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LINDSEY ARCHAEOLOGICAL SERVICES

**Cathedral Street, Lincoln  
Archaeological Watching Brief**

**NGR: SK 97961 71579**

**Planning Application No: 2003/0269/ F**

**Site Code: LCSZ 03**

**LCNCC Accession No. : 2003.288**

Highways & Planning  
Directorate  
  
6 FEB 2006  
  
Planning &  
Conservation

**Report**

**for**

**Lincoln College**

**by**

**M. McDaid**

**LAS Report No. 864**

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Lincoln Cathedral Street Watching Brief

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**Lincoln College, Cathedral Street, Lincoln**  
**Archaeological Watching Brief**  
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**Summary**

*A watching brief at Cathedral Street, Lincoln exposed Roman walls and a burial, associated with extra-mural activity. Undated post Roman features cut into a dark earth deposit. This was sealed by numerous stone walls, floors, burials and robber trenches associated with the Dominican friary. These are believed to be associated with the claustral area of the friary. Evidence for the dismantling of the monastic buildings after the Dissolution was found as were later robber trenches and walls relating to unknown structures. These later deposits were truncated by activity associated with the construction of the present college buildings. Unfortunately, while it was possible to confirm the presence of the Dominican friary buildings little by way of meaningful interpretation of the features was possible because of the limited nature of the watching brief.*

**Introduction**

Lindsey Archaeological Services (LAS) was commissioned by the Lincoln College in September 2003 to carry out an archaeological watching brief at the above site (Figure 1) during the excavation of pits to locate suitable pile positions. The work was carried out in accordance with the requirements of the *Lincolnshire Archaeological Handbook* published by the Archaeology Section, Lincolnshire County Council (1998) and a brief set by the Department of Planning Lincoln City Council dated July 2003. Work commenced 8/10/03 and was completed 19/11/03.

**Site Description**

The site is located to the east of the former Temple Street now a car park, on the west side of the Abbey Building, the south side of Cathedral Street and the north side of the Temple building (Figs.1 and 2).

**Planning Background**

Planning permission was granted for the erection of two extensions, subject to an archaeological watching brief being conducted during the groundworks phase of construction.



### **Archaeological Background**

Lincoln College is situated on the north side of Monks Road, east of the Roman and medieval core of the city of Lincoln. It is located in the medieval suburb known as *Butwerk* and Monks Road had a Roman predecessor which led to the east gate of the lower Roman city. A Roman kiln was found in 1936 on the site of extensions to the technical college. The areas on all sides of the city walls were heavily built up in the Roman period and, less so in the medieval period. However, this site lies within the precinct of the Dominican Friary founded in 1238 which extended from west of the old Art College building and as far as Arboretum Avenue. Parts of the church and cloister and cemetery were found during evaluation excavations prior to building works for the College on Abbey Street, Monks Road and Cathedral Street. Excavations by CLAU on Abbey Street found pottery wasters, suggesting that there is a kiln production site of late Saxon/medieval date close by. Wasters were also found during evaluation by LAS on the Cathedral St site. Earlier medieval and Roman horizons were encountered at a depth of c.17m OD on the lower terrace at Abbey St and Monks Rd.

### **Objectives**

The purpose of the watching brief was to

- Record any archaeological deposits disturbed during groundworks at the above site
- Produce a project archive for deposition with the city and County Museum.
- Provide information for accession to the County Sites and Monuments Record (SMR) and the Lincoln Urban Archaeological Database.

### **Method**

Archaeological recording was carried out by a team of experienced archaeologists. A full written (single context) and photographic record was made of the site, including site plan. A full photographic record was made during the progress of the excavation to cover each feature together with general site views. A standard context recording system, developed by staff over the past 20 years, based on MOLAS and CAS models, is operated by LAS. A temporary bench mark was tied into a level established by the college's building contractors (21.30m OD).

The Watching Brief consisted of two phases, removal of deposits to depths of c.19.00m O.D at the south end of the site or c.19.60m at the north end. This was followed by the excavation of pits in the position of the proposed piles. Where obstructions (i.e. stone walls) were found in these locations further excavations were carried out until a spot was found free of obstructions to enable piling to proceed. This inevitably resulted in large areas being disturbed in the process of locating suitable pile positions (Fig. 3).



Initial stripping of the site was carried out using a 360° excavator (Pl.1) down to a level of c.19m O.D. or c.19.60m. The depth at which the stripping of the site stopped coincided with the level of the first archaeological horizon (Pl. 2). Pipes and cables relating to the college at the base of the stripped area suggested that the overburden, **500 – 504**, was very modern.

39 pits were excavated in search of suitable locations for 23 piles. Excavation was carried out using a JCB with a narrow, 0.20m, toothless bucket, with the exception of Pits 37–38, which were excavated by hand. Excavation was always under archaeological supervision. A new pile location was sought if a wall blocked its positioning. All walls, once identified, which were obstructing a pile placement, were left *in situ*, unless the City Archaeologist gave the approval for them to be destroyed.

Please note that each trench was allocated context numbers starting from 1. Contexts with the same number in different trenches are not necessarily the same deposit.

### Results

Modern deposits generally took the form of surfaces, hardcore, **1** (Pit 6), **1** (Pit 25), **1** (Pits 30 and 31), tarmac, **1** (Pits 8 and 9), **1** (Pit 26), **1** (Pit 27) and concrete, **4** (Pit 12) and **7** (Pit 32) and their make-up/levelling material, **2** (Pits 8 and 9), **3** (Pit 12), **1** and **2** (Pit 13), **7** (Pit 14), **9** and **12** (Pits 15 and 16), **1** (Pit 18), **1** (Pit 19), **1** (Pit 20), **1** (Pit 21), **1** (Pit 22), **5 – 7** (Pit 24), **1** (Pit 26), **9 -11**, **13** and **17** (Pits 28 and 29), **2** (Pits 30 and 31), **1 - 3**, **8** and **9** (Pit 32), **1** (Pit 36), **1** (Pit 37), **1** (Pit 38), and **7**, **10**, **15** and **16** (Pit 39). Service trenches, **1 - 4** (Pit 24) **10** (Pit 26), **2 - 5** (Pit 27) and modern features, **12** (Pit 8 and 9), **4** (Pit 15 and 16), **15** (Pit 28 and 29) **2/9** (Pit 39) were also recorded.

A demolition layer interpreted as being associated with the dissolution of the friary was noted across the site and recorded as follows: **1** (Pits 1 and 2), **1** (Pit 3) **33** (Pits 4 and 5), **2** (Pit 6), **1** (Pit 7), **3** (Pits 8 and 9), **9** (Pits 10 and 11), **1** (Pit 12), **1** (Pit 14), **5** and **12** (Pits 15 and 16), **2** (Pit 18), **2** (Pit 19), **2** (Pit 20), **2** (Pit 21), **8** (Pit 24), **6** (Pit 27), **8** (Pits 28 and 29), **3** (Pits 30 and 31), **4** (Pit 32) and **1** (Pit 35).

Extensive deposits relating to the Friary itself were found in all the pits, comprising substantial masonry walls, associated floor surfaces and burials.

Beneath stone buildings of the friary was found fragmentary evidence for timber buildings which appear to be early medieval in date, some of which may have belonged to an early phase of the Friary. These cut into a dark earth layer which was recorded in the majority of



pits, excluding Pits 17, 30, 31, 37 and 38. Its recorded contexts were **3** and **6** (Pit 1) **7** and **17** (Pit 2), **4**, possibly **5** and **6** (Pit 3) **44** and **45** (Pits 4 and 5), **12** (Pit 6), **5** (Pit 7), **14** and **20** (Pits 8 and 9), **5** (Pits 10 and 11), **2** (Pit 12), **3** (Pit 13), **6** (Pit 14), **1** and **3** (Pits 15 and 16), **9** and **16** (Pit 18), **10** (Pit 19), **4** (Pit 20), **4** (Pit 21), **3** (Pits 22 and 23), **17** and **21** (Pit 24), **3** and **18** (Pit 25), **9** (Pit 26), **9** (Pit 27), **12** (Pits 28 and 29), **6** (Pit 32) **2** and **3** (Pit 35), **4** (Pit 36) and **6** (Pit 39).

Sealed by the dark earth layer were a few features interpreted as being of Roman date. These comprised a single burial in Pit 24 and some substantial wall foundations, possibly marking the positions of terracing.

#### Pit 1 (Fig. 4, Pl. 3)

This pit was located close to the south-east corner of the site. Originally intended to be separate from Pit 2, it became necessary to join them together to determine where piles could be placed.

A demolition material, **1**, 0.50m deep comprising worked limestone blocks, limestone fragments and mortar, within a light brown silt matrix was the first layer exposed. It overlay a robber trench, **4** aligned north-north-west/south-south-east, which was 0.51m deep. Its full width was not determined as its eastern side lay beyond the limit of the Pile Pits. It was filled by brown silts, **5**, **8** and **9** and cut floor surface, **2**, 0.04m deep, which sealed a dark grey sand clay silt layer, **3**, 0.18m deep. Below **3** was an east-north-east/west-south-west robber trench, **10**, filled with white-grey silt clay, **6**, 0.45m deep. Part of the robbed-out wall, **7**, comprising limestone blocks up to 0.47m long, up to 0.35m wide still survived in the trench. Butting **7** was a dark earth layer, **11**.

#### Pit 2 (Fig. 4, Pl. 4)

Demolition material, **1**, was 0.50m deep, contained architectural fragments (AF 6 and 18) and overlay a robber trench, **4** aligned north-north-east/south-south-west. Remains of the wall, **10**, which had been robbed by **4** in Pit 1, still survived, 0.30m high and were contained within construction trench **11**. The wall sat upon limestone footings, **12**, over 1m wide and 0.32m deep. To the west of wall **10** was surface, **2**, 0.04m deep, which sealed dark grey sand clay silt, **3**, above another thin surface, **13**. Construction trench, **11**, cut through a grey silt clay, **6/14**, 0.40m deep, which sealed an earlier brown silt surface, **15**.

Once wall **10** had been located a small hole was excavated to the west which dug through layer **15** to reveal an east/west aligned burial, **16**. This grave was 0.44m in depth and filled with brown grey silt, **18**, not dissimilar to the layer, **7/17**, through which it was cut. A dark soil



layer, which appears to be former topsoil, **7/17**, was 1.16m deep, and covered yellow clay, natural, **19**. This thick deposit was probably a series of layers, of which only two could be discerned, but their colour was so similar that they could not be distinguished. It is likely that that **7/17** represents several topsoil horizons.

At first no further excavation was contemplated as human remains were not to be disturbed but then the whole area west of wall **10** was removed down to the natural clay **19**. The pile was then positioned in the north-west corner of the resulting hole to avoid the burial. This resulted in the removal of a substantial area of archaeological deposits.

#### Pit 3 (Fig. 4, Pl. 5)

Pit 3 was to the north of Pits 1 and 2. The demolition material, **1**, was 0.64m deep in this trench. Part of a possible jamb section from a small arch head (AF 6), double chamfered sections, (AFs 15, 16 and 17), was recovered from **1**. It sealed a robber trench, **3**, only 0.20m deep which was filled with similar material to that of **1**. The robber trench **3** cut through a mortar surface **2** on its south-east side. This was 0.06m deep and overlay a brown grey silt, **6**, 0.12m deep. Below **6** was 0.42m deep, dark grey sand clay silt, **4**, sealing a layer of brown sand clay silt, **5**.

#### Pits 4 and 5 (Fig. 5, Pl. 6)

These pits were to the west of Pit 3 and were enlarged in the same way as Pits 1 and 2 in order to search for areas free of walls and burials in which to drive the piles. A rubble-rich dark brown sand silt layer, **33**, possibly demolition, sealed two robber trenches, **29** and **41**. Robber trench **29**, which was aligned north-north-east/south-south-west, was over 2m wide and had a depth greater than 2m. It was filled with limestone and mortar-rich brown silts, **30**, **31** and **32**. Remains of the wall (**43**) and its footings **42** still survived beneath **29**. Its construction trench, **46** was 0.23m wider than the wall and filled with **48**, brown grey silt.

Robber trench **41** was aligned east-north-east/west-south-west and was cut by **29**. **41** may have robbed a return wall for **43**. it had rubble rich fills **39** and **40**, similar to those found in **29**.

Also cut by robber trench **29** was a 0.08m deep mortar surface, **34**, which was above thicker light brown silt, **35**. Below these layers were two burials, **26** and **28**, aligned east/west seen in the north-west and south-west corners of the pit. Both graves had grey brown silt, **25**, **27** and **37**, covering human remains, **21** and **22**, of which only their legs were observed within the Pile Pit. The graves, like the grave in Pit 6, appeared to respect wall, **43**, to the east. This is not surprising as surface **34** appears to be butt wall **43** which means the wall could have been standing when the graves were excavated.



The graves cut through a north/south robber trench **38**, filled with brown silt mortar and limestone, **36**. It had a surviving length of 0.92m, was only 0.14m deep, and only extended a few centimetres into the west side of the pit.

Beneath **38** was 0.68m deep grey silt with a brown tinge, **44/45**, which sealed a similar layer of former topsoil, **47**. This layer was cut by grave **24**, which, except for the head and a few bones encircling the head, **20**, had been removed by construction trench **46**, to its east. Its fill **23**, contained a single sherd of pottery of 12<sup>th</sup> – 15<sup>th</sup> century date. The bones proved to be from a woman whilst the skull was from a male (see Appendix 9 for a full report on human bone).

#### Pit 6 (Fig. 6, Pls. 7 and 8)

This pit was to the north of Pits 4 and 5. A dark grey sand clay, **1**, containing roof tile, sealed demolition layer, **2**. Layer 2 sealed a north-north-east/south-south-west robber trench **7**. This was the same robber trench recorded in Pits 4 and 5 as **29**. Its fill **6** contained late medieval tile. On its east side robber trench **7** cut through a grey brown silt clay, **4**, which overlay a 0.10m thick yellow brown sand silt surface, **5**. These may be the fills of a feature truncated by both the robber trench and layer **2** above. The edge of layer **5** overlay green brown silt clay layer **3** which extended eastwards beyond the limits of the pit. This layer sealed an earlier wall **10**, c.1.80m to the east of robber trench **7**. This wall was one course high and had 0.20m deep footings within its construction trench **11**. Its full width could not be ascertained as it continued beyond the eastern limit of the pit.

The construction trench **11** cut through trample layer **17** and surface **9**. Below surface **9** was c.2m long east/west burial, **15/16**. It had grey brown silt fills, **8**, and **13**, which contained pottery ranging from 10<sup>th</sup> – 14<sup>th</sup> century in date and many disarticulated human bones, from young and old males, covering skeleton, **14**. Skeleton **14** was from a mature adult male. The burial cut brown grey silt clay **12**, which contained part of a Lincoln shelly ware jar dating from the 9<sup>th</sup> century to the beginning of the 11<sup>th</sup> century.

#### Pit 7 (Figure 6, Pl. 9)

Pit 7 was in the upper north-east corner of the site. The demolition layer, **1**, contained architectural fragment and sealed a continuation of the robber trench seen in Pits 4/5 and 6. It was numbered **4** in this pit and its full depth was 0.80m. Its fill, **2**, was also the same material as recorded in the robber trench in Pit 6 and one large limestone block, **3**, belonging to the footings was recorded. The robber trench cut through grey silt layers **5** and **6**.



Pits 8 and 9 (Fig. 7, Pls. 10 and 11)

Modern overburden, comprising layers **1** and **2**, was almost 1.50m deep in this pit, and covered an east/west, 0.90m wide, linear feature, **12**, also of modern date, filled by silts, **13** and **21**, which ran the length of the pit.

Below **2** was rubble rich brown silt, **3**, demolition, which contained architectural fragments related to those found in Pile Pit 7 and fragments of human bone. Demolition **3** was above brown silt clay, **4**, sealing an east/west burial, **8**. The grave was filled with a grey brown silt, **9**, which contained fragments of human bone and covered human skeleton, **10**. Another skeleton, **22**, was immediately below **10**. Also beneath **4** was a pale white mortar surface, **17** which overlay a 0.30m deep layer of stones, **16**, which had facing stones, **18**, exposed on the west side.

Wall footings **5**, aligned north/south, 1.30m wide and 0.15m deep overlay compact dirty yellow clay **6**, of a similar depth. This wall probably turned west becoming **15**, and then south, **19**. These walls possibly cut black grey silt clay, **20**, from which a piece of 9<sup>th</sup> – 11<sup>th</sup> century pot was retrieved along with human bone.

Below **5**, cutting **14**, a layer of dark brown silt clay, was a robber trench, **23**, filled by crushed limestone and mortar **7**. Yellow orange clay **11** may also have been part of this robbing, suggesting an east/west wall to the east.

Pits 10 and 11 (Fig. 8, Pl. 12)

Two modern layers, **1** and **2**, sealed three grey silt deposits, **3**, **4**, and **7**, which may be the fill of a north-north-west/south-south-east robber trench, over a wall, **8**, which still had two or three surviving stones within the west facing section of the pit. Late medieval roof tile and a piece of plaster (see Appendix 7) were recovered from deposit **3** whilst human bone came from **4**. An architectural fragment which was part of a basin, was retrieved from **4**. The similarity between the robber trench's fills and the 0.44m deep general layer, **9**, meant that it was impossible to say for certain whether or not there had been a wall which was robbed. Below **8** was an east/west aligned wall, **6**, 1.30m wide, which ran the length of the pit. The wall, which was the continuation of wall **15** in Pits 8 and 9, had a height of over 0.41m and cut through a layer of grey brown silt clay with roof tile, **5**.

Pit 12 (Figure 8, Pl. 13)

This pit was in the north-west corner of the site. It had concrete slabs, **4**, covering modern deposits, **3**, 0.66m deep. Below **3** was a demolition layer, **1**, 0.54m in depth, which contained human bone and sealed a light to mid grey sand silt, **2**, whose full depth was not exposed.



Pit 13 (Fig. 9, Pl. 14)

Pit 13 was located to the south of Pit 12. Modern overburden, **1**, was 1m deep and overlay a blue black clay, **2**. This deposit was 0.12m deep and covered an east/west robber trench, **4**, which projected 0.46m into the trench and was filled by grey silt clay with limestone and mortar fragments, **5**. Robber trench **4** cut a grey clay silt layer, **3**, over 0.50m deep, which continued beyond the base of the pit.

Pit 14 (Fig. 9, Pl. 15)

Pit 14 was located south of Pit 13. The modern deposits in this pit, **7**, measured 0.80m in depth. They overlay a 0.50m deep rubble layer, **1**, which contained human bone and sealed dark grey silt clay, **2**, 0.34m thick. This sealed a second clay layer, **3**, 0.15m thick, which contained a sherd of 12<sup>th</sup> – 13<sup>th</sup> century pottery. This layer was probably the same material as **2** in Pit 13. Layer **3** sealed another robber trench, **5**, aligned east/west which extended beyond the northern limit of the pit. It was a minimum of 1.15m wide. **5** cut through a grey clay silt, **6**, and was filled by **4**, which was silt clay very similar to **3**.

Pits 15 and 16 (Fig. 9, Pls. 16 and 17)

Pits 15 and 16 were located south of Pit 14. Modern deposit, **9**, was 0.32m thick and sealed a possible pit, **4**, in the north-west corner of the excavation. It contained a mix of grey brown and orange brown silt, **10**, cutting a grey brown clay silt layer **5/12** with stone and mortar inclusions. Also cutting **12** was an east-south-east/west-north-west robber trench, **15**, filled with grey brown silt with mortar and limestone fragment inclusions, **8**, and 14<sup>th</sup> – 15<sup>th</sup> century pottery. This robber trench cut wall **7**, which had one course of stones surviving. To the west of **7**, probably contemporary, was buttress foundation, **11**, comprising re-used, chamfered, limestone blocks measuring 0.46m x 0.14m x 0.17m. The buttress was bonded to the wall with a light yellow cream mortar, **2**.

Layer **12** sealed a small pit like feature, **14**, seen only in the north side of the excavations. Its fill, **13**, was identical to that of **5/12**. This feature cut former topsoil, **1/3**, which contained a sherd of 10<sup>th</sup> – 13<sup>th</sup> century pottery, and butted up to an earlier wall fragment or buttress, **6**, almost 0.70m wide and over 0.50m deep, and bonded with a brown silt, **16**.

Pit 17 (Fig. 10, Pl. 18)

Pit 17 was located south of Pits 4/5. Below a 0.10m thick mortar surface, **5**, was a 0.80m long, 0.71m deep, grave, **6**, filled with light brown grey silt, **4**, containing residual 9<sup>th</sup> – 11<sup>th</sup> century pottery with 13<sup>th</sup> century roof tile fragments and human bone from a soil sample (Appendix 8). All that survived of the burial **2**, was a pair of legs aligned east/west, from an



adult male. The rest of the body above the knee had been removed by a robber trench **3**. The burial cut two robber trench fills, **1** and **3**, which appeared to belong to different robber trenches. From **1** came fragments of human bone.

Robber trench **8**, to the east of grave **6**, aligned north/south, is believed to be the robbing of the same wall robbed in Pit 4/5 to the north and Pit 27 to the south (see below). **8** contained a piece of 16<sup>th</sup> – 17<sup>th</sup> century pottery from a drinking jar and roof tiles in its fill **1**. The dating from **8** is believed to be contamination from a later phase of robbing, contemporary with that in Pit 4/5, as all features and deposits recorded in the northern face of Pit 17 were sealed by a floor surface which is seen in other Pile Pits (1/2, 3, 4/5, 6, and 26) and is dated to the 13<sup>th</sup> century. Fill **3**, which sealed **7**, was either limestone rubble or a very disturbed north/south wall belonged to robber trench **9**. It produced a single sherd of 15<sup>th</sup> – 16<sup>th</sup> century pottery.

#### Pit 18 (Fig. 10, Pls. 19 and 20)

Pit 18 was located west of Trench 17. Upper layer **1**, 0.30m deep dark grey silt, sealed a 0.18m thick deposit of grey brown silt, **2**. Beneath, seen at the southern end of the pit, and not fully exposed, was wall **11**, comprising blocks of limestone over 0.50m long, aligned approximately west-east. The wall was cut, to the east, by a robber trench, **20**, filled by rubble **12** consisting of roofing tile and possibly rubble deposit, **13**. To the west of **11** was a buttress over 0.50m wide, **17**, bonded by cream mortar. Only the north-east corner of the buttress was exposed, with its construction trench, **19**, also visible. The gap between buttress and construction trench was filled by small limestone fragments, **18**.

A north/south orientated robber trench, **15**, filled with yellow mortar, **14**, was below wall **11**, cutting brown silt with mortar flecks **16**.

Below **16** was east-north-east/west-south-west aligned wall footing, **10**, 1.60m wide. Its north-south return had been removed by robber trench **4**, filled with brown sand silt containing 12<sup>th</sup> – 13<sup>th</sup> century pottery, **3**.

Two earlier linear features, presumed to be robber trenches, **8** and **6**, both orientated north/south, were below **10**. Robber trench **8** had a rectangular area, over 0.60m long, jutting out to the west, as though for a buttress. Both robber trenches were filled by brown sand silt, **5** and **7**, and cut former topsoil, **9**.

#### Pit 19 (Fig. 11, Pl. 21)

Pit 19 lay north of Pit 18 and immediately west of pits 4/5. A grey silt layer with mortar flecks and human bone, **1**, sealed grey brown silt, **2**. Below was a robber trench, **5**, aligned



north/south. This robber trench was 1.40m wide, 0.34m deep, and filled with brown and grey silts, **3** and **4**. This trench cut through an earlier north/south robber trench, **9**, to the east. Robber trench **9** was over 1.30m wide, and filled with lighter silts with higher mortar content, **6**, **7** and **8**. A single piece of mid 12<sup>th</sup>/mid 13<sup>th</sup> century roof tile was found in layer **7**. The robber trench cut a homogenous brown grey silt, **10**, to the east which sealed a north/south limestone wall, **11**, seen only in the east side of the excavation. Wall **11** was over 2m long and 0.30m high. Four courses survived, the lowest possibly being its footings.

#### Pit 20 (Fig. 11, Pl. 22)

Pit 20 lay between Pit 19 to the south and Pits 8 and 9 to the north. It had a dark blue grey silt clay upper deposit, **1**, which sealed a north/south robber trench, **5**. Its upper fill **2**, was a layer of rubble 0.30m thick, which produced an architectural fragment possibly from a small window (AF 33). Fill **2** sealed a dark grey brown silt, **3**. A large sherd of pottery from a Toynton ware jug dated to 15<sup>th</sup> – 16<sup>th</sup> century was found in **3**. Robber trench **5** had an exposed width of 1.10m and a depth of 0.45m and ran beyond the east side of the excavations. One limestone block of the original wall survived in the base of the excavated hole. The robber trench **5**, cut through a grey clay silt, **4**, probably a former topsoil.

#### Pit 21 (Fig. 11, Pl. 23)

Pit 21 was to the south of Pits 10 and 11. The most recent deposit was a light to mid grey sand silt, **1**, 0.35m deep in places, which overlay a thin (0.10m) layer of rubble, **2**. Beneath the rubble was a 0.25m deep dark grey clay silt, **3**, which was above a similar dark brown grey clay silt, **4**, over 0.55m in depth, containing late 12-13<sup>th</sup> century roof tile fragments. This layer ran below the limits of the excavation.

#### Pits 22 and 23 (Fig. 12, Pl. 24)

These pits were to the south of Pit 21. A 0.30m thick dark grey clay silt with mortar flecks, **1**, sealed a mid to dark grey brown clay silt, **2**, of similar depth, which was above a dark brown grey clay silt, **3**, over 0.30m in depth. This layer ran below the limits of the excavation.

#### Pit 24 (Fig. 12, Pl. 25)

Pit 24 was located in the south-west corner of the site, to the south of pits 15/16. A modern service trench, **4**, with three fills, **1**, **2** and **3**, cut through three modern silt deposits, **5**, **6** and **7**. Beneath **7** was 0.20m deep layer **8** of light brown silt with small limestone fragments. This layer sealed a light brown clay silt, **16** which overlay a brown grey silt, **17**. An east/west robber trench **9**, cut through layer **16**. It was filled with light brown silt layers, **10** and **12**, and orange mortar, **11** and **13**. It had a depth of 0.48m and a width in excess of 1.10m. Substantial wall footings, **14**, bonded by a firm dark orange sand mortar, survived beneath the



robber trench. Its construction trench, **15**, 0.08m wide, was noted on the north side of the wall, filled with mortar and grey silt, **22**. It cut through layer **17**.

Parallel to the north side of wall **14** was Grave **18**, which ran beneath the north section of the excavations. Its fill, **19**, was similar to **17** through which it was cut. The human remains within this grave, **20**, were only partially exposed so attempt was made to remove the bones as they were not under threat from piling. In a north extension to the pit, to locate a pile position away from the wall and the burial a layer of grey silt **21**, was exposed beneath **17**.

#### Pit 25 (Fig. 13, Pl. 26)

The two modern layers, **1** and **2**, sealed a robber trench which crossed the north half of the trench and was recorded as **7** and **9** in opposite sides of the Pit. The robber trench's northern limit lay beyond the excavated area. It contained fills **8/10**, brown silt clays. Cut **7** was noted to be more southerly than **9** which could suggest it is a north/south return.

On the east face, lay wall **4**, which had one course of stone surviving, giving it a height of 0.28m, whilst in the west face was wall **11**, both of which may have been robbed by **7/9**. These walls were probably butted by former topsoil **3**.

Later robber trench **5/13**, running east/west, extending 0.30m into the southern edge of the trench, and was filled with brown silts and a high quantity of demolition material, **14** and **6**, which produced a piece of chamfered limestone (AF2), a jamb section for an exterior doorway (AF 1) as well as limestone blocks, **12**. One course of disturbed stonework of the wall which was robbed, **15**, still survived beneath. Wall **15** was above construction trench **16**, filled by orange brown clay **17**. This trench terminated at its western end and cut a green brown silt clay layer, **18**.

#### Pit 26 (Fig. 13, Pl. 27)

Modern deposits **1** and **2** sealed a north south orientated pipe trench, **10**, filled with black brown clay silt, **11**, and pipe, **12**. Below **2** was former topsoil, **3**, 0.37m deep, which overlay 0.15m deep, charcoal rich, silt, **4**. A possible robber trench, **5**, aligned east/west, extended the length of the pit, lay beneath. It was filled with light grey silt clay with limestone fragments, **6**, which also contained an architectural fragment, a rebated jamb section (AF 3). Below was a 0.16m deep dark grey silt, **7**, sealing a possible surface of similar thickness, comprising cream silt clay, **8**. The lowest deposit was grey silt clay **9**.



Pit 27 (Fig. 14, Pls. 28)

Pit 27 was to the west of Pit 26. Tarmac, **1**, and brick hardcore, **2**, were modern deposits. Beneath **2** was the layer of former topsoil **3**, seen in Pit 26 but here it was thicker as the levels were not so truncated. Light grey clay, **5**, lay beneath, sealing charcoal rich silt, **4**. The surface in Pit 26 also continued, as **6**. A north south robber trench, **7**, over 1m wide, was sealed by surface **6**. It cut through grey clay **9**, over 0.85m deep, and contained a yellow clay fill, **8**.

Pits 28 and 29 (Fig. 14, Pls. 29 and 30)

This pit had a 1m build-up of modern deposits, comprising layers **10**, **11**, **9**, **13**, and **17**. In the south-east corner of the pit was the edge of a large modern pit **15** (filled by **4** and **3**, **5** and **16**) which was sealed by **9** and cut through layer **13**. It should be noted that fill **5** could mark a separate layer or intrusion from pit **15**.

Below the modern deposits was a dark brown silt demolition layer, **8**, 0.12m deep, which sealed north/south orientated wall **1**, 0.80m wide, of which two courses (0.60m high) survived, with an offset foundation on its east side (**2**). Either cut or butting up against this wall was robber trench fill **6**, light brown silt with a sherd of 13<sup>th</sup> – 14<sup>th</sup> century pottery and roof tiles, and **7**, rubble containing many 13<sup>th</sup> century roof tile fragments, which were within an east/west aligned robber trench, **14**. It is not clear if this was from a wall perpendicular to **1** or if it was the debris from the demolition of wall **1** itself. Beneath **7** the lowest deposit in this pit was a dark grey silt clay layer, **12**, which contained a single piece of roof tile.

Pits 30 and 31 (Fig. 15, Pl. 31)

Pits 30/31 were located south of Pit 25 and east of Pit 24. This pit was moved to the north to avoid the anticipated wall recorded as **14** in Pit 24.

Below the newly laid hardcore, a temporary surface for trucks, **1**, was dark brown grey silt clay, **2**, 0.17m deep, which sealed grey brown silt clay, **3**, 0.23m deep, containing shell, charcoal and mortar flecks as well as limestone fragments. Beneath **3** was a 0.10m deep mortar surface, **4**, covering **6**, a 0.20m deep grey brown silt clay layer containing roof tile.

Grave cut **7** catered for a multitude of burials, probably three, which extended the length and width of the eastern side of Pits 30 and 31. The graves were filled by brown silt clay, **8**. Below was layer **6**, firm brown silt clay. There is a possibility that **6** is also part of a grave fill as disarticulated human bones were noted within it. Below was layer **5**, red brown silt clay with occasional limestone fragments. A brown silt clay, **9**, was also noted in the base of the trench



The quantity of disarticulated human bone exposed within this trench led to a decision to abandon the pits and try to place the piles to the south of the wall. As the human remains were not going to be disturbed any further the skeletal remains which had been retrieved were placed back in the excavations.

#### Pit 32 (Fig. 15, Pl. 32)

This pit was situated close to the southern boundary of the site, east of Pit 24, replacing the pile locations in Pits 30 and 31. Concrete slabs, **7**, overlay hardcore, **8** which in turn sealed laminated ash and black silt clay, **9**, resulting in 0.68m deep modern overburden.

Below the modern deposits was a dark grey silt clay surface, **1**, on top of orange sand bedding, **2**. Beneath **2** was a dark brown silt clay, **3**, 0.15m deep overlying demolition layer, **4**, 0.27m deep. Layer **4** sealed east/west wall **5**, the equivalent to **14** in Pit **24**. Wall **5**, was noted only in the north face of the Pit. It had four surviving courses, giving it a height of 0.91m, probably indicating that the stones were part of the wall foundations. The construction cut for the wall, **12**, was also exposed. **2** also sealed a dark brown silt clay layer with frequent pebbles and limestone fragments, **3**.

Wall **5** was constructed next to another, earlier, east/west wall which had been robbed, **10**, and backfilled with rubble, **11**, 1.40m deep. The robber trench ran the length and width of the Pit. It cut a brown grey clay silt layer, **6**, seen only in the base of the trench.

#### Pits 33 and 34

These numbers were not used.

#### Pit 35 (Fig. 16, Pl. 33)

Pit 35 was located east of Pits 1 and 2 in an attempt to find an alternative pile position. A 0.50m demolition layer, **1**, sealed a mix of dark grey silt clay and brown silt clay, 0.20m deep, **2**, which sealed dark grey silt clay, **3**, which was over 0.80m in depth and probably represented more than one former topsoil horizon.

#### Pit 36 (Fig. 16, Pl. 34)

Pit 36, was dug to the south of Pit 18 in an attempt to find an alternative pile position. Like Pit 18 there was a blue black silt clay layer, **1**, sealing dark brown silt clay, **2**, which contained roof tile and overlay wall **3**. This survived as a single course 0.13m deep and was the south face of wall **11** recorded in Pit 18. In the base of the pit was a dark grey silt clay, **4**.



Pits 37 and 38 (Pl. 35)

These pits were excavated over Lincoln College's Abbey Building footings to determine foundation depth and, did not penetrate any archaeology.

Pit 39 (Fig. 17, Pls. 36 and 37)

This pit was located next to the north-east corner of the Abbey Building. Piling (disturbances **15** and **16**) for the proposed new north wall for Abbey Building met resistance and archaeologists were called in. This area had previously not been discussed as an area to monitor. Modern deposits, **7** and **10**, 0.50m in depth, covered extensive stonework beneath. At this point the City Archaeologist was consulted. Cleaning of the pit revealed walls in a T-shape plan at the eastern end of the pit. North/south wall, **5** and **21**, was keyed into east/west wall **1**, which was 1.20m wide and 0.65m deep. A large area of this wall had been removed by a modern pit, **2/9**. Pit **2/9** was filled with grey silts, **8**, **13** and **14**. Evidence of robbing, **20**, filled with grey clay silt which contained human bone, **19**, was also noted over walls **5** and **21**. A possible north/south return, **11** was recorded 4.50m to the west of **5** and **21**. This wall had also been robbed, **18**, fill **17**. Layer **6**, a dark grey silt clay containing human bone butted these walls on the north side.

No construction cut, **12**, was noted for the walls as they had been constructed on top of an earlier wall, **3/4**, 1.85m wide, with a corner close to the east end of the pit, which revealed four courses of stonework. Two pieces of un-diagnostic tile were recovered from it

Additional Watching Brief Area (Fig. 18, Pls. 38 - 40)

An additional area was monitored along the west wall of the existing college building called Abbey Building. The trench was only 0.50m wide and no greater than 0.50m in depth but a considerable amount of archaeology was exposed.

Contaminated ground **1003** with concrete **1004** and deposit **1002** marked the modern disturbance. A clay surface, **1001**, was noted below **1002** at the east end of the trench. To the south was east/west aligned limestone wall, **1000**, which had ashlar facing stones still present on the south face giving it a surviving width of 0.77m. No direct relationship between **1000** and **1001** was noted as the northern extent of **1000** had been removed by modern disturbance associated with the Abbey Building. East/west aligned limestone wall **1011**, to the north of **1001**, may have been contemporary with **1001** having the same compact buff mortar bonding material. This wall also has a surviving south face, the north also removed by work related to the Abbey Building. To the south of **1000**, the other side of the wall, was another brown clay surface, **1005**, which extended southward for 0.72m. A worn limestone floor **1006**, 1.40m of length still surviving, lay further to the south, separated from **1005** by a concrete



footing. A wall, **1007**, orientated slightly east of north, was constructed directly onto **1006**. It had two courses surviving, bonded by compact grey brown mortar, and was over 1m wide. To the south a later, east/west aligned, wall, **1008**, a mere 0.35m wide, bonded by loose brown sand mortar, cut **1007**. Its foundation trench, **1010**, was not excavated. It is unclear whether east/west orientated wall **1009**, to the south of **1008**, which had a brown yellow sand mortar, was contemporary with any of the other phases.

### Discussion

The watching brief has confirmed the presence of an extensive complex of stone buildings belonging to the Dominican Friary, and its clearance, together with more fragmentary evidence for Roman and post-Roman activity. This has shed light on the results of the investigations undertaken by the CLAU in advance of the construction of the new learning centre on the corner of Abbey Street and Monks Road in 2000. The results of the Cathedral Street watching brief have enabled a reinterpretation of these results to be made (Figs. 20 - 22), which in turn have thrown light on the results from the watching brief. Regrettably, the limitations of the investigations have raised more questions than it is possible to answer.

### Roman Activity

The evidence for Roman activity was limited but significant, when amalgamated with the evidence from other sites in the vicinity. The 2<sup>nd</sup> century burial **24**, found in Pits 4 and 5 is probably associated with other inhumations recorded north of Monks Road and Cathedral Street (Trimble 1995). This site was to the west of the Cathedral Street site. The absence of any human remains adjacent to Monks Road (McDaid forthcoming) suggests that the cemetery in which these inhumations were placed does not extend as far south as the Roman road, which is thought to have followed the present line of Monks Road. The cemetery may have been restricted to a single terrace, defined by walls **14** (in Pits 28 and 29) and **10** (Pit 32). The north/south wall, **42** and **43** (Pits 4 and 5) also recorded as **3** in Pit 7, and as a robber trench **29** in Pits 4 and 5, 6, 7, 19 and 27 could have divided this terrace into smaller parcels of land at a later date, possibly in the 3<sup>rd</sup> century, as its construction trench **46** (Pits 4 and 5) cut burial **24**. The corner of another wall in Pit 39 could be part of the northern terrace wall dividing the land east/west.

The northern terrace was c.2m higher than the ground to the south. Deposits identified as early or pre-Roman in date ( i.e. **47** in Pits 4 and 5, **6** (Pit 7), **14** (Pits 8 and 9) and **5** (Pits 10 and 11), were at 17.84m OD and below. Excavation in Pit 2 exposed yellow clay natural, **19**, at 17.35m OD.



