PROPOSED RESIDENTIAL DEVELOPMENT, FORMER MINSTER SCHOOL SITE, CHURCH STREET, SOUTHWELL, NOTTINGHAMSHIRE

ARCHAEOLOGICAL EXCAVATION REPORT
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Prepared for

JWA Architects

on behalf of Caunton Properties (Southwell) Ltd.

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Summary

An archaeological excavation was carried out in advance of a proposed residential development on the site of the former Minster School in Southwell in Nottinghamshire.

Previous archaeological work on and adjacent to the site has identified a Roman villa to the west of the current development site, and an extensive inhumation cemetery, believed to be late Anglo-Saxon to early medieval in date, and to be associated with Southwell Minster.

Three major phases of occupation were identified by the excavation. During the Roman period, the site was inhabited, and appears to have formed part of the known villa's 'farmyard', occupied by ancillary or agricultural buildings such as sheds and barns. An early phase of post and beam buildings, with a possible northern boundary wall, was identified, overlain by a second phase in which a sequence of ditches were excavated and the original buildings demolished and replaced; this phase includes a small stone structure near the Potwell Dyke, speculatively interpreted as the villa estate's watermill. A third phase of late Roman activity replaced the cluster of farm buildings at the centre of the site with two large, rectangular buildings along its southern edge and laid out a new plan of drainage and/or enclosure ditches on a different axis.

The site was largely unoccupied in the post-Roman period, probably due to a rise in water levels making it unsuitable for habitation or cultivation. The Christian cemetery already recorded as overlying the villa proved to extend into the western side of the site: radiocarbon dating indicated that the cemetery was in use for a relatively short time, probably between the late 7th century and the beginning of the 9th.

The cemetery had gone out of use before the beginning of the medieval period, and a series of boundary ditches, probably associated with the redevelopment work on Southwell Minster, were excavated through some of the graves. Much of the site remained unoccupied, but intense activity took place in the north-west corner, where a complex sequence of intercutting post-holes, beam slots, ditches and pits suggested that outlying ancillary structures on the minster plot were being moved and rebuilt as the boundary was intermittently replanned.

A sequence of ditches on the east side of the site had been infilled with timber and brushwood, presumably in order to form covered drains: radiocarbon dating indicated that these features were post-medieval to modern, and it seems likely that they were part of one of the extensive land drainage and reclamation schemes widely carried out in the late 18th and early 19th centuries in association with the process of enclosure.

The archaeological work described in this report has involved the full 'preservation by record' of the archaeological remains across the site in Zones 3, 4, 5 and 6, mitigating the adverse impact upon the site's archaeological resource associated with the proposed development of these areas. At the same time, the volunteered 'preservation in situ*' areas of Zones 1 and 2 and part of Zone 3 mean that the proposed development would effectively lead to the physical safeguarding in perpetuity of the site's most important and fragile archaeological features and areas.*

1.0 Introduction

Pre-Construct Archaeological Services Ltd (PCAS) was commissioned by JWA Architects, on behalf of Caunton Properties (Southwell) Ltd. and Nottinghamshire County Council, to carry out an archaeological excavation on land off Church Street in the town of Southwell in Nottinghamshire, in advance of the redevelopment of the site of the former Minster School.

Part of the proposed redevelopment site intersects the scheduled area of a Scheduled Ancient Monument: the known Roman building SAM NT138. The Roman building complex was shown to extend into the excavated area; other Roman and post-Roman buildings and landscape features were identified across the site, although the disturbance caused by the construction of the school made identification and phasing difficult in many cases.

This document is the complete assessment report, incorporating specialist assessment of the finds and environmental samples from the site and superseding the former interim report (Savage and Sleap, 2012).

2.0 Location and Description (figs. 1 and 2)

The small town of Southwell lies within the Newark and Sherwood District of Nottinghamshire, approximately 11km north-east of the modern suburbs of Nottingham and 9km west of Newark-on-Trent. It is sited on the A612 Nottingham to Newark road. The Southwell Conservation Area Appraisal notes that *Southwell s main importance as a town is derived from the presence of the Minster. It was largely by-passed by the Industrial Revolution, was never on any established lines of communication and never had a significant market. The centre of the town is mainly Georgian and remained relatively unchanged until recent expansion surrounded the historic core with 20th-century housing* (NSLDF, 2005).

