal Infirmary
Project Type	Evaluation
Project Manager	Patrick Clay
Project Supervisor	Leon Hunt
Previous/Future work	No/ Not known
Current Land Use	Lawn
Development Type	New hospital building
Reason for Investigation	NPPF
Position in the Planning Process	Pre planning evaluation
Site Co ordinates	SK 5870 0363
Start/end dates of field work	28-08-2014 to 29-09-2014
Archive Recipient	Leicester Museum
Study Area	1160 sq. m

Plate 4: Inhumation in situ, looking south-west

Archive

The archive for this project will be deposited with Leicester Museum. An accession number will be allocated forthwith.

The archive consists of the following:

1 Unbound copy of this report

1 Trench recording sheets

1 Contact sheet of digital photographs

1 CD digital photographs

1 Set B&W contact sheets

1 Set B&W negatives

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01-09-2014

APPENDIX: Written scheme of investigation for archaeological work
UNIVERSITY OF LEICESTER ARCHAEOLOGICAL SERVICES

Written scheme of investigation for archaeological work

Job title: Leicester Royal Infirmary, Oxford Street, Leicester

***NGR:* SK 5825 0388**

Client: Interserve Construction Limited

Planning Authority: Leicester City Council

***P.A.** Pre-planning enquiry*

1 Introduction

Definition and scope of the specification

1.1 This document is a design specification for archaeological field evaluation (AFE) at the above site, in accordance with National Planning Policy Framework (NPPF) Section 12: Conserving and Enhancing the Historic Environment. The fieldwork specified below is intended to provide indications of character and extent of any buried archaeological remains in order that the potential impact of the development on such remains may be assessed by the Planning Authority and an appropriate mitigation strategy put in place. It addresses the requirements of the LPA as detailed in the *Brief for an Archaeological Field Evaluation.*

1.2 The definition of archaeological field evaluation, taken from the Institute for Archaeologists Standards and Guidance: for Archaeological Field Evaluation (2010) is a limited programme of non-intrusive and/ or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate.

2. Background

2.1 ***Context of the Project***

2.1.1 The site lies west of Oxford Street, in the southern part of Leicester City Centre.

2.1.2 Leicester Royal infirmary intends to construct a New Accident and Emergency Services building.

2.2 ***Geology and topography***

2.2.1 The British Geological Survey of England and Wales, shows the underlying geology to consist of alluvium - clay, silt, sand and gravel over Branscombe Formation Mudstone (BGS Geology Viewer http://mapapps.bgs.ac.uk/geologyofbritain/home.html). The site lies at about 57m OD.

2.3 ***Archaeological and Historical Background***

Prehistoric

2.3.1 Prehistoric activity in the area appears to be limited to finds. Palaeolithic implements were identified during gravel extractions at Jarrom Street, near the River Soar.

Roman

2.3.2 The site is located approximately 700 metres outside the south gates of the Roman city. Roman features that may occur within the targeted area are the Rawdykes (SAM 30218) and the 'Tripontium' road.

2.3.3 The Rawdykes are believed to have been part of a water control or aqueduct system dating from the 1st century AD. The excavations were carried out by Kenyon in the 1940s and a section of the bank and ditch earthworks are still visible close to Aylestone and Saffron Lane. The remains are orientated NE-SW and are thought to follow the 60-metre contour. It is thought that they were partially reused by Royalists forces during the siege of Leicester in 1645. Early maps show that in the 19th century the earthworks were present as far as Brazil Street. There is no conclusive evidence that they existed as far north as the Royal Infirmary and recent excavations in the area have revealed no sign of them (APS 1998 and ULAS 1995).

2.3.4 The 'Tripontium' road was a Roman route believed to run from Leicester to Lutterworth. It is thought to follow the line of Aylestone Road out of Leicester, as indicated by the remains first uncovered during the excavations at Bonners Lane in 1994 (Finn 1994: 167) and confirmed by more recent sites on Grange Lane. The suggested projection of the road may pass through the Royal Infirmary site.

Medieval

2.3.5 The former chapel of St. Sepulchre was located beyond the south wall of the medieval town and formed the boundary of the Castle ward. The chapel belonged to St. Mary de Castro and is known that been in existence before the end of the 12th century (Billson 1920: 227). It is possible that the chapel was preceded by a shrine for wayfarers (Frizelle 1971: 227). Several medieval sources make reference to a well.