Re-examination of the CLAU excavation results identified walls which pre-date the Friary church and may actually be Roman. The footing below wall **155** on its east side (which was not assigned a context number) was, in fact, on a north-north-easterly alignment and appears to lie below the construction trench cut, for **155**, (**149**). In addition, Roman deposits **91**, **152**, **153**, and **202** were recorded as abutting it, indicating that it must also be Roman in date. Unfortunately, this wall is not recorded in any section drawings. Wall **126**, interpreted as column footings, below the 13<sup>th</sup> century floor surface of the church, is of a similar orientation to the wall and foundations **222**, which were recorded as being 3m deep, could be seen as a continuation of wall **126**. To the south footings **197**, which run west-east below wall **125** may connect these two north-south walls, forming a rectangular structure 5.25m wide from east wall face to east wall face. These walls are on the same alignment as the terrace wall **42/43** on the Cathedral Street site, to the west.

If this interpretation is correct and there is a Roman building running through the centre of the site beneath the church it is possible that the Roman road which was tentatively suggested running through the Abbey Street site is now less likely and that the recorded surfaces, **152**, **153** and **202** are probably those of a yard.

Buttress **18** is built on top of stonework (un-numbered), a possible wall, which stops at the 17.00m mark. This may be the remnant of another Roman wall.

#### Post Roman to Pre 13<sup>th</sup> Century Activity

A post-Roman dark earth layer was recorded in almost all the excavated pits across the Cathedral Street site, the exceptions being Pits 17, 30, 31, 37 and 38. This is a phenomenon well-documented in other parts of the city. (The post Roman/early Anglo-Saxon dark earth horizon was not recognized in the original CLAU excavation report but can now be seen as comprising layers **90**, **91**, **119-123**, **135-137**, **192-195**, which all abutted the Roman walls described above and were also truncated to a level of 17m O.D.)

Features which appear to pre-date the friary were noted cutting into the dark earth layer. Pit 8 and 9 contained robber trench **23**, probably on an east/west alignment. Pit 18 contained north/south robber trenches **6** and **8**, whilst Pit 25 had robbed wall **4** on the same alignment, as did Pit 19, **11**. Another east/west wall was recorded at the west end of the site, **5** (Pit 14), and possible posthole, **14** and buttress **6**, both Pits 15 and 16, to the south-east. Their location in relation to one another, together with the lack of associated dating material, mean that a secure interpretation of their function cannot be attempted. Little is known about what happened in this part of the *Butwerk* suburb during this period, except that there is evidence of pottery production further west on the site of the Sessions House, just east of the city walls.



Hill notes that this was a poor part of the city (Hill, 1990, 150). It has been noted elsewhere that before permanent accommodation was provided in monasteries temporary timber buildings were constructed, for example at Fountains Abbey, Norton Priory and Sandwell Priory (Hunter and Ralston 1999, 239). It is possible therefore that some of the pre-monastic walls and trenches on the Cathedral Street site are associated with similar activity. There is no reason why timber buildings on one terrace could not have been active whilst construction of the friary was under way on another terrace. There is certainly evidence of pre-friary buildings been used as latrines in the 13<sup>th</sup> century at the south-west end of the Monks Road site, before been backfilled and incorporated into outbuilding foundations (McDaid forthcoming).

#### 13<sup>th</sup> Century to 16<sup>th</sup> Century Activity (Fig. 19)

Notwithstanding possible parallels with other Dominican friary sites there would have been no possibility of attributing any of the recorded walls on the Cathedral Street site to specific areas of the monastic complex, without the results of the CLAU excavations to the east. The difficult working conditions during the watching brief meant that the recorded archaeological remains provide, at best, a garbled picture of the site and only an educated guess can be made as to the function of the building remains .

It is recorded that Henry III gave the Black Friars thirty trees for their building works in 1238. In 1284 Edward I gave them twelve oaks to make roof shingles. Even allowing for the subsequent looting of the site the absence of large quantities of roof tile from the site would seem to substantiate this documentary evidence. Edward gave another four trees for the work of their church in 1290 (Hill 1990, 150). That construction had been going on for at least fifty-two years indicates several stages of building work and perhaps that the church was not the first building to be started.

The walls on the site excavated by CLAU which have been proposed as being of Roman date all survive to a height of c.17m O.D. This level also marks the base of the 13<sup>th</sup> century horizon, which suggests that prior to the construction of the monastery the land was levelled to a uniform height. Substantial walls remained standing, and were incorporated into the monastic buildings with lesser walls acting as foundations. This practice was also noted at Saltergate in Lincoln, west of the Monks Road site, for the same period (Vince *et al* p304). This meant that the ground plan for the monastic buildings was partially dictated by the standing walls of buildings as well as existing terraces with all that this implies regarding limitations of space. Similar problems were encountered at the Blackfriars site in Norwich where land was at such a premium that the cloisters had to be rotated to fit into available space.



The presence of column bases and the substantial size of the buttressed walls suggest that the medieval structure on the CLAU site was the east end of the church. Wall **155** which sits on the Roman wall discussed above is proposed as the east wall. This wall was 1.60m wide, 0.30m thicker than **18** to the south, which is also on a slightly different alignment and probably a later phase. The angle buttresses and the return wall, **17** are also c. 1.30m wide.

A robber trench (**26** in Pit 9) recorded during the 2003 watching brief on Monks Road, is probably a continuation of wall **17** (McDaid forthcoming). This would make wall **17** over 30m long. We see from other Dominican friaries, such as Norwich, that the friary church is the only building in the complex to have walls of comparable length to **17**.

Although the layouts of other Black friar sites are not identical they do adhere to basic principles with the cloister and chapter house being in close proximity to the church. Burials within the monastery complex were usually confined to an area around the church, cloister and Chapter House. Their location was often determined by status and the Chapter House was often reserved for abbots, priors, or a monastery's founder or most significant patron (Hunter and Ralston 1999, 242).

If the position of the church accepted it is possible to propose a possible interpretation of the walls and surfaces observed during the watching brief to the north-west. The area of the 2003 Cathedral Street lies in an area which would typically have been that of the cloister and chapter house. The Roman north/south wall, found in Pits 4 and 5 (**42**) and Pit 7 (**3**) may have formed the eastern side of the cloister. The wall recorded as **16** in Pits 8 and 9 and **6** (Pit 10) would then have formed the external wall of the northern arcade. This wall did not show in Pit 12, possibly signifying an entrance to a building to the north, perhaps the *Cellarium*, a storage area. Wall **14**, in Pit 24 which also appeared in the north face of Pit 32, **5** may have been the southern arcade. Walls **1** and **2** in Pits 28 and 29 would have been the western wall of a corridor, which connected the two terraces. Floor slabs AF28 and 29 found in Pits 8 and 10, could have come from the north aisle of the cloister.

The internal walls of the cloister are more difficult to distinguish, with a vast number of robber trenches and walls recorded in the pits but few seemed to have any continuity between pits. The robber trenches, going clockwise from the northern arcade, were **4** (Pit 13) **5** (Pit 20), **5** (Pit 19), **13** and **15** (Pit 18), and possibly **3** in Pit 36, which would have formed the inner wall of eastern arcade. Walls **10** and **11**, possibly returned northward at its west end. Robber trench **4** (Pit 18), **11/12** and **15** (Pit 25) and **7** (Pits 15 and 16) defined the southern limit. No



western wall was exposed, and as such, the full east/west dimensions for the cloister cannot be suggested.

A former topsoil layer was recorded in Pits 13, 21, 20, 22 and 23 and 14 and lay within the cloister walls defining the garth, which was not surfaced. Yellow clay deposits seen in Pits 4 and 5, 6, 8 and 9, 17, 30 and 31 and 24 may represent the surrounding cloister floor. Levelling for the floor was also noted in Pits 4 and 5 and Pit 24. A possible earlier floor, with a trample layer separating the two surfaces was recorded in Pits 4 and 5, continuing into Pit 6. The levels of the later cloister floor show was c.19m O.D. along the eastern side of the cloister whilst the north side was c.18.89m O.D. and the south side somewhat lower at c.18.50m. These lower surfaces had a step (18 Pits 8 and 9) connecting them to the higher cloister floor. Deposit 6 in Pits 30 and 31 could be a deliberate attempt to level the ground of the southern aisle.

The cloister floor sealed the six burials which were found in this area in Pits 4 and 5, 6, 17, 24 and Pits 30 and 31. Of note was burial 6 in Pit 17 which had been cut by pits at both ends and only the lower legs and feet survived. The finds from this burial are late, probably just before the Dissolution.

It should also be noted that the eastern outer wall of the northern cloister is the north/south Roman terrace wall, thus the alignment of the cloister was partially dictated by this wall. Pit 17 revealed that floor surface 5, sealed the robber trenches of the north/south Roman terrace, 8, and a pre-friary east/west wall, 9, whilst all other floor surfaces butted up to the terrace wall. This means that part of the terrace wall was partially robbed during the 13<sup>th</sup> century. The Roman terrace wall was probably robbed at the location of Pit 17 to allow an entrance to be created for a building to the east of the cloister, the possible location of the Chapter House. This building was defined by robber trenches 41 in Pit 4, 3 Pit 3, 4 Pit 1 and 2, wall 10 and construction trench and fill 11 and 12 in Pit 2. Its floor, 2 (Pit 1 and 2), 2 in Pit 3 and 8 in (Pit 26) is c.0.60m lower than the cloister, presumably due to it being east of the Roman terrace wall where the ground would have been lower. Several floor surfaces, (2 (Pit 1), 2 and 13 (Pit 2) and 2 (Pit 3), and possible trample accumulation, 3 (Pit 2), were noted within the interior of this building.

Surface 15 (Pit 2) and trample 6/14 (Pit 2) are either associated with a different structure (as 15 is below the eastern wall of the building) or mark an earlier, larger, phase. Similarly wall 7 (Pit 1) which was robbed prior to wall, 10 (Pit 10), could be part of the same building. In Pit 26 an east/west robbing, 5, was observed above trample 7 and surface 8, suggesting that 5



could be the south wall of the proposed Chapter House. A burial, **16** (Pit 2), was also recorded below floor, **15**.

A further room, immediately north of the proposed Chapter House, possibly the *Dortor* (dormitory), was indicated by the presence of floor surface **2** (Pit 3).

Burial **8** in Pit 8 and 9 appears to be located in the south-east corner of a room (defined by north/south wall **5** and east/west wall **16** in Trench 8 and 9 and possibly robber trench **4** in Pit 7) to the north of the cloister. A layer of trample, **4** (Pit 8 and 9) was noted to have accumulated over the grave.

The walls, **1000**, **1007**, **1008**, **1009** and **1011**, and floors **1001**, **1005** and **1006**, recorded during the excavation of a trench to the west of the Abbey Building, probably represent at least one building to the east of the Chapter House. So little was exposed that speculation as to its extent, or function, is not possible. Walls **5/21** and **11** in Pit 39 could also be associated with this phase of activity, possibly indicating a further building to the north-east.

It is the architectural fragments from the demolition layers, including several pieces from an early 13<sup>th</sup> century traceried window, which help to provide a picture of the grandeur and status of the building which once stood on the site. The quality of the carving has been compared with work of similar date at the cathedral (see Appendix 6). This is not surprising given the royal patronage of the friary which was the largest and richest religious house in Lincoln.

#### Post Friary Activity

It has to be assumed that the main demolition layer was associated with dismantling of the friary complex after the Dissolution. Whether this was immediate and short lived or took place over a long period of time cannot be determined from the evidence of the watching brief. It is known that a grand house known as 'The Black Friars', was constructed on the site of the Friary which remained standing until at least 1642 (Trimble 2003, 3). Stukeley's 1722 map of Lincoln depicts 'ruins of the Fryery' but are these the remains of the later house? Marrat's 1817 map depicts a cruciform building labelled Friars, just to the east of Holgate [Lane], a continuation south from the Greestone Steps, whilst Padley's map of 1819, shows a vacant plot (Mills and Wheeler 2004). Few other later deposits, other than the most recent ones associated with the college, can be so positively identified.

#### **Conclusion**

Whilst the watching brief results have identified a number of substantial medieval stone buildings this was not unexpected as it was already known to be the site of the Dominican



Friary. Had it not been for the excavations carried out by the CLAU to the east, coupled with a general understanding of the layout of such sites, it would have been impossible to say anything about the disjointed jumble of walls, robber trenches and other features recorded in the individual holes around the site.

Only 10 of the original proposed 39 pile positions were excavated to specified size. The remainder had to be enlarged, in some cases quite extensively, to avoid the medieval stone walls which obstructed the drill. This resulted in considerable damage to the archaeology of the site. Additional archaeological staff had to be brought in to deal with the recording work to prevent delay to the construction works. This resulted in additional expense to the client.

A series of specific research priorities has been set out for this part of the city (Jones, Stocker and Vince 2003) none of which could be fully addressed during the course of the watching brief. This was a missed opportunity which might have resulted in learning not only more about the Roman *vicus* and the medieval Dominican friary, but also the little known activity from the 5<sup>th</sup> – 11<sup>th</sup> centuries that occurred on the site.

The original requirements for a very limited area of site evaluation (see McDaid 2003) resulted in a gross underestimate of the archaeological importance of the site, despite the presence of human remains. A re-assessment by Lincoln City Council of how to evaluate complex urban sites, especially those of known historical importance, is urgently required. Any future investigations of the site have been seriously compromised by the inadequate archaeological requirements for this scheme and the resulting response.

#### **Acknowledgements**

LAS would like to thank the staff at Lincoln College, Mick Jones the City Archaeologist and team from Linpave, particularly Rob Weaver, Malcolm Cousins and Phil Dye. Medieval and post medieval pottery reports were by Jane Young. The Roman pottery report was by Maggi Darling. Geraint Franklin recorded the architectural fragments. Geraint Franklin Jen Mann identified the small finds. Special thanks are due to Dr Glyn Coppack, Inspector of Ancient Monuments at English Heritage, for providing invaluable information on monastic sites. John Hockley at CLAU. The site was monitored and recorded by Dave Britchfield, Mike Garrett, Wayne Livesey, Mick McDaid, Ian Rowlandson and Julian Sleaf. Naomi Field edited the report which was collated and produced by Doug Young.

Mick McDaid  
January 2006



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Photographs: LAS film number 03/134/1-36, 03/135/1-6, 12-36, 03/136/1-36, 03/139/6-22, 03/142/15-22, 32-36, 03/148/1-6 and 03/153/0-18

Correspondence

Finds



**APPENDIX 1**



Lincoln Cathedral Street  
Watching Brief (LCSZ 03)  
Context List

APPENDIX 1

Pile Pit	Context Type	Context	Description	Length	Width	Depth
1	Layer	1	Demolition	2m+	2m+	0.50m
1	Layer	2	Surface	2m+	1.16m+	0.04m
1	Layer	3	Brown grey silt	2m+	1.16m+	0.18m
1	Cut	4	Robber trench	2m+	1m+	0.64m
1	Fill	5	Fill of 4	2m+	0.84m+	0.42m
1	Layer	6	White grey silt clay	2m+	0.35m+	0.45m+
1	Structure	7	Wall	2m+	0.35m+	n/a
1	Fill	8	Fill of 4	2m+	1m+	0.23m
1	Fill	9	Fill of 4	2m+	0.43m	0.17m
1	Cut	10	Robber trench	2m+	0.35m+	0.45m+
1	Layer	11	Dark earth	2m+	0.65m+	n/a
2	Layer	1	Demolition	1.50m+	1m+	0.50m
2	Layer	2	Surface	1m+	0.68m+	0.04m
2	Layer	3	Brown grey silt	1m+	0.68m+	0.18m
2	Cut	4	Robber trench	1m+	0.84m+	0.51m
2	Fill	5	Fill of 4	2m+	0.84m+	0.29m
2	Layer	6	Grey silt clay	1m+	0.52m+	0.32m
2	Layer	7	Brown grey silt	1m+	0.50m+	0.42m
2	Fill	8	Fill of 4	1m+	0.84m+	0.23m
2	Fill	9	Fill of 4	1m+	0.84m+	0.28m
2	Structure	10	Wall	1m+	0.43m	0.17m
2	Cut	11	Construction trench	1m+	0.96m+	0.30m
2	Fill	12	Fill of 11	1m+	0.96m+	0.30m
2	Layer	13	Surface	1m+	0.68m+	0.04m
2	Layer	14	Grey silt clay	same	as	6
2	Layer	15	Surface	1.50m+	1m+	0.10m
2	Cut	16	Grave	1.50m+	0.60m+	0.44m
2	Layer	17	Brown grey silt	1.50m+	1m+	0.74m
2	Fill	18	Fill of 16	1.50m+	0.60m+	0.44m
2	Layer	19	Yellow clay	2m+	1m+	n/a
3	Layer	1	Demolition	1.25m+	1m+	0.64m
3	Layer	2	Surface	1.25m+	0.50m+	0.06m
3	Layer	3	Light brown sand silt	1.25m+	0.50m+	0.20m
3	Layer	4	Dark grey sand clay silt	1.25m+	1m+	0.42m
3	Layer	5	Brown sand clay silt	1.25m+	1m+	0.24m+
3	Layer	6	Brown grey silt	1.25m+	0.50m+	0.12m
4 and 5	Fill	20	Fill of 24	0.30m+	0.30m	0.20m
4 and 5	Fill	21	Fill of 26	0.56m+	0.30m+	n/a
4 and 5	Fill	22	Fill of 28	0.56m+	0.30m+	n/a
4 and 5	Fill	23	Fill of 24	0.30m+	0.30m	0.20m
4 and 5	Cut	24	Grave	0.30m+	0.30m	0.20m
4 and 5	Fill	25	Fill of 26	0.56m+	0.30m+	0.74m+
4 and 5	Cut	26	Grave	0.56m+	0.30m+	0.74m+
4 and 5	Fill	27	Fill of 28	0.56m+	0.40m+	0.74m+
4 and 5	Cut	28	Grave	0.56m+	0.40m+	0.74m+
4 and 5	Cut	29	Robber trench	1.76m+	2.33m	1.40m+
4 and 5	Fill	30	Fill of 29	1.76m+	1.60m	0.58m
4 and 5	Fill	31	Fill of 29	1.76m+	2.09m	0.95m
4 and 5	Fill	32	Fill of 29	1.76m+	2.33m	1.40m+
4 and 5	Layer	33	Dark brown sand silt	3.60m+	1.20m+	0.19m
4 and 5	Layer	34	Surface	1.76m+	0.66m+	0.08m
4 and 5	Layer	35	Light brown silt	1.76m+	0.66m+	0.19m



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APPENDIX 1

Pile Pit	Context Type	Context	Description	Length	Width	Depth
4 and 5	Fill	36	Fill of 38	0.92m	n/a	0.14m
4 and 5	Fill	37	Fill of 28	0.56m+	0.12m	0.74m+
4 and 5	Cut	38	Robber trench	0.92m	n/a	0.14m
4 and 5	Fill	39	Fill of 41	0.66m+	0.60m+	0.66m
4 and 5	Fill	40	Fill of 41	0.66m+	0.60m+	0.30m+
4 and 5	Cut	41	Robber trench	0.66m+	0.60m+	0.96m+
4 and 5	Structure	42	Footings	1.76m+	0.23m	n/a
4 and 5	Structure	43	Wall	1.76m+	2.33m	n/a
4 and 5	Layer	44	Brown grey silt	1.76m+	0.66m+	0.74m
4 and 5	Layer	45	Brown grey silt	n/a	0.70m+	0.30m+
4 and 5	Cut	46	Construction trench	1.76m+	2.56m+	n/a
4 and 5	Layer	47	Dark brown grey silt	1.76m+	0.66m+	n/a
4 and 5	Fill	48	Fill of 46	1.76m+	c.0.50m	n/a
6	Layer	1	Dark grey sand clay	3.80m+	0.50m+	0.20m
6	Layer	2	Demolition	3.80m+	0.50m+	0.40m
6	Layer	3	Green grey sand silt	1.90m	0.50m+	0.12m
6	Layer	4	Grey brown silt clay	0.70m	0.50m+	0.15m
6	Layer	5	Surface	0.40m	0.50m+	0.10m
6	Fill	6	Fill of 7	1.20m+	0.50m+	0.60m+
6	Cut	7	Robber trench	1.20m+	0.50m+	0.60m+
6	Fill	8	Fill of 16	3.05m	0.50m+	0.50m
6	Layer	9	Surface	0.40m	0.50m+	0.04m
6	Structure	10	Wall	0.55m+	0.50m+	0.43m
6	Cut	11	Construction trench	0.55m+	0.50m+	0.20m
6	Layer	12	Grey brown silt clay	0.50m+	0.50m+	n/a
6	Layer	13	Fill of 16	same	as	8
6	Fill	14	Fill of 15	c.2m	0.50m+	n/a
6	Cut	15	Grave	c.2m	0.50m+	n/a
6	Cut	16	Grave	same	as	15
6	Layer	17	Grey brown silt clay	1.20m	0.50m+	0.15m
7	Layer	1	Demolition	2m+	0.50m+	0.65m
7	Fill	2	Fill of 4	2m+	0.50m+	0.80m
7	Structure	3	Wall	2m+	0.50m+	0.48m
7	Cut	4	Robber trench	2m+	0.50m+	0.80m
7	Layer	5	Brown grey silt	2m+	0.50m+	0.80m
7	Layer	6	Dark brown grey silt	2m+	0.50m+	n/a
8 and 9	Layer	1	Tarmac	3m+	n/a	0.10m
8 and 9	Layer	2	Modern overburden	3m+	3m+	0.88m
8 and 9	Layer	3	Light brown silt clay	3m+	3m+	0.47m
8 and 9	Layer	4	Brown silt clay	3m+	3m+	0.37m
8 and 9	Structure	5	Wall	0.32m+	1.30m	n/a
8 and 9	Layer	6	Yellow clay	1.80m+	n/a	0.15m
8 and 9	Fill	7	Fill of 23	0.90m+	1.30m	0.20m+
8 and 9	Cut	8	Grave	0.42m+	0.30m+	0.50m+
8 and 9	Fill	9	Fill of 8	0.42m+	0.30m+	0.50m+
8 and 9	Layer	10	Fill of 8	0.42m+	0.30m+	0.50m+
8 and 9	Layer	11	Yellow orange clay	1.80m+	0.90m+	n/a
8 and 9	Cut	12	Modern disturbance	3m+	0.90m	0.50m+
8 and 9	Layer	13	Fill of 12	3m+	0.90m	0.50m+
8 and 9	Layer	14	Dark brown silt clay	1.80m+	n/a	0.20m+
8 and 9	Structure	15	Wall	3m+	1m+	n/a
8 and 9	Structure	16	Wall	1.60m+	0.60m+	n/a



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Context List

Pile Pit	Context Type	Context	Description	Length	Width	Depth
8 and 9	Layer	17	Surface	1.30m+	1.60m	n/a
8 and 9	Structure	18	Step	1m+	0.20m+	n/a
8 and 9	Structure	19	Wall	same	as	15
8 and 9	Layer	20	Black greysilt clay	1.40m+	1.40m+	n/a
8 and 9	Fill	21	Fill of 12	3m+	0.45m	0.50m+
8 and 9	Fill	22	Skeleton	n/a	n/a	n/a
8 and 9	Cut	23	Robber trench	0.90m+	1.30m	0.20m+
10 and 11	Layer	1	Grey clay silt	2.32m+	0.80m+	0.47m
10 and 11	Layer	2	Dark brown grey silt clay	3.18m+	2.38m+	0.20m
10 and 11	Layer	3	Light grey brown sand silt	2.32m+	1.80m+	0.43m
10 and 11	Layer	4	Brown grey sand clay	3.18m+	2.32m+	0.31m
10 and 11	Layer	5	Grey brown silt clay	3.18m+	2.32m+	0.41m+
10 and 11	Structure	6	Wall	2.32m+	1.30m	0.41m+
10 and 11	Layer	7	Dark brown grey sand clay	3.18m+	2.32m+	0.13m
10 and 11	Structure	8	Wall	2.32m+	0.30m+	n/a
10 and 11	Layer	9	Dark brown grey sand clay	3.m+?	2.32m+	0.44m
12	Layer	1	Light to mid grey sand silt	2m+	0.50m+	0.07m
12	Layer	2	Dark brown grey sand clay	2m+	0.50m+	0.66m
12	Layer	3	Modern overburden	2m+	0.50m+	0.54m
12	Layer	4	Concrete slabs	2m+	0.50m+	0.12m+
13	Layer	1	Modern overburden	1.60m+	0.50m+	1m
13	Layer	2	Black silt clay	1.60m+	0.50m+	0.12m
13	Layer	3	Brown grey silt	1.14m+	0.50m+	0.50m+
13	Cut	4	Robber trench	0.46m+	0.50m+	0.50m+
13	Fill	5	Fill of 4	0.46m+	0.50m+	0.50m+
14	Layer	1	Demolition	2m+	0.50m+	0.40m
14	Layer	2	Dark grey silt clay	2m+	0.50m+	0.34m
14	Layer	3	Mid to dark grey silt clay	2m+	0.50m+	0.15m
14	Fill	4	Fill of 5	1.30m+	0.50m+	0.32m+
14	Cut	5	Robber trench	1.30m+	0.50m+	0.32m+
14	Layer	6	Grey silt	0.70m+	0.50m+	0.32m+
14	Layer	7	Modern overburden	2m+	0.50m+	0.80m
15 and 16	Layer	1	Dark grey brown silt clay	2.26m+	1.45m+	0.75m+
15 and 16	Layer	2	Yellow mortar	0.50m+	0.30m+	n/a
15 and 16	Layer	3	Grey brown silt clay	same	as	1
15 and 16	Cut	4	Unidentified feature	1.40m+	0.35m+	0.44m
15 and 16	Layer	5	Grey brown silt clay	0.50m+	0.68m	0.51m+
15 and 16	Structure	6	Wall (butress)	0.50m+	0.68m	0.51m+
15 and 16	Structure	7	Wall	1.60m+	0.80m+	n/a
15 and 16	Fill	8	Fill of 15	1.60m+	0.80m+	n/a
15 and 16	Layer	9	Modern overburden	2.26m+	2.15m+	0.32m
15 and 16	Fill	10	Fill of 10	same	as	4
15 and 16	Structure	11	Stone platform	0.53m+	0.50m	0.10m
15 and 16	Layer	12	Dark grey brown clay silt	n/a	0.94m+	0.46m
15 and 16	Fill	13	Fill of 14	n/a	0.50m	0.18m
15 and 16	Cut	14	Unidentified feature	n/a	0.50m	0.18m
15 and 16	Cut	15	Robber trench	1.60m+	0.80m+	n/a
15 and 16	Bonding?	16	Brown silt	0.46m	0.24m	n/a
17	Fill	1	Fill of 8	0.90m+	1.20m+	0.61m+
17	Fill	2	Fill of 6	0.50m	0.20m	0.10m



Context List

Pile Pit	Context Type	Context	Description	Length	Width	Depth
17	Fill	3	Fill of 9	1.20m+	0.60m+	0.61m+
17	Fill	4	Fill of 6	0.80m	0.60m+	0.71m
17	Layer	5	Surface	1.60m+	1.20m+	0.10m
17	Cut	6	Grave	0.80m	0.60m+	0.71m
17	Fill	7	Fill of 8	1.20m+	n/a	0.61m+
17	Cut	8	Robber trench	1.20m+	n/a	0.61m+
17	Cut	9	Robber trench	1.20m+	0.60m+	0.61m+
18	Layer	1	Dark grey silt	5.40m+	1.80m+	0.30m
18	Layer	2	Grey brown silt	5.40m+	1.80m+	0.18m
18	Fill	3	Fill of 4	1.20m+	0.60m+	0.26m
18	Cut	4	Robber trench	1.20m+	0.60m+	0.26m
18	Fill	5	Fill of 6	0.90m+	0.46m	0.20m
18	Cut	6	Robber trench	0.90m+	0.46m	0.20m
18	Fill	7	Fill of 8	0.80m+	0.70m+	0.40m+
18	Cut	8	Robber trench	0.80m+	0.70m+	0.40m+
18	Layer	9	Brown grey silt	1.50m+	1.10m+	0.38m+
18	Structure	10	Footings or wall	1.40m+	1.60m	n/a
18	Structure	11	Wall	2.80m+	0.40m+	n/a
18	Fill	12	Fill of 20	2.30m+	0.80m+	n/a
18	Layer	13	Rubble or robber trench fill	0.80m+	0.44m+	n/a
18	Fill	14	Fill of 15	0.22m+	0.46m	n/a
18	Cut	15	Robber trench	0.22m+	0.46m	n/a
18	Layer	16	Brown silt	c.3m	0.20m+	n/a
18	Structure	17	Wall (butress)	0.50m	0.46m+	n/a
18	Fill	18	Fill of 19	0.48m	0.08m	n/a
18	Cut	19	Construction trench	0.48m	0.46m+	n/a
18	Cut	20	Robber trench	2.30m+	0.80m+	n/a
19	Layer	1	Grey silt	2.07m+	1.40m+	0.18m
19	Layer	2	Grey brown silt	2.07m+	1.40m+	0.18m
19	Fill	3	Fill of 5	1.40m+	0.90m	0.24m
19	Fill	4	Fill of 5	1.40m+	1.40m	0.34m
19	Cut	5	Robber trench	1.40m+	1.40m	0.34m
19	Fill	6	Fill of 9	2.07m+	1.40m+	0.43m
19	Fill	7	Fill of 9	1.40m+	1.30m+	n/a
19	Fill	8	Fill of 9	1m+	0.12m	0.22m
19	Cut	9	Robber trench	1.40m+	1.30m+	0.43m+
19	Layer	10	Brown grey silt	1.40m+	0.70m+	0.50m+
19	Structure	11	Wall	2.07m+	1.40m+	0.30m+
20	Layer	1	Black silt clay	2.10m+	0.50m+	0.35m
20	Layer	2	Demolition	2.10m+	0.50m+	0.30m
20	Fill	3	Fill of 5	0.50m+	1.10m+	0.45m
20	Layer	4	Dark grey silt clay	1m+	0.50m+	0.45m
20	Cut	5	Robber trench	0.50m+	1.10m+	0.45m
21	Layer	1	Green grey sand silt	2m+	0.50m+	0.35m
21	Layer	2	Demolition	2m+	0.50m+	0.10m
21	Layer	3	Dark grey silt clay	2m+	0.50m+	0.25m
21	Layer	4	Dark brown grey clay silt	2m+	0.50m+	0.55m+
22 and 23	Layer	1	Dark grey clay silt	2.40m+	0.50m+	0.30m
22 and 23	Layer	2	Grey brown clay silt	2.40m+	0.50m+	0.30m
22 and 23	Layer	3	Dark brown grey clay silt	2.40m+	0.50m+	0.30m+



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Pile Pit	Context Type	Context	Description	Length	Width	Depth
24	Cut	1	Modern Pipe trench	2.80m+	0.56m+	0.86m
24	Fill	2	Fill of 1	2.80m+	0.56m+	0.59m
24	Fill	3	Fill of 1	2.80m+	0.56m+	0.30m
24	Fill	4	Fill of 1	2.80m+	0.56m+	0.16m
24	Layer	5	Modern overburden	2.80m+	0.84m+	0.18m
24	Layer	6	Modern overburden	2.80m+	0.84m+	0.10m
24	Layer	7	Modern overburden	2.80m+	0.84m+	0.25m
24	Layer	8	Light brown silt	2.80m+	0.84m+	0.20m
24	Cut	9	Robber trench	2.80m+	1.10m+	0.48m
24	Fill	10	Fill of 9	2.80m+	0.62m	0.21m
24	Fill	11	Fill of 9	2.80m+	1.10m+	0.34m
24	Fill	12	Fill of 9	2.80m+	0.84m+	0.21m
24	Fill	13	Fill of 9	2.80m+	0.70m+	0.06m
24	Structure	14	Wall	2.80m+	1.20m	n/a
24	Cut	15	Construction trench	2.80m+	0.56m+	n/a
24	Layer	16	Light brown clay silt	2.80m+	0.30m+	0.20m
24	Layer	17	Brown grey silt	2.80m+	0.30m+	0.19m
24	Cut	18	Grave	c.2m	n/a	0.40m+
24	Fill	19	Fill of 18	c.2m	n/a	0.40m+
24	Fill	20	Fill of 18	c.2m	n/a	n/a
24	Layer	21	Grey silt	2.80m+	1.27m+	n/a
24	Fill	22	Fill of 15	2.80m+	0.08m	n/a
25	Layer	1	Dark grey clay silt	1.30m+	1.26m+	0.12m
25	Layer	2	Green brown clay silt	1.30m+	1.26m+	0.28m
25	Layer	3	Green brown silt clay	1.30m+	1.26m+	0.28m+
25	Structure	4	Wall	0.62m	0.06m+	0.28m
25	Cut	5	Robber trench	1.30m+	0.62m	0.50m
25	Fill	6	Fill of 5	1.30m+	0.62m	0.50m
25	Cut	7	Robber trench	0.90m+	0.70m+	0.36m
25	Fill	8	Fill of 7	0.90m+	0.70m+	0.36m
25	Cut	9	Robber trench	same	as	7
25	Fill	10	Fill of 9	same	as	8
25	Structure	11	Wall	0.54m	n/a	0.24m
25	Fill	12	Fill of 13	0.30m+	0.28m+	n/a
25	Cut	13	Robber trench	0.30m+	0.28m+	0.40m+
25	Fill	14	Fill of 13	0.30m+	0.28m+	0.40m+
25	Structure	15	Wall	0.74m+	0.14m+	0.18m+
25	Cut	16	Construction trench	0.74m+	0.30m+	n/a
25	Fill	17	Fill of 16	0.74m+	0.30m+	n/a
25	Layer	18	Green brown silt clay	1.30m+	1.26m+	0.28m+
26	Layer	1	Tarmac	3m+	0.50m	0.10m
26	Layer	2	Hardcore	3m+	0.50m	0.16m
26	Layer	3	Dark brown clay silt	3m+	0.50m	0.37m
26	Layer	4	Black silt	3m+	0.50m	0.15m
26	Cut	5	Robber trench	3m+	0.50m	0.82m
26	Fill	6	Fill of 5	3m+	0.50m	0.82m
26	Layer	7	Dark grey silt clay	3m+	0.50m	0.16m
26	Layer	8	Surface	3m+	0.50m	0.20m
26	Layer	9	Grey silt clay	3m+	0.50m	0.26m+
26	Cut	10	Modern Pipe trench	0.50m	0.70m	1.30m+
26	Fill	11	Fill of 10	0.50m	0.70m	1.30m+
26	Fill	12	Fill of 10	0.50m	0.20m	0.20m



Lincoln Cathedral Street  
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APPENDIX 1

Context List

Pile Pit	Context Type	Context	Description	Length	Width	Depth
27	Layer	1	Tarmac	3m+	0.50m	0.10m
27	Layer	2	Hardcore	3m+	0.50m	0.22m
27	Layer	3	Dark brown clay silt	3m+	0.50m	0.60m
27	Layer	4	Black silt	3m+	0.50m	0.12m
27	Layer	5	Grey clay	3m+	0.50m	0.19m
27	Layer	6	Demolition?	3m+	0.50m	0.45m
27	Cut	7	Robber trench	1m+	0.50m	0.80m+
27	Fill	8	Fill of 7	1m+	0.50m	0.80m+
27	Layer	9	Grey clay	2m+	0.50m	0.80m+
28 and 29	Structure	1	Wall	1m+	0.80m	0.61m+
28 and 29	Structure	2	Wall	1m+	1.20m	0.20m+
28 and 29	Layer	3	Fill of 15	n/a	0.85m+	0.60m
28 and 29	Layer	4	Fill of 15	n/a	0.85m+	0.60m
28 and 29	Layer	5	Fill of 15	1.10m+	n/a	0.28m
28 and 29	Fill	6	Fill of 14	1.80m+	0.80m+	0.42m
28 and 29	Fill	7	Fill of 14	1.80m+	0.80m+	0.44m
28 and 29	Layer	8	Dark brown silt	2.65m+	1m+	0.22m
28 and 29	Layer	9	Dark brown grey silt	3.70m+	1m+	0.42m
28 and 29	Layer	10	Modern disturbance	3.70m+	1m+	0.30m
28 and 29	Layer	11	Black silt	3.70m+	1m+	0.22m
28 and 29	Layer	12	Dark grey silt clay	1.80m+	0.80m+	n/a
28 and 29	Layer	13	Black silt	3.70m+	1m+	0.06m
28 and 29	Cut	14	Robber trench	1.80m+	0.80m+	0.78m
28 and 29	Cut	15	Modern disturbance	n/a	0.85m+	0.60m
28 and 29	Cut	16	Fill of 15	1m+	1m+	0.64m
28 and 29	Layer	17	Dark brown grey silt	3.70m+	1m+	0.12m
30 and 31	Layer	1	Hardcore	4m+	2.10m+	0.15m
30 and 31	Layer	2	Dark brown grey silt clay	4m+	2.10m+	0.17m
30 and 31	Layer	3	Grey brown silt clay	4m+	2.10m+	0.23m
30 and 31	Layer	4	Surface	4m+	2.10m+	0.10m
30 and 31	Layer	5	Brown silt clay	1m+	n/a	0.28m+
30 and 31	Layer	6	Grey brown silt clay	4m+	2.10m+	0.20m
30 and 31	Cut	7	Grave cut	4m+	2.10m+	0.28m+
30 and 31	Fill	8	Fill of 7	4m+	2.10m+	0.28m+
30 and 31	Fill	9	Grey brown silt clay	2.10m+	1m+	n/a
32	Layer	1	Black silt clay	2.80m +	0.50m+	0.35m
32	Layer	2	Orange sand	2.80m +	0.50m+	0.12m
32	Layer	3	Dark brown silt clay	2.80m +	0.50m+	0.15m
32	Layer	4	Demolition	2.80m +	0.50m+	0.27m
32	Structure	5	Wall	2.80m +	0.50m+	0.91m
32	Layer	6	Brown grey clay silt	2.80m +	0.50m+	n/a
32	Layer	7	Concrete slabs	2.80m +	0.50m+	0.07m
32	Layer	8	Hardcore	2.80m +	0.50m+	0.10m
32	Layer	9	Clinker rich black silt clay	2.80m +	0.50m+	0.51m
32	Cut	10	Robber trench	2.80m +	0.50m+	1.40m
32	Fill	11	Fill of 10	2.80m +	0.50m+	1.40m
32	Cut	12	Construction trench	2.80m +	0.50m+	0.91m
33 and 34	not	used				
35	Layer	1	Demolition	2m+	0.50m+	0.50m
35	Layer	2	k grey silt clay and brown	2m+	0.50m+	0.20m



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APPENDIX 1

Pile Pit	Context Type	Context	Description	Length	Width	Depth
35	Layer	3	Dark grey silt clay	2m+	0.50m+	0.80m+
36	Layer	1	Black silt clay	2m+	0.50m+	0.10m
36	Layer	2	Dark brown silt clay	2m+	0.50m+	0.45m
36	Structure	3	Wall	2m+	0.50m+	0.13m
36	Layer	4	Dark grey silt clay	2m+	0.50m+	n/a
37	Layer	1	Modern overburden	n/a	n/a	1m+
38	Layer	1	Modern overburden	0.80m+	0.25m+	1m+
39	Structure	1	Wall	7.40m+	1.20m	0.40m
39	Cut	2	Pit	3.20m	2.20m+	0.95m
39	Structure	3	Wall	6.50m+	1.85m	0.40m+
39	Structure	4	Wall	same	as	3
39	Structure	5	Wall	0.60m+	1.20m+	n/a
39	Layer	6	Dark grey silt clay	2.30m+	0.80m+	0.60m
39	Layer	7	Modern overburden	n/a	2.25m	0.37m
39	Fill	8	Fill of 2	2.20m+	1.20m	0.95m
39	Cut	9	Pit	same	as	2
	Layer	10	Modern overburden	7.50m+	3m+	0.30m
39	Structure	11	Wall	2.25m+	2m	0.55m
39	Cut	12	Construction level	2.25m+	2m	
39	Fill	13	Fill of 2	2.20m+	2m	0.95m
39	Fill	14	Fill of 2	2.20m+	1.15m	0.30m
39	Layer	15	Modern disturbance	n/a	0.50m	0.80m
39	Layer	16	Modern disturbance	n/a	1m	1.20m
39	Fill	17	Fill of 18	2.25m+	2m+	1m+
39	Cut	18	Robber trench	2.25m+	2m+	1m+
39	Fill	19	Fill of 20	2.25m+	1m+	0.27m
39	Cut	20	Robber trench	2.25m+	1m+	0.27m
39	Structure	21	Wall	1.50m+	1.20m+	0.65m
Additional	Structure	1000	Wall	0.52m+	0.85m	n/a
Additional	Structure	1001	Surface?	1.50m+	0.50m+	n/a
Additional	Structure	1002	Modern backfill	2m	0.52m+	n/a
Additional	Structure	1003	Contaminated ground	0.20m	0.17m+	n/a
Additional	Structure	1004	Concrete	0.65m	0.40m+	n/a
Additional	Structure	1005	Surface?	0.80m	0.52m+	n/a
Additional	Structure	1006	Surface?	1.50m	0.52m+	n/a
Additional	Structure	1007	Wall?	1.50m+	0.15m+	n/a
Additional	Structure	1008	Wall	0.52m+	0.37m	n/a
Additional	Structure	1009	Wall	0.24m	0.20m	0.24m
Additional	Structure	1010	Foundation cut	0.52m+	0.40m	n/a
Additional	Structure	1011	Wall	1.36m+	0.52m+	n/a



**APPENDIX 2**



# REPORT 172 ON POTTERY FROM MONKS ROAD, LINCOLN, LINCOLNSHIRE, LCSZ03

for LINDSEY ARCHAEOLOGICAL SERVICES

by Margaret J. Darling, M.Phil., F.S.A., M.I.F.A.