The proposed redevelopment site is located to the south-east of the town centre, within the Minster Character Area of the Southwell Conservation Area. The site is approximately 0.7ha in area; it is bordered to the north by Church Street, from which it is accessed (the A612, appearing on older maps as Finkle Street), to the north-east by the rear boundary of the Grade II listed Old Rectory, to the east by the Potwell Dyke watercourse, to the south by an area of grassland, formerly the playing fields of the Minster School, and to the west by the scheduled area of SAM 138, a known Roman building, which lies between the site and the Grade II* listed Vicar s Court. The Grade II listed South Muskham prebendal house lies opposite the site on the north side of Church Street.

The margins of the Potwell Dyke and the former school playing fields are designated as part of Southwell Green Wedge. The north-western side of the site lies within the scheduled area of SAM 138 and the site also falls within the settings of SAM 151, the Archbishop s Palace, and numerous listed buildings including the Grade I Bishop s Manor, the Grade II* Residence and Vicars Court; and the Grade II South Muskham Prebend and Old Rectory.

The site was formerly occupied by the Minster School: the mid-20th-century school buildings were demolished and the site levelled before the excavation commenced (plates 4 and 5).

The central National Grid Reference of the site is SK 70339 53695.

3.0 Geology and Topography

The drift geology on the eastern side of the site, adjacent to the course of the Potwell Dyke, is recorded as alluvium, consisting of brown silty or sandy clay with sand and gravel lenses. The alluvial band, laid down by the watercourse, is relatively narrow in this area, and does

not extend across the full width of the site: the solid geology is exposed on the western side. The solid geology across the site is formed by Radcliffe Formation Mudstone a pinkish-red or green mudstone interlaminated with pale grey, fine-grained sandstone (BGS, 1996).

The central area of Nottinghamshire, in which Southwell is located, has the topographic form of a plateau fissured by streams. Settlements are normally sited on the south-facing slope of the fissures, known locally as dumbles ; Southwell is typical in this regard, being sited on the south-facing slope of Westhorpe Dumble/Potwell Dyke (NSLDF, 2005). The site slopes gently down from a maximum height of 31.36m AOD at the far west to a lowest point of 27.49m AOD near the south-east corner, adjoining the Potwell Dyke.

4.0 Planning Background

Full planning permission (ref. 02/02225/FULM) and Conservation Area Consent (ref. 02/02226/CAC) for the construction of 13 dwellings, with associated external works, open space and highway works, were granted in July 2005. Condition no. 8 required a scheme of archaeological mitigation to be submitted to and approved in writing by the Local Planning Authority, and subsequently to be implemented in full accordance with the approved details.

5.0 Archaeological and Historical Background

The earliest recorded archaeological evidence recorded in the vicinity of the site dates from the Roman period. From the 18th century, Romano-British finds have been recorded around the nearby Minster, most significantly *in situ* remains, including a tessellated pavement , were exposed during the creation of gardens around Vicar s Court and The Residence, to the north-west of the school site. A programme of archaeological excavation was carried out by C. M. Daniels at two main locations on the site in 1959, in advance of the construction of a new school within the former Residence s garden. The excavation identified two ranges of an apparent winged corridor or courtyard style villa: a multi-phased east range with a large room and a cold bath, and a southern range with six rooms, at least four of which had mosaic pavements. These remains had been disturbed by the excavation of 30 inhumation graves, which had been disturbed in turn by the effects of stone robbing from the villa site and later drainage works. Ceramic material recovered during the excavation suggests that occupation commenced in the 2nd century AD, with the possibility of rebuilding before the early 3rd century. The bulk of the material recovered indicated that the 3rd-4th century was the main period of activity, with perhaps further rebuilding and embellishment during the early 4th century. Daniels concluded that there was no evidence for continued occupation of the site after the 4th century; post-Roman activity was mostly limited to fragments of pottery, tentatively dated to the 6th century but also included an entire bucket urn recovered from layers that post-dated the destruction of the villa (Daniels, 1966). The site has been scheduled as an Ancient Monument (SAM ref. 138).