2.3.6 The public gallows were located nearby and the bodies of those executed were buried within the cemetery of the St. Sepulchre. By the beginning of the 16th century the chapel was known both as St. Sepulchre and St. James and was in poor state of repair. A number of burials have been found during the construction of the Royal Infirmary buildings, towards the north side of the site.

2.3.7 During the development of the Infirmary in the 1960s a stone coffin containing a female burial was discovered. These were not the only remains recovered as the governors ordered that two coffins be made available to contain the human remains that were revealed. Nine more skeletons were found in May 1961. These were two feet below the surface of a trench dug across the Infirmary Road entrance (Leicester Historic Environment Record).

2.3.8 The programme of research carried by APS in 1999 revealed over twenty full or partially surviving burials and the remains of at least thirty individuals were recorded (Taylor 2000). The orientations of the graves suggested two phases of burial and their distribution also indicated the possible northern and eastern limits of the cemetery, although no formal boundaries were revealed. Only one coffin burial was clearly identified. A possible shroud pin was recovered from a separate burial and few sherds of 12th-century pottery from one burial represented the only dating evidence retrieved from graves.

Post-medieval and Modern

2.3.9 Contemporary accounts of the Civil War indicate that the Royalists modified the Rawdykes. A battery was built opposite the southern wall of the Newarke (Courtney 1992: 55). This was potentially a substantial earthwork, which exact location is uncertain, but the range of the cannon suggests that it would have been in the vicinity of the Infirmary site.

2.3.10 The Royal Infirmary was established in 1771 south of Leicester on a five-hectare site immediately south of the city known as 'Chapel Close' (Frizelle 1971: 35). After severe damage caused in 1645, the town gates had been finally taken down in 1774 (Frizelle 1971: 13). This provided impetus for settlement outside the earlier town limits. Within a few years the expansion of the city was already threatening to engulf the hospital.

2.3.11 In the 1830s the Infirmary acquired more land. The hospital limits were now defined by Cow Lane (Bridge Street), Infirmary Street and Parliament Street (Frizelle 1971: 124). In the 19th century, there was further expansion southwards resulting in the demolition of houses on Parliament Street, which dated to the 1820s. Since the early 20th century, the Royal Infirmary had been buying houses close to the hospital with a view to expansion. A large scale programme of 'slum clearance' was undertaken in the middle of the century in order to make way for further expansion of both the Royal Infirmary and the former Polytechnic (De Montfort University). This expansion began with the destruction of Knighton Street in the 1930s and continued until the 1970s (Hyde N.D. 69). The redevelopment of the area was controversial following the compulsory purchasing and demolition of whole streets.

3. Archaeological Research Objectives

3.1 The project has the potential to address the following East Midlands Research Agenda Topics (Knight *et al* 2012):

3.1.1 ***Roman***

Growth of Urban Centres 5.3: 5.3.1. How were towns organised, what roles did they perform and how may their morphology and functions have changed over time? 5.3.5. How and why did the urban landscape change in the late Roman period, and what roles may fortifications have played in this period?

Roads and Waterways (5.7): 5.7.1. Can the chronology of road construction and links between road building and campaigns of conquest be clarified? 5.7.4. How may roads and waterways have impacted upon established communities and how may roads have influenced urban morphology?

3.1.2 ***Early Medieval***

Roads and Rivers: transport routes and cultural boundaries **(**6.3) 6.3.1 To what extent were Roman roads used and maintained from the 5th century and may some have acted as social and political boundaries.

3.1.3 ***High Medieval***

Urbanism (7.1): 7.1.1 How did the major towns and smaller market towns of the region develop after the Norman Conquest, both within the urban core and in suburban and extra mural areas? 7.5.6 Religion. The Investigation of medieval cemeteries.

3.2 Specific objectives of the trial trench excavation will be:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To produce an archive and report of any results.

3.3 Within the stated project objectives, the principal aim of the archaeological work is to establish the nature, extent, date, depth, significance and state of preservation of archaeological deposits on the site in order to determine the potential impact upon them from the proposed development.

3.4 Trial trenching is an intrusive form of evaluation that will demonstrate the existence of earth-fast archaeological features that may exist within the area.

4. Methodology

General Methodology and Standards

4.1.1 All work will follow the Institute for Archaeologists (IfA) Code of Conduct (2010) and adhere to their *Standard and Guidance for Archaeological Field Evaluations* and *excavations* (2010).