29 October 2004

## INTRODUCTION

The total quantity of pottery amounted to 54 sherds, weighing 0.947 kg, from 21 contexts, as detailed in Appendix 1. The condition of the pottery is average, although some contexts produced scrappy and abraded sherds, typical of redeposited material. No problems are anticipated for long term storage. The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by *The Study Group for Roman Pottery*. The recording codes for fabrics are detailed below, and those for forms and manufacture/decoration in Appendix 2.

A copy of the archive database is attached, Appendix 3 (and can be supplied on disk), and will be curated for future study. The quantities and dating by trench and context are shown on table 1.

**Table 1** Summary pottery quantities and dates

Trench	Sherds	Weight
1	1	3
3	1	15
4	21	133
6	7	67
8	6	69
10	1	71
14	1	42
17	4	42
19	3	36
28	1	40
31	1	3
39	7	426
Total	54	947

No sherd links were noted. There is only one larger context, trench 4, cxt 44 with 19 sherds. Trench 39, context 6 is notable for having larger sherds, 285kg weight, including a fragment of a local mortarium (see below).



## OVERVIEW OF FABRICS AND FORMS

The fabrics are summarised in Table 2 below.

Fabric	Code	Sherds	%	Weight	%
Black-Burnished I	BB1	1	1.85	141	14.89
Black-burnished type	BBT	2	3.70	27	2.85
Cream	CR	4	7.41	38	4.01
Shell-gritted dales ware	DWSH?	1	1.85	7	0.74
Grey quartz-gritted	GREY	31	57.41	526	55.54
Mortaria local	MOLO	1	1.85	64	6.76
Nene Valley colour-coated ware	NVCC	3	5.56	21	2.22
Oxidized quartz-gritted	OX	3	5.56	80	8.45
Oxidized light	OXL?	1	1.85	12	1.27
Parisian type	PART	1	1.85	1	0.11
Post-Roman	PRO?	1	1.85	12	1.27
Samian Central Gaulish	SAMCG	4	7.41	14	1.48
Shell-gritted	SHEL	1	1.85	4	0.42
Total		54	100	947	100

Notable sherds include a bead-and-flange bowl in BB1 from Dorset (Tr. 39/19), while the black-burnished types are of earlier 2nd century date, as is a body sherd from a carinated bowl, residual in Tr 4/44. The Nene Valley colour-coated sherds are from beakers, although one is possibly from a flagon of later 3rd century date. The oxidized sherds include a copy of the samian form 38 in a fabric not certainly from the Swanpool kilns, but with a painted flange, suggesting a late 3rd to 4th century date (Tr. 10/5). The paucity of shell-gritted sherds, only one sherd being possibly of dales ware, suggests there is less later 3rd century pottery, although this may be due to the small size of the sample.

The most notable finds came from Tr 39/9, which include a mortarium rim of the type made at the Technical College kiln (Baker 1937a, b), splattered with molten waste, the same waste appearing on all other sherds. Amongst these are two cream body sherds, almost certainly from flagons, in a fine slightly micaceous fabric which fits into the earlier type of cream fabric in Lincoln. The grey sherds include a plain-rimmed dish (which dates the context to the later 2nd, possibly to 3rd century) which appears to have traces of soot, conceivably from use; other grey sherds also show abrasion. Thus this appears to be a deposit of sherds lying around to be splattered with waste probably from some industrial process. Spots of this molten waste appear on the fractures, and it seems unlikely it is related to firing pottery. This may indicate the presence of other industrial workshops in the area.

Production of mortaria at the Technical College kiln, adjacent to Cathedral Street is considered to have possibly started in the late 1st century, but is more positively of 2nd century date, stamped vessels being found on Hadrian's Wall, but not on the Antonine Wall. The type of rim suggests the early 2nd century, and the stamps of Vitalis I, the main potter, are dated by Hartley to c. AD 90-115 (1976, 122, fig 58, no 30). But the associated plain-rimmed dish, undecorated, suggests a later 2nd or 3rd century date. This is a copy of a Dorset BB1 type which starts to be traded in the early to mid 2nd century, and this example more closely resembles later types. While the presence of the



mortarium sherd suggests the deposit was in the area of the kiln or kilns, its association with the other sherds may indicate continued industrial activity in the area in the 2nd century or later.

Given that dating on single sherds or small contexts is of tenuous value, the dating by context date can be summarised, table 3:

Table 3 Summary of context dates

	Sherds	%	Weight	%
2 cent	2	4.5	18	2.2
2-3 cent	12	27.3	354	42.9
3 cent	25	56.8	209	25.3
3-4 cent	5	11.4	244	29.6
Rom/Post-Ro	44	100	825	100
	10		122	
	54		947	

If viewed on the basis of count, 68% lies in the later Roman period. Only a single sherd is definitely of 1st century date, the South Gaulish samian, but equally there are no sherds for which an exclusively 4th century date is necessary.

## FABRIC DEFINITION

Publication of *The National Roman Fabric Reference Collection*, abbreviated NRFRC (Tomber and Dore 1998), obviate the need to describe the major imported and widely traded Romano-British wares in detail.

BB1	Black-Burnished ware category 1, <b>NRFRC: DOR BB1</b> (Dorset); <b>ROS BB1</b> (Rossington Bridge).
BBT	Grey fabrics close to BB1, normally good local imitations.
CR	Cream, miscellaneous cream wares. Sherds attributed to a fabric group rather than a discrete fabric, mostly from flagons or closed forms.
DWSH	Shell-gritted dales ware jars, hand-made and wheel-finished from sources in north Lincolnshire around the Humber area. <b>NRFRC: DAL SH</b>
GREY	Grey, undifferentiated quartz-gritted grey fabrics, hard wares with sparse to common quartz inclusions.
MOLO	Mortaria of local source. In this case specifically the Technical College kiln, Monks Road (Baker 1937).
NVCC	Nene Valley colour-coat <b>NRFRC: LNVCC</b>
OX	Oxidized, miscellaneous oxidized wares. This coding comprises all miscellaneous oxidized sherds, usually in varying red-brown shades and degrees of grittiness, for which no significant fabric groupings are evident.
OXL	Oxidized lighter red-brown. Fabrics in light cream-brown shades, usually relatively fine-textured, often used for flagons.
PART	Parisian type ware. A very fine silty grey fabric, often with a sandwich fracture showing a lighter cortex, usually with a fine black of grey polished external surface. The fabric colour can range from light grey, grey-brown to dark grey. Fine grained with smooth fracture, small quartz grains occurring usually very sparsely but occasionally more frequently. Rare clay pellets of the same colour as the matrix also occur. Parisian ware is decorated with stamps or rouletting, and can be dated to the 2nd century (Elsdon 1982), although the fabric



continues to be used in the later Roman period for different vessel forms (Darling 1984, 77-80). Known to have been made at Market Rasen, Lincs (Darling, forthcoming). **NRFC: LMR FR**, and at the Rossington Bridge Doncaster kilns (Buckland et al 2001) **NRFC: ROS FR**. Body sherds can be confused with London Ware, a very similar fabric, but used for different forms with differing decoration. This ware is common in London, but is also made in the Nene Valley (Perrin 1990).

PRO Post-Roman sherds  
SAMCG Samian Central Gaul, from Lezoux. **NRFC : LEZ SA**  
SHEL Shell-gritted, miscellaneous shell-gritted ware.

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## APPENDIX 1

### Quantities and dating by trench and context

Trench	Cxt	Sherds	Weight	Date	Comments
1	17	1	3	ML3	
3	4	1	15	M2?	
4	27	1	3	ROM	
4	44	19	124	M3+	
4	45	1	6	ROM	
6	12	2	14	L3-4	
6	13	2	24	ROM	
6	15	1	18	L3-?4	
6	8	2	11	ROM	
8	9	6	69	2-3C	
10	5	1	71	L3-4 PROB	
14	3	1	42	ROM	
17	1	1	17	M3+ POSS	
17	4	3	25	M3?	
19	10	2	24	ROM	
19	11	1	12	POSTRO?	
28	6	1	40	3C?	
31	6	1	3	2C?	
39	19	1	141	ML3-?4	
39	6	6	285	ML2-?3	TCK Mort;Date x DPR
Total		54	947		



## APPENDIX 2

### Archive codes

Code	Form
B38	Bowl samian form 38
BCAR	Bowl carinated
BD	Bowl or dish
BDFL	Bowl or dish flat-rim
BFB	Bowl bead & flange
BFBV?	Bowl bead & flange variant
BK	Beaker
BK-F	Beaker or flagon
BKBARB	Beaker barbotine
BKFO?	Beaker folded
BWM	Bowl wide-mouth
CLSD	Closed
DPR	Dish plain-rim
F	Flagon
FDN	Flask disk-neck
J?	Jar
JB	Jar or bowl
JCUR	Jar curved-rim
JNN	Jar narrow-neck
MHK	Mortarium hooked-rim
Code	Manufacture; decoration
BAS	Barbotine scroll
BIA	Burnished intersecting arcs
BWL	Burnished wavy line
PA	Painted



**APPENDIX 3**  
**Archive Database**

Trc	Cxt	Fabric	Form	Manuf+	Ves	D?	DN	Details	Shs	Wt
1	17	NVCC	BK-F	-	-	-	-	BS LTRB FAB;ROUL CUTTING CC;CC EXT ONLY	1	3
1	17	ZDATE	-	-	-	-	-	ML3	-	-
3	4	GREY	BDFL?	-	-	-	-	BS PT RIM;GREY QTZY BBT	1	15
3	4	ZDATE	-	-	-	-	-	M2?	-	-
4	27	OX	CLSD	-	-	-	-	BS THIN WALL;F.QTZY	1	3
4	27	ZDATE	-	-	-	-	-	ROM	-	-
4	44	SAMCG	33?	-	-	-	-	BS	1	2
4	44	SAMCG	-	-	-	-	-	BS/FLAKE	2	11
4	44	NVCC	BK	-	-	-	-	BS BASAL ZONE;CR FB	1	10
4	44	CR	F?	-	1?	-	-	BSS FINE CR;WELL SMOOTHED EXT	2	13
4	44	GREY	BWM	-	-	-	-	RIM FR;UCUT ?RL TYPE	1	10
4	44	GREY	BFBV?	-	-	-	-	RIM FR ONLY DAMAGED;GROOVES ON FLANGE;LOW BEAD	1	15
4	44	GREY	BCAR	-	-	-	-	BS CARINATION;F.THIN WALL	1	7
4	44	GREY	BKFO?	-	-	-	-	BS SANDY FAB;THICKISH	1	8
4	44	GREY	J?	BWL	-	-	-	BS BWL BETW.BURNISH ZONES	1	12
4	44	PART	CLSD	-	-	-	-	BS PLAIN	1	1
4	44	GREY	-	-	-	-	-	BSS	6	31
4	44	SHEL	CLSD	?	-	-	-	BS DKGRY;WM?;F.THIN WALL	1	4
4	44	ZDATE	-	-	-	-	-	M3+	-	-
4	45	OX	CLSD?	-	-	-	-	BASE THIN WALL;FAB AS IN 4-27;LTRB;DIAM10?	1	6
4	45	ZDATE	-	-	-	-	-	ROM	-	-
6	8	GREY	-	-	2	-	-	BSS;1 F.SANDY & ABR	2	11
6	8	ZDATE	-	-	-	-	-	ROM	-	-
6	12	GREY	FDN	-	-	-	-	RIM/NECK;CORDON	1	8
6	12	GREY	-	-	-	-	-	BS	1	6
6	12	ZDATE	-	-	-	-	-	L3-4	-	-
6	13	GREY	-	-	-	-	-	BSS	2	24
6	13	ZDATE	-	-	-	-	-	ROM	-	-
6	15	GREY	BWM	-	-	-	-	BS NECK/SHLDR	1	18
6	15	ZDATE	-	-	-	-	-	L3-74	-	-
8	9	SAMCG	-	-	-	-	-	FLAKE	1	1
8	9	BBT	BDFL	-	-	-	-	RIM FR;SANDY;?BBT	1	14
8	9	GREY	DPR	-	-	-	-	RIM/WALL;LTGRY;UNDEC	1	19
8	9	GREY	JCUR	-	-	-	-	RIM DAMAGED	1	10
8	9	BBT	BD	-	-	-	-	BASE FRAG;SANDY BBT	1	13
8	9	OXL?	F	-	-	-	-	HDLE 2RIB;LTBN FB;GREYISH ?SLIP;FIRING	1	12
8	9	ZDATE	-	-	-	-	-	2-3C	-	-
10	5	OX	B38	PA	-	-	-	BS WALL/FLANGE;GRY CORE;LTRB;?SLIP LOST;F.FINE;TRACE CR PT FLANGE	1	71
10	5	ZDATE	-	-	-	-	-	L3-4 PROB	-	-
14	3	GREY	JB?	-	-	-	-	BS THICK COARSE FB;ABR;LOST SURF	1	42
14	3	ZDATE	-	-	-	-	-	ROM	-	-
17	1	GREY	JB	-	-	-	-	BS 2 GROOVES;BURNISH TOP&BOTT;?BWM	1	17
17	1	ZDATE	-	-	-	-	-	M3+ POSS	-	-
17	4	NVCC	BKBAR	BAS	-	-	-	BS CR FAB	1	8
17	4	GREY	B	-	-	-	-	BS	1	10
17	4	DWSH?	-	-	-	-	-	BS	1	7
17	4	ZDATE	-	-	-	-	-	M3?	-	-
19	10	GREY	-	-	-	-	-	BSS;BOTH ABR	2	24
19	10	ZDATE	-	-	-	-	-	ROM	-	-
19	11	PRO?	CLSD	-	-	-	-	BS GRY SANDY FAB;LTBN THIN EXT SURF	1	12
19	11	ZDATE	-	-	-	-	-	POSTRO?	-	-
28	6	GREY	JNN	-	-	-	-	RIM/NECK;SL.CORDON;DKGRY;RB CORTEX;BURNISH;PLAIN RND RIM	1	40
28	6	ZDATE	-	-	-	-	-	3C?	-	-
31	6	GREY	J?	-	-	-	-	BS THIN WALL	1	3
31	6	ZDATE	-	-	-	-	-	2C?	-	-
39	6	MOLO	MHK	-	-	-	-	RIM FR;DIAM28;GROOVE EDGE HOOK;BURNT ?KILN DEPOSIT	1	64
39	6	CR	-	-	-	-	-	BS;FLAKE;FINER FB;SOME MICA;SMOOTH EXT;F?;?KILN WASTE	2	25
39	6	GREY	DPR	-	-	D?	-	COMP PROF;DKGRY;UNDEC;?KILN WASTE;?SOME SOOT X USE	1	87
39	6	GREY	J?	-	-	-	-	BASE FTM;DIAM9;ABR U'SIDE;?KILN WASTE	1	102
39	6	GREY	-	-	-	-	-	BS;DKGRY FB;LT CORTEX;?KILN WASTE	1	7
39	6	ZDATE	-	-	-	-	-	ML2-73	-	-
39	6	ZZZ	-	-	-	-	-	TCK MORT;DT X DPR	-	-
39	19	BB1	BFB	BIA	-	D?	-	RIM/WALL	1	141
39	19	ZDATE	-	-	-	-	-	ML3-74	-	-



**APPENDIX 3**



THE POST-ROMAN POTTERY FROM LINCOLN COLLEGE, CATHEDRAL STREET,  
LINCOLN (LCSZ03).

JANE YOUNG CERAMIC CONSULTANT

## INTRODUCTION

In total, one hundred and two sherds of pottery representing fifty-five vessels were recovered from the site. The pottery ranges in date from the late Saxon to the early modern period. The assemblage was quantified by three measures: number of sherds, weight and vessel count within each context. Fabric identification of some of the pottery was undertaken by x20 binocular microscope. The ceramic data was entered on an Access database using fabric codenames agreed locally and nationally.

## CONDITION

With the exception of one abraded sherd the pottery is mainly in a slightly abraded condition with sherd size mainly falling into the small to medium range (below 50grams). In total twelve vessels are represented by more than one sherd. One vessel (LSH), appears to be overfired and may have been sold as a second, although given the proximity of a known kiln and other waste material the vessel is likely to be a waster. Only two vessels have exterior soot residues showing that they have been used over an open fire. White internal 'kettle fur' deposits caused by the heating of water or containment of urine was found on only one early modern vessel.

## THE POTTERY

In total fifty-five vessels in seventeen identifiable post-Roman pottery ware types were recovered (Table 1). The range of form types is limited with examples of various types of jug, jar and dish forming the body of the assemblage. Single examples of a chamber pot, cup, saucer and drinking jug were also found as well as a very ornate 'Greek-style' vase in Red Stoneware.

**Table 1 Pottery types with total quantities by sherd and vessel count**

codename	full name	earliest date	latest date	sherds	vessels
CREA	Creamware	1770	1830	4	3
FREC	Frechen stoneware	1530	1680	1	1
LFS	Linclonshire Fine-shelled ware	970	1200	1	1
LKT	Lincoln kiln-type shelly ware	850	1000	1	1
LSH	Lincoln shelly ware	850	1000	3	3
LSW	Lincoln Glazed Sandy Ware	970	1500	1	1
LSW1/2	12th-13th century Lincoln Glazed ware	1100	1300	1	1
LSW2	13th to 14th century Lincoln Glazed Ware	1200	1320	2	2
LSW3	14th to 15th century Lincoln Glazed Ware	1280	1450	2	2
NSP	Nottingham Splashed ware	1100	1250	2	2
PORC	Porcelain	1700	1900	4	2
REST	Red stoneware	1730	1780	3	2
SNLS	Saxo-Norman Lincoln Sandy Ware	970	1080	1	1
ST	Stamford Ware	970	1200	1	1
TOYII	Toynton Late Medieval ware	1450	1550	2	2
TPW	Transfer printed ware	1770	1900	50	9
WHITE	Modern whiteware	1850	1900	22	20



## **Late Saxon**

Four vessels, two jars, one dish or bowl and one uncertain sherd date to the period between the late 9th and late 10th centuries. None of the vessels have external soot deposits. One sherd is overfired and may be discarded waste material from the nearby production centre found in the Sessions House car park.

## **Saxo-Norman to Early medieval**

Six vessels post-date the late 10th century and predate the second quarter 13<sup>th</sup> century. Two of the vessels are quartz or shell-tempered coarsewares (SNLS and LFS), the remaining vessels are finewares produced in Lincoln, Stamford and Nottingham. One small jug sherd with a copper-speckled glaze is a Lincoln product and dates to the last quarter of the 12th century or the first quarter of the 13th century. A single unglazed Stamford ware collared jar, in Fabric B, dates to the late 11th to early/mid 12th century. Two jug sherds from Nottingham are present in the assemblage. One is of a type produced during the last quarter of the 12th century. The Lincolnshire Fine-shelled ware vessel (LFS) has no typological features to enable close dating and belongs to the period between the late 10th and late 12<sup>th</sup> centuries. The single Lincoln Saxo-Norman Sandy ware vessel is of the type produced at the Sessions House kiln and is of late 10th to early/mid 11th century date.

## **Medieval to Early Post-Medieval**

Overall, eight of the pottery vessels submitted for examination are of medieval to late medieval type and can be dated to the period between the early 13<sup>th</sup> and early/mid 17<sup>th</sup> centuries. Five of these vessels were made in Lincoln and span the life of the Lincoln medieval glazed ware industry (13th to 15th century). Two sherds are late medieval products of the kilns at Toynton All Saints and are both likely to be from large jugs. These jugs date were produced between the mid 15th and mid 16th centuries. A single imported German Stoneware drinking jug (FREC) dates to the later 16th or earlier 17th century.

## **Early Modern**

The majority of the pottery recovered from the site is of early modern date and probably belongs to the 19th century. One or two ornate vases in Red Stoneware are ornamented with a gold band and 'Greek' decoration and may be of late 18th century date.

## **DISCUSSION**

It is impossible to make precise statements about the status or function of the site due to the limited size of the assemblage. However, it is possible to suggest that there was post-Roman occupation in the area from at least the 10th century. The assemblage appears to contain mainly vessels for use in the kitchen or for drinking. The entire collection should be kept for future study.



# Ceramic Glossary (LCSZ03)

<b>cname</b>	<b>full name</b>	<b>earliest date</b>	<b>latest date</b>
CREA	Creamware	1770	1830
FREC	Frechen stoneware	1530	1680
LFS	Lincolnshire Fine-shelled ware	970	1200
LKT	Lincoln kiln-type shelly ware	850	1000
LSH	Lincoln shelly ware	850	1000
LSW	Lincoln Glazed Sandy Ware	970	1500
LSW1/2	12th-13th century Lincoln Glazed ware	1100	1300
LSW2	13th to 14th century Lincoln Glazed Ware	1200	1320
LSW3	14th to 15th century Lincoln Glazed Ware	1280	1450
NSP	Nottingham Splashed ware	1100	1250
PORC	Porcelain	1700	1900
R	Roman pottery	40	400
REST	Red stoneware	1730	1780
SNLS	Saxo-Norman Lincoln Sandy Ware	970	1080
ST	Stamford Ware	970	1200
TOYII	Toynton Late Medieval ware	1450	1550
TPW	Transfer printed ware	1770	1900
WHITE	Modern whiteware	1850	1900



# Pottery Archive Lincoln, Cathedral Street, (LCSZ03)

Jane Young

trench	context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date
0503	CREA			?	2	1	7		base		
0503	CREA			dish	1	1	2		BS		
0503	CREA			open	1	1	18		base	abraded	
0503	PORC			cup ?	1	1	8		base		
0503	REST			vase ?	2	1	39	gold band;multi greek dec	BS	internal deposit;same vessel 504 ?;there appears to be a gresy black inscription on the surface poss numbers	
0503	TPW			chamber pot	4	1	144		rim base & BS		
0503	TPW			small plate	1	1	23	underglaze painted	BS		
0503	TPW			open	8	1	53		base		
0503	TPW			dish/plate	12	1	174		profile	poss Pearlware	
0503	TPW			open	1	1	5		BS		
0503	WHITE			dish	1	1	5	red bands on the rim	rim		
0503	WHITE			various	4	4	39		BS		
0503	WHITE			?	1	1	13		base	ridged	
0503	WHITE			open	3	1	21		base	same vessel ?	
0503	WHITE			small hollow	1	1	8		base		



trench	context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date
	0503	WHITE		dish	1	1	16	gold bands on the rim	rim		
	0503	WHITE		jug ?	1	1	44	moulded dec	base		
	0503	WHITE		open	1	1	19		base		
	0504	PORC		jug	3	1	14	moulded dec;gold paint	BS		
	0504	REST		vase ?	1	1	3		BS	same vessel 503 ?	
	0504	TPW		dish	2	1	23	green print	BS		
	0504	TPW		plate	3	1	26		rim		
	0504	TPW		plate	18	1	93		profile		
	0504	TPW		small hollow	1	1	6	brown print	BS		
	0504	WHITE		cup/small bo	1	1	19	moulded dec	base		
	0504	WHITE		various	7	7	37		BS		
	0504	WHITE		saucer	1	1	6	pink lustre ?	rim		
	28	LSW1/2		small jug	1	1	4		BS	pocked glaze with cu specks	early to early/mid 13th
	28	R	greyware	jar	1	1	39		rim		Roman
04	0023	LSW		?	1	1	45		base	vessel ?	
06	0012	LSH		jar	1	1	11		BS	overfired	
06	0013	LSW2		jug	1	1	4		BS		
06	0013	SNLS		jar	1	1	6		base	? ID or Roman	
06	0013	ST	B	collared jar	1	1	3		BS	soot;unglaze	
08	0020	LKT		bowl/dish	1	1	3		rim		



trench	context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date
14	0003	NSP	sandy	jug	1	1	17		base		
15	0001	LFS		dish	1	1	22		rim	rvverted rim;soot;12th	
15	0007	LSW3		large jug	1	1	38		BS		
15	0007	LSW3		jug	1	1	55		handle	rod handle	
17	0001	FREC		drinking jug	1	1	27		rim	fine fabric;groove c 20mm below rim	
17	0003	TOYII		large jug	1	1	107		base		
17	0004	LSH		jar	1	1	13		base		
17	0004	LSH		?	1	1	6		base		
18	0003	NSP	sandy	jug	1	1	86		rim with handle	square inturned rim;wide strap handle with 2 finger grooves	
20	0003	TOYII		large jug	1	1	112		BS		
28	0006	LSW2		small jug	1	1	4		BS		



# Dating Archive LCSZ03

Jane Young

trench	context	date	earliest horizon	latest horizon	comments
	0503	19th	EMH	EMH	
	0504	19th	EMH	EMH	
	1006	Roman	R	R	date on single tile
01	0005	13th to 15th	MH4	MH10	date on single tile
01	0006	13th to early 14th	MH4	MH6	
01	0016	13th to 15th	MH4	MH10	date on single tile
01	0017	13th to 15th	MH4	MH10	date on single tile
03	0001	13th to 15th	MH4	MH10	date on tile
04	0023	12th to 15th	MH2	MH10	single sherd
04	0030	14th to 16th	MH7	PMH3	date on tile
06	0001	13th	MH4	MH6	date on tile
06	0006	14th to 16th	MH7	PMH3	date on tile
06	0008	mid 12th to mid 13th	MH2	MH5	date on tile
06	0009	13th	MH4	MH6	date on tile
06	0012	10th	ASH8	ASH11	single sherd
06	0013	13th	MH4	MH6	
08	0020	14th to 16th	MH7	PMH2	residual pot; date on tile
10	0004	13th to 15th	MH4	MH10	date on single tile
10	0005	13th to 15th	MH4	MH10	date on tile
11	0003	14th to 15th	MH8	MH10	date on tile
14	0003	14th to 16th	MH7	PMH2	residual pot; date on tile
15	0001	12th	MH1	MH3	single sherd
15	0007	14th to mid 15th	MH6	MH9	



trench	context	date	earliest horizon	latest horizon	comments
17	0001	mid 16th to mid 17th	PMH3	PMH5	single sherd
17	0003	mid 15th to mid 16th	MH9	PMH2	single sherd
17	0004	13th	MH4	MH6	residual pot; date on tile
18	0003	mid/late to late 12th	MH3	MH3	single sherd
18	0007	13th	MH4	MH6	date on single tile
18	0012	mid 12th to 13th	MH2	MH6	date on tile
19	0007	mid 12th to mid 13th	MH2	MH5	date on single tile
20	0003	mid 15th to mid 16th	MH9	PMH2	single sherd
21	0004	late 12th to 13th	MH3	MH6	date on tile
25	0002	13th to 15th	MH4	MH10	date on single tile
28	0006	13th	MH4	MH6	single sherd & tile
28	0007	13th ?	MH4	MH6	date on large group of tile



**APPENDIX 4**



REPORT ON THE CERAMIC BUILDING MATERIAL FROM CATHEDRAL STREET,  
LINCOLN COLLEGE, LINCOLN (LCSZ03)

JANE YOUNG CERAMIC CONSULTANT

## INTRODUCTION

One hundred and sixty fragments of ceramic building material ranging in date from the Roman to the early post-medieval period were recovered from the site. The material was examined visually and then recorded using locally and nationally agreed codenames on an Access database. The CLAU tile type series was consulted for comparative material. Five fragments of floor tile were submitted to Alan Vince for confirmation of identification.

## CONDITION

The material is in variable condition with most tile fragments showing some fair degree of abrasion. Some of this variability can be accounted for by the different fabrics used, the softer fabrics deteriorating more than the hard-fired examples. Most of the tile recovered shows evidence for reuse, having mortar on at least one broken edge. Four fragments of medieval tile appear to be waste products. A Paw print were found on one medieval flat roofing tile.

## THE CERAMIC BUILDING MATERIAL

Ceramic building material of Roman to late medieval date including a range of different types of roof tile and floor tile was found on the site. The type and general date range for these types are shown in Table 1. With the exception of a small number of medieval flat roof tiles and floor tiles all of the fragments found on the site are typical of those recovered from previous excavations within the city.

TABLE 1: CERAMIC BUILDING MATERIAL CODENAMES AND TOTAL QUANTITIES BY FRAGMENT COUNT AND WEIGHT

codename	full name	fragments	weight in gms
FIREDCLAY	fired clay	1	1
GFLOOR	Glazed floor tile	5	618
GPNR	Glazed peg, nib or ridge	3	190
GRID	Glazed ridge tile (unidentified ware)	3	419
IMB	imbrex	1	93
NIB	nibbed tile	22	2696
PNR	Peg, nib or ridge tile	84	10922
PNRDISC	Discarded peg, nib or ridge tile	39	3027
RTIL	Roman tile	2	227



## Roman

Only three Roman tiles were found on the site. Two fragments are probably from *Tegulae* and one is from an *Imbrex* which has mortar over its broken edges suggesting that it has been reused.

## Medieval

The majority of the ceramic building material recovered from the site is medieval flat roof tile. The fabric types recovered suggest that it was in use in the area from at least the mid/late 12<sup>th</sup> century through to the late medieval period. Some of the tiles are in a local fabric not characterised before and it is probable that these tiles were being produced locally for the Abbey. The diagnostic suspension nibs present are mainly of late 12<sup>th</sup> to 13<sup>th</sup> century date and include three different local types. Three fragments of glazed flat roof tile occurred; these tiles were rarely glazed beyond the middle of the 13<sup>th</sup> century. Three fragments of glazed ridge tile are present amongst the material recovered, one of which is unusual. The tile has a bright copper-green glaze over a white slip and appears to be a waster. Four glazed floor tiles are of Flemish-type. One is almost certainly of Flemish origin whilst the other three may be of Flemish or English extraction. Three of the tiles are slipped with a white clay and have a yellow glaze and one has a very worn copper-green glaze. Mortar over the broken edges of one tile suggests that it has been reused. A single medieval floor tile in a very Roman-looking fabric appears to be of local production. The upper surface is well worn showing that it has been used and is not a waster like the one recovered from the nearby LCB02 site.

## Late medieval to early Post-medieval

Six flat roof tiles and a ribbed tile are of 15<sup>th</sup> to mid 16<sup>th</sup> century date.

## SUMMARY AND RECOMMENDATIONS

The ceramic building material recovered dates between the Roman and the early post-medieval periods. The material is mainly typical of that found on sites elsewhere in the city, however a single local medieval glazed floor tile is also present and several tiles are in new unclassified fabrics. These fabrics must have a proper fabric description given and be integrated into the City Tile Type Series. Most of the undiagnostic tile has been discarded in accordance with guidelines set down by the Lincoln City and County Museum; all of the remaining material should be retained.