Southwell Minster can be dated at least to the end of the Saxon period, with evidence provided by both surviving fragments of masonry and historical references (Stenton, 1967). The charter of AD 956 in which King Eadwig granted Southwell to Archbishop Osketyl, who is believed to have established or re-formed the church, survives as a 14th-century copy. The existing Minster is believed to occupy the same site as the early church (NSLDF, 2005). The present Minster Church of St. Mary, a Grade I Listed Building, can be dated to the early Norman period, with two major phases of medieval rebuilding, and was raised to the rank of cathedral in 1884 (Pevsner, 1951, pp.162-4).The graves identified by Daniels were not dated but were considered to be Christian, probably part of the medieval cemetery associated with the Minster. The great size of this cemetery was apparently confirmed by the identification of a further 225 inhumation graves in 1971 during the construction of a building in the western part of the school site (Alvey, 1975).

The Domesday Survey of AD 1086 indicates that the land in Southwell was owned by the Canons, appointed by the Archbishop, in prebend (a type of ecclesiastical benefice by which the tithes and other income of a parish were assigned to a cathedral or collegiate church, to provide an income for its canons and support its religious students). The prebendaries, or secular canons, were required to reside in the parish and carry out the religious duties that would in other circumstances be performed by the rector. By the 13th century, the number of prebendaries had grown to a maximum of 16, all owning a house at Southwell as well as land in their own parishes (Stenton, 1967). The South Muskham prebendal house, opposite the present development site, is one of nine still extant, although it was badly damaged by fire in 2001. Prebendary administration continued in Southwell longer than anywhere else in the country, with appointments to prebends ceasing in 1840 and the last prebendary dying in 1873 (Pevsner, 1951, pp.162-4; NSLDF, 2005).

To the south of the Minster, the standing remains of the Palace of the Archbishop of York date from the 14th-15th century, although an earlier structure is believed to have existed. The Residence was constructed towards the end of the 17th century and enlarged and altered in the later part of the 18th. The neighbouring Vicar s Court was also built towards the end of the 18th century. The school site itself appears to have been gardens, orchards and open fields from the end of the 18th century until the construction of the school in 1959 (Lane *et al.*, forthcoming).

In 2008-9 an extensive evaluation was carried out on the site of the former Minster School as part of the proposed redevelopment (fig. 3). Archaeological remains were encountered relatively close to existing ground level in most of the central and western evaluation trenches. These areas appeared to have suffered considerable truncation, probably during the construction of the former school, but some also contained a significant depth of surviving archaeological deposits. By contrast, the first archaeological horizon within the eastern and northernmost trenches was reached at some depth below existing ground level, protected from more recent disturbance by past silting and deliberate ground-raising within these naturally lower-lying areas of the site. Evidence of surviving substantial Roman masonry was recorded, constructed within a large cut feature, possibly a former clay-quarry working or a defensive ditch. The latter feature, over 45m long, c.13m wide and up to 2m deep, was the earliest identified on the site and pre-dated the main period of use of the villa during the 3rd and 4th centuries. Five inhumation burials were also recorded, and a radiocarbon date obtained from one indicated a mid-8th century date. Continued use of the site during the 10th-11th centuries was also indicated by ceramic material recovered from a number of ditches, with possibly some activity continuing towards the street front into the post-medieval period (Rowe, 2010).