4.1.2 Staffing, recording systems, health and safety provisions and insurance details are included below.

4.1.3 Internal monitoring procedures will be undertaken including visits to the site by the project manager. These will ensure that project targets are met and professional standards are maintained. Provision will be made for external monitoring meetings with the Planning Authority and the Client, if required.

Trial Trenching Methodology

4.2.1 Before excavation the area will be CAT scanned. During any machining of the trial trench general photographs of the site areas, including access areas, will be taken. All machine movements will be controlled by a banksman.

4.2.2 One 15m by 3m trial trench is proposed to a maximum depth of 2m (Fig. 2). Observation of geotechnical test pits and bore holes suggests a depth of *c*. 1.2m of made ground above the natural substratrum (Browning and Gonzalez Rodriguez 2014, 9).

4.2.3 Topsoil and overburden will be removed carefully in level spits, under continuous archaeological supervision using a mechanical excavator using a toothless bucket. The trench will be excavated down to the top of archaeological deposits or natural undisturbed ground, whichever is reached first. All excavation by machine and hand will be undertaken with a view to avoid damage to archaeological deposits or features which appear worthy of preservation in situ or more detailed investigation than for the purposes of evaluation. Where structures, features or finds appear to merit preservation in situ, they will be adequately protected from deterioration

4.2.4 The trench will be examined by hand cleaning and any archaeological deposits located will be planned at an appropriate scale. Archaeological deposits will be sample-excavated by hand as appropriate to establish the stratigraphic and chronological sequence, recognising and excavating structural evidence and recovering economic, artefactual and environmental evidence. Particular attention will be paid to the potential for buried palaeosols and waterlogged deposits in consultation with ULAS's environmental officer.

4.2.5 Measured drawings of all archaeological features will be prepared at a scale of 1:20 and tied into an overall site plan. All plans will be tied into the Ordnance Survey National Grid. Relative spot heights will be taken as appropriate.

4.2.6 Sections of any excavated archaeological features will be drawn at an appropriate scale. At least one longitudinal face of each trench will be recorded. All sections will be levelled and tied to the Ordnance Survey Datum, or a permanent fixed benchmark.

4.2.7 Trench locations will be recorded by an appropriate method. These will then be tied in to the Ordnance Survey National Grid.

4.2.8 Any human remains encountered will be left in situ and will only be removed if necessary for their protection, under Ministry of Justice guidelines and in compliance with relevant environmental health regulations.

4.2.9 In the event that unforeseen archaeological discoveries are made during the project a contingency may be required to clarify the character or extent of additional features. The contingency will only be initiated after consultation with the Client and Planning Authority. Following assessment of the archaeological remains by the Planning Authority, ULAS shall, if required, implement an amended scheme of investigation on behalf of the client as appropriate.

4.2.10 Any material recovered which would be regarded as treasure following the Treasure Act 1996 will be reported to the coroner.

4.2.11 The trench will be backfilled and levelled at the end of the evaluation.

4.3 Recording Systems

4.3.1 Any archaeological deposits encountered will be recorded and excavated using standard procedures as outlined in the ULAS recording manual. Sufficient of any archaeological features or deposits will be hand excavated in order to provide the information required.

4.3.2. Individual descriptions of all archaeological strata and features excavated or exposed will be entered onto prepared pro-forma recording sheets.

4.3.3 A record of the full extent in plan of all archaeological deposits encountered will be made on drawing film, related to the OS grid and at a scale of 1:10 or 1:20. Elevations and sections of individual layers of features should be drawn where possible. The OD height of all principal strata and features will be calculated and indicated on the appropriate plans.

4.3.4 An adequate photographic record of the investigations will be prepared illustrating in both detail and general context the principal features and finds discovered. The photographic record will also include 'working shots' to illustrate more generally the nature of the archaeological operation mounted.

4.3.5 This record will be compiled and fully checked during the course of the project.

5. Finds

5.1 The IfA *Guidelines for Finds Work* will be adhered to.

5.2 Before commencing work on the site, an Accession number will be agreed with the Leicester City Museum Service that will be used to identify all records and finds from the site.