# Ceramic Building Material Glossary (LCSZ03)

<b>cname</b>	<b>full name</b>
FIRED CLAY	fired clay
GFLOOR	Glazed floor tile
GPNR	Glazed peg, nib or ridge
GRID	Glazed ridge tile (unidentified ware)
IMB	imbrex
NIB	nibbed tile
PNR	Peg, nib or ridge tile
PNRDISC	Discarded peg, nib or ridge tile
RTIL	Roman tile



# CBM Archive Lincoln Cathedral Street (LCSZ03)

Jane Young

trench	context	cname	fabric	sub type	frags	weight	decoration	description	date
	1006	RTIL			1	138		TEG ?	
01	0005	GRID	1		1	156		reduced glaze	
01	0006	NIB	1/7	4E	3	173		right corner;white skin;mortar;same tile	
01	0006	NIB	1	4D/E	1	183		left corner;finger prints;mortar incl over breaks	
01	0016	PNRDISC	poor Fabric 1		1	102		flat roofer;mortar incl over breaks	
01	0017	PNRDISC	1		1	13		flat roofer	
03	0001	PNR	LSWA		1	149		flat roofer;abraded;morta r	
03	0001	PNR	hard orange fabric		1	208		flat roofer;mortar;white skin	
03	0001	PNR	1 ?		1	141		flat roofer;mortar	
03	0001	PNR	poor Fabric 1		2	83		flat roofer;same tile	
03	0001	PNR	1		1	23		flat roofer;mortar incl over breaks	
03	0001	PNR	poor Fabric 1 with white streaks in clay		1	28		flat roofer;mortar	
04	0001	FIRED CLAY			1	1			
04	0030	PNR	1/7		1	159		flat roofer;cracked during firing;white skin	
04	0030	PNR	7		1	103		mortar;flat roofer	
04	0030	GFLOOR	Flemish/ English		1	216		very abraded;late med-early post-med ?;slipped;was a yellow glaze	
04	0030	IMB			1	93		mortar incl over breaks	
04	0030	RTIL			1	89		TEG ?	



trench	context	cname	fabric	sub type	frags	weight	decoration	description	date
04	0030	PNR	1		1	133		flat roofer;mortar	
04	0030	PNR	1 ? Comm shale		1	231		flat roofer;mortar	
04	0030	PNR	vitrified		1	82		flat roofer;bedded on limestone/chalk;wast er ?	
06	0001	PNR	1		1	132		flat roofer;thin tile;width 80mm	
06	0001	NIB	1	4D/E	1	195		right corner;mortar	
06	0001	PNR	7		1	351		flat roofer;mortar;corner	
06	0001	PNRDISC	1		1	94		flat roofer;mortar	
06	0001	PNRDISC	7		1	54		flat roofer;corner;mortar	
06	0001	PNRDISC	1		1	132		flat roofer;mortar	
06	0006	NIB	7	moulded	1	351		right corner;mortar	
06	0006	NIB	1 ?	moulded/fo lded nib	1	349		right corner;waster;cloth wiped;mortar	
06	0006	PNRDISC	7		1	128		flat roofer;mortar	
06	0006	GFLOOR	Flemish/ English		1	154		yellow glaze;112cm thick	
06	0006	PNRDISC	hard oxid fabric		1	109		late med;flat roofer;corner;mortar	Late medieval
06	0006	PNRDISC	7		1	139		oxid;flat roofer;mortar	
06	0006	GFLOOR	Flemish		1	156		yellow glaze;142 mm thick	
06	0006	PNRDISC	various		4	416		flat roofer;mortar	
06	0008	NIB	7	moulded	1	117		mortar	
06	0008	NIB	7	3A	1	120		left corner	
06	0013	PNRDISC	1		1	27		flat roofer	
06	0013	NIB	poor Fabric 1	4A	1	120		mortar	
08	0009	PNRDISC	7		1	44		flat roofer	
08	0009	PNRDISC	1		1	19		flat roofer;corner;mortar	
08	0020	GFLOOR	Lincoln		1	46		very Roman looking fabric;reduced with oxid surfaces fabric incl white streaks;abraded upper;mortar;pink slip	
08	0020	PNRDISC	1		4	31		flakes	



trench	context	cname	fabric	sub type	frags	weight	decoration	description	date
08	0020	PNRDISC	1		1	39		flat roofer;mortar	
08	0020	GFLOOR	Flemish/ English		1	46		cu glaze;very worn upper surface;mortar over breaks	
08	0020	PNR	comm shale		1	42		flat roofer;thick tile	
10	0004	PNRDISC	1		1	49		flat roofer;mortar	
10	0005	PNR	LSWA		2	125		flat roofer;same tile;very abraded	
10	0005	PNR	1 ?		1	204		flat roofer;mortar incl over break	
10	0005	PNR	1 ?		2	571		flat roofer;mortar;same tile	
11	0003	PNR	sandy fabric		1	223		flat roofer;mortar;corner; late med	Late medieval ?
11	0003	PNRDISC	7		5	505		flat roofer;burnt;mortar	
11	0003	PNRDISC	7		1	76		flat roofer;corner;mortar	
11	0003	PNRDISC	sandy fabric		1	227		flat roofer;mortar;late med	Late medieval ?
11	0003	PNRDISC	1		4	334		flat roofer;mortar;corner	
14	0003	PNR	7		1	235		flat roofer;mortar	
14	0003	PNR	hard red fabric		1	592		flat roofer;mortar	
14	0003	PNRDISC	LSWA		2	166		flat roofer	
14	0003	PNRDISC	1		1	61		flat roofer;mortar	
14	0003	PNRDISC	1		1	40		flat roofer;corner	
14	0003	PNR	sandy fabric		1	206		flat roofer;corner;mortar; late med	Late medieval
14	0003	PNRDISC	sandy fabric		1	150		flat roofer;corner;mortar; late med	Late medieval
14	0003	PNRDISC	sandy fabric		1	59		flat roofer;mortar;late med	Late medieval
17	0001	PNR	7		1	270		flat roofer;corner;mortar; thick tile	
17	0001	PNR	1/7		1	184		flat roofer;mortar	
17	0001	PNR	7		1	72		flat roofer;mortar;thick tile	



trench	context	ename	fabric	sub type	frags	weight	decoration	description	date
17	0001	PNR	1/7		1	234		flat roofer;mortar incl over broken edges;thick tile	
17	0001	PNR	1		1	107		flat roofer	
17	0004	PNR	1/7		1	193		flat roofer;corner;mortar; soot ?	
17	0004	PNR	vitriified		1	119		flat roofer;mortar;bedded on limestone	
17	0004	NIB	1	4D/E	1	26		mortar	
17	0004	NIB	1	4E ?	1	124		right corner;finger marks	
17	0004	PNR	7 ?;oxid		1	59		flat roofer;mortar	
18	0007	NIB	1	moulded	1	70			
18	0012	PNR	1		1	105		flat roofer;mortar	
18	0012	PNR	poor fabric 1		1	39		flat roofer	
18	0012	NIB	1/7	3A	1	126		left corner;finger prints;mortar	
18	0012	PNR	1		1	49		mortar	
18	0012	PNR	fine orange fabric incl ca		1	156		flat roofer;mortar incl over breaks	
18	0012	NIB	1	3A	1	100		mortar incl over breaks	
18	0012	PNR	fine red fabric		1	220		flat roofer;corner;white skin;thick mortar	
18	0012	PNR	1/7		1	116		flat roofer;corner;mortar	
18	0012	PNR	1		1	45		flat roofer;corner;mortar	
19	0007	PNR	7		1	76		flat roofer;mortar	
21	0004	PNR	1/7		1	54		flat roofer;thin tile	
21	0004	PNR	poor Fabric 1		1	88		flat roofer	
21	0004	PNR	7		1	52		flat roofer;corner	
21	0004	NIB	1	3A	1	143		left corner;mortar	
25	0002	PNR	poor Fabric 1		1	104		flat roofer	
25	0008	PNR	LSWA		1	61		flat roofer;abraded	
28	0006	NIB	1	3A	1	123		left corner	
28	0006	PNR	reduced fabric incl limestone & comm fe;semi vitri		1	100		fodd;lat roofer;bedded on limestone	



trench	context	cname	fabric	sub type	frags	weight	decoration	description	date
28	0007	PNR	fine oxid fabric;not local		1	101		flat roofer;mortar	
28	0007	PNR	poor Fabric 1		1	74		flat roofer;mortar incl over breaks	
28	0007	PNR	light oxid comm cream shale		2	24		flat roofer;same tile	
28	0007	PNR	new fabric		1	16		mortar	
28	0007	PNRDISC	1		1	13		flake	
28	0007	PNR	1/7		1	50		mortar;flat roofer	
28	0007	PNR	7		1	19		flat roofer;oxid	
28	0007	PNR	1		1	69		flat roofer;mortar	
28	0007	PNR	fine red fabric		1	9		flake	
28	0007	NIB	light orange fabric	7P ?;folded	3	167			
28	0007	PNR	poor Fabric 1;semi vitrified		1	119		flat roofer;mortar;white skin;corner	
28	0007	PNR	hard red fabric comm fe & clay pellets/shale;vi tri		1	229		flat roofer;corner;mortar incl over breaks	
28	0007	PNR	hard red fabric comm fe & clay pellets/shale		1	94		flat roofer;mortar incl over breaks	
28	0007	PNR	1		1	139		flat roofer;corner;thick tile	
28	0007	PNR	hard red fabric with ca inclusions;BE VO ?		1	213		flat roofer;corner;white skin;mortar	
28	0007	PNR	1/7 ?		1	59		flat roofer;mortar	
28	0007	PNR	poor Fabric 1;semi vitrified		2	356		flat roofer;thick mortar/plaster;finger print	
28	0007	PNR	fe & shale & limestone;semi vitrified		4	390		flat roofer;same tile;thick;mortar/plas ter;corner	
28	0007	NIB	poor Fabric 1	4E	1	89		right corner;mortar	
28	0007	PNR	fe & shale & limestone;semi vitrified		1	59		flat roofer;corner;pawpri nt	
28	0007	PNR	fe & shale & limestone;semi vitrified		1	108		flat roofer;mortar	



trench	context	cname	fabric	sub type	frags	weight	decoration	description	date
28	0007	PNR	fe & shale & limestone; semi vitrified		1	96		flat roofer; mortar	
28	0007	PNR	fe & shale & limestone		1	101		flat roofer; analyse; mortar; paw/finger print ?	
28	0007	PNR	fe & shale & limestone; semi vitrified		2	281		flat roofer; mortar incl over breaks; analyse	
28	0007	PNR	fe & shale & limestone; semi vitrified		3	1086		flat roofer; corner; thick tile; analyse; mortar	
28	0007	GPNR	7		1	95		reduced pocked fe glaze; flat roofer	
28	0012	PNR	fine red fabric; BEVO ?		1	52		flat roofer; mortar incl over breaks	
31	0006	PNR	LSWA		1	49		abraded; flat roofer	
31	0006	GPNR	7		1	6			
36	0002	PNR	light orange fabric with shale pellets		1	52		flat roofer	
36	0002	PNR	orange fabric with shale pellets		1	132		flat roofer; mortar incl over breaks	
36	0002	GRID	7	3A ?	1	122	applied pressed strip	cu glaze	
36	0002	GRID	unusual fabric		1	141		bright cu glaze over white slip ?; waster ?	
39	0004	PNR	new fabric		1	142		flat roofer; thick tile; mortar incl over breaks	
39	0004	PNR	1		2	179		flat roofer; same tile; mortar	
39	0019	GPNR	7		1	89		reduced glaze; mortar	



**APPENDIX 5**



## The Architectural Fragments

By Geraint Franklin

### Summary

*The vast majority of the recorded architectural fragments derive from the Dominican friary within the medieval suburb of Butwerk. The scale, detailing and quality of the pieces suggests a grand building complex of some quality. Much of the material can be ascribed to the early thirteenth century.*

### Introduction

58 separate architectural fragments were recovered and catalogued from the 2003 watching brief on the Lincoln College site. This comprised two areas of building construction separated by a car park. That to the north, was next to Cathedral Street and was given the code LCSZ03. The south end of the site fronted onto Monks Road and was given the code LCMR03. The watching brief was carried out during the excavation of pits in advance of driving piles. The majority of stone came from LCSZ 03 came from a demolition layer overlying remains of the Dominican friary. In the text location of the architectural fragments is by Pit number followed by context, e.g 12/1 is Pit 12 context 1, if a fragment is not from the demolition layer.

### Method

The stonework was recorded using *pro forma* recording sheets based on Morris and Stocker (1987). All stones were photographed, and the most significant items were drawn at 1:1 scale. Tracings of all mason's marks were made, and rubbings were taken of a representative sample of tooling marks. Thirty-two stones were retained for further study; these were washed, labelled and stored according to the guidelines set out in Morris and Stocker (*ibid*).

### Overview of the Assemblage

The term architectural fragment is defined by the presence of one or more tooled faces. The catalogue below describes twenty-seven pieces (representing 46% of the assemblage). Of the remainder, thirteen stones (22% of the assemblage) were tooled to a fine finish on one face only, and represent facing stones of differing sizes from a coursed ashlar wall or walls. Three (5% of the assemblage) had two adjacent tooled faces at an angle of 90° and are probably quoins. Five stones (8% of the assemblage) were squared and tooled to a rough finish; They represent only a small sample of the rubble observed within the pits.

### Petrology

Although no petrological analysis has been undertaken, the stones are all cut from the oolitic Lincolnshire Limestone. Although the size and distribution of ooliths varied considerably, the limestone observed on site was fairly homogeneous in colour and composition, and may therefore have been sourced from the same stock or quarry. The stone was of a high quality and is fine-grained. Shell fragments were present in some of the stones. Colour was creamy yellow to biscuit, weathering to a dusky yellow-buff or



light brown.

### *Tooling*

Approximately half of the stones have striated tooling and 35% of the stones exhibit claw tooling (Stocker 1999, 346). The latter is rarely encountered prior to 1200. Certain stones have been worked with two different claw blades. Face 3 of ashlar facing stone 13 has 'teeth' 1.5mm wide with gaps of <1mm. Face 5 has teeth 2.5mm wide with gaps of >1mm. Face 1 of quoin 5 was tooled with a wider draught still, having teeth of 3mm, spaced 1.5 mm apart.

Drag tooling is occasionally present on highly finished pieces, frequently overlying claw marks. We can assume in these cases that the claw represents the preliminary tooling and the drag was subsequently used to obtain a uniformly smooth surface. Occasionally the claw and subsequent drag marks have been polished, perhaps with a piece of sandstone (Stocker 1999, 347). Again, evidence of two drag blades may be seen on a single stone. Face 1 of moulded voussoir section 5 has teeth 2 wide with gaps of <1mm. Face 4 was worked with a fine toothed blade with teeth <1mm wide spaced <0.5mm.

Non-dressed surfaces are roughly tooled with a hammer, pick, or point: these represent built-in faces capping a limestone rubble core. The roughly-tooled, concealed, faces of many ashlar facing stones have a strip of additional tooling bordering the junction with a finely tooled 'display face'. This strip typically extends to a depth of c.150mm from the edge and is tooled to a moderately flat surface, usually with an undecorated blade (striated). This additional tooling facilitates the hairline mortar joints characteristic of ashlar walling.

Tool marks were fairly fresh and well-defined on some pieces, suggesting little *in situ* wear or weathering on exposed surfaces, and perhaps that the building or buildings from which they originated had a comparatively short use-life.

### **Catalogue of Architectural Fragments**

The layout of the catalogue is based on Stocker 1999, and comprises site code; area of site; architectural fragment number in bold type; figure/plate reference; description; discussion. Only four pieces in the catalogue are from the Monks Road site.

#### **LCSZ 03**

##### **Pits1-3**

##### **6** Figure 8

A small section of label or a jamb section from a small arch head. F1 preserves an unusual bankers' mark (see figure 8). The piece is not large enough to give enable the reconstruction of the opening of which it was a part. The moulding is a semi-circular hollow flanked by fillets, a form of the Early English period. This moulding can be seen in the interior window jambs of the Franciscan friary (Greyfriar's museum) on Broadgate, Lincoln (c.1230).

**15, 16, 17, 18**

Figure 4 (AF15 only)



A group of four architectural fragments with identical double chamfered sections. The chamfers are deep, and the adjoining sides long (e.g. F4 and F6 of 15, shown in figure 4). The stones have a chisel-dressed backplate (e.g. F5 of 15). The limestone is of a slightly different character to the others described here: a high-quality, fine-grained shelly limestone, weathering to a biscuit-buff.

These pieces may come from a minor buttress, a respond or the inner element from a blind arcade arch. Another, less likely explanation is that this group represents vault ribs. The lack of curvature or joint angling implies a ridge-rib, but the presence of five such sections, and the lack of any curved elements from the same vault makes this unlikely. The deep chambers suggest an early- or mid-thirteenth century date.

#### Pits 7-11

#### 20 Figure 15

?Tracery fragment 20. Small and heavily abraded. There is a curve along the long axis, so this probably represents a fragment from a small traceried window. F1, F7 and F8 bear substantial traces of render and represent the internal face. Possibly C13-14.

#### 21 Figure 14

?Label section 21. Fragment with chamfered convex edge.

#### 26 and 27

Two slabs of similar dimensions, perhaps paving or flooring stones. They are squarish (26 measures 545×535×123mm; 27 measures 510×600×115mm) and their upper faces are tooled to a fine finish.

#### 32 Figure 18

A corbel with a sub-circular face. The edge of the upper face F1 has a raised lip, presumably to secure a lateral member, such as a wall plate or summer, or a vertical truss element. The backplate has been chisel dressed, and the exposed portion of F1, F2 F4 and F6 claw tooled to a fine finish. Similar examples may be seen at the early fourteenth century ruined nave of Barlings Abbey, 6 miles north east of Lincoln. They may be dated to after c. 1200 on the basis of the tooling (Stocker 1999, 349).

#### 37 Figure 19

A water-holding feature, probably a small basin. The sides (F1-4) are roughly tooled, although the base F6 is flatter, suggesting the piece was freestanding on a level and flat surface. An area of the rim c.80mm in length is worn to a smooth surface, and this is likely to represent *in situ* use-wear. The piece probably had a utilitarian function, being too rough for liturgical use as, say, a stoup basin or piscina. Could this relate to a post-medieval reuse of friary stone?

#### 35, 50, 51, 52, 53 Figure 1 (AF50 only illustrated)

A group of large, deeply-chamfered mullion sections of identical section, that is, double chamfered. These clearly share an origin in the same architectural feature. The interior



half of the mullion (for example F1-6 of 50) is smaller and, in the case of 35, 50, 51 and 52 preserves traces of the original limewash.

The glazing groove is of rectilinear section, located centrally in the reveal of the mullion; this may be later. Central setting-out lines are visible on 50, 51, 52, and 53. Some of the pieces have pairs of sockets for iron cramps in their beds, aligned laterally and adjacent to the glazing grooves. Figure 1 shows the sockets, and the corresponding setting out lines in F9 of 50. This was a common method of preventing lateral movement in vertical members (Alexander 1996, 231).

50, 51, 52, and 53 each have one deeply incised crosses of approximate V-section in their beds. These masons' marks are clearly of a different type to the bankers' marks shown in figure 20, and, unlike the latter group, they have been made on concealed faces. Although marks of this type are not rare in this architectural context, their purpose is not certain. Stocker (1999, 354) suggests that the marks were made, possibly at the quarry, to set aside stones of higher quality for a specialised purpose such as ribs or mullions.

The differential rebate enabled the glass to be mounted in wooded frames, as it was in the choir and nave of Lincoln Cathedral (D. Stocker, pers.comm.). This, together with the deep chamfer indicates a date in the first half of the thirteenth century. These pieces are further discussed under the catalogue entry for 36, a piece diagnostic of their architectural context.

**36** Figure 3

A central springer from a double lancet window, that is, a central element marking the point where two lights spring from a central mullion. The base of 35 (F9) is of identical section to the group of mullions described above, and was undoubtedly part of the same window. This piece is a fortunate survival, because it provides an architectural context for the mullion group described above. The size and proportions of these pieces, their simple chamfered form, together with the high quality of the stone and the fine finish suggests a group of at least two lancets of the second quarter of the thirteenth century. It is possible that these relate to the phase documented in 1238, when Henry III gave the friary 30 trees for use in building works (Trimble 2003, 3). Figure 21 shows a reconstruction of such a window, incorporating 35, 36, 49, 50, 51, 52, and 5.

**42** Figure 11

A moulded jamb section. The moulding comprises a quirk, angle roll and a fragment of a returning curve, which perhaps continued to form a hollow or scroll.

**44** Figure 17

A fragment from a large shaft. F1 is the only worked face preserved, and has vertical striated tooling. It is weathered, suggesting an exterior location. The arc of F1 suggests a shaft radius of *c.*360mm.

**49** Figure 2

A double-chamfered section, probably from the arch head of a large archway, possibly a



window. The inner face (i.e. containing the glazing groove) is missing, and F5 contains a rebate. Its curvature suggests an opening *c.*3.2m wide. Its width and chamfer angle match those of mullion sections 35, 50, 51, 52, 53, and on this basis it is suggested that 49 has an origin in the same feature (see reconstruction). The piece is probably of early-thirteenth century date. These pieces are further discussed under the catalogue entry for 36, a piece diagnostic of their architectural context.

**54** Figure 12

A jamb section with a rebate and exterior chamfer.

Pit 20

**33** Figure 10

A jamb section from a splayed opening, probably a small window. There is a chamfer on the interior side. The considerable traces of lime-based mortar on F2 suggest that this face was built into the wall in a secondary use.

Pit 25/6

**1** Figure 13

A jamb section with interior and exterior chamfers at different angles. F1-3 have polished drag tooling.

**2**

An architectural fragment with identical double chamfered sections. The chamfers are deep, and the adjoining sides long. The stone has a chisel-dressed backplate. The limestone is of a slightly different character to the others described here: a high-quality, fine-grained shelly limestone, weathering to a biscuit-buff.

This piece may come from a minor buttress, a respond or the inner element from a blind arcade arch or represents part of a vault rib. The lack of curvature or joint angling implies a ridge-rib. The deep chambers suggest an early- or mid-thirteenth century date.

TR26/6

**3** Figure 9

A rebated jamb section, probably from a small doorway. The interior rebate is slightly splayed. The exterior angle has a rounded arris instead of a corner moulding (*cf.* Stocker 1999, 325).

LCMR03

1000

**57 and 58** Figure 6-7

Small mullion fragments of identical double chambered section. The glazing grooves are located non-centrally on the reveals. They are of V-section, and are not tooled to a fine finish (suggesting the possibility that they have been cut *in situ*). The bedding planes of 58 have deeply-incised marks 8-10mm wide of approximate V-section. The marks take



the form of two lines extending from one chamfer-edge to its diagonal opposite, meeting at an angle of 60° (see figure 5). These are keying grooves, intended to prevent lateral movement and help mortar adhere to the beds (Stocker 1999, 355). The fragmented edges of the mullions contain the remains of drilled sockets 4mm in diameter; these evidently formed weak points along the length of the mullions, along which fractures occurred during the parent structure's demolition or after. These are sockets for saddle bars which were spaced *c.*30mm apart. Traces of iron-staining remain on many of the sockets. These are later in date than the rest of the material, being of the mid-fourteenth century or later (D. Stocker, pers.comm.).

Pit 2/3

**43** Figure 20

Fragment of architectural sculpture. Substantial traces of stiff leaf decoration on two adjoining faces. Possibly the corner element of a decorated mid-wall exterior string course or cornice (D. Stocker, pers. comm.). Sprays of projecting, three-lobed leaves. The rather crude and over-scaled nature of the stiff leaf suggests it was indent to be placed at a high level. First half of the thirteenth century.

**40** TR13/3 Figure 16

A fragment from a detached shaft. F1 has no tooling and is worn, suggesting that the curved face weathered in an exterior position. The base F3 has drag tooling with teeth spaced 1.5mm apart, and also contains a compass hole. The mortar traces on F1 suggest the piece has been reused, probably as rubble for a wall core. It may have been part of a compound pier, wall shaft, or respond.

Pit 11/11

**41**

A fragment of, dressed and striated, chamfered and rebated stone.

Pit 13/3

**39** Figure 5

Another small mullion fragment of identical double chambered section. As with AF 57 and 58 the glazing grooves are located non-centrally on the reveals. They are of V-section, and are not tooled to a fine finish (suggesting the possibility that they have been cut *in situ*). The bedding planes of 39 have deeply-incised marks 8-10mm wide of approximate V-section. The marks take the form of two lines extending from one chamfer-edge to its diagonal opposite, meeting at an angle of 60° (see figure 5). These are keying grooves, intended to prevent lateral movement and help mortar adhere to the beds (Stocker 1999, 355).

**Discussion**

The significance of this assemblage relates not to its archaeological context (see below), but to its origin in the medieval Dominican friary. Much of the material is of the comparable quality and scale to the contemporary work at Lincoln cathedral, and it is indeed likely that masons worked at both sites. The most significant items are 43, a fragment of stiff leaf decoration, and a group comprising 35, 36, 49, 50, 51, 52, and 53,



which have a common origin in a major traceried window. It is possible that this group relate to the friary church, which was rebuilt in the late thirteenth century and consecrated in 1311. There is scope for further study of the mason's marks (figure 20) and their comparison with contemporary work at the cathedral, and other ecclesiastical buildings within the city.

It is probable that much of this material is of the second quarter of the thirteenth century. As such, it may relate to a major campaign in 1238, when it is documented that Henry III gave the friary 30 trees for use in building works (Trimble 2003, 3).

Although the loss of an exact context for many of the stones is regrettable, it should be noted that all contexts listed here represent demolition layers. The demolition and robbing of the Dominican friary complex on the site occurred after its dissolution in 1539 (Midmer 1979, 200). Much of assemblage discussed here contains no evidence for a secondary use. Remaining in the demolition layer; it seems likely that these pieces were not robbed on account of their irregular shapes, which would have reuse in walling difficult.

It is also known that a post-dissolution building called 'The Blackfriars' was built on the site, making use of medieval fabric. It was demolished at some point after 1642 (Trimble 2003). On several of the items mortar traces adhere to ashlar surfaces, suggesting reuse. It is likely that these stones were reused in a post-medieval building or buildings, themselves subsequently demolished. Regrettably, the watching brief did not provide the opportunity to identify these events within the post-medieval horizons.

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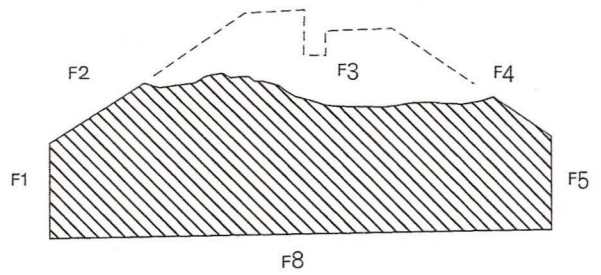
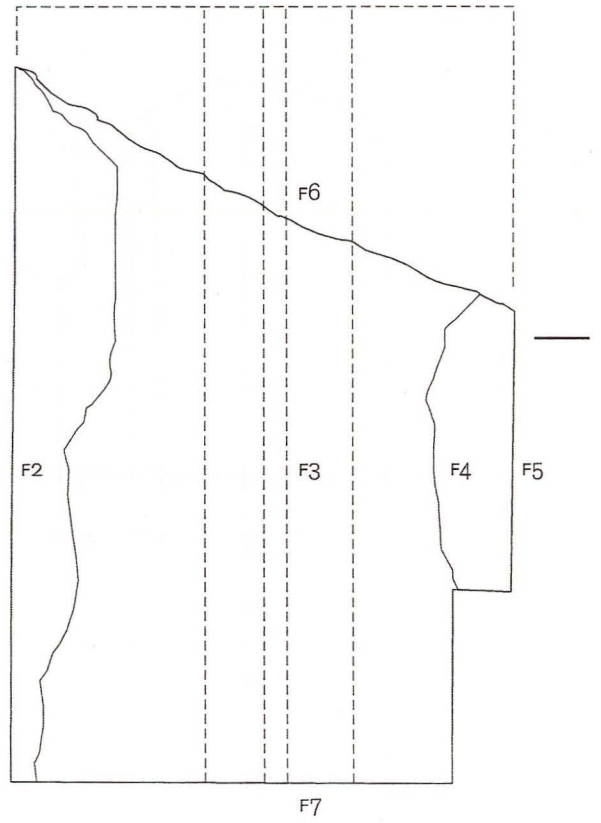
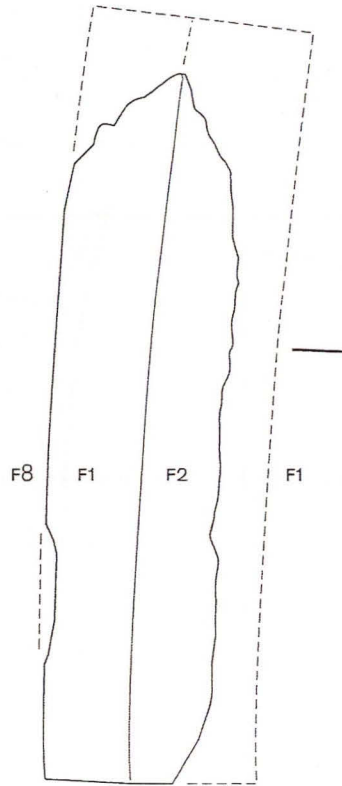
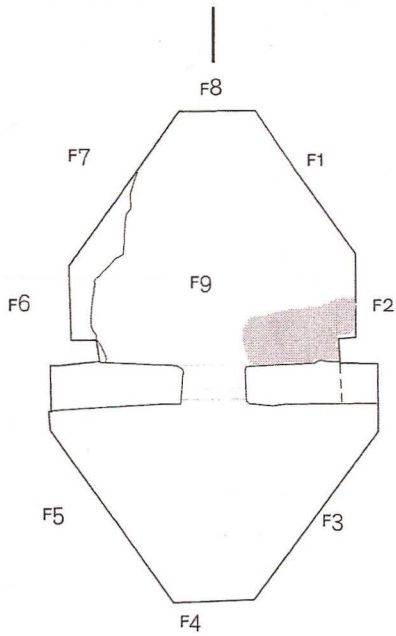
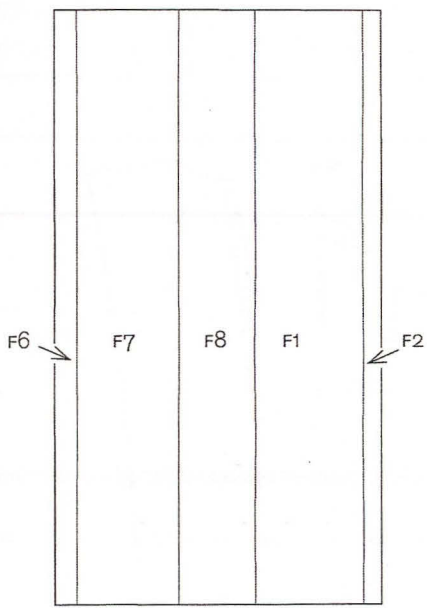


Figure 1: Mullion section AF50 (1:5 scale).

Figure 2: Section of arch head from a large archway AF49 (1:5 scale)



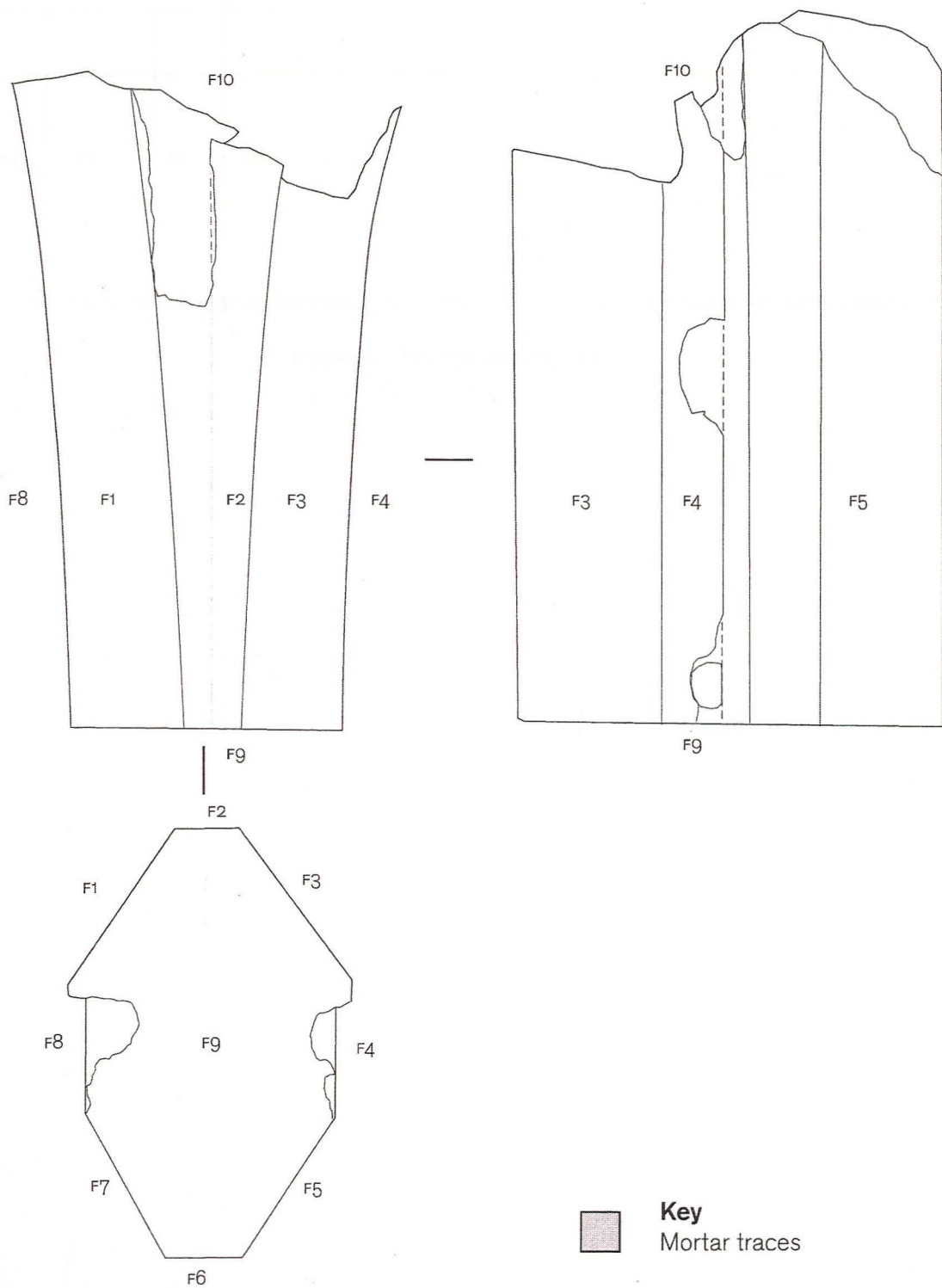


Figure 3: Central springer from a large traceried window AF36 (1:5 scale).



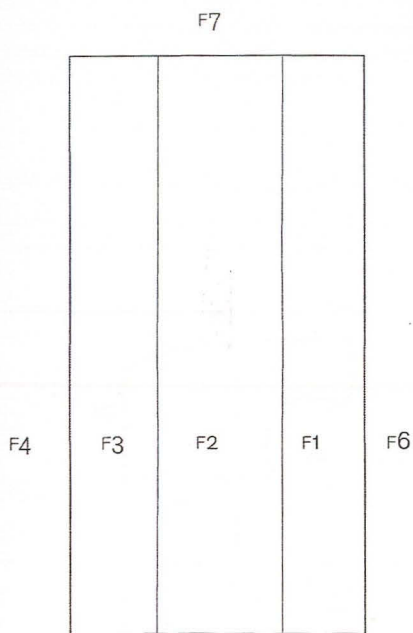


Figure 4: Double-chamfered section AF15. (1:5 scale)

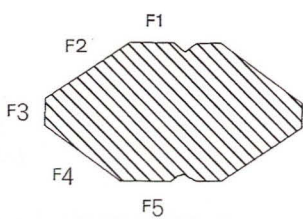
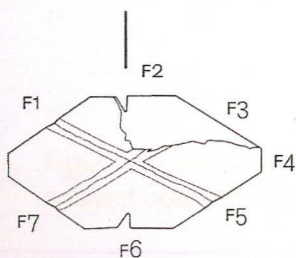
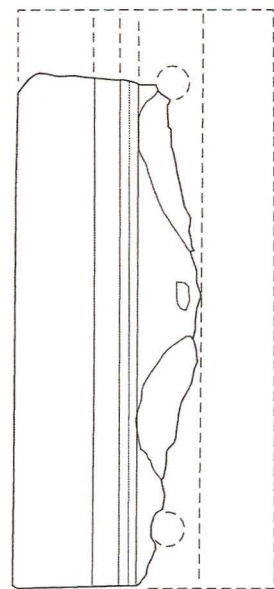
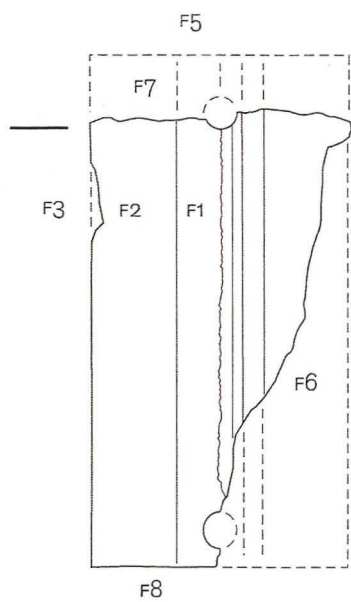
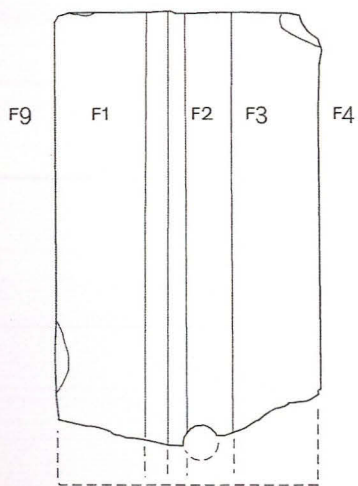
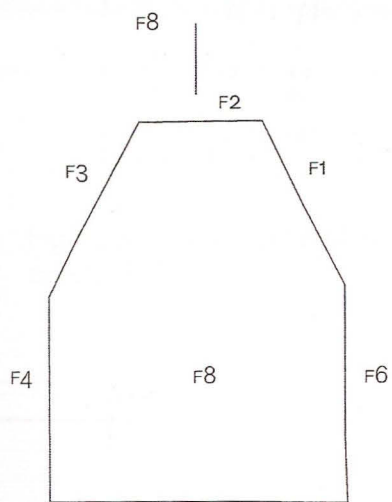


Figure 5: Mullion section AF39 (1:5 scale).

Figure 6: Mullion section AF57 (1:5 scale).

Figure 7: Mullion section AF58 (1:5 scale).



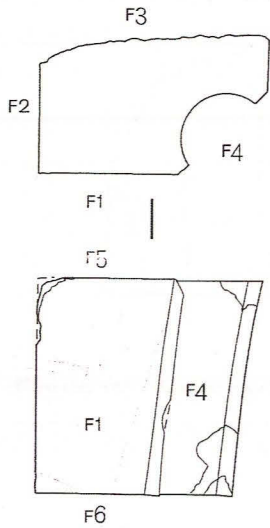


Figure 8: Section of label with a semi-circular hollow moulding AF6. (1:5 scale)

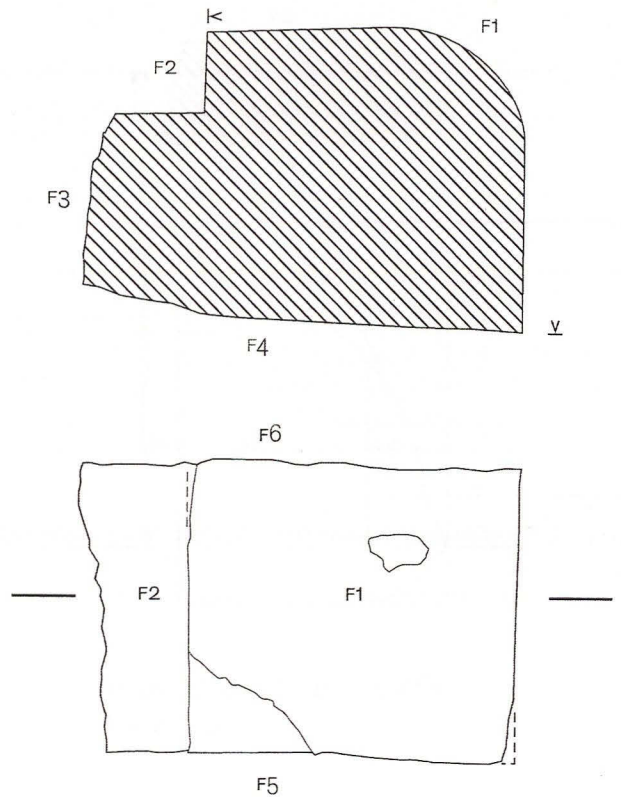


Figure 9: Rebated jamb section AF3 (1:5 scale).

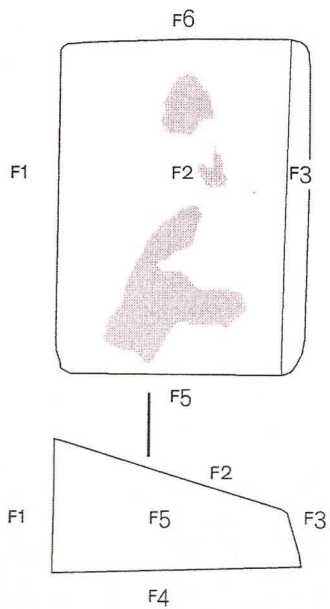


Figure 10: Jamb section from a splayed opening AF33 (1:5 scale).

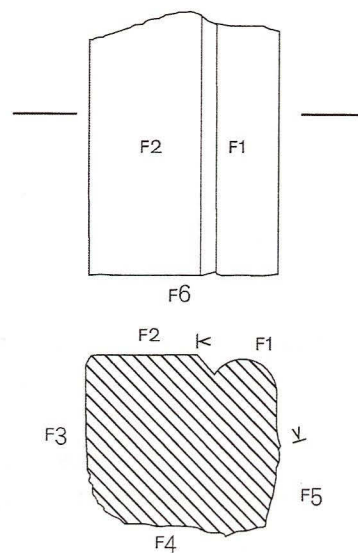


Figure 11: Moulded jamb section AF42 (1:5 scale).