An archaeological evaluation consisting of six trenches was carried out on the adjacent Platts Orchard development site by PCAS in June 2011. The southern part of the site was characterised by a homogeneous graveyard soil with multiple identifiable burials, one of which has recently been radiocarbon-dated to the late 7th century; the south-eastern area demonstrated a shallow overburden sealing at least one ditch dated to the Roman period, and numerous post-medieval pits. Conversely, the north-eastern part of the site identified a great depth of overburden, possibly indicating some deliberate infilling of the slope adjacent to the Potwell Dyke. In the central and north-western part of the site, three trenches identified the edge of one or more very large, deep cut features, whose full extent was not established and whose function could not be ascertained, although clay winning is a possibility. A single Romano-British ditch and numerous post-medieval features, including a charnel pit, were also identified on this part of the site (Rowe, 2011). A subsequent area excavation, excluding the cemetery, which was to be preserved *in situ*, identified the very large channel as a single feature, probably originally a natural watercourse, which appeared to have silted up slowly from the Roman period to the Middle Ages; a human skeleton found within the ditch fills suggested an impromptu or clandestine burial and is not believed to have been associated with the cemetery. A circular stone-built kiln dating to the Roman period was found at the edge of the channel ; four Roman ditches were also encountered, and a Roman

grave containing both a human inhumation and a dog. The medieval period was represented by a stone-lined well and a scatter of small pits and postholes, although the majority of the features on site were post-medieval or modern and derived from the recent use of the site as a garden. Redeposition of finds was a major problem across the site, and the dating of many features was uncertain (Lane *et. al.*, forthcoming).

6.0 Methodology

The topsoil and modern overburden (asphalt, concrete and made ground) were removed under archaeological supervision using a small 360 back-acting tracked excavator fitted with a toothless bucket; additional slots were later excavated under archaeological direction using a 180 back-acting wheeled excavator. Machine excavation was halted at the first archaeological horizon, or at the surface of the natural drift or solid geology where no archaeological deposits were present; excavation thereafter was carried out by hand (plates 1-4). After machining in the known cemetery area was completed, the area was scanned with a metal-detector, paying particular attention to visible or potential graves.

The excavation was carried out in mitigation zones 3, 5 and 6, and also included the south edge of Zone 4 (see fig. 3). Zones 2 and 2/3, in which substantial Roman structural remains had been encountered during the evaluation, were excluded from the excavation, as no development will now take place in these zones, while Zone 1 denotes the existing scheduled area of the Roman villa.

The site was digitally planned pre- and post-excavation using a Global Positioning System. Where archaeological features were present, these were sample excavated using hand tools and drawn in section at scales of 1:20 or 1:10 as appropriate; graves and other areas of complex archaeology were also planned by hand at scales of 1:10 or 1:20. The drawn record was supplemented by a photographic record on colour slide film and in digital format: extracts from this are reproduced as Appendix 1. Deposits were recorded on standard PCAS context record sheets; an excavation site diary was also kept. Group context numbers were assigned where more than one section was dug through a feature, or where several discrete features appeared to make up a coherent whole: these numbers are distinguished in the text with an initial G.

Finds were stored in labelled bags prior to their removal to the offices of PCAS for initial processing. The finds were washed and marked at PCAS before either being assessed in-house or being dispatched to appropriate specialists for assessment and reporting. Roman pottery was sent to Ian Rowlandson, with mortarium fragments being further assessed by Kay Hartley and samian ware by Gwladys Monteil (Appendix 4); post-Roman pottery and the ceramic building material (CBM) was sent to Jane Young, while individual bricks and tiles with animal footprints were identified by Jennifer Browning of ULAS (Appendices 5-7). A small corpus of potentially struck flint was sent for assessment to Tom Lane (Appendix 8). Small-finds were assessed by Gary Taylor and Denise Buckley of ULAS; Graham Morgan of ULAS assessed the painted wall plaster and the industrial residues, and Rebecca Hearne of ULAS the building stone (Appendices 9-12). Human bone was assessed by PCAS s in-house osteologist, Laura Keal (Appendix 13); samples of the human bone were sent to SUERC for radiocarbon dating, and further samples were sent to Anita Radini of ULAS for dental calculus research (Appendices 14 and 17). Animal bone was assessed by Jennifer Browning of ULAS (Appendix 15), while Rachel Small of ULAS assessed the oyster shell. Environmental samples were processed and assessed by Anita Radini of ULAS (Appendix 17); samples of preserved wood were also sent to Ian Tyers Dendrochronological Consultancy for identification and dating (Appendix 18). A soil evaluation was carried out on site by R. Macphail of the Institute of Archaeology, and the results of the assessment appear as Appendix 19.