5.3 All antiquities, valuables, objects or remains of archaeological interest, other than articles declared by Coroner's Inquest to be subject to the Treasure Act, discovered in or under the Site during the carrying out of the project by ULAS or during works carried out on the Site by the Client shall be deemed to be the property of ULAS provided that ULAS after due examination of the said Archaeological Discoveries shall transfer ownership of all Archaeological Discoveries unconditionally to the appropriate authority for storage in perpetuity.

5.4 All identified finds and artefacts are to be retained, although certain classes of building material will, in some circumstances, be discarded after recording with the approval of the Planning Archaeologist.

5.5 All finds and samples will be treated in a proper manner. Where appropriate they will be cleaned, marked and receive remedial conservation in accordance with recognised best practice. This will include the site code number, finds number and context number. Bulk finds will be bagged in clear self sealing plastic bags, again marked with site code, finds and context.

5.6 Finds which may constitute ‘treasure’ under the Treasure Act, 1996 must be removed to a safe place and reported to the local Coroner. Where removal cannot take place on the same working day as discovery, suitable security will be taken to protect the finds from theft.

6. Environmental Sampling

6.1. If features are appropriate for environmental sampling a strategy and methodology will be developed on site following advice from ULAS’s Environmental Specialist. Preparation, taking, processing and assessment of environmental samples will be in accordance with current best practice. The sampling strategy is likely to include the following:

- A range of features to represent all feature types, areas and phases will be selected on a judgmental basis. The criteria for selection will be that deposits are datable, well sealed and with little intrusive or residual material.
- Any buried soils or well-sealed deposits with concentrations of carbonised material present will be intensively sampled taking a known proportion of the deposit.
- Spot samples will be taken where concentrations of environmental remains are located.
- Waterlogged remains, if present, will be sampled for pollen, plant macrofossils, insect remains and radiocarbon dating provided that they are uncontaminated.

6.2 All collected samples will be labelled with context and sequential sample numbers.

6.3 Appropriate contexts (i.e datable) will be bulk sampled (50 litres or the whole context depending on size) for the recovery of carbonised plant remains and insects.

6.4 Recovery of small animal bones, bird bone and large molluscs will normally be achieved through processing other bulk samples or 50 litre samples may be taken specifically to sample particularly rich deposits.

6.5 Wet sieving with flotation will be carried out using a York Archaeological Trust sieving tank with a 0.5mm mesh and a 0.3mm flotation sieve. The small size mesh will be used initially as flotation of plant remains may be incomplete and some may remain in the residue. The residue > 0.5mm from the tank will be separated into coarse fractions of over 4mm and fine fractions of > 0.5-4mm. The coarse fractions will be sorted for finds. The fine fractions and flots will be evaluated and prioritised; only those with remains apparent will be sorted. The prioritised flots will not be sorted until the analysis stage when phasing information is available. Flots will be scanned and plant remains from selected contexts will be identified and further sampling, sieving and sorting targeted towards higher potential deposits.

6.6 Where evidence of industrial processes are present (eg indicated by the presence of slag or hearth bases), samples will be taken for the analysis of industrial residues (e.g hammer scale).

7 Report and Archive

7.1 A draft version of the report will normally be presented within four weeks of completion of site works. The full report in A4 format will usually follow within eight weeks. Copies will be provided for the client and the Local Planning Authority and deposited with the Historic Environment Record.

7.2 The report will include consideration of:

- The aims and methods adopted in the course of the evaluation.
- The nature, location and extent of any structural, artefactual and environmental material uncovered.
- The anticipated degree of survival of archaeological deposits.
- The anticipated archaeological impact of the current proposals.
- Appropriate illustrative material including maps, plans, sections, drawings and photographs.
- Summary.
- a summary of artefacts, specialist reports and a consideration of the evidence within its local, regional, national context.
- The location and size of the archive.
- A quantitative and qualitative assessment of the potential of the archive for further analysis leading to full publication, following guidelines laid down in *Management of Archaeological Projects* (English Heritage).

7.3 A full copy of the archive as defined in the IfA Standard and Guidance for archaeological archives (Brown 2008) will normally be presented to Leicester City Council within six months of the completion of fieldwork. This archive will include all written, drawn and photographic records relating directly to the investigations undertaken and will follow the LCC guidelines.

7.4 The copyright of all original finished documents shall remain vested in ULAS and ULAS will be entitled as of right to publish any material in any form produced as a result of its investigations.

8 Publication and Dissemination of Results

8.1 A summary report will be submitted to a suitable regional archaeological journal following completion of the fieldwork. A full report will be submitted to a national or period journal if the results are of significance.