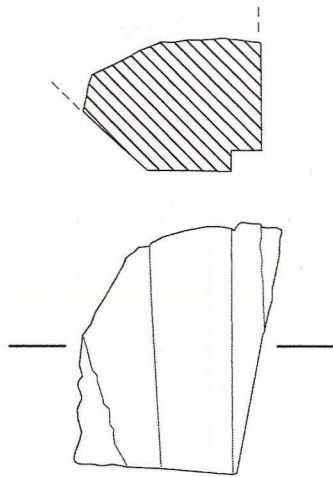


Figure 12: Jamb section with a rebate and exterior chamfer AF54 (1:5 scale).

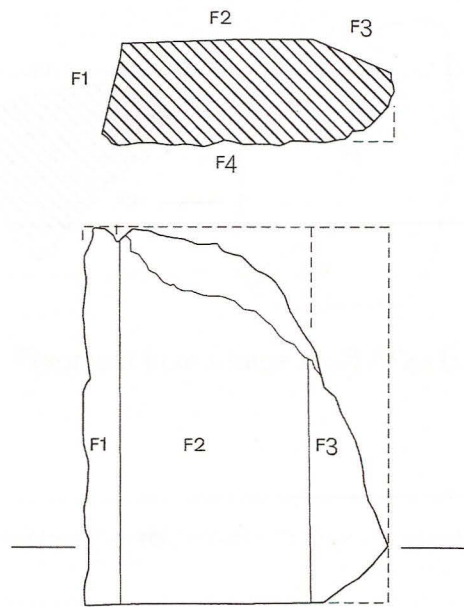


Figure 13 Jamb section AF1. (1:5 scale)

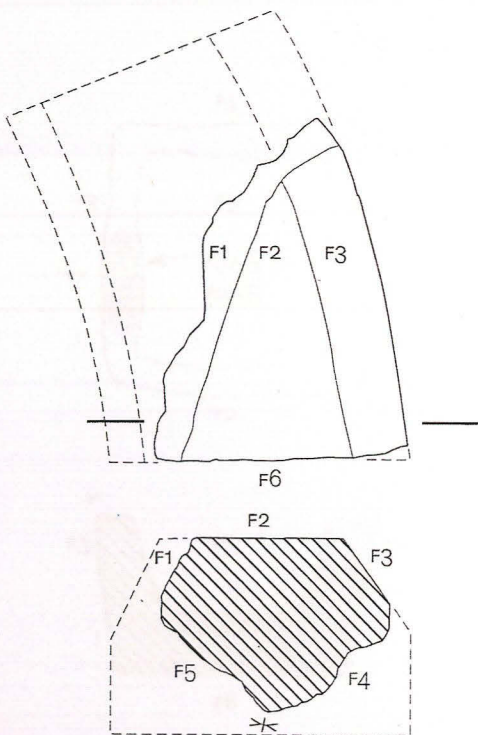


Figure 14: Curved element with chamfer AF21. (1:5 scale)

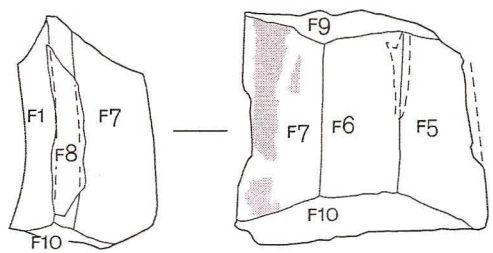


Figure 15: Mullion fragment AF20. (1:5 scale)

**Key**  
 Lime-based render



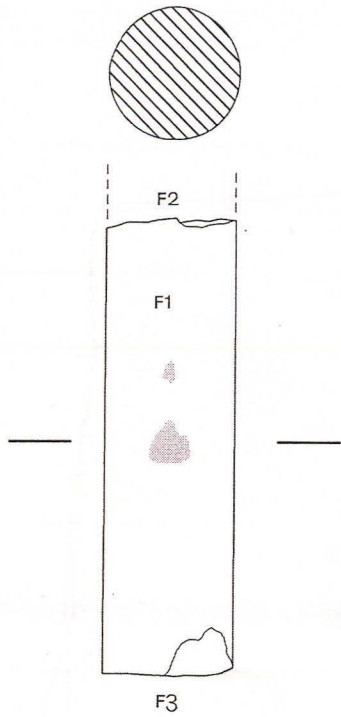


Figure 16 Fragment from a detached shaft AF40 (1:5 scale).

**Key**  
 Mortar traces

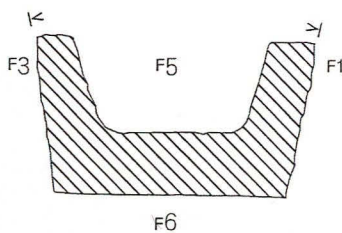
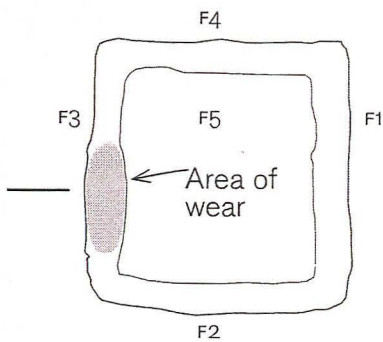


Figure 19: Water-holding feature AF37. (1:5 scale)

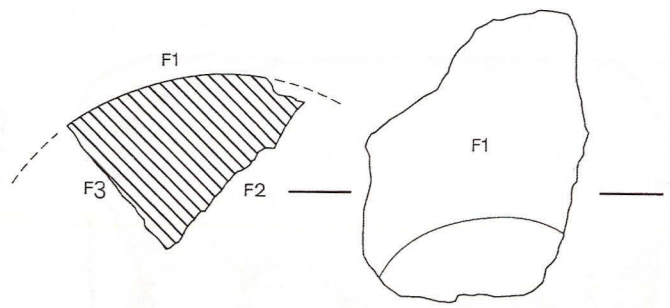


Figure 17: Fragment from a large shaft AF44 (1:5 scale).

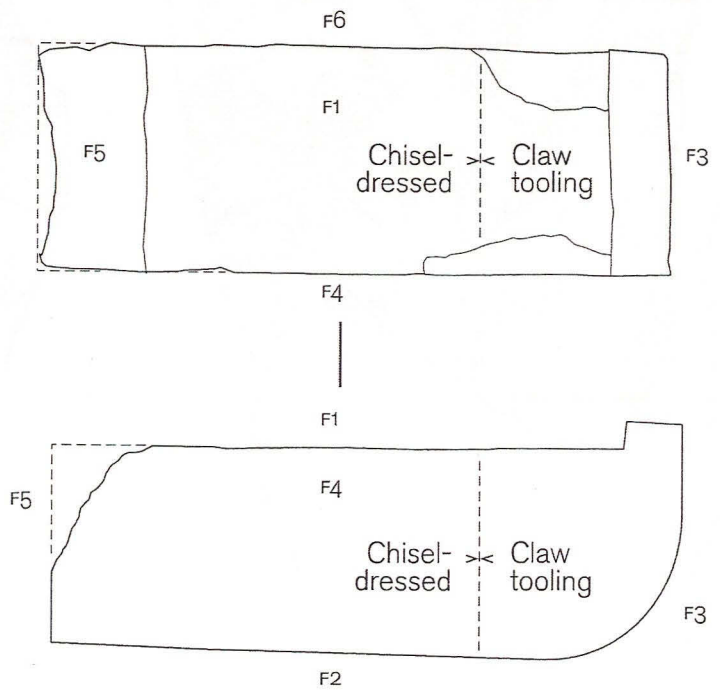


Figure 18: Corbel with a sub-circular face AF32 (1:5 scale).



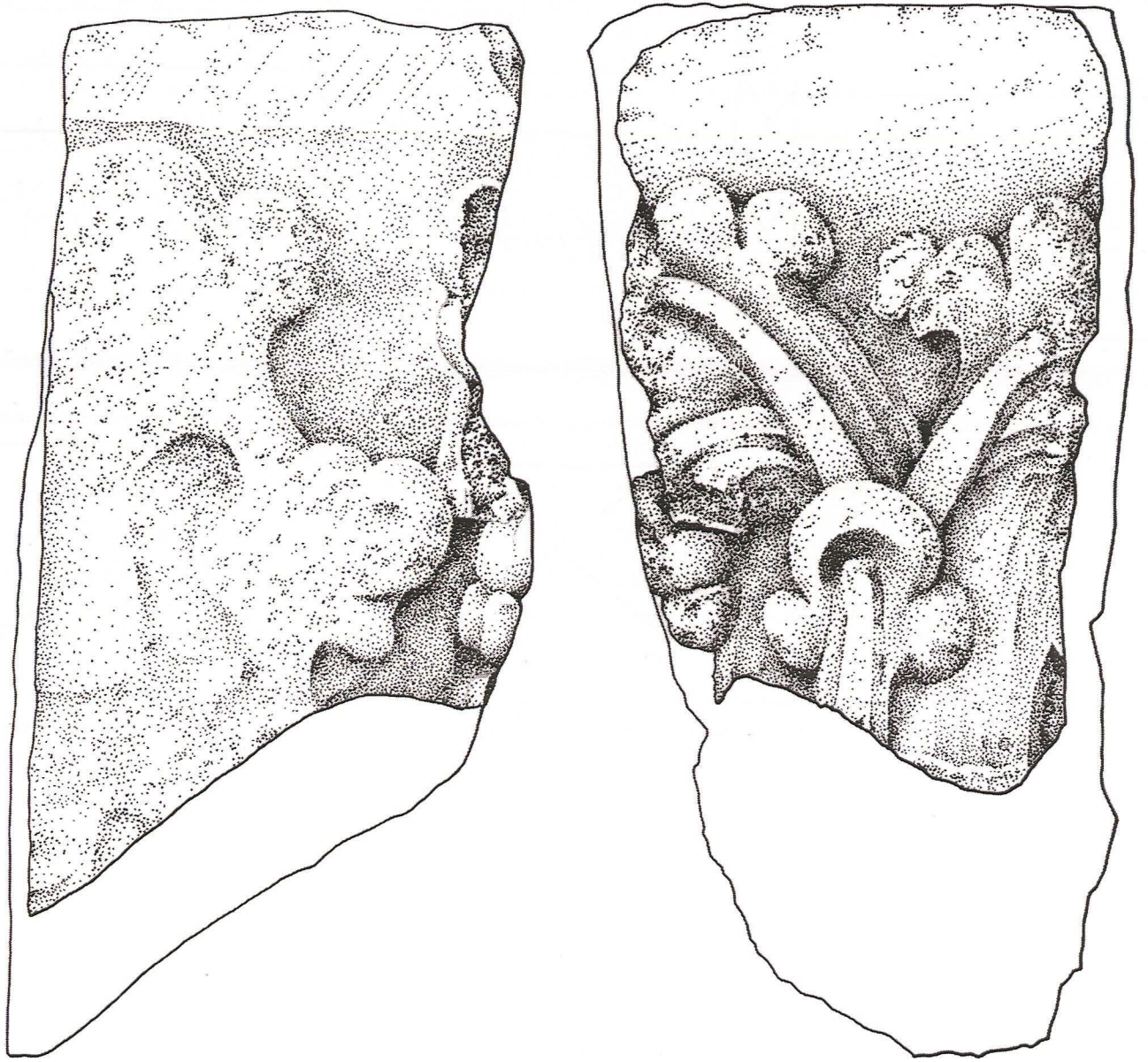
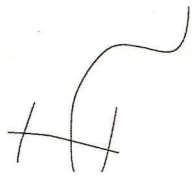


Figure 20.: Fragment of architectural sculpture, AF 43.

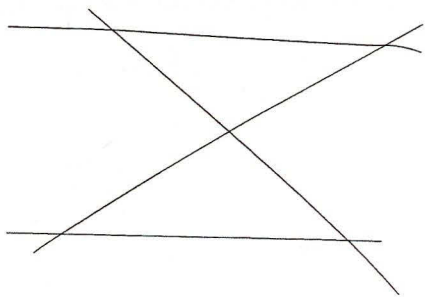




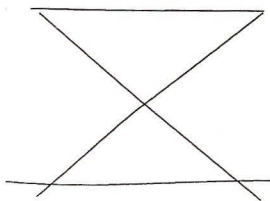
AF6



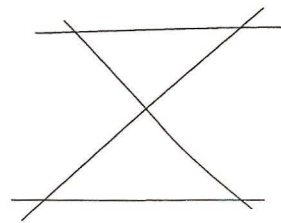
AF15



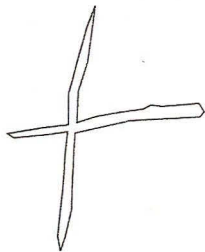
AF16



AF17



AF18



AF15

Similar incised crosses occur on AF16, AF17, AF18, AF50, AF51, AF52, and AF53.

Figure 21: Masons' marks (1:2 scale).



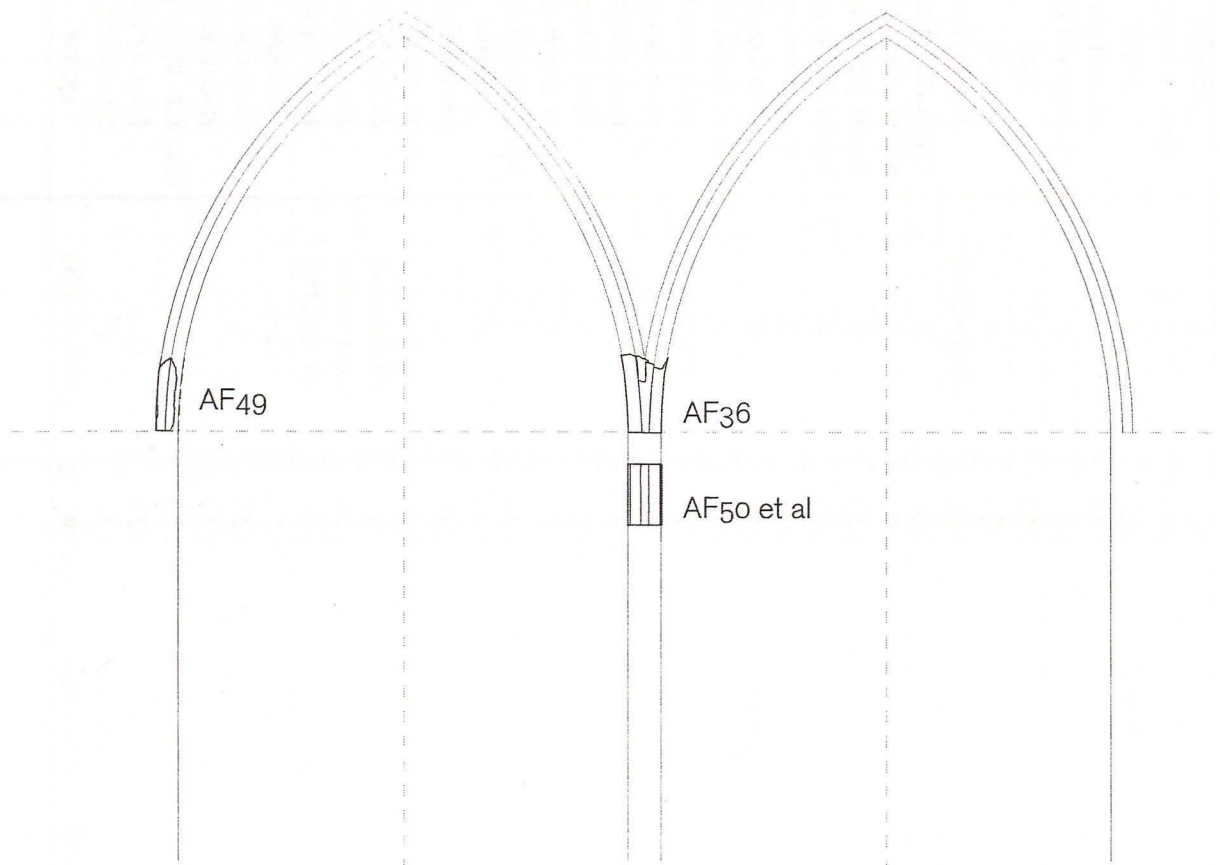


Figure 22: Partial reconstruction of a thirteenth century fenestration scheme showing the position of fragments AF36, AF49 and AF 50 *et al* (1:50 scale).



Architectural Fragments Archive List for LCSZ 03 and LCMR 03.

Site Code	Pile Pit	Context	AF no	Retained	Proforma	Drawing	Cat entry	Photo ref	Tooling type	Notes
LCSZ03	25	6	1	*	*	*	mention	1/24	C	chamfered
LCSZ03	25	6	2	*	*	*	*	1/23	C>P	? blind mullion
LCSZ03	26	6	3	*	*	*	*	1/22	C, S	rebated+ sub-c face
LCSZ03	1-3	demolition	4		*			1/21		?quoin/jamb
LCSZ03	1-3	demolition	5		*	*		1/20	C	?quoin/jamb
LCSZ03	1-3	demolition	6	*	*		*	3/36-5	D>P	moulded
LCSZ03	1-3	demolition	7		*			1/19	not dressed	sq'd rubble
LCSZ03	1-3	demolition	8		*			1/18	not dressed	sq'd rubble
LCSZ03	1-3	demolition	9		*			1/17	not dressed	sq'd rubble
LCSZ03	1-3	demolition	10		*			1/16	C,S	ashlar facing stone
LCSZ03	1-3	demolition	11		*			1/15	C	?quoin/jamb
LCSZ03	1-3	demolition	12		*			1/14	C	?splayed
LCSZ03	1-3	demolition	13		*			1/13	C	ashlar facing stone
LCSZ03	1-3	demolition	14		*			1/12-11	C	ashlar facing stone
LCSZ03	1-3	demolition	15	*	*	*	*	1/10-9	D	? blind mullion
LCSZ03	1-3	demolition	16	*	*	*	*	1/8-7	C>P	? blind mullion
LCSZ03	1-3	demolition	17	*	*	*	*	1/6-5	C>D>P	? blind mullion
LCSZ03	1-3	demolition	18	*	*	*	*	1/4-3	C>D>P	? blind mullion
LCSZ03	7 - 11	demolition	19		*			2/37	S	ashlar facing stone
LCSZ03	7 - 11	demolition	20	*	*	*	mention	2/36	D	curved element
LCSZ03	7 - 11	demolition	21	*	*	*	mention	2/35	D	curved element
LCSZ03	7 - 11	demolition	22		*			2/34	S	ashlar facing stone
LCSZ03	7 - 11	demolition	23		*			2/33	S	ashlar facing stone
LCSZ03	7 - 11	demolition	24		*			2/32	S	ashlar facing stone
LCSZ03	7 - 11	demolition	25		*			2/31	S	ashlar facing stone
LCSZ03	7 - 11	demolition	26		*			2/30	not dressed	sq'd rubble
LCSZ03	7 - 11	demolition	27		*		*	2/29	S	slab
LCSZ03	7 - 11	demolition	28		*		*	2/28	S	slab
LCSZ03	7 - 11	demolition	29		*			2/27	S	ashlar facing stone
LCSZ03	7 - 11	demolition	30		*			2/26	S	sq'd rubble
LCSZ03	7 - 11	demolition	31		*		mention	2/25	S	rebated
LCSZ03	7 - 11	demolition	32	*	*	*	*	3/34-35	S, C, P	?corbel w/sub-c face
LCSZ03	TP7 20	2	33	*	*	*	*	3/32	S	?splayed



Architectural Fragments Archive List for LCSZ 03 and LCMR 03.

		Context	AF no	Retained	Proforma	Drawing	Cat entry	Photo ref	Tooling type	Notes
LCSZ03	7 - 11	demolition	34	*	*		mention	3/31	S, C	chamfered
LCSZ03	7 - 11	demolition	35	*	*	*	*	3/30-29	S	mullion
LCSZ03	7 - 11	demolition	36	*	*	X3	*	2/24-20	S,C	mullion springer
LCSZ03	7 - 11	demolition	37	*	*	*	*	2/19-18	not dressed	waterholding
LCSZ03	1-3	demolition	38		*			1/2	D	ashlar frag
LCMR03	13	3	39	*	*	*	*	3/28-27	D	mullion. Note diff location
LCMR03	13	3	40	*	*	*	*	3/26	D>P	shaft
LCMR03	11	11	41	*	*	*	mention	3/25	D, S	chamfered/rebated
LCSZ03	7 - 11	demolition	42	*	*	*	*	3/24	S, D, C	moulded
LCSZ03	1-3	demolition	43	*	*	*	mention	3/23-20	S>P	stiff leaf
LCSZ03	7 - 11	demolition	44	*	*	*	*	3/19-18	S>P	shaft frag
LCSZ03	7 - 11	demolition	45		*			2/17		ashlar facing stone
LCSZ03	7 - 11	demolition	46		*			2/16		ashlar facing stone
LCSZ03	7 - 11	demolition	47		*			2/15		ashlar facing stone
LCSZ03	7 - 11	demolition	48		*			2/14		ashlar facing stone
LCSZ03	7 - 11	demolition	49	*	*	*	*	2/13		curved element
LCSZ03	7 - 11	demolition	50	*	*	*	*	2/12-11		mullion
LCSZ03	7 - 11	demolition	51	*	*	*	*	2/10-9		mullion
LCSZ03	7 - 11	demolition	52	*	*	*	*	2/8-7		mullion
LCSZ03	7 - 11	demolition	53	*	*	*	*	2/6-5	D	mullion
LCSZ03	7 - 11	demolition	54	*	*		mention	3/17	D, C	double chamfered
LCSZ03	7 - 11	demolition	55	*	*		mention	3/16	D,C	chamfered
LCSZ03	7 - 11	demolition	56	*	*		mention		D	chamfered
LCMR03	n/a	?1000	57	*	*		*		C, D, P	small mullion
LCMR03	n/a	?1000	58	*	*		*		C, D, P	small mullion
LCMR03	n/a	?1000	59				mention			
									C Claw	
									D Draw	
									P polish	
									S striated	



**APPENDIX 6**



**A fragment of carved bone from Cathedral Street, Lincoln  
(LCSZ03)**

A fragment of carved bone, 73mm in long, appears to be from a square- or rectangular-sectioned socketed handle. Only a fragment of two adjacent sides and part of one terminal survive; the other end, which appears to be broken, is slightly flared and is somewhat abraded. The two adjacent sides appear to have been similarly, although not identically, ornamented; parallel to the terminal on both faces is a series of shallow triangular cuts. One face is better preserved than the other but the mid-point shows evidence of further abrasion. So little survives of this face (9 to 12mm wide) that the ornament is difficult to interpret, although if the piece is held with the edge uppermost, it can be convincingly interpreted as zoomorphic. Two deep longitudinal grooves define the edge; within these, and adjacent to the remaining terminal, is the backward-facing head of a beast. This has two slight parallel nicks that may represent the ear, a circular eye and a curving, speckled snout. The latter is deeply cut but the piece is broken immediately below it; the curve could represent either the upper jaw of a gaping mouth or the underside of the lower jaw. Beyond the snout, a triangular cut perhaps represents the hindquarters, and a very faint, shallow groove extends towards the far end of the handle, perhaps representing a tail although this tapers out before it reaches the end of the piece. Although rather less of the adjacent side survives (max. width 9mm) it appears to be more squarely cut; it lacks the curvaceous 'snout' and has a less convincing 'wing' and a broader 'tail' than the other; it has suffered less from abrasion and is well polished as if from use.

However, if the piece is viewed vertically rather than horizontally (with the remaining terminal upwards) an alternative interpretation of the ornament may be made, suggesting that it is anthropomorphic rather than zoomorphic. Each side can be seen as the remains of a human figure: part of the hair or headdress, one shoulder and an inward-bent arm, and a flowing robe below; each figure is enclosed within a frame, as if standing within a niche. The apparent detail of the broader surviving side such as the nicked 'ear' and the speckling of the 'snout' described above could perhaps be an accidental effect of post-use damage/abrasion.

The most likely function of the piece is as a handle; the socket appears to be of circular section throughout, expanding in diameter towards the remaining terminal. Its internal face here shows a degree of surface polish as if from wear, suggesting either rotation around an inner surface or friction resulting from a to-and-fro movement. This perhaps implies a function other than as a handle, unless the piece had been reused for some other purpose.

The dating of the piece depends almost entirely on the interpretation of the ornament: if seen as zoomorphic it is most likely to be Late Saxon or early medieval whereas if viewed as anthropomorphic a slightly later date can be suggested: anthropomorphic bone handles (generally carved in the round rather than two-dimensional) from elsewhere seem generally to date to the thirteenth and fourteenth centuries (*cf.* MacGregor 1985, 170).

*Recommendations*

The bone should be shown to a suitable specialist; a scanned image could be sent to the British Museum or to Arthur MacGregor (Ashmolean Museum). It should also be drawn – it may be preferable to undertake this after specialist opinion has been sought as the latter may provide a more definitive interpretation of the ornament and thus dictate the alignment of the illustration.

*Reference*

MacGregor, A, 1985 *Bone, Antler, Ivory and Horn. The Technology of Skeletal Materials Since the Roman Period.*



**APPENDIX 7**



## **Assessment of mortar samples from Cathedral Street and Monk's Road, Lincoln (LCSZ03 and LCMR03)**

### ***Alan Vince***

Archaeological fieldwork on the site of the Blackfriars precinct to the north of Monk's Road, Lincoln carried out by Lindsey Archaeological Services revealed several mortared walls. Samples of the mortars were taken, primarily with the hope that analysis of the mortars might be able to date the structures and perhaps indicate which walls were built as part of the same building phase.

### **Description**

Eight samples were taken in total, four from Cathedral Street and three from Monk's Road. Some of these, noted as FRIABLE in Table 1, were damp when submitted and were air-dried. When dry, all the samples were examined at x20 magnification using a binocular microscope.

The samples could be grouped into two groups.

### **Group A**

These samples contained abundant quartz sand, up to 0.5mm across, and sparse rounded calcareous pellets. These pellets usually show no internal structure and are probably composed of recrystallised calcite. However, some appear to consist of rounded chalk pellets, identified through their microfossils. This would imply that the slaked lime used to make the mortar was made from chalk. This is, however, such an unlikely possibility that it would require confirmation by thin-section analysis.

The Group A mortars all have a considerable clay content. Some of this may be due to the infilling of pores in the mortar with soil, some may indicate the use of a sand with a sizable clay content but it is also possible that clay was deliberately mixed with the mortar.

### **Group B**

The Group B mortars are all hard and lighter in colour than those of Group A. They too have a quartz sand component, but in lower quantities than in Group A. Rounded calcareous pellets like those in Group A are also present.

In one case, the samples come from a plaster skim and have a flat, tooled surface and were applied onto a sandy, red mortar.



Table 1

Sitecode	Group	subfabric	Context	REFNO
lcsz03	A	FRIABLE;A SA Q SAND; S R CALC NODULES (HEAT-ALTERED LST?)	35/1	
lcsz03	B	HARD;A SA Q SAND; S R CALC NODULES (HEAT-ALTERED LST?)	31/1	
lcsz03	A	FRIABLE;A SA Q SAND; S R CALC NODULES (HEAT-ALTERED LST?)	39/4	
lcsz03	A	FRIABLE;A SA Q SAND; S R CALC NODULES (HEAT-ALTERED LST?)	39/3	
lcsz03	A	FRIABLE;A SA Q SAND; S R CALC NODULES (HEAT-ALTERED LST?)	35/5	
LCMR03	B	HARD;A SA Q OVER A RED SANDY MORTAR	11/3	SF4
LCMR03	A	FRIABLE;A SA Q;S R CALC GRAINS, SOME LOOK LIKE CHALK;OTHERS HEAT-ALTERED	11/20	SF3
LCMR03	A	FRIABLE;A SA Q;S R CALC	8/1	SF2

### Discussion

Mortars were composed of slaked lime, water, sand and aggregate. In some of the Group A mortar samples there were fragments of limestone rubble, which could have been mixed in as aggregate, but otherwise all the samples consist of lime and sand. The harder, lighter-colour of the Group B samples is due to a higher lime content, as well as to the lack of clay.

Sample LCMR03 11/3 was clearly a plaster surfacing on top of a coarser mortar core. However, the colour of that core is quite unlike that of the Group A samples and may indicate that the wall was burnt before being plastered. The other Group B mortar, LCSZ03 31/1, has no traces of surfaces and may indicate the use of a high lime mortar throughout the wall.

It is quite possible that all the samples come from contemporary structures and differ in composition because of their different functions. In this interpretation, Group A mortars would be used for foundations in which the mortar is not intended to have any strength but simply to hold the rubble footings together. The Group B mortar samples might then come from upstanding walls, of which LCSZ03 31/1 might have a high lime mortar throughout whereas LCMR03 11/3 has a sandier core.

The quartz sand present in all the samples is visually similar to that found in the Witham terrace sands which outcrop to either side of the river and underlie the site itself. The obvious source of lime would be the Lincolnshire Limestone which outcrops in the cliffs



above the site but the possible identification of chalk amongst the calcareous pellets would imply that the lime was imported from the Wolds.

Fragments of coal or wood charcoal are frequently observed in mortars. Some of these may be present as a result of contamination with ash from the lime kiln but none were noted in these samples.



**APPENDIX 8**



**LCSZ03****1. Introduction**

- 1.1 Archaeological Services WYAS were commissioned by Lindsey Archaeological Services to undertake the analysis of a single soil sample from Lincoln College, Monks Road.

**2. Method**

- 2.1 One soil sample of three litres was subjected to a system of flotation in an Ankara-style flotation tank. The floating remains (the flot) were collected in a 300 $\mu$ m sieve and the heavy fraction (the retent) was collected in a 1mm mesh. The flot, once dry, was scanned using a binocular microscope and the results are presented below (Table 1). The retent was scanned by eye for both ecofacts and artefacts.

**3. Results****Flot samples**

- 3.1 Contamination of the sample by modern plant fibres was noted, and burrowing land snails were recorded. Land snails that may relate directly to the archaeological deposit were also noticed in some number. These may require further analysis if their value as ecological indicators would facilitate an understanding of the archaeology.
- 3.2 A few wood charcoal fragments were noted but they were of insufficient size to be identified to genus.

**Retent samples**

- 3.3 The retent contained occasional fragments of human bone that have been removed and retained. In the absence of any other biological material, the remaining inorganic retent was discarded.

**4. Conclusions**

- 4.1 With the exception of a few charcoal fragments, no botanical material of any significance was identified, although land snails were commonly recorded and these may require further analysis. A few fragments of human bone were recovered from the retent.



Table 1. Results from the flot and retent

Context number	Flot/retent volume	Charcoal		Snails	Uncharred plant	Comments
		qty.	large frags.			
17/4	<1ml (flot)	+		+++	+	
17/4	1000ml (retent)					Human bone ++

Key : + = rare (1-5), ++ = occasional (6-10), +++ = common (11-50), ++++ = abundant (>50), \* = sufficient charred material for AMS date

Jane Richardson 05/01/2004

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**APPENDIX 9**



**Osteological Assessment  
Lincoln Cathedral Street  
Lincoln**

Site Code: LCSZ03  
NGR: SK 7635 71456

Report No 0904  
May 2004

**Prepared for**

Lindsey Archaeological Services  
25 West Parade  
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**Prepared by**

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## Summary

York Osteoarchaeology Ltd was commissioned by Lindsey Archaeological Services to carry out the osteological assessment of an assemblage of human remains recovered from Lincoln Cathedral Street, Lincoln (SK 7635 71456). It is probable that the majority of skeletons had been interred in the cloister of a 13<sup>th</sup> century Blackfriars Priory, although one skeleton may be later than the monastic site (Trench 17), while skeletal remains from Trench 4 may date to the Roman period (Table 1).

Osteological analysis revealed that the skeletal remains were well-preserved throughout the collection. The assemblage represented a minimum number of four individuals. This included one complete skeleton (14) from Trench 6, which was a mature adult male aged 46 years or older (Table 2). Additionally, a pair of lower legs and feet (2) from Trench 17 was treated as an individual skeleton and represented an adult.

In the disarticulated assemblage, which consisted of 140 bones or bone fragments, one young adult aged 18 to 25 was identified, as well as one young middle adult, aged 26-35, one old middle adult male aged 36 to 45 and two mature adult males aged over 46 years or older. Additionally, at least five bones belonging to a female were found, although her age could not be assessed. It is probable that this woman dates to the Roman period. Her bones were associated with a skull, initially thought to belong to her, but which was found to be a mature adult male upon analysis. Stature could be established in the two individual skeletons. In both cases, the individuals were 1.72m tall, which is slightly taller than the mean stature calculated for a number of medieval cemeteries (170.5cm) by Caffell (1997).

Evidence for pathology was observed on a number of bone fragments, as well as in Skeleton 14. The most commonly observed pathological manifestations were those related to muscle trauma in the form of bony protrusions (*enthesopathies*) or bone excavations. Muscular trauma occurs as a result of repetitive strain or sudden severe trauma, such as a fall. *Enthesopathies* at the muscle attachment for *gluteus maximus*, the main bottom muscle which extends the hip and trunk (Stone and Stone 1990) were most prevalent. Additionally, muscle strain was noted on the rotator cuff at the upper arm and shoulder. These muscles strengthen the shoulder joint and aid in all upper arm movements. The evidence suggests that the individuals from Lincoln Cathedral Street were carrying out tasks which placed strain on the upper arm and shoulder muscles, such as crafts, gardening, or other physical activities.

Evidence for joint degeneration was also prevalent in the assemblage and was mostly observed in the vertebrae as well as in the joints of one pelvis fragment. The neck vertebrae of Skeleton 14 showed evidence for considerable porosity as well as marginal new bone formation which develops in an attempt to repair the deteriorating joints (Plate 1). It is probable that the joint disease observed in this population was age-related. Schmorl's nodes, or depressions in the vertebral bodies caused as a result of vertebral disc damage, were observed in the lower spine of Skeleton 14. These lesions are commonly seen in skeletons from archaeological contexts and reflect strain placed on the spine as a result of carrying heavy loads.

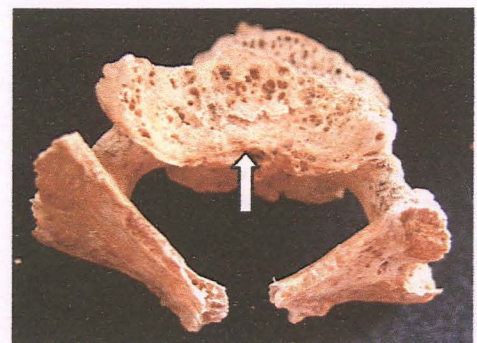


Plate 1 Joint disease on a neck vertebra of Skeleton 14



Other pathological conditions encountered included pitting in the eye orbits resulting from iron deficiency anaemia (*cribra orbitalia*). Mild inflammation of the lower legs was noted in two disarticulated tibial shaft fragments, as well as the lower legs of Skeleton 14. These lesions, termed *periostitis*, could be the result of an infectious disease such as syphilis or leprosy, or may have developed as a result of ulcers, varicose veins, or trauma to the shins. Spondylolysis is a condition which is characterised by separation of the vertebral arch of the fifth lumbar vertebra. This can occur in individuals who habitually carry out activities which place strain on the lower spine, such as athletes.

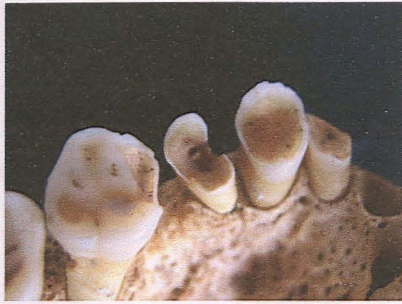


Plate 2 Cavities on first premolar of Skeleton 14

Dental disease was noted in both Skeleton 14 and in the disarticulated remains. This included moderate calculus formation (concretions of dental plaque), which are caused by poor dental hygiene. Additionally, several cavities were noted, which tend to become more prevalent after the introduction of cane sugar to the general populace in the 17<sup>th</sup> century (Moore and Corbett 1975). Periodontitis was observed in the form of receding gums and may have been exacerbated by irritation from the plaque formation.

In conclusion, the small population from Lincoln Cathedral Street provided a glimpse into the life, health and diet of individuals buried at the site. The evidence suggests that the individuals buried at the cloister were mostly males, but included at least one female skeleton. The group had experienced little stress during childhood, which meant that the two individuals whose living height could be assessed were slightly taller than the average medieval man. One individual suffered from iron deficiency during childhood, which can probably be attributed to an infectious disease, rather than inadequate diet. The presence of several cavities suggests that the individuals had access to cane sugar, or enjoyed a carbohydrate-rich diet. This, together with numerous plaque concretions also points to poor oral hygiene. The men were physically active and carried out activities which placed particular strain on the shoulders, upper arms and spine. This may have involved carrying heavy loads, causing disc degeneration in the lower spine. The older age of some of the men meant that the joints of the neck had deteriorated, which might have caused some pain.