The excavation took place between 25th July and 15th November 2012, and was supervised by Neil Parker. Excavation conditions were frequently challenging, with very hot, dry weather at the beginning of the project followed by long-term heavy rain giving rise to lasting flooding of parts of the site.

7.0 Results (figs. 4-27)

Features on this site were characterised by a high level of redeposition of finds, due to the repeated reworking of the ground by successive phases of occupation, culminating in the extensive disturbance caused by the construction of the school. Consequently, dating or phase grouping of features which produced low numbers of finds can only be speculative.

For the purposes of phasing this report, the distinction between 'early Roman' and 'mid-Roman' has been placed at the middle of the 2nd century AD, when the northern boundary of Roman Britannia was fixed at its furthest point under the Emperor Antoninus Pius, and that between 'mid-Roman' and 'late Roman' at the beginning of the 4th century AD, when Christianity was made official in the Roman Empire under the Emperor Constantine I. 'Saxon and early medieval' is taken to extend from the end of Roman imperial rule in Britain to the Norman Conquest, and 'medieval' from the Norman Conquest (and the slightly earlier reconstruction of Southwell Minster) to the Dissolution of the Monasteries in the reign of Henry VIII. The transition from 'post-medieval' to 'modern' is represented by the construction of the railway network in the mid-19th century.

7.1 Phase 0: Pre-Roman

The natural solid geology, with the natural drift geology where it occurred along the eastern edge of the site, was recorded as context 026. Overlying the natural in several areas of the site was layer 652, a whitish deposit that had been observed during the evaluation and provisionally interpreted as a lime-based flooring or foundation material. During the excavation, a site visit was made by Richard Macphail of the Institute of Archaeology to investigate and sample this deposit, which proved to be of natural origin (Appendix 19).

There is very little evidence for pre-Roman activity on the site. A single worked flint was retrieved from deposit 825: this was a utilized blade flake of probable Final Upper Palaeolithic date (Appendix 8). Deposit 825 was a shallow spread interpreted as a remnant of subsoil lying in a hollow in the surface of the natural, and produced no other finds; it is likely that the flint was redeposited. Spot-dating did not identify any pre-Roman pottery, and no features can be ascribed to this phase by analogy from the evaluation.

7.2 Phase 1: Early Roman: 1st to mid-2nd century AD

In spite of the sparse and erratically stratified nature of much of the early Roman dating evidence, activity from this period can be interpreted as being concentrated within a roughly north-to-south-aligned band across the approximate centre of the site, between Zones 5 and 6. The presence of a range of small buildings, altered and extended several times before being demolished, can tentatively be deduced; the presence of post-holes and beam-slots, together with wider linear features that may have been foundation trenches and large amounts of roof tile and stone rubble, suggests buildings partly of stone and partly of timber, with tile roofs. The sets of intercutting post-holes probably indicate that timber posts rotted and needed to be replaced frequently in the wet ground. Two fragments of a linear feature, containing the remnants of a stone wall, near the north side of the site may have demarcated the property on which the buildings stood. The dating evidence broadly indicates that the earliest occupation on this site was pre-Hadrianic (in or before the first quarter of the 1st century AD).