8.2 University of Leicester Archaeological Services supports the Online Access to the Index of Archaeological Investigations (OASIS) project. The online OASIS form at http://www.oasis.ac.uk will be completed detailing the results of the project. ULAS will contact the HER prior to completion of the form. Once a report has become a public document following its incorporation into the HER it may be placed on the web-site.

9 Acknowledgement and Publicity

9.1 ULAS shall acknowledge the contribution of the Client in any displays, broadcasts or publications relating to the site or in which the report may be included.

9.2 ULAS and the Client shall each ensure that a senior employee shall be responsible for dealing with any enquiries received from press, television and any other broadcasting media and members of the public. All enquiries made to ULAS shall be directed to the Client for comment.

10 Copyright

10.1 The copyright of all original finished documents shall remain vested in ULAS and ULAS will be entitled as of right to publish any material in any form produced as a result of its investigations.

11 Monitoring arrangements

11.1 Unlimited access to monitor the project will be available to both the Client and his representatives and the City Archaeologist subject to the health and safety requirements of the site.

11.2 All monitoring shall be carried out in accordance with the *IfA Standard and Guidance for Archaeological Field Evaluations (2008).*

11.3 Internal monitoring will be carried out by the ULAS project manager.

12 Timetable and Staffing

12.1 A start date is likely to be in March 2014, to be confirmed. The work is likely to take up to two weeks on site to complete and a minimum of two experienced archaeologists will to be present during the work.

12.2 The on-site director/supervisor will carry out the post-excavation work, with time allocated within the costing of the project for analysis of any artefacts found on the site by the relevant in-house specialists at ULAS.

13 Health and Safety

13.1 ULAS is covered by and adheres to the University of Leicester Statement of Safety Policy and uses the ULAS Health and Safety Manual (revised 2010) with appropriate risks assessments for all archaeological work. A draft Health and Safety statement for this project is in the Appendix. The relevant Health and Safety Executive guidelines will be adhered to as appropriate.

14. Insurance

14.1 All ULAS work is covered by the University of Leicester's Public Liability and Professional Indemnity Insurance. Employers Liability Insurance and Public/Products Liability Insurance Allianz Insurance plc Policy No. SZ/21696148 Professional Indemnity Insurance – Newline Underwriting Management Ltd Policy No. WD1100541

15. Contingencies and unforeseen circumstances

15.1 In the event that unforeseen archaeological discoveries are made during the project, ULAS shall inform the site agent/project manager, Client and the Planning Archaeologist and Planning Authority and prepare a short written statement with plan detailing the archaeological evidence. Following assessment of the archaeological remains by the Planning Archaeologist, ULAS shall, if required, implement an amended scheme of investigation on behalf of the client as appropriate.

16. Bibliography

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Figure 1. Area of proposed trench (50m grid)