Table 1 Summary of disarticulated human remains

Context	Trench	Bone	Side	Present	Age	Sex	Pathology	Other
5	1	Maxilla	Right	50%	18-25	-	Little wear, little calculus	-
6	1	Humerus shaft	Left	50%	Adult	-	-	-
17	1	Femur upper shaft	Left	45%	Adult	Female		Plaque, third trochanter
		Femur, proximal	Left	90%	Adult	-	Enthesopathy for gluteus maximus	-
		Humerus head	-	1%	-	-	-	-
		Sacrum	Left	5%	46+	-	Degenerative joint disease at hip joint	-
4	3	Rib fragment	-	30%	-	-	-	-
		Humerus shaft	-	10%	-	-	-	-



Context	Trench	Bone	Side	Present	Age	Sex	Pathology	Other	
20	4	Skull	-	90%	36-45	Male	Cribrra orbitalia	Roman?	
		Scapula	Right	65%	Adult	Female	-		
		Scapula	Left	90%	Adult	Female	-		
		Clavicle	Right	100%	Adult	Female	-		
		Clavicle	Left	100%	Adult	Female	-		
		Thoracic vertebra	-	100%	Adult	-	-		
		Ribs, 3 left, 4 right	Left/right	35%	Adult	-	-		
		Skull, mandibular condyle	Right	1%	Adult	-	-		
8	6	Tibia	Right	100%	Adult	-	Periostitis at medial surface	-	
		5 <sup>th</sup> lumbar vertebra	-	90%	Adult	-	Spondylolysis	-	
		First sacral vertebra	-	15%	Adult	-	-	-	
		Femur, distal epiphysis	-	2%	Adult	-	-	-	
		4 <sup>th</sup> metatarsal	L	100%	Adult	-	-	-	
13	6	Pelvis ilium	L	70%	46+	Male	Degenerative joint disease at joint with sacrum	-	
		Femur, proximal	L	50%	Adult	Male	Enthesopathy for gluteus maximus	-	
		Talus	L	100%	Adult	-	-	Pair?	
		Talus	R	100%	Adult	-	-	Pair?	
		12 rib shaft fragments	Right/left	30%	-	-	-	-	
		Ribs, 4 right, 1 left	Right/left	80%	Adult	-	-	-	
		Thoracic vertebra	-	70%	Adult	-	-	Joint degeneration of body	-
		1 <sup>st</sup> , 2 <sup>nd</sup> , 5 <sup>th</sup> metacarpal	Right	100%	Adult	-	-	-	
		1 <sup>st</sup> metatarsal	Right	100%	Adult	-	-	-	
		Humerus, distal epiphysis	-	1%	-	-	-	-	
		Cuboid	Left	100%	Adult	-	-	-	
		Clavicle	Right	100%	Adult	-	-	Enthesopathy for costoclavicular ligament, joint degeneration of lateral joint	-
		Humerus	Left	100%	Adult	-	-	Teres major bone excavation, enthesopathy	Pair?



Context	Trench	Bone	Side	Present	Age	Sex	Pathology	Other
							for supraspinatus	
		Humerus	Right	100%	Adult	-	Enthesopathy for supraspinatus	-
		Femur	Right	100%	Adult	Male	Enthesopathy for gluteus maximus	-
		Radius	Right	100%	Adult	-	Enthesopathy for brachialis and flexor pollicis longus	-
		Radius	Left	100%	Adult	-	-	-
		Radius	Right	100%	Adult	-	-	-
		Fibula	Left	100%	Adult	-	-	-
		Ulna	Right	100%	Adult	-	-	-
		Ulna	Right	100%	Adult	-	-	-
		Ulna	Left	100%	Adult	-	-	-
		Cervical vertebra	-	100%	Adult	-	-	-
		Thoracic vertebra	-	75%	Adult	-	Slight degenerative joint disease	-
		Thoracic vertebra, T12	-	100%	Adult	-	Slight degenerative joint disease	-
		2 x thoracic arch	-	30%	Adult	-	-	-
		Scapula	L	60%	Adult	-	-	-
		Manubrium	-	5%	Adult	-	-	-
		Ribs, 7 sternal ends	-	10-30%	46+	-	-	-
		Ribs, 4 heads	Left & right	3%	Adult	-	-	-
		Pelvis, pubic symphysis	Left	10%	46+	Male	-	-
		Tooth, maxillary 2 <sup>nd</sup> molar	Right	100%	26-35	-	-	-
3	8	Humerus, distal shaft	-	30%	Adult	-	-	-
		Animal scapula	-	-	-	-	-	-
20	8	Fibula shaft	-	20%	-	-	-	-
		Skull fragment	-	3%	-	-	-	-
		Ulna shaft	-	5%	-	-	-	-
		Femur shaft	-	70%	-	-	-	-
9	8	Rib fragment	-	30%	-	-	-	-
		3 skull fragments	-	10%	-	-	-	-
4	10	Ulna shaft	-	20%	-	-	-	-
		Patella	Left	100%	Adult	-	-	-
		Rib, 2 head fragments	-	2%	-	-	-	-



Context	Trench	Bone	Side	Present	Age	Sex	Pathology	Other
1	12	Tibia shaft	-	30%	-	-	Periostitis on shaft	-
1	14	Femur shaft	Left	25%	Adult	-	Joint degeneration, enthesopathy for rectus femoris	-
1	17	Humerus proximal shaft	Left	50%	Adult	-	Marked pectoralis major/pectoralis major attachments	Post-medieval
4	17	Skull, frontal, parietals	-	60%	46+	Male	-	
		Skull, frontal	-	3-%	46+	Male	-	
		Skull, temporals	Right & left	20%	Adult ?	Male	-	
		Skull, occipital and basion	-	25%	Adult ?	-	-	
		Skull, zygomatic	Right	2%	Adult ?	-	-	
		Maxilla, 8 teeth	-	100%	26-35	-	-	Slight wear, slight calculus, severe caries on right first molar
		Scapula, blade, coronoid	Left	25%	-	-	-	
		Radius	Left	100%	Adult	-	-	
1	19	Femur, all but distal end	Right	95%	Adult	Female ?	Enthesopathy for gluteus maximus	Plaque
19	39	Tibia shaft	Left	80%	Adult	-	Periostitis	-
		Humerus shaft	-	15%	-	-	-	-
6	39	Humerus shaft	Right	70%	Adult	-	-	With lead ?

Table 2 Summary of individual skeletons

Context	Trench	Preservation	Completeness	Age	Sex	Stature	Pathology
2	17	Excellent	25%, legs only	Adult	-	1.72m	none
14	6	Good	80%	46+	Male	1.72m	Degeneration of cervical spine, Schmorl's nodes, periostitis, enthesopathies, bone excavations, periodontitis, caries, calculus, dental chipping

### Acknowledgements

York Osteoarchaeology Ltd would like to thank Doug Young of Lindsey Archaeological Services for his help and support.



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- Moore, W.J. and Corbett, E. 1975. 'Distribution of dental caries in ancient British populations III. The seventeenth century' *Caries Res.* 9: 163-175
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**THE FIGURES**



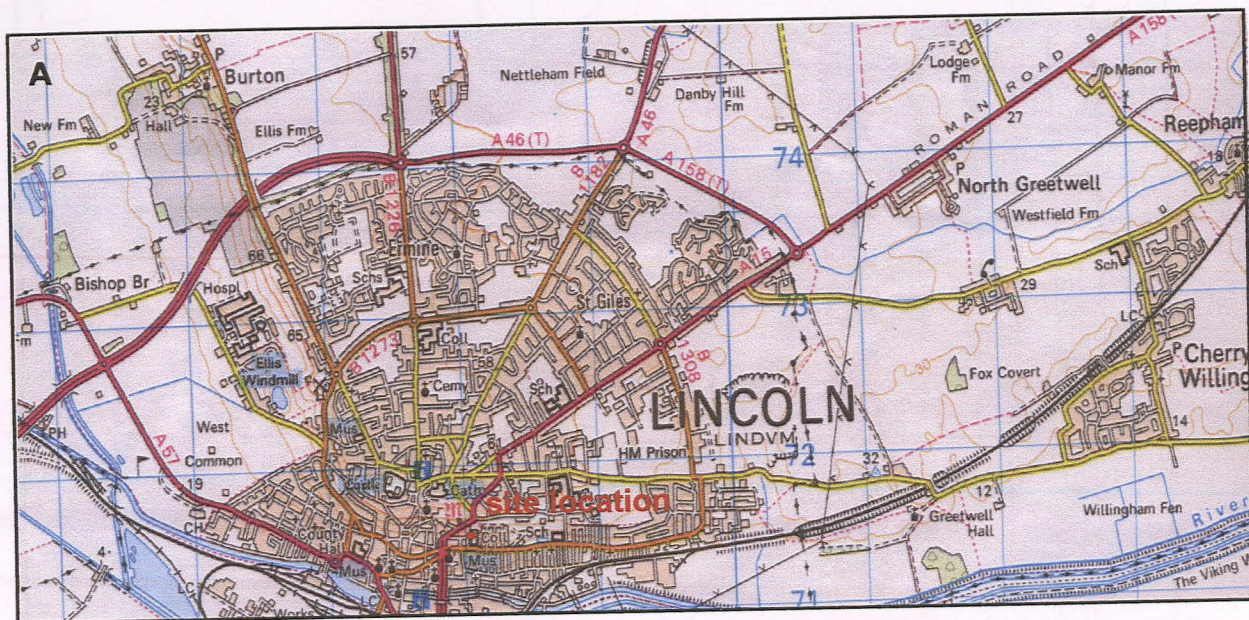


Fig. 1 Location of the development site, Cathedral Street. (A) 1:50,000 OS Map and (B) based on a 1:1250 map. .  
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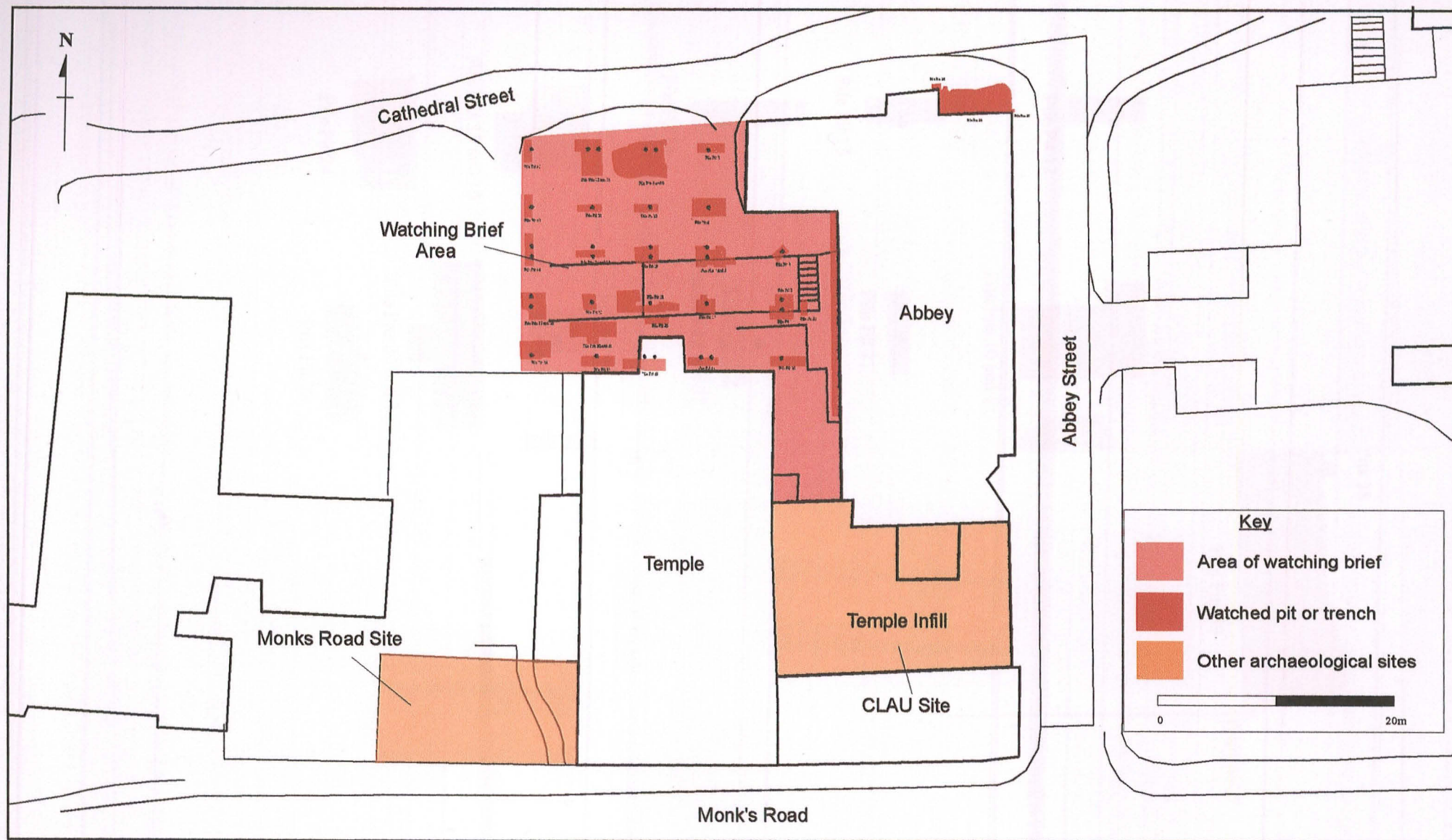


Fig. 2 Location of the area affected by groundwork at Cathedral Street.



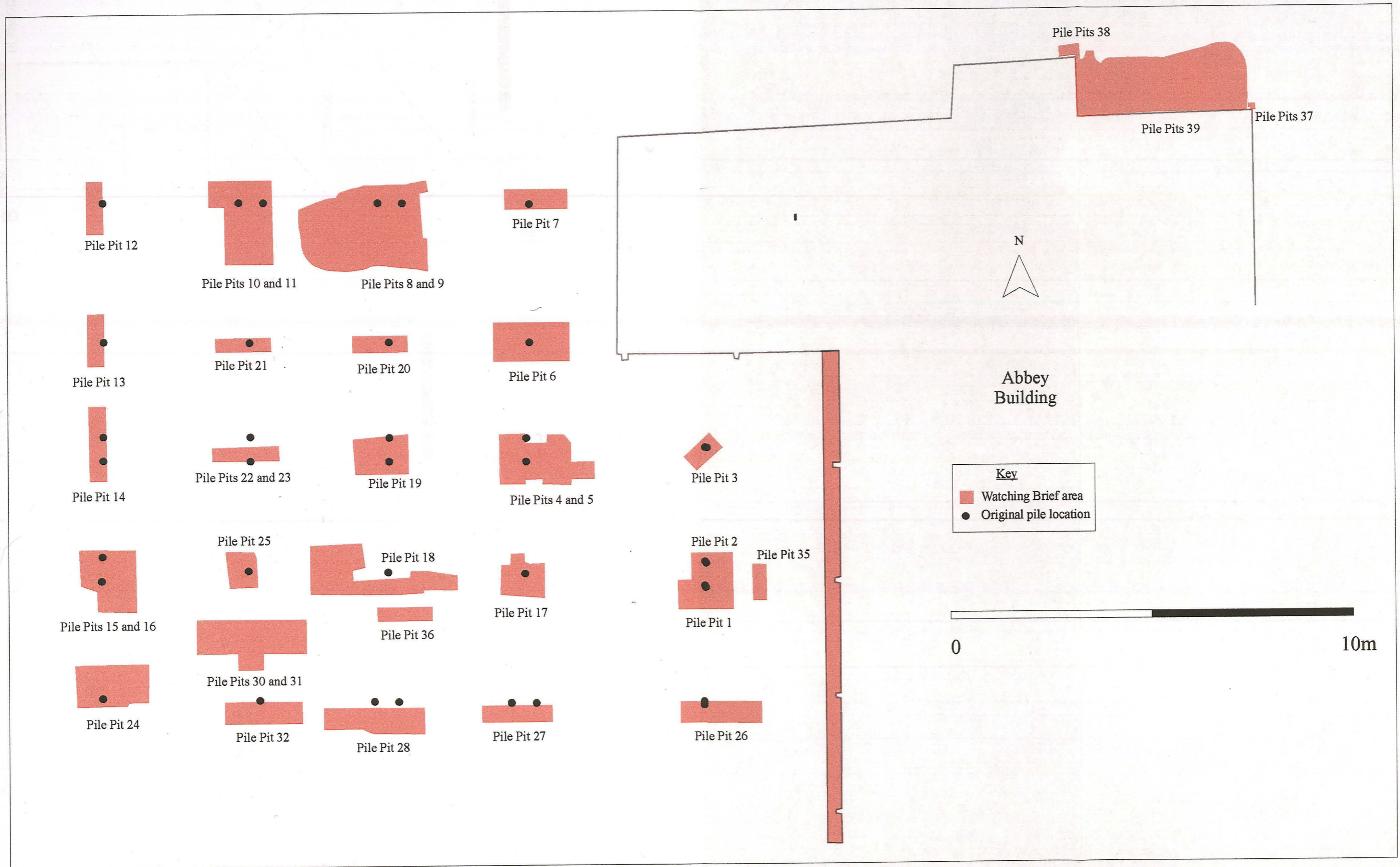


Fig. 3 Plan of the Pile Pit locations and their extent in relation to the original pile positions within the main watching brief area.



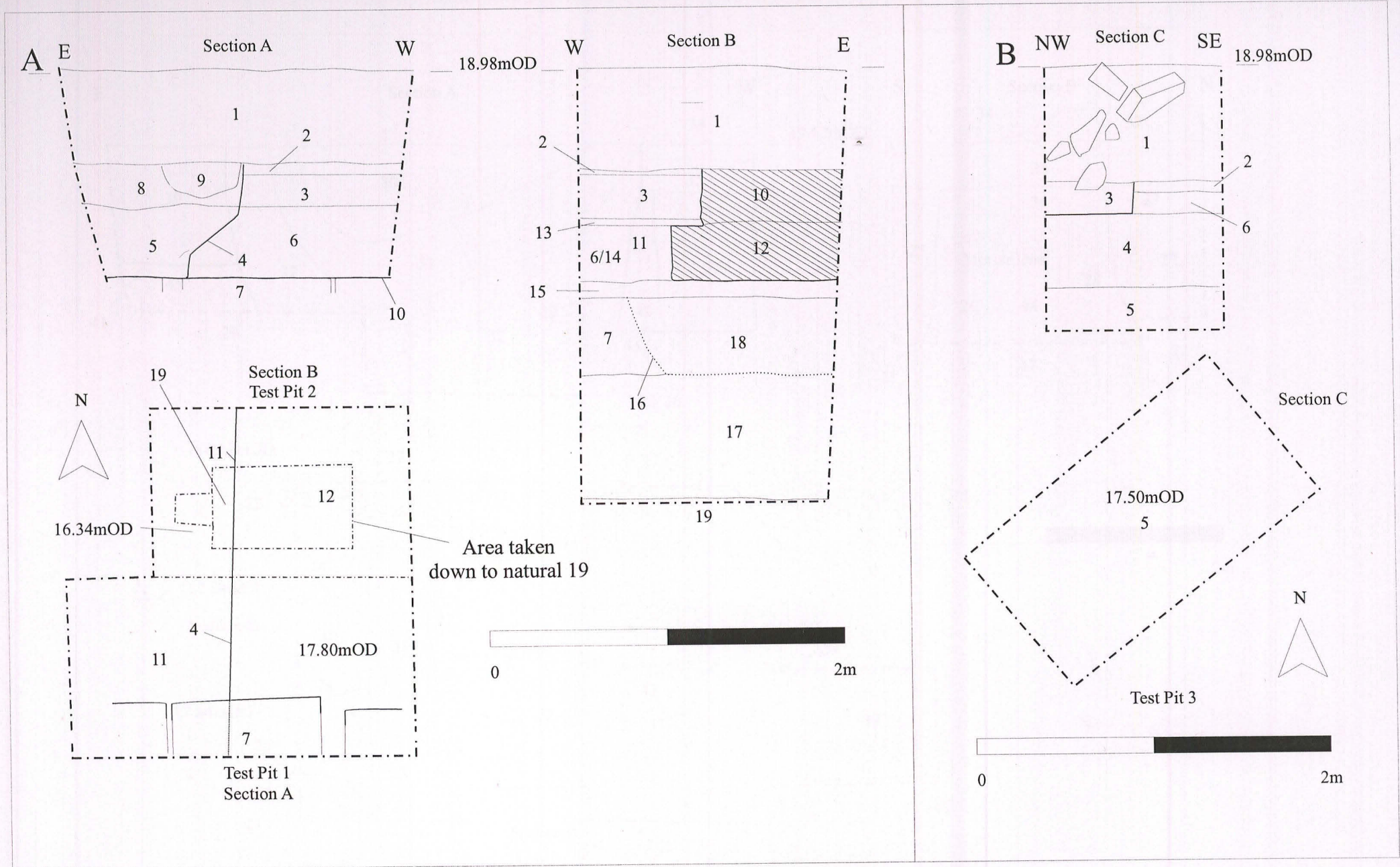


Fig. 4 A) Pits 1 and 2 plan and section.  
 B) Pit 3 plan and section.



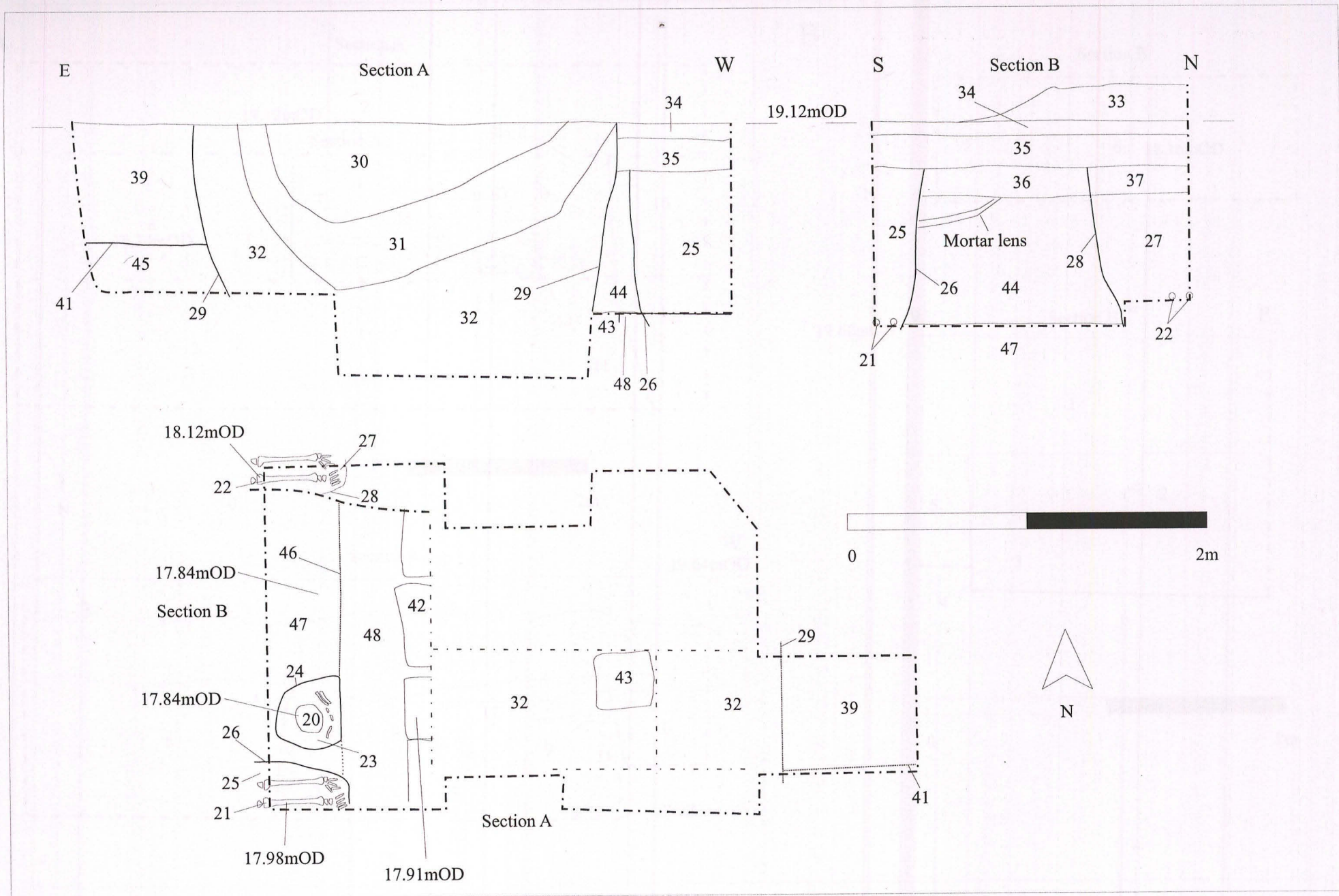


Fig. 5 Pits 4 and 5 plan and sections.



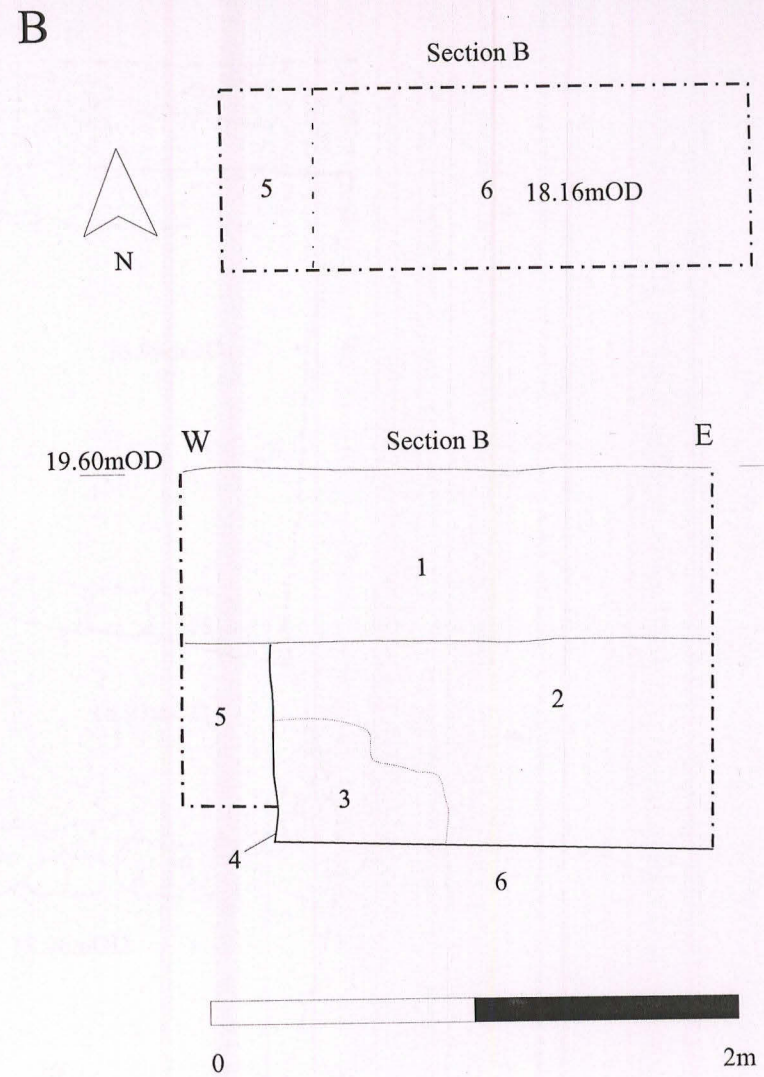
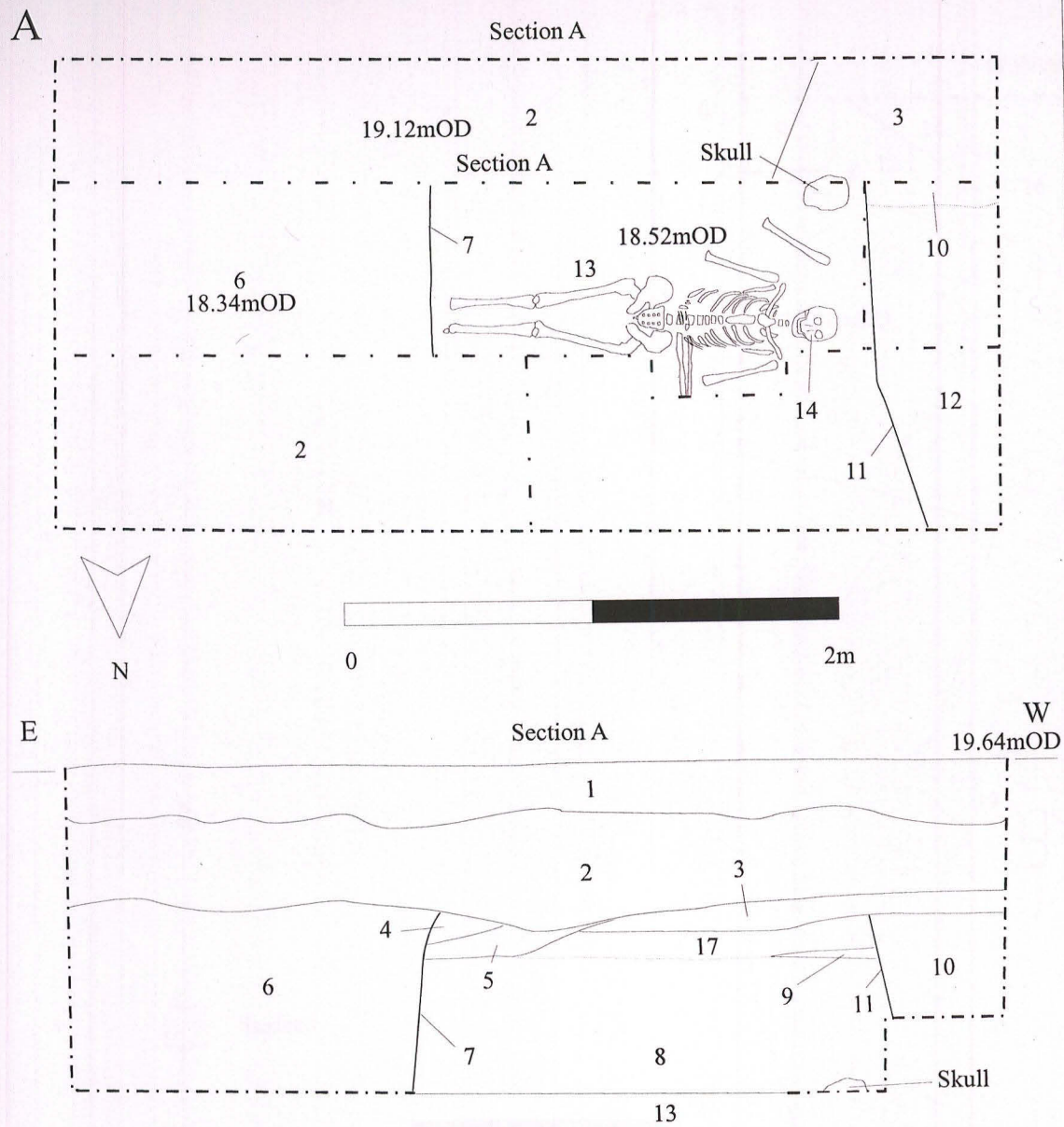


Fig. 6 A) Pit 6 plan and section.  
 B) Pit 7 plan and section.



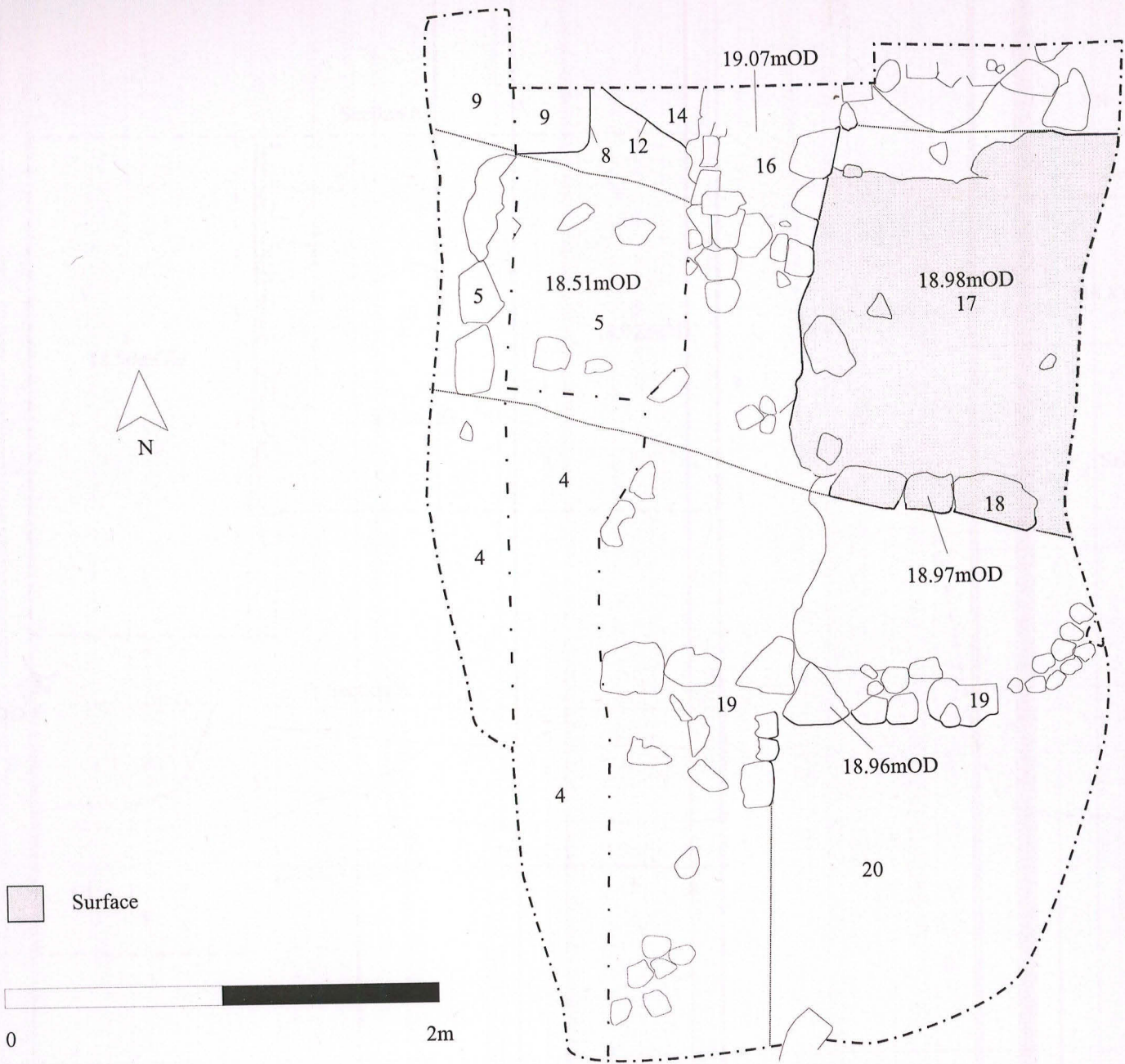
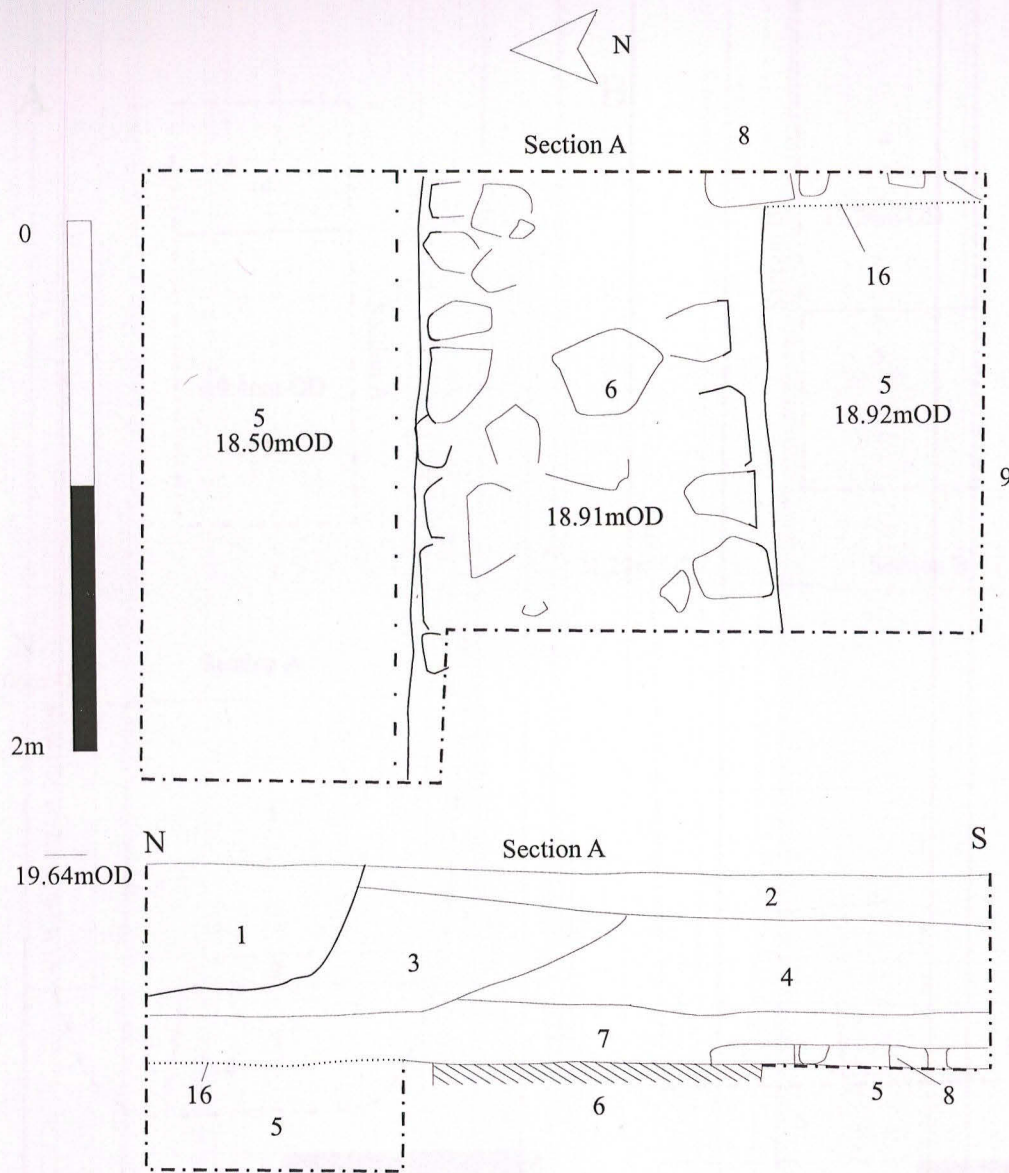


Fig. 7 Pits 8 and 9 plan.