At the north-western corner of Zone 6, a closely positioned double row of pits, post-holes and other features ran north-north-east to south-south-west, parallel to the north end of ditches **G404** and **G453** at a distance of approximately 6m to the east. These features appear to comprise a single structure, although some of the pits intercut; the majority of the pit alignment is recorded as group **501**, while the stratigraphically later features, which cut features in **G501** while clearly forming part of the structure, are grouped as **G506**. The features varied so widely in size and shape that they had little in common apart from their alignment, with the early features **497** and **499** apparently representing a stake-hole, 0.16m in diameter, at the end of a 0.20m wide beam slot truncated by pit **507** (figs. 10.1-3), while the largest feature, sub-rectangular pit **665**, was slightly over two metres square and 0.60m deep (plate 5). Only two of the pits could be reliably dated: twelve sherds of mid- to late 1st to early 2nd century pottery, with a quantity of animal bone including the articulated leg of a horse (plate 6), were retrieved from fill 611 in **610**, the most northerly pit in the western pit alignment (fig. 10.4), while six sherds of early Roman pottery were retrieved from the upper fill of pit **665**, directly to the south of **610**: the feature complex has been assigned to Phase 1 on the strength of the dating evidence from these two pits. A further 19 sherds of pottery that could only be identified as Roman, with a very large assemblage of heavily abraded Roman ceramic building material (CBM), were also retrieved from pit **665**; small amounts of Roman CBM were also retrieved from pits **550** and **552**, at the south end of the eastern pit alignment, and a single sherd of Roman pottery was retrieved from pit **507** in the same alignment. Most of the CBM retrieved was roof tile of the interlocking *tegula* and *imbrex* types, with a much smaller amount of brick (Appendices 4 and 6). Unlike other post-holes and post-pits on the site, there was little evidence that the CBM had been deliberately inserted as a pad beneath or packing around a post; however, pit **596**, in the middle of the western row of the complex, contained part of a worked stone, possibly a fragment of a millstone, which seemed very likely to have been placed to support a post (plate 7), while the rubble inclusions in pit **665** occupied the centre of the fill, potentially suggesting that they were deposited following the removal of one (plate 5). The millstone fragment could not be retrieved for assessment, but photographs of it *in situ* were submitted to a specialist who considered it likely to be Roman (N. Cooper, ULAS, pers. comm.). Environmental sampling was inconclusive, with a sample from post-hole **495** producing three charred barley grains, a few charred seeds of sedge, grass and cabbage/mustard species and a small amount of charcoal (Appendix 17). The dating evidence for this feature group being among the earliest on the site was borne out by its stratigraphic relationships. To the west, the ditch fragment **618** ran close to the group on a converging alignment, cutting the edge of pit **614** in the earlier alignment (fig. 10.5); this ditch has been ascribed to the mid-Roman Phase 2. The two most southerly pits in the group, **520** and **522**, were both cut by, and therefore stratigraphically earlier than, the possible robbed-out wall **392**, which formed part of a substantial late Roman (Phase 3) ditch sequence (fig. 10.6). The dating of this pit complex is called into question by the presence of an apparently re-used millstone fragment within one of the pits; however, grain was presumably being processed on the villa s land, and so worn-out millstones would have been periodically discarded, throughout the period of Roman occupation here, and this fragment is not necessarily associated with the putative late Roman watermill Structure **693**.

A small group of features near the south side of the site have been tentatively interpreted as the remains of a structure, dated largely by their stratigraphic and spatial relationships to Phase 1 and the beginning of Phase 2, and tenuously connected by similarities in ceramic building material. The shallow, sub-circular pit **212**, approximately 0.92m in diameter, contained frequent medium to large limestone fragments, cobbles and large but very abraded Roman CBM fragments in its fill, suggesting that demolition material might have been used as packing in a large post-hole; it produced three sherds of mid-1st to 2nd-century pottery. Three *tegula* roof tile fragments retrieved from the pit fill appear to have come from the same roof (Appendices 4 and 6). About 2m to the east of **212** lay **214**, a truncated fragment of an elongated or linear feature 0.47m wide and 0.08m deep, from which a further five sherds of the same date were retrieved; the construction of the school had destroyed the