Figure 2 Trench location and dimensions

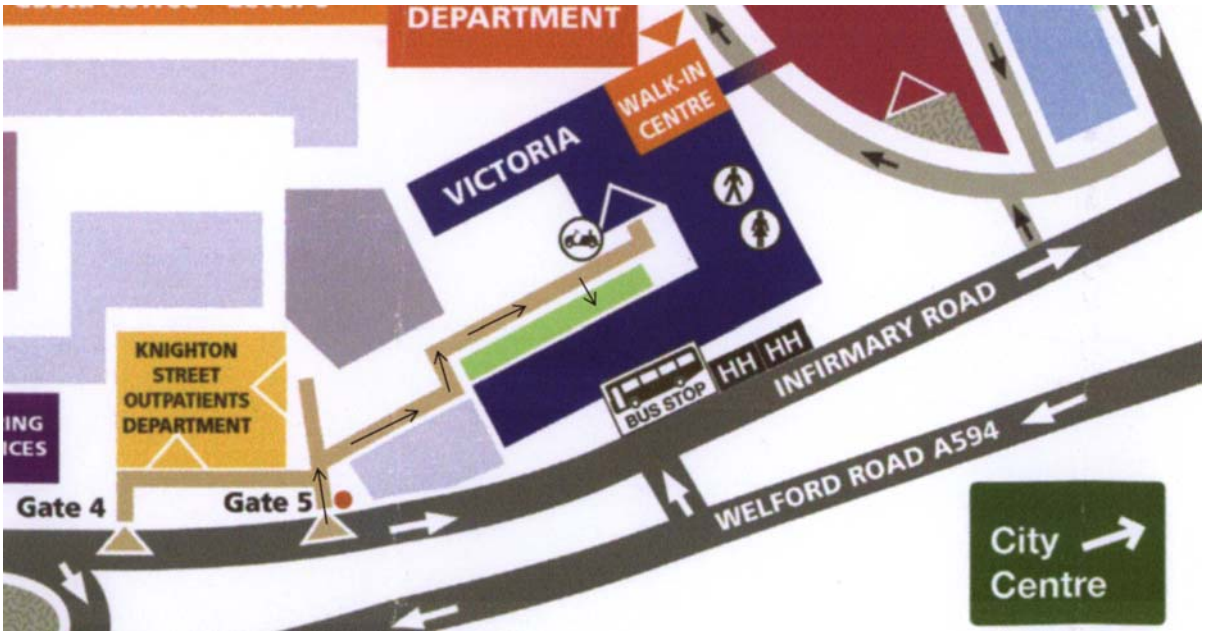

Figure 3. Access route for plant (arrowed)

ARCHAEOLOGICAL TRIAL TRENCHING METHOD STATEMENT & RISK ASSESSMENT

Site Name	Job No	PM	Contact
Leicester Royal infirmary, Oxford Street, Leicester	14/775	Patrick Clay	**0116 252 2848** **0776940240**

Site Director	Site Contacts	Team (Nos)
Leon Hunt	07584364583	1 -2

SITE WORKS & METHOD STATEMENT

Evaluation trenches are to be machine excavated as detailed in the specification to look at archaeological deposits

Excavation Method Statement

- Access and parking will be gained via authorised routes to be arranged with the land owner/tenant.
- All staff will be inducted by the site director prior to starting work on site (Appendix 3).
- **Services**: A CAT Scanner may be used in both POWER and RADIO mode to scan trench lines for services prior to excavation. [The CAT must be in calibration and used by a competent person and used in both POWER and RADIO mode.
    - Trenches will not be excavated within 15m of known water mains or sewers or in the vicinity of other underground services or electrical cables without a separate SSOW. Any known services will be marked on the ground and avoided. All machine excavation will be carefully monitored.
    - No work will be undertaken beneath overhead cables. If a tracked machine is required to pass below an overhead cable a separate SSOW will be followed.
- **Excavation:** Trenching we conducted as per the *Trial Trenching Methodology* in the specification. Machining will be conducted using ULAS SSOW1. Excavation of trenches will be undertaken according to ULAS SSOW3 (Appendix 1).All trenches will be inspected each day by an appointed person and noted on the trench sheet (Appendix 4).
- Any lone working on site will be undertaken according to ULAS SSOW2 (Appendix 1).
- A first aid kit and a site phone will be available on site at all times. At least one member of staff will have first aid training.

Equipment

A mechanical excavator will be used for trench excavation. The site director will ensure that the appropriate certification is carried.

ULAS vehicles or personal cars will be used (all appropriately insured and maintained).

Besides the plant, equipment will include a variety of hand tools (e.g. shovels, mattocks, trowels), recording materials (e.g. photographic equipment, computers, levels etc.), survey equipment (e.g. EDM, DGPS) CAT scanners and metal detectors may be used.

Personnel

The site director will be responsible for the day to day running of the site. Specialists and visitors may be invited to visit the site during fieldwork. It is expected to hire plant and operators from a reputable local company.

All personnel are experienced in working with plant and in the excavation of trenches. All site staff hold CSCS cards and many also hold a SPA quarry passport. All site staff have some first aid training.

Normal working hours are 7 hours a day between 8am and 6pm Monday to Friday.

Monitoring and communications

ULAS management and site staff details are as above.

Work will be monitored internally by the ULAS Project Manager and/or Health & Safety Co-ordinators.

ULAS method statements are prepared following standard guidelines and after consultation with the University Safety Services Department. Communication of the contents of the method statement to site staff is the responsibility of the Site Director. The risk assessment will be updated weekly or when conditions change.

Accident Reporting

All accidents will be logged using ULAS accident forms and report to the ULAS Main Office (0116 2522848) and if necessary to the University of Leicester Safety Services Dept (Appendix 2) .

Contact Details

Richard Buckley or Patrick Clay
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