A



B

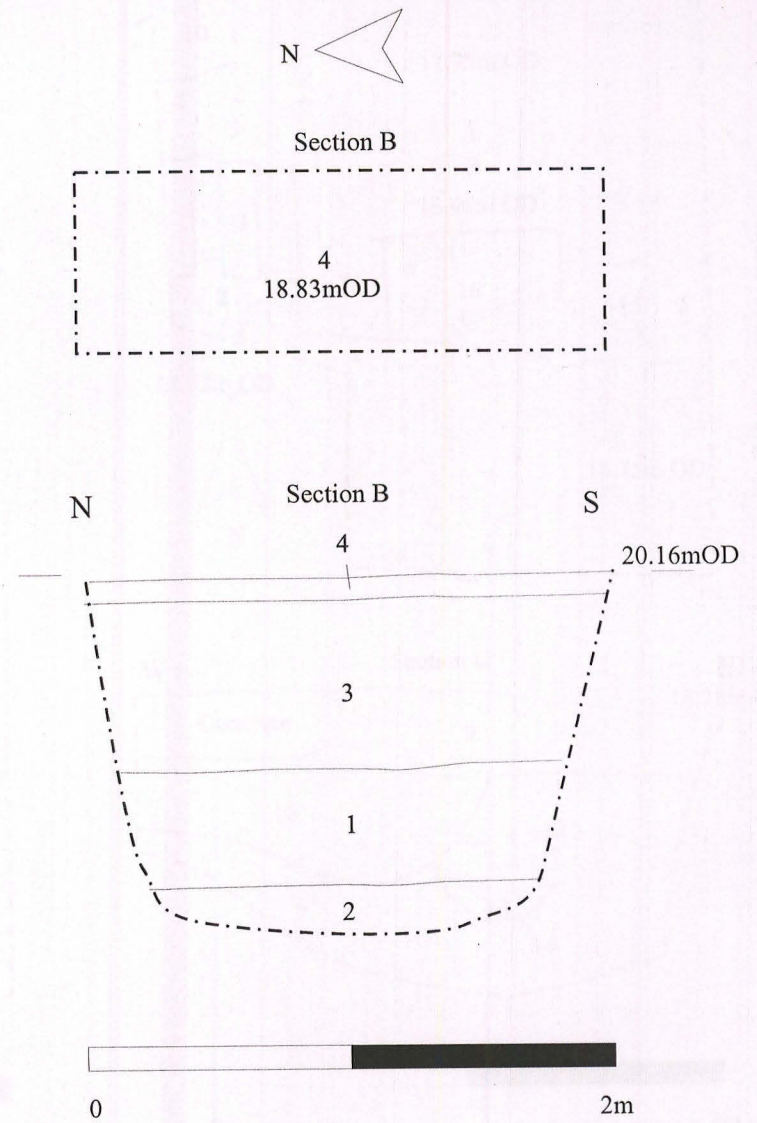


Fig. 8 A) Pits 10 and 11 plan and section.

B) Pit 12 plan and section.



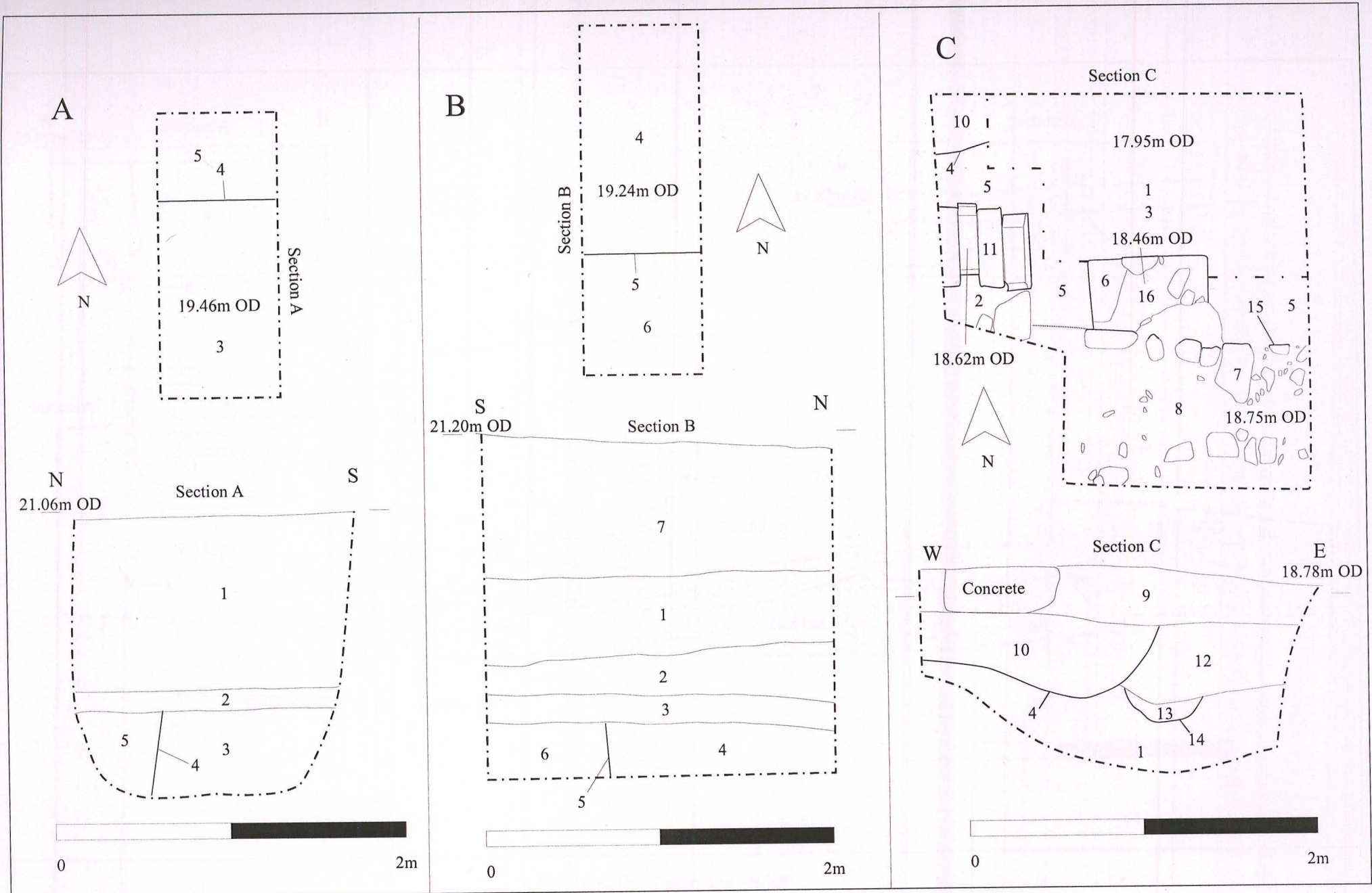


Fig. 9 A) Pit 13 plan and section.  
 B) Pit 14 plan and section.  
 C) Pits 15 and 16 plan and section.



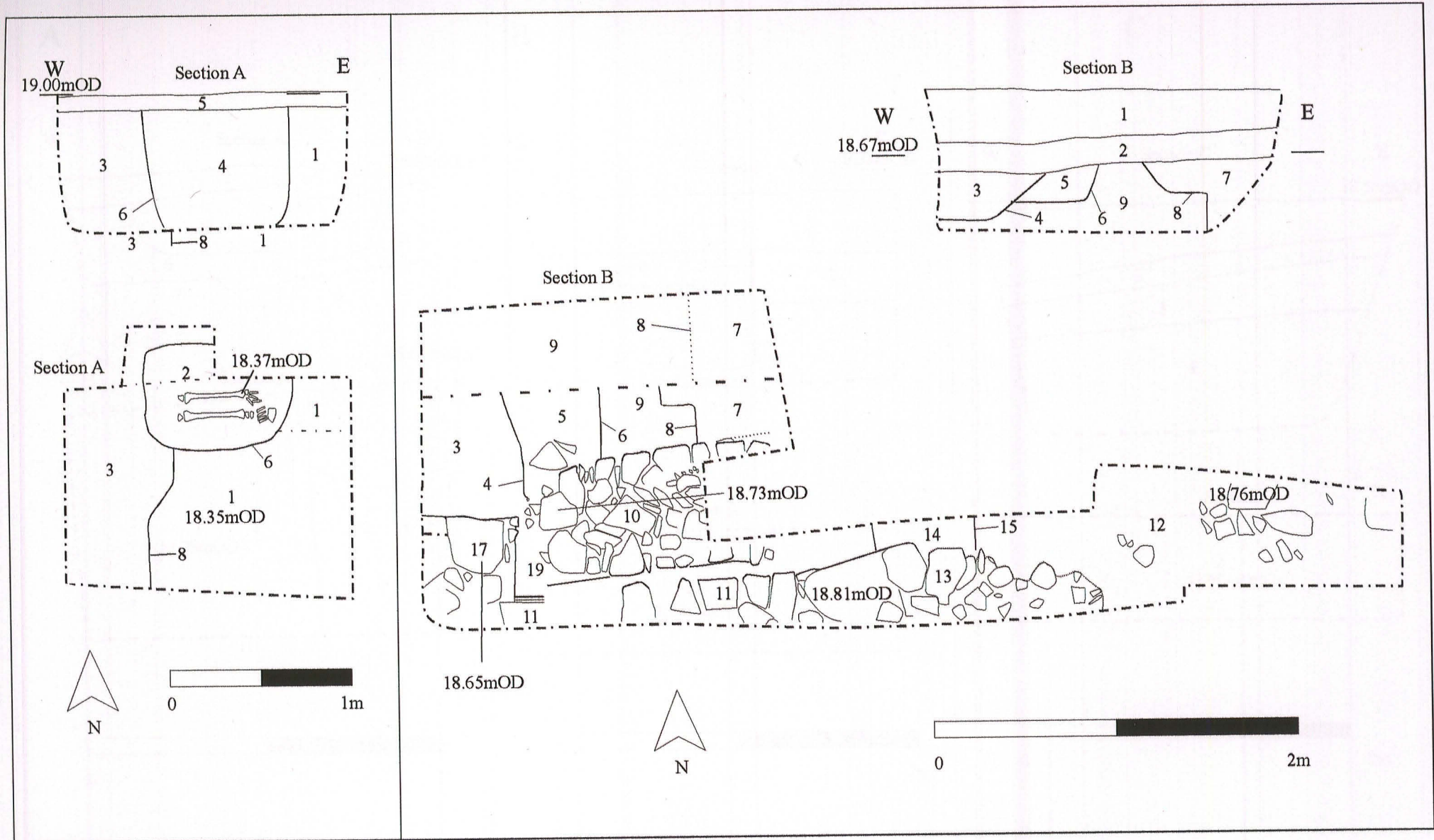


Fig. 10 A) Pit 17 plan and section.

B) Pit 18 plan and section.



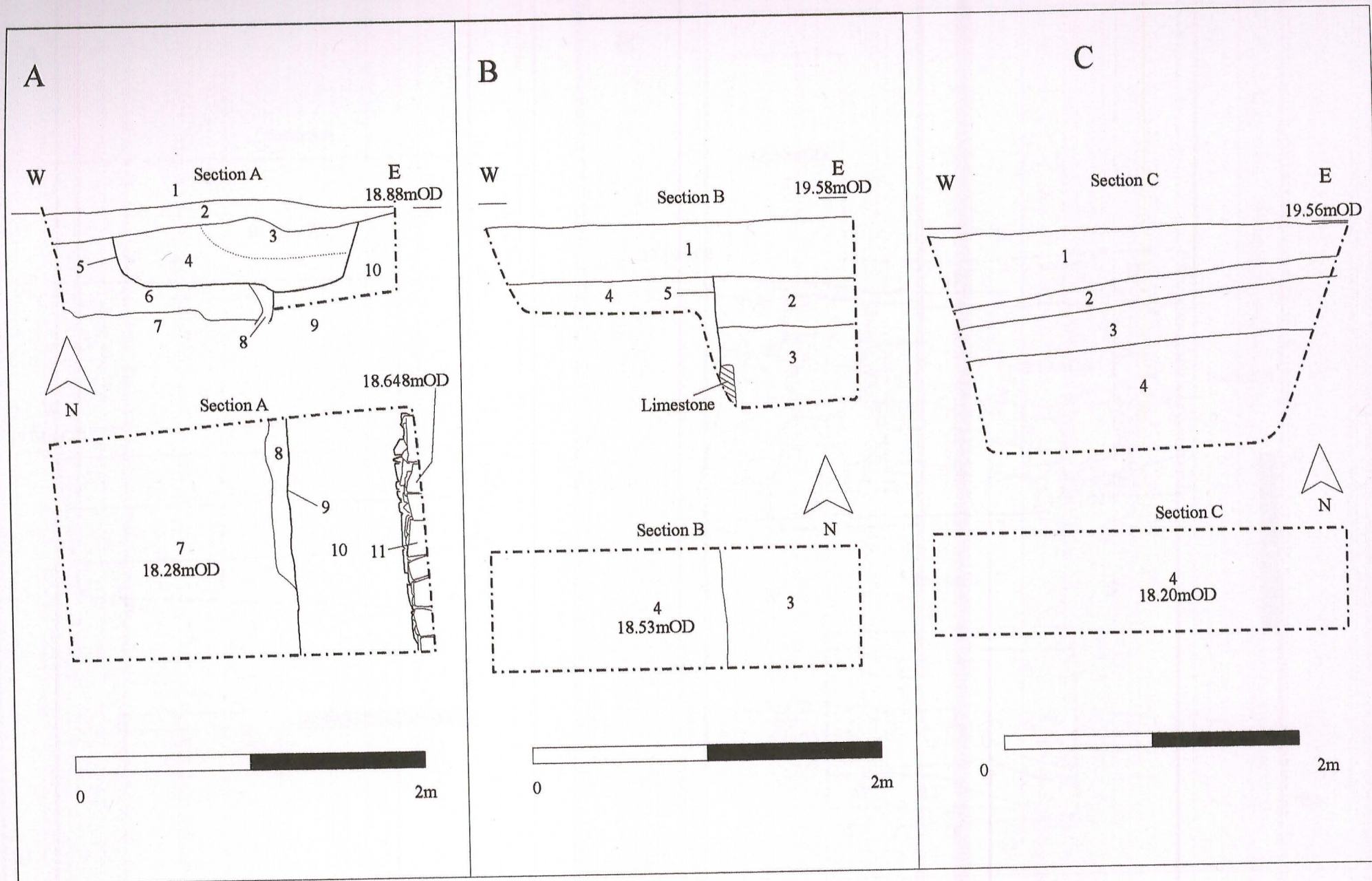


Fig. 11 A) Pit 19 plan and sections.  
 B) Pit 20 plan and section.  
 C) Pit 21 plan and section.



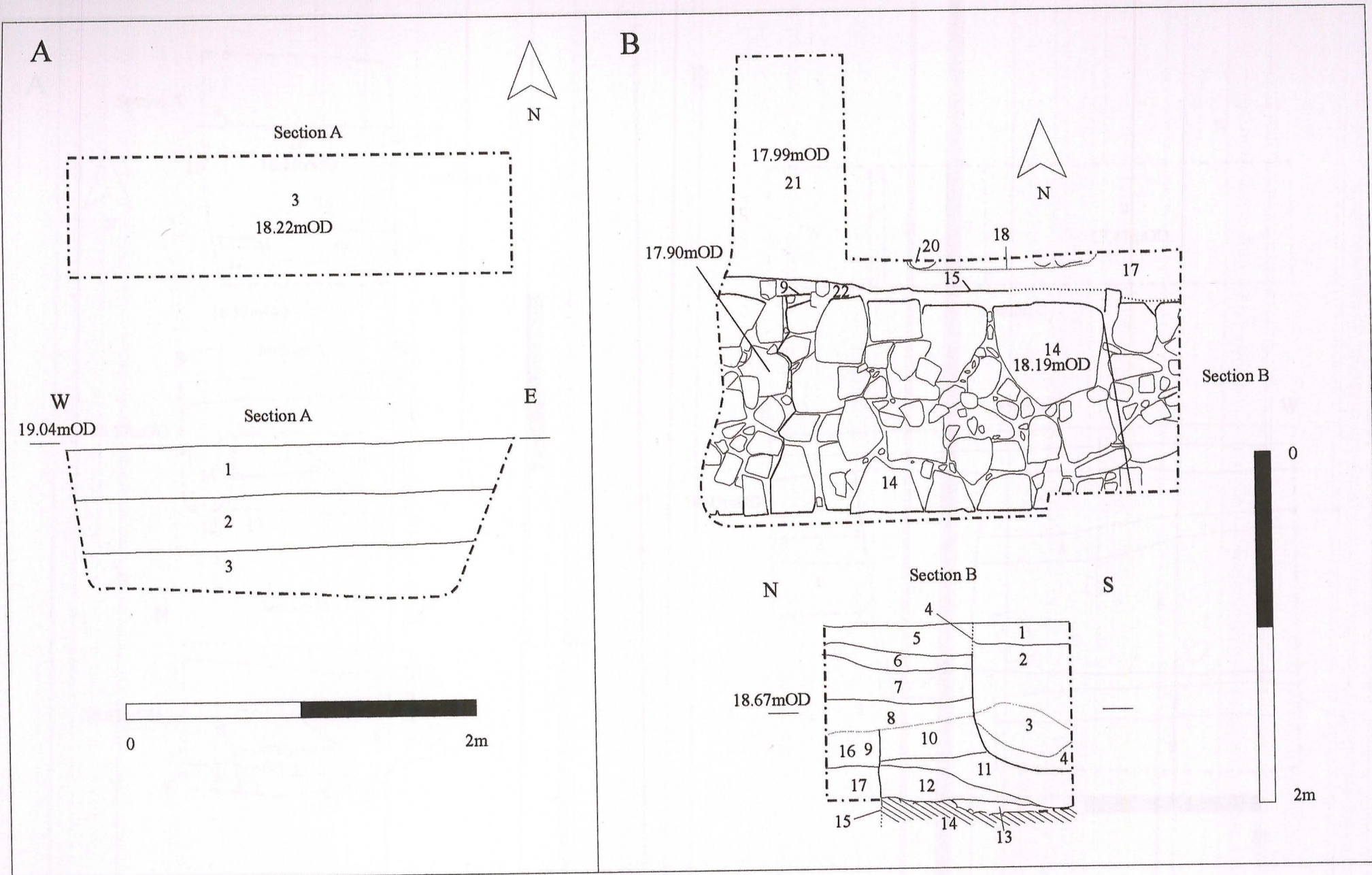


Fig. 12 A) Pits 22 and 23 plan and section.  
B) Pit 24 plan and section.



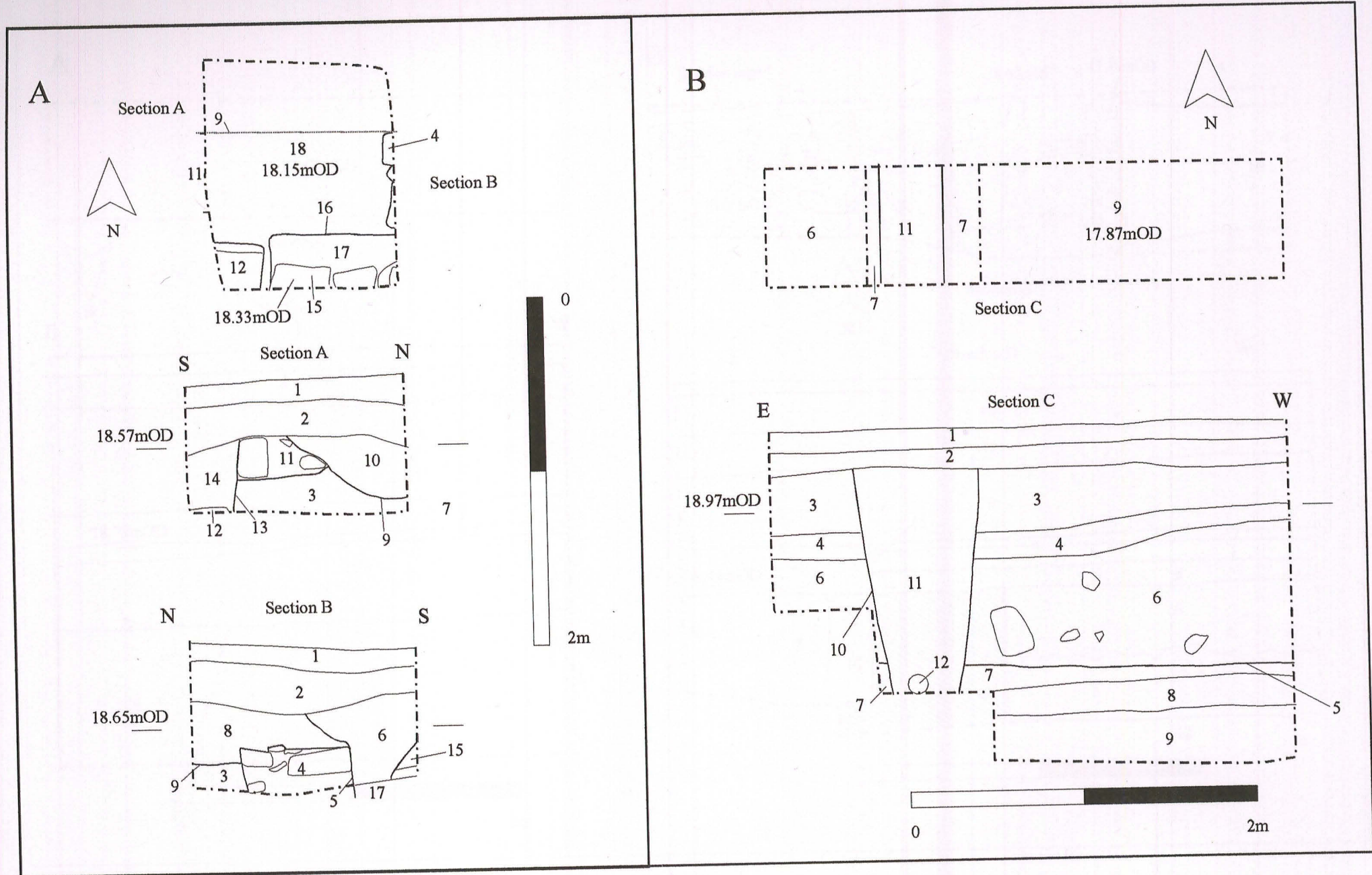


Fig. 13 A) Pit 25 plan and sections.

B) Pit 26 plan and section.



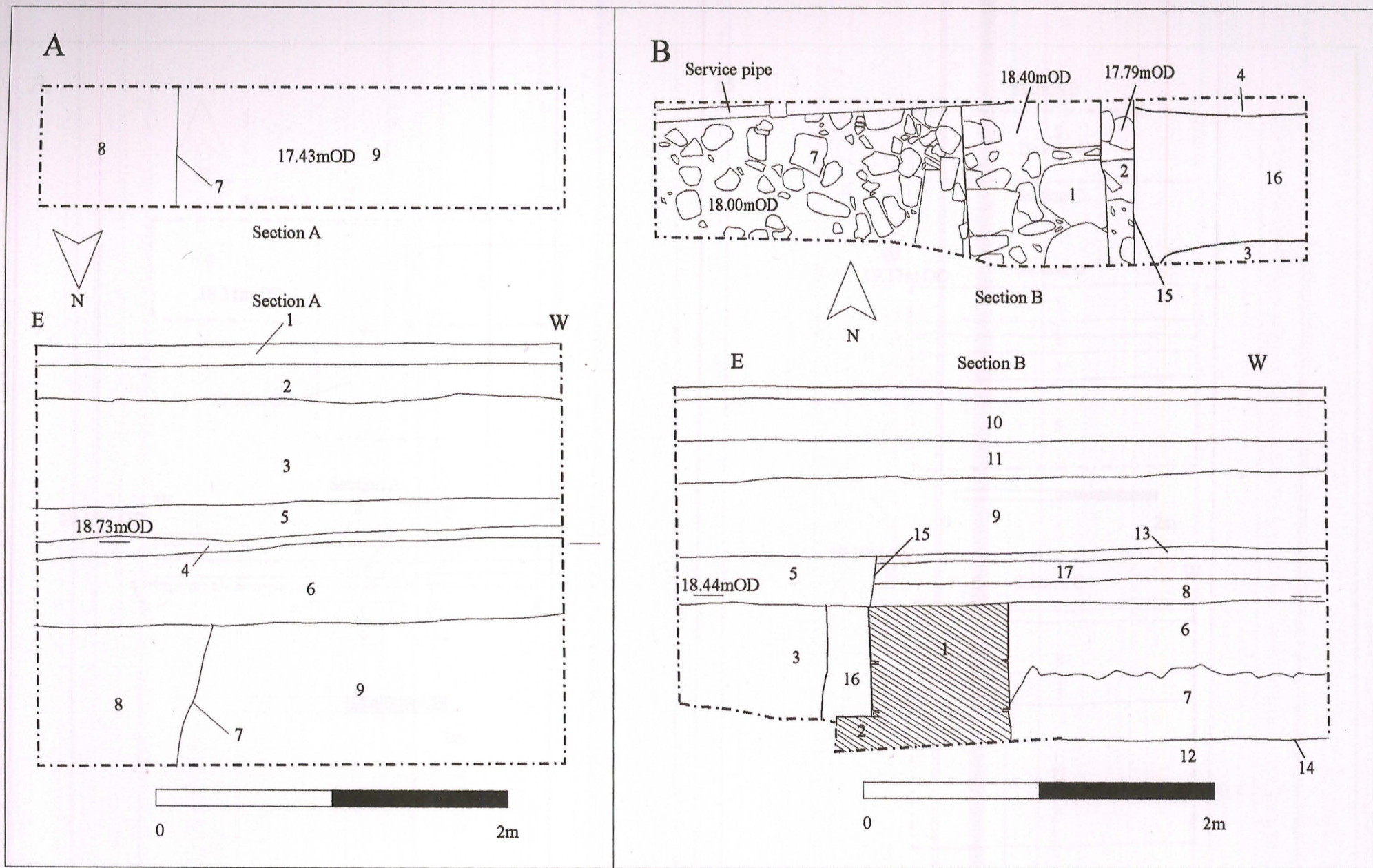


Fig. 14 A) Pit 27 plan and section.

B) Pit 28 and 29 plan and section.



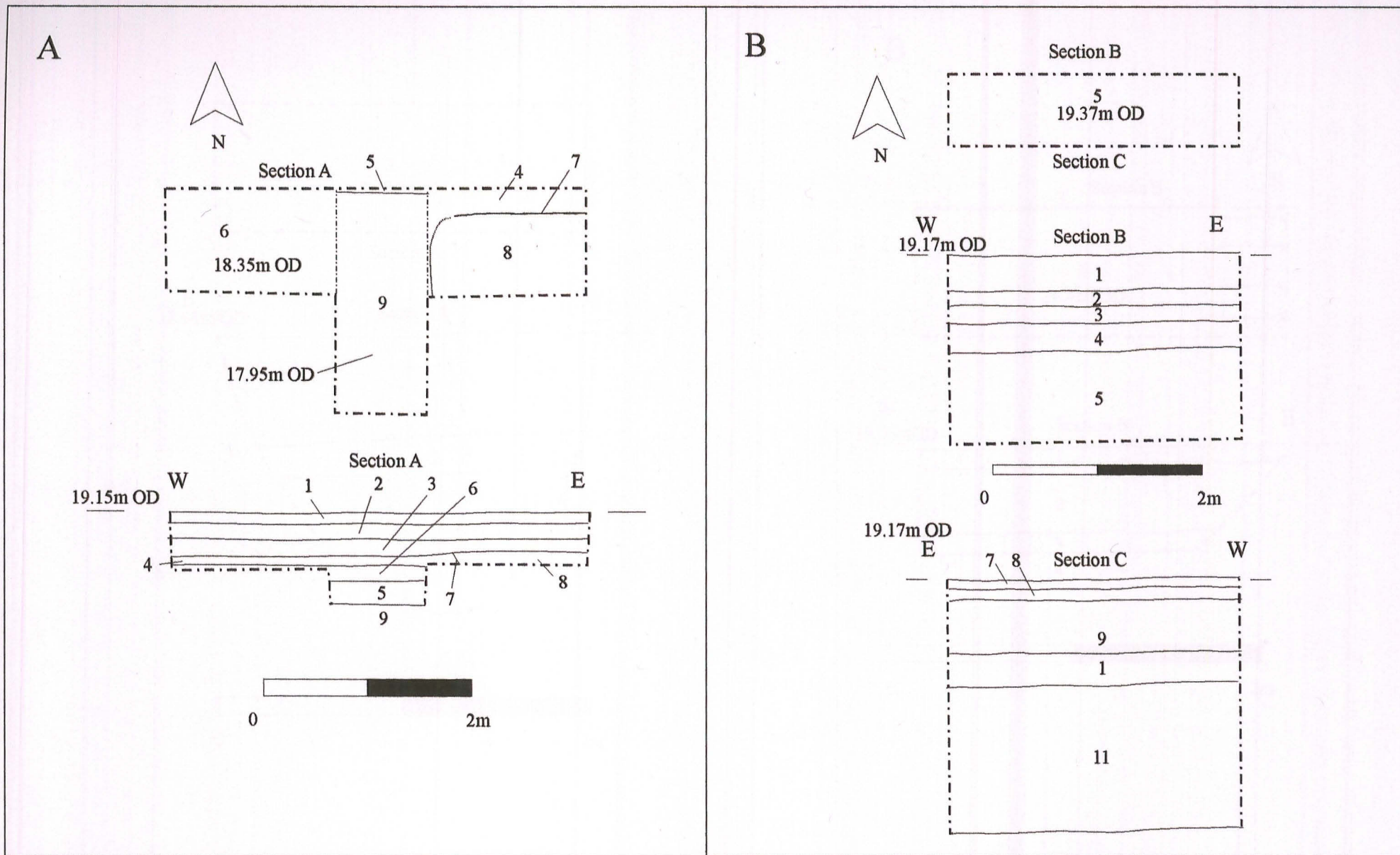


Fig. 15 A) Test Pits 30 and 31 plan and section.  
 B) Test Pit 32 plan and section.



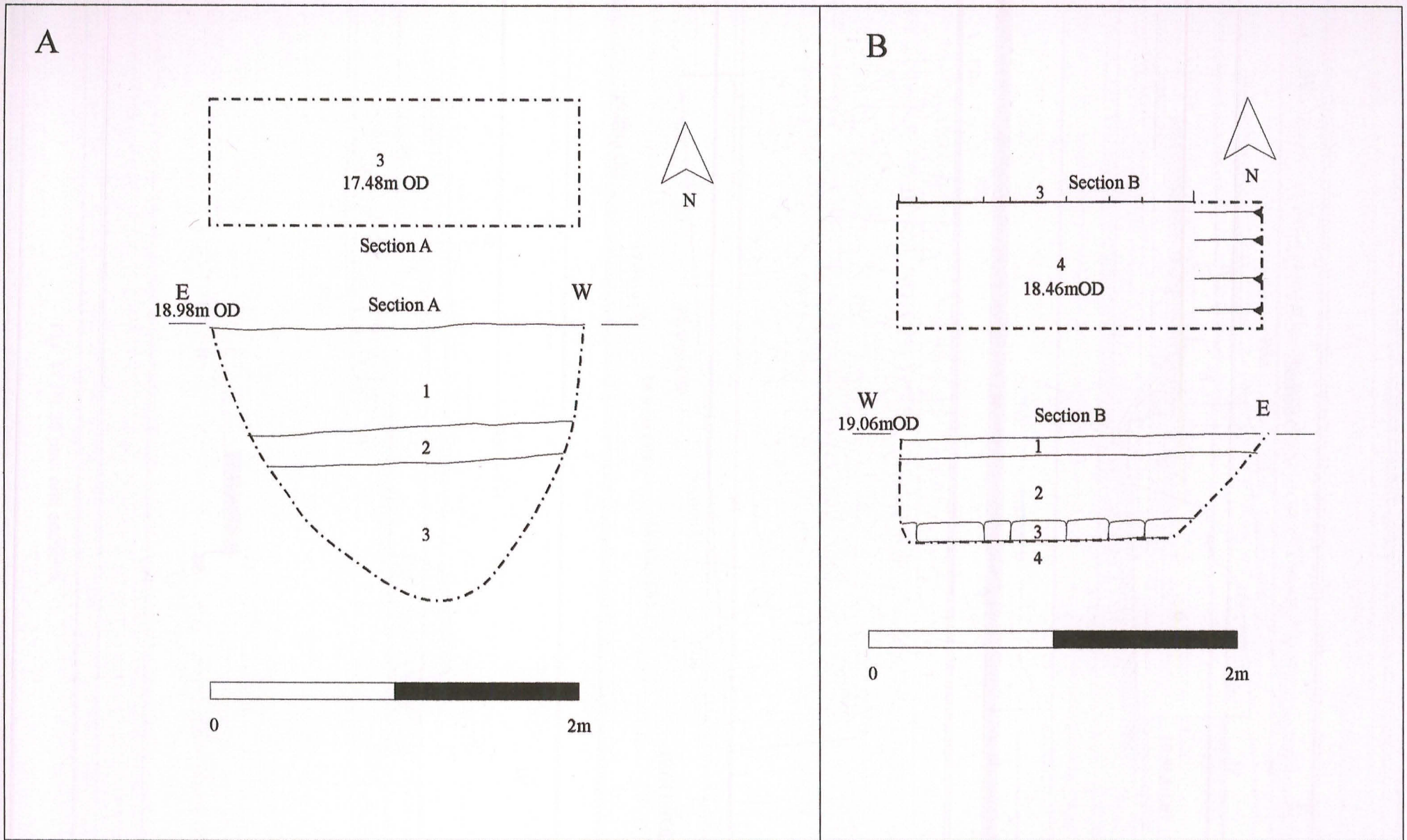


Fig. 16 A) Test Pit 35 plan and section.

B) Test Pit 36 plan and section.



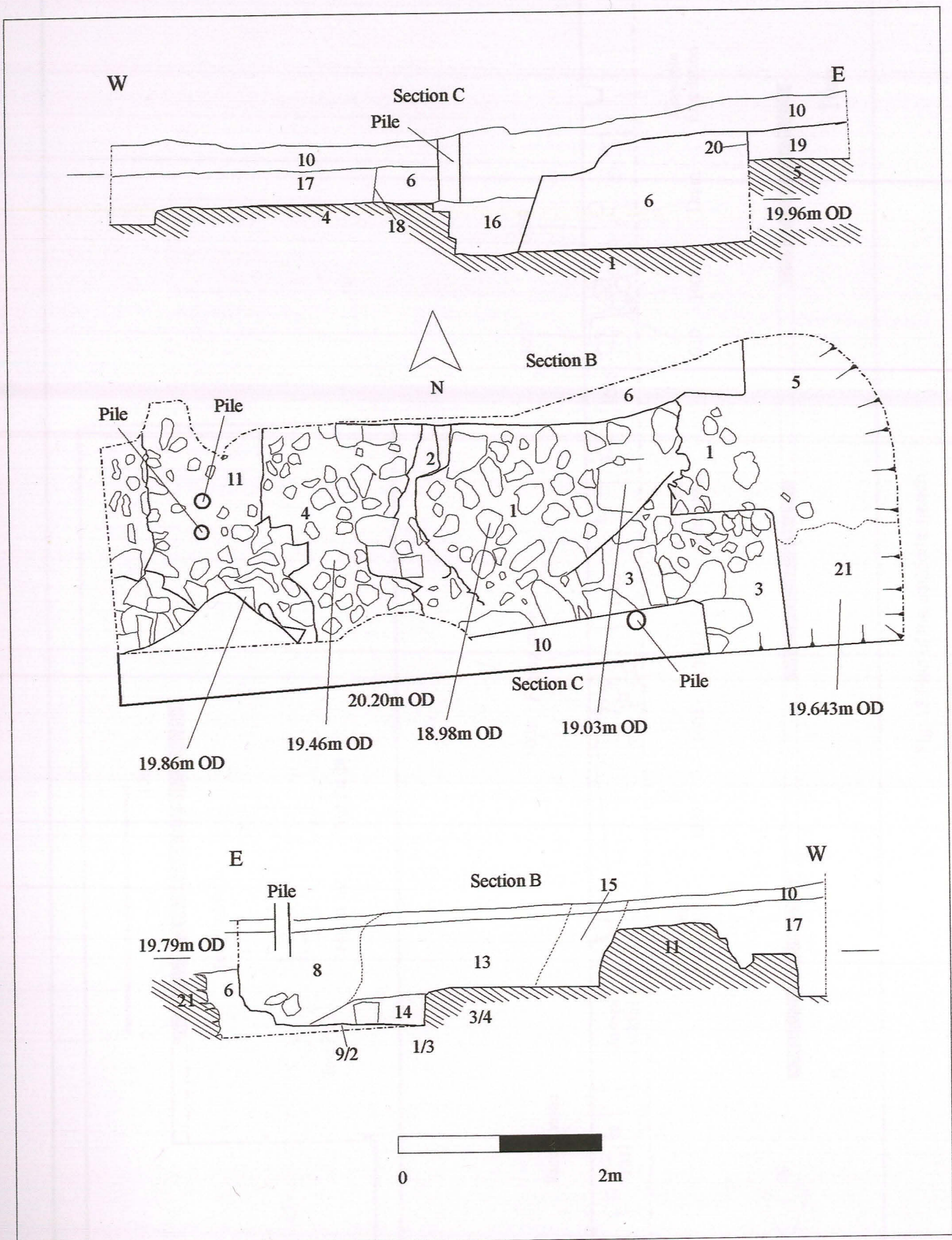


Fig. 17 Pit 39 plan and sections.