east end of the feature and any potential stratigraphic relationships to the east, so it could not be ascertained whether or not **214** had been cut by the large ditch sequence adjacent to it. The truncated linear feature **G288**, some 5m to the south of both features, excavated with difficulty in flooded conditions, is tentatively assigned to this complex, since its stratigraphic relationships suggest an early date and it appears to run parallel to **214**. **G288** survived to a length of 3.0m, and ran approximately west-north-west to east-south-east on an alignment close but not exactly parallel to that of the north side of the Roman building. It was 0.75m wide and 0.25m deep, and Roman CBM fragments, stone rubble and mortar flecks in the upper fill of section **226** through **G288** suggested an interpretation as a robbed-out wall (fig. 10.8), although no such inclusions were seen in a second section, **262**. Although the single sherd of pottery retrieved from section **262** through this feature could only be identified as Roman, pieces of *tegula* from both **214** and **G288** were sufficiently similar to those from pit **212** to suggest that they had all come from the same roof (Appendix 6). The feature was cut into clay layer 229, a deposit which survived only within the footprint of the school building and which may have been an occupation layer, but which produced no finds other than a fragment of an iron nail, and so seems more likely to have been a flood deposit. Pit **243**, a shallow, flat-based pit cut by the eastern edge of ditch **G282**, produced no dating evidence, but as **G282** is considered to represent one of the earliest Phase 2 features, pit **243** can tentatively be assigned to Phase 1 (fig. 10.9). The features making up Structure **293** may represent the vestigial remains of a building composed of posts and ground-beams. The west end of gully **G288** was cut by a perpendicular gully, **G287** (fig. 10.10), which is very provisionally assigned to Phase 1 on the grounds of its alignment with the cluster of Phase 1 features to the north, and may represent a later alteration to Structure **293**.

A group of more precariously dated early Roman features in the centre of the site may also have represented portions of a building that was serially altered and extended; it is possible that Structure **293** forms a part of this feature complex, with the connections obliterated by later redevelopment. The stratigraphically earliest features were a cluster of six post-holes or small pits, intercutting in two groups of three, and truncated by later features and by the school construction. Pits **757**, **759** and **761** all had flat bases and steep sides, suggesting a common function, possibly as post-pits; pit **761** was stratigraphically the earliest of these, and pit **757**, which had no other stratigraphic relationships and might in fact have been associated with the overlying Phase 2 structure **G786**, was the latest (fig. 11.1). Directly to the north of these was the flat-based, stone-filled pit **735**, which may also have been a post-pit, although no post-pipe was identified within stony fill 736 that might have suggested that the stones had been inserted as packing to stabilise a post, rather than dumped in a pit that had gone out of use; it was cut by the two smaller, shallower pits **733** and **753** (fig. 11.2). The sub-rectangular pit **733** can be speculatively dated by a sherd of 1st to 2nd century pottery, although this may have been redeposited from the fill of **735**, while pit **753** had been almost obliterated by later features. These pit groups were cut by a complex of narrow linear features that may have represented beam-slots. One of the earliest of these, **G601**, was some 8m long and continued the line of **G287** north-north-eastwards: if it was, as it appeared, a part of the same feature disturbed by later groundworks, it suggests that at least one of the triple pit-groups was of the same date as Structure 293, as **G601** cut possible post-pit **761**. Linear feature **G602** ran parallel to **G601**, but could not be traced as far to the south; it was only 6m long and had no possible southern portion corresponding to **G287**. It was wider than **G601** at 0.55m, suggesting the base of a foundation trench rather than a beam slot, and could be dated only by its stratigraphic relationships. The north end of **G601** was in turn cut by narrow linear feature **G687** on a perpendicular west-north-west to east-south-east alignment: section **731** produced a single sherd of Roman pottery, with small fragments and flakes of Roman CBM. This feature also cut through the pit cluster **733/735/753** (fig. 11.2). The latest linear feature in the sequence was **G746**, extending some 14m to north-north-east with a small right-angled return to west-north-west, which cut through **G687** and into the north end of **G602**, suggesting a combined recutting and extension of the feature complex; the U-shaped profile of this feature suggested a beam slot

more strongly than the shallower, more rounded profiles of the other linear features in the complex did (fig. 11.3).

The possible beam-slot complex was cut by a number of pits and large post-holes, all but one of which have been assigned to Phase 1. The best-dated of these features was sub-circular pit **727**, which produced three sherds of pottery dating to AD 100-135, with a substantial assemblage of 88 fragments of Roman CBM. The variety of tile fabrics represented indicates that they did not all come from the same building, although some *tegulae* were sufficiently similar to those retrieved from **212**, **214** and **G288** to suggest that these had all come from one roof (Appendix 6), providing a