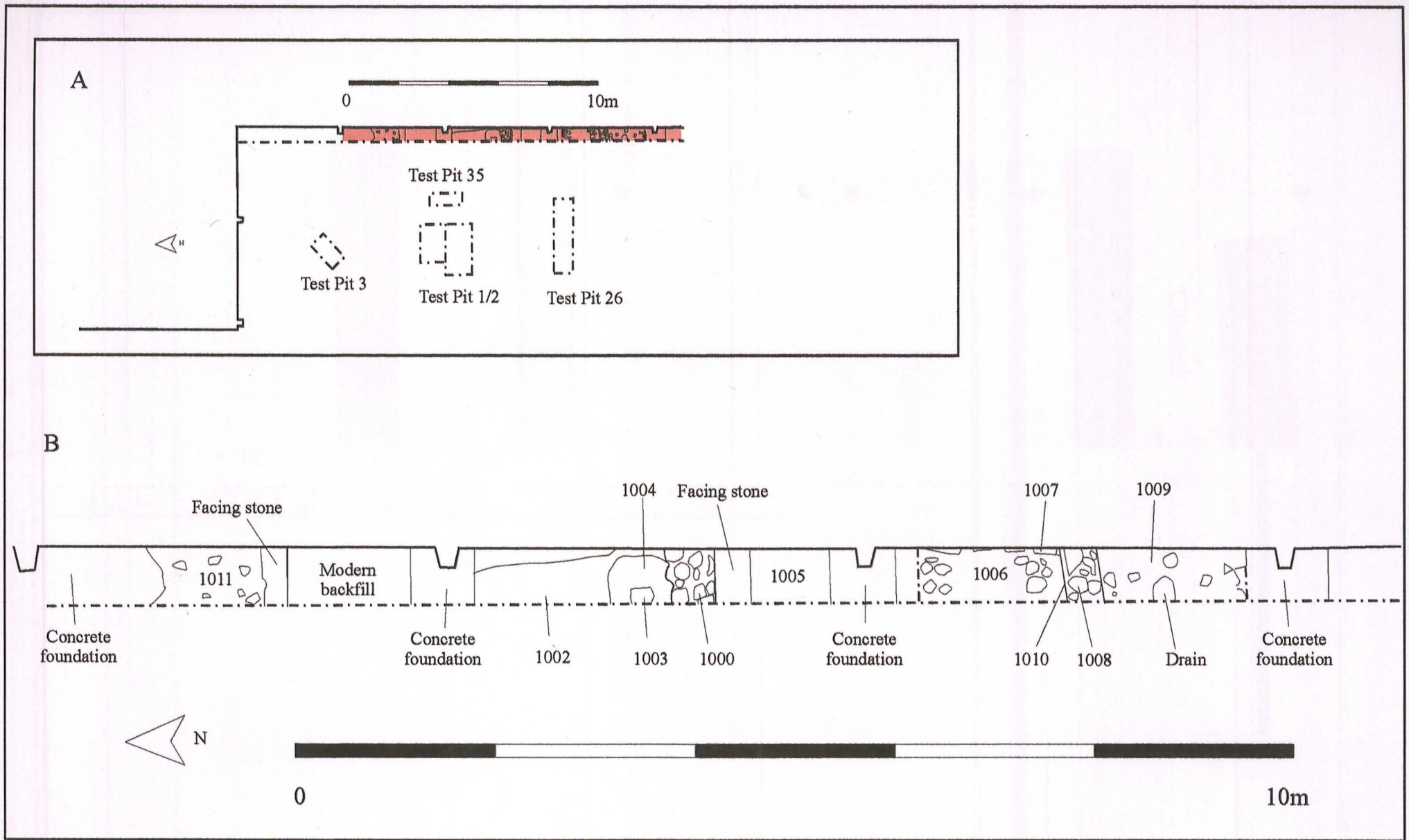


Fig. 18 Plan of the additional trench.



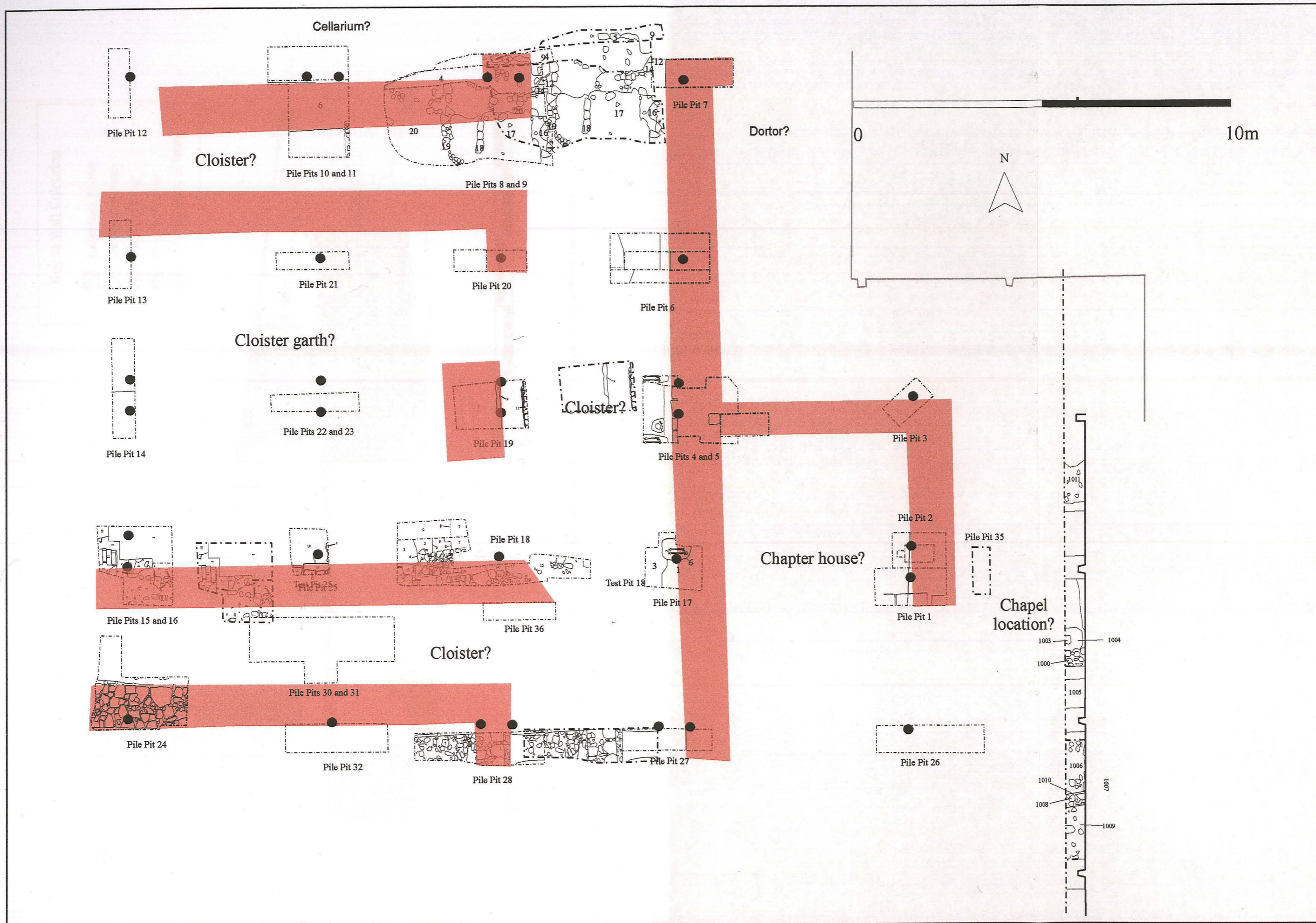


Fig. 19 Possible location of the friary walls recorded in the Pile Pits.







**Key to Deposit Colouring**

- 2nd century Roman or earlier
- 2nd century Roman
- 3rd century Roman
- Phase 1 of Friary
- Phase 2 of Friary
- Unknown Phase of Friary
- Post Roman to Pre 13th century Phase

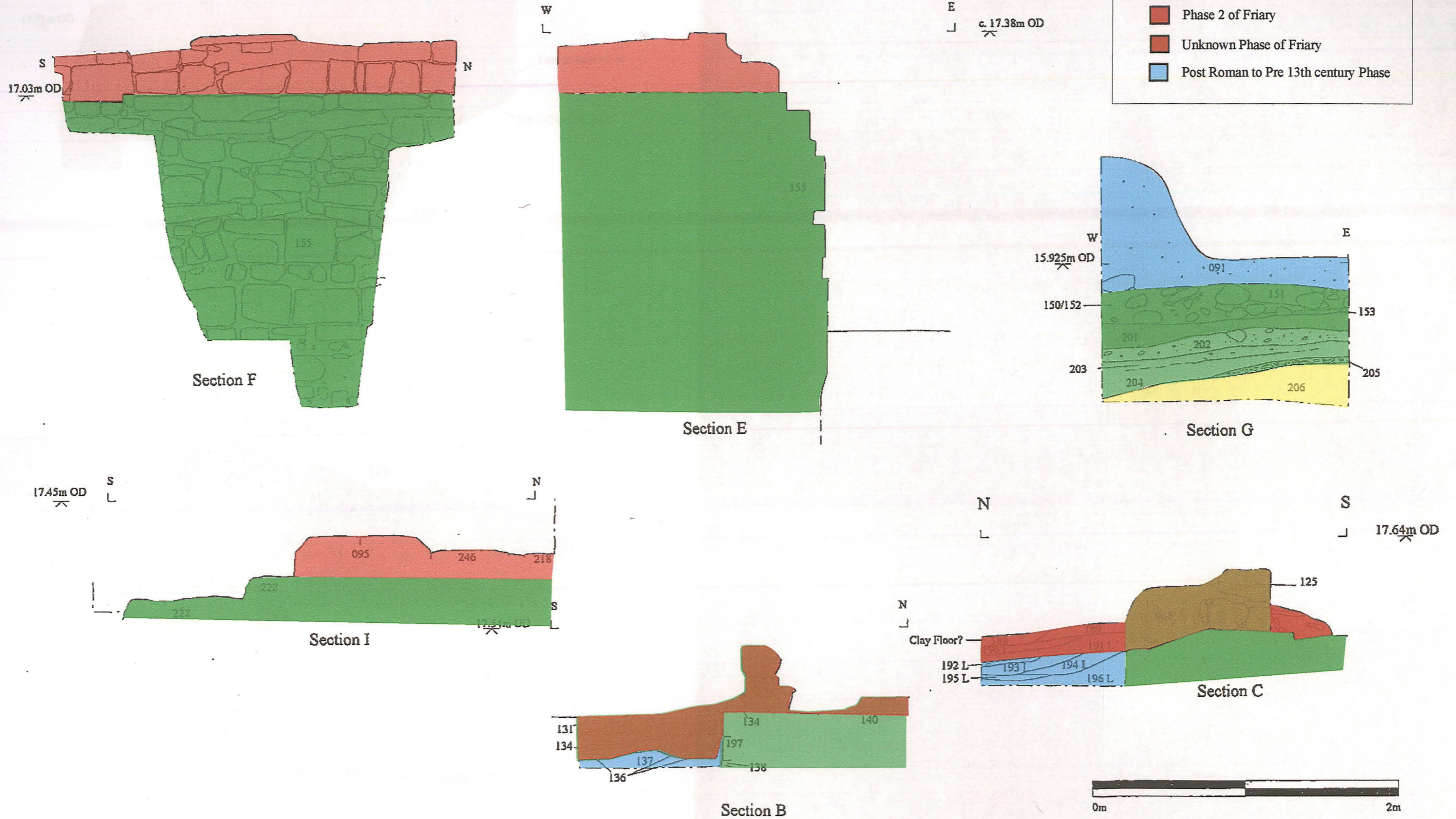


Fig. 21 CLAU 2000 excavation sections with new phase interpretations. Sections reproduced with the permission of CLAU.



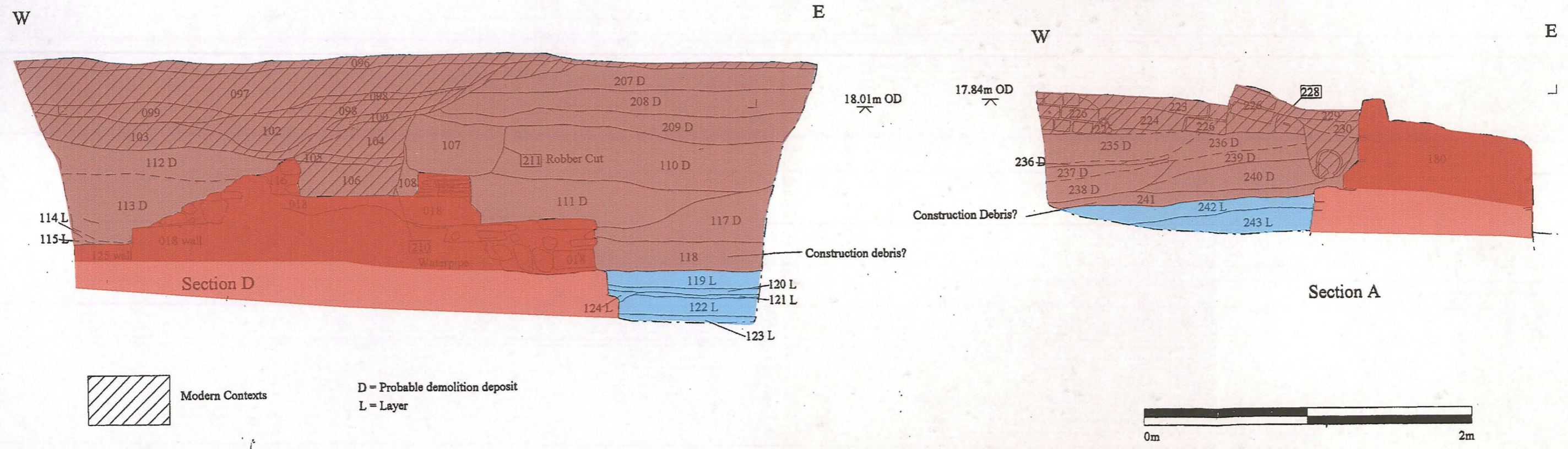
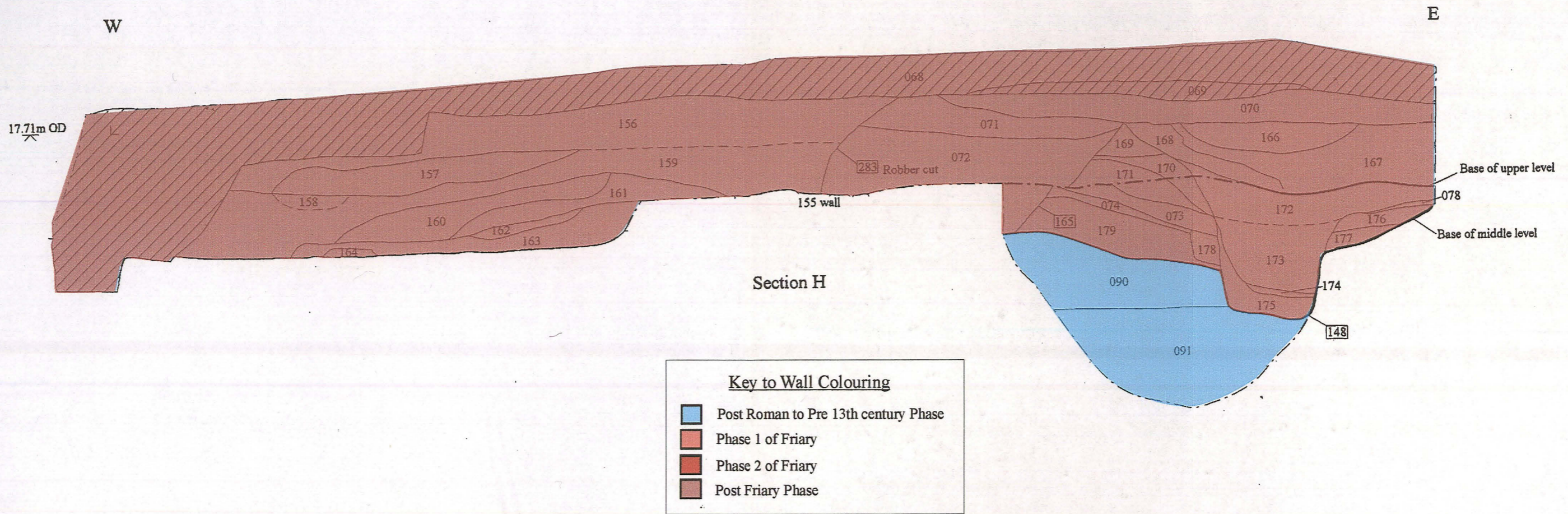


Fig. 22 CLAU 2000 excavation sections with new phase interpretations. Sections reproduced with the permission of CLAU.



THE PLATES





Pl. 1 Location of the watching brief area at Cathedral Street, Lincoln.



Pl. 2 Stripping of the proposed building area to a depth of c.17.00m O.D. exposed only modern deposits. Scales 1m.





Pl. 3 Pit 1 north facing section. showing robbing 4 and wall 10. Horizontal scale 2m, vertical scale 1m.



Pl. 4 Test Pit 2 showing floor surfaces and footings 12. Burial 18 encountered c.0.75m from base. Vertical scale 2m.





Pl. 5 Pit 3 south-east facing section. Horizontal scale 1m, vertical scale 2m.



Pl. 6 Pits 4 and 5 south-west corner. Burials 24 and 26 as well as robbing 29 and wall 42 can be seen. Horizontal scale 2m, vertical scale 1m.





Pl. 7 Pit 6 north facing section. Horizontal scale 2m, vertical scale 1m.



Pl. 8 Pit 6, burial 15/16. Note disarticulated bones to south-west of burial. Scale 1m.





Pl. 9 Pit 7 south facing section. Horizontal scale 2m, vertical scale 1m.



Pl. 10 Pits 8 and 9, looking east. Facing stones 18 are to the south of the 2m scale. Scales 1m and 2m.



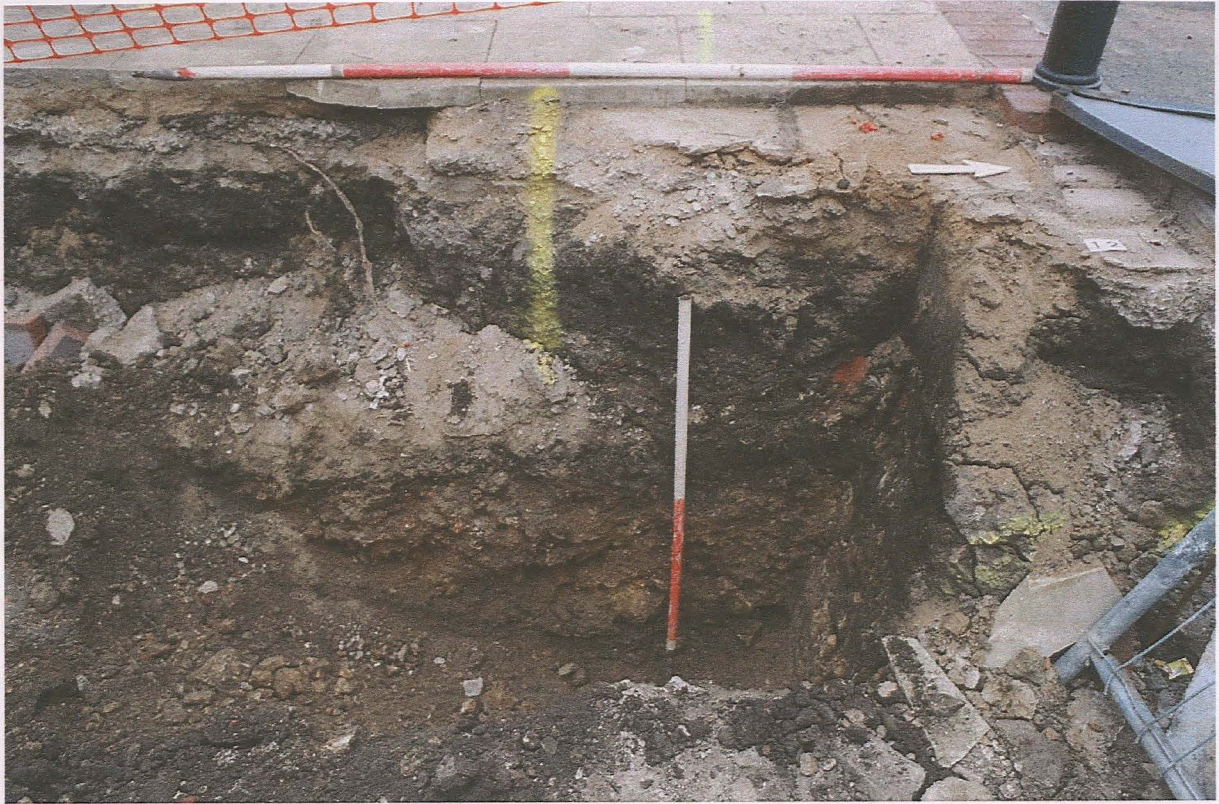


Pl. 11 Pits 8 and 9, skeleton 10, with another burial below. Looking east.



Pl. 12 Pits 10 and 11, showing wall foundation 6, looking east. Scales 1m and 2m.





Pl. 13 Pit 12, east facing section. Horizontal scale 2m, vertical scale 1m.



Pl. 14 Pit 13, east facing section, robbing left of vertical scale. Horizontal scale 2m, vertical scale 1m.





Pl. 15 Pits 14, west facing section, vertical scale marks robbing 5. Horizontal scale 2m, vertical scale 1m.



Pl. 16 Pits 15 and 16, looking south showing butters 11 and walls 7 and 16. Horizontal scale 2m, vertical scale 1m.





Pl. 17 Pits 15 and 16, looking north. Horizontal scale 2m, vertical scale 1m.



Pl. 19 Pit 17, looking north, showing burial 6 and robbing 8 (right) and 9 (left). Scales 1m and 2m.





Pl. 17 Pits 15 and 16, looking north. Horizontal scale 2m, vertical scale 1m.

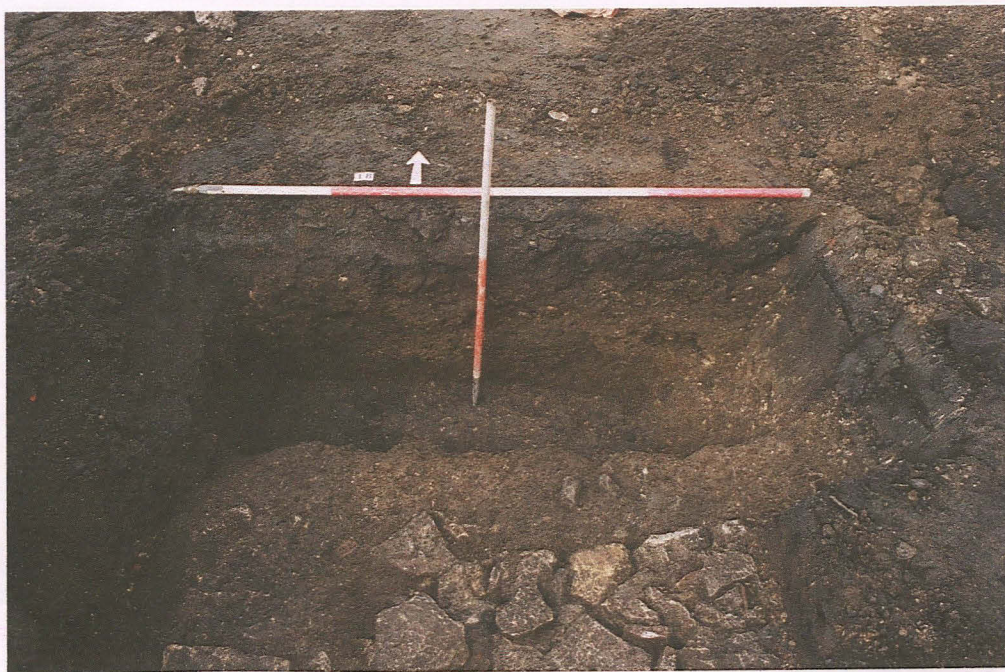


Pl. 19 Pit 17, looking north, showing burial 6 and robbing 8 (right) and 9 (left). Scales 1m and 2m.





Pl. 19 Pit 18, looking south-east, showing walls 10 and 11 and buttress 17. Horizontal scale 1m.



Pl. 20 Pit 18, robber trenches (from left to right), 4, 6 and 8, exposed in south facing section.





Pl. 21 Pit 19, looking north, showing robber trenches 5 and 9 and wall 11. Horizontal scale 2m, vertical scale 1m.



Pl. 22 Pit 20, looking north. Vertical scale, 1m, is within robber trench 5. Horizontal scale is 2m,





Pl. 23 Pit 21, looking north. Horizontal scale 2m, vertical scale 1m.

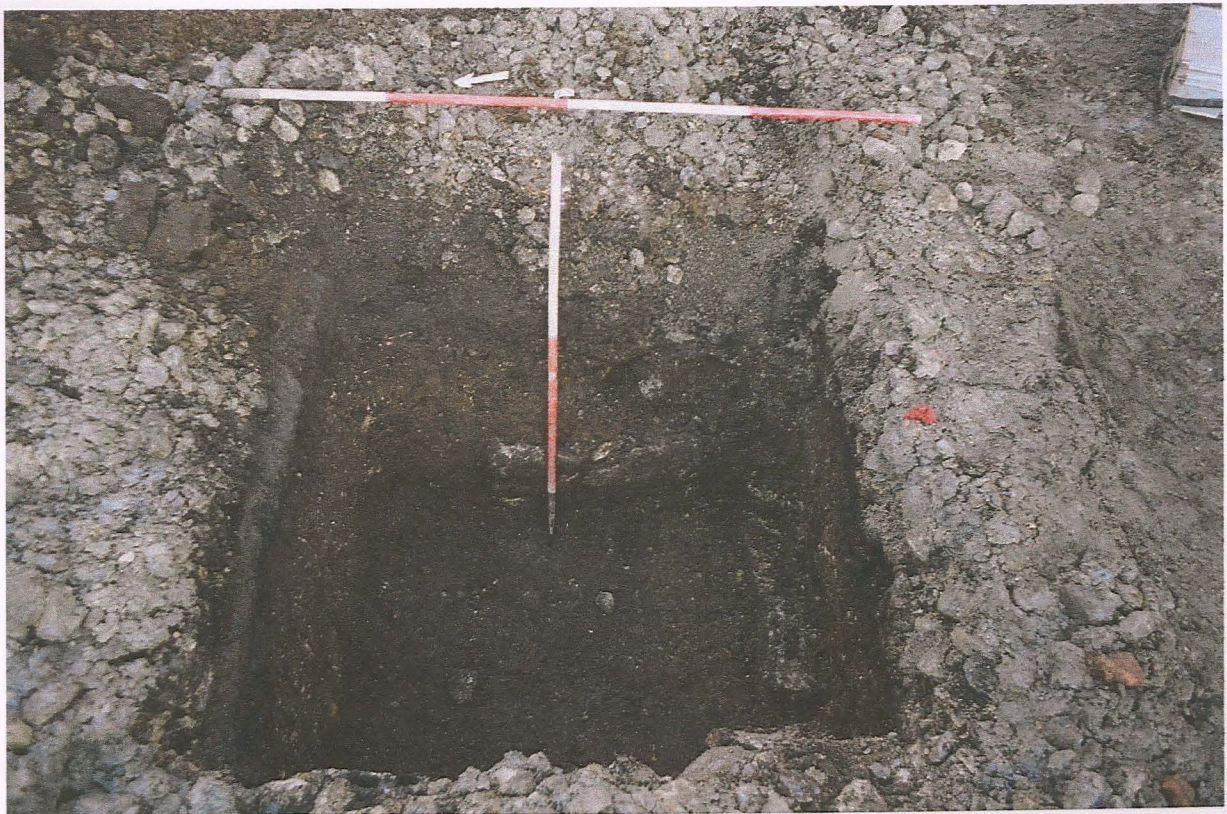


Pl. 24 Pits 22 and 23, looking west. Horizontal scale 2m, vertical scale 1m.



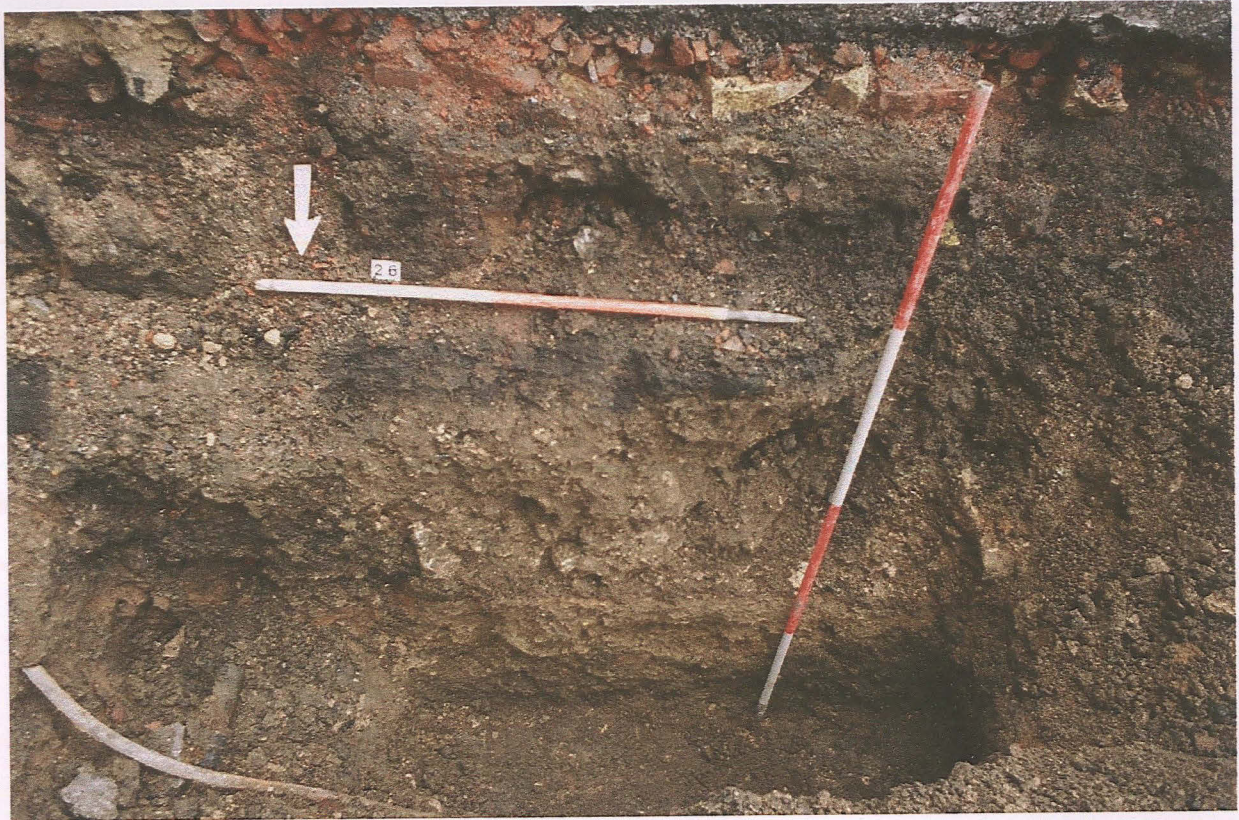


Pl. 25 Pit 24, looking east, showing wall foundation 14. Scales 1m and 2m.

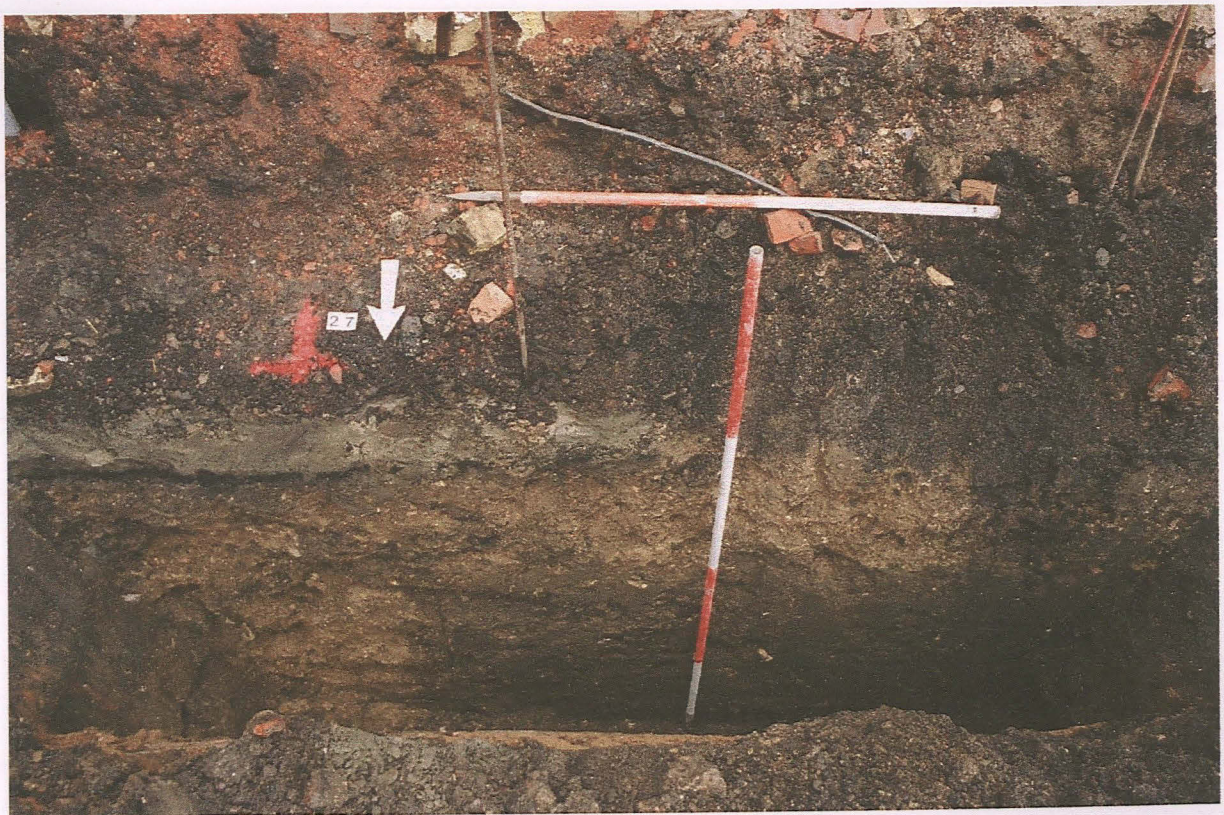


Pl. 26 Pit 25, looking east, showing robber trenches 5 and 9 and walls 4 and 15. Horizontal scale 2m, vertical scale 1m.





Pl. 27 Pit 26, looking south, showing robber trench 5 and surface 8. Horizontal scale 1m, vertical scale 2m.



Pl. 28 Pit 27, looking south, showing robber trench 7 (left). Horizontal scale 1m, vertical scale 2m.





Pl. 29 Pits 28 and 29, looking west, showing wall 1 and robber trench fill 7. Horizontal scale 1m, vertical scale 2m.



Pl. 30 Pits 28 and 29, looking south, after the removal of robber trench 14. Horizontal scale 1m, vertical scale 2m.





Pl. 31 Pits 30 and 31, looking north, showing burial cut 7 (right), surface 4 and layers 5, 6 and 9. Horizontal scale 2m, vertical scale 1m.



Pl. 32 Pit 32, looking west. Wall 5 is on northern side. Horizontal scale 1m, vertical scale 2m.





Pl. 33 Pit 35, looking east. Horizontal scale 1m, vertical scale 2m.



Pl. 34 Pit 36, looking north. Wall 3 can be seen at the base of the section. Horizontal scale 1m, vertical scale 2m.





Pl. 35 Pit 38, looking west. Horizontal scale 1m, vertical scale 1m.

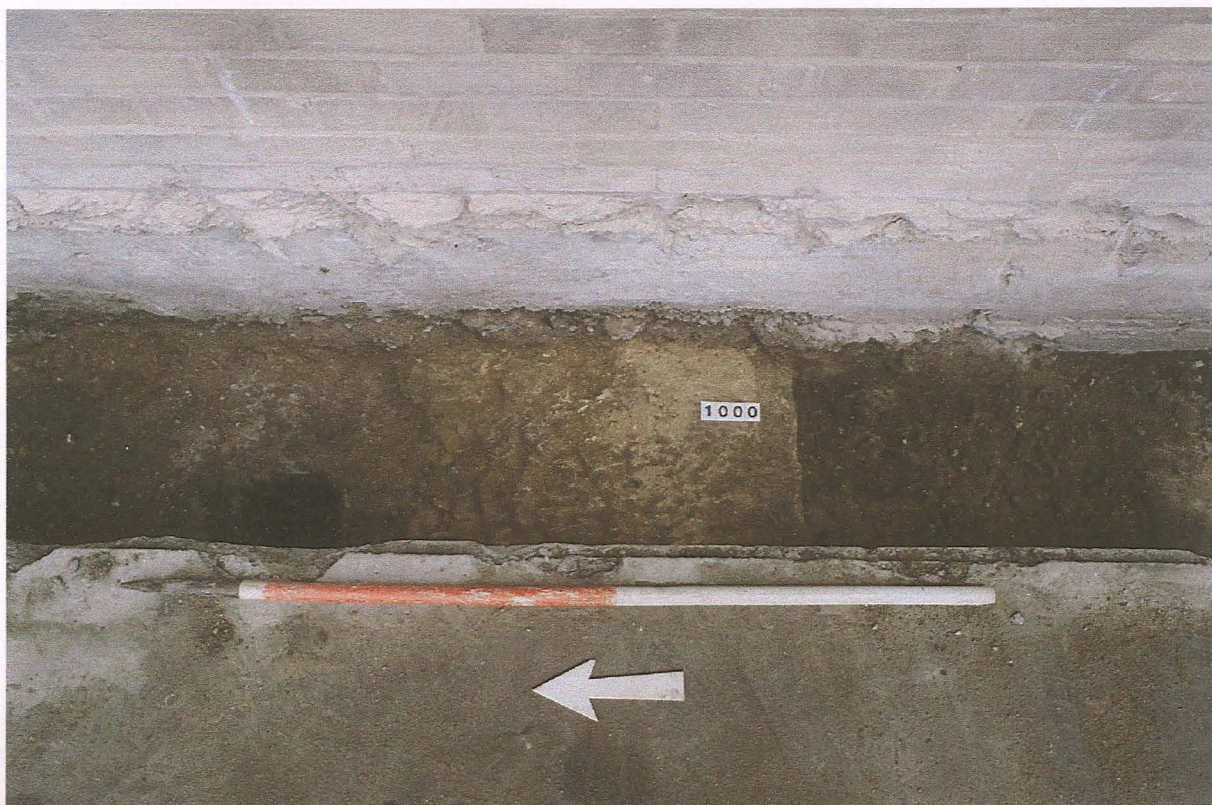


Pl. 36 Pit 39, looking west, showing walls 1, 3/4, 5/21 and 11. Scales 1m.





Pl. 37 Pit 39, detail of wall corner of 3/4, after excavation, looking east. Horizontal scale 1m, vertical scale 0.10m.



Pl. 38 Additional trench. Wall 1000 with facing stones on its south face. Looking east. Scale 1m.





Pl. 39 Additional trench. Wall 1000 with facing stones on its south face. Looking east. Scale 1m.



Pl. 40 Additional trench. Walls 1008 and 1009. Looking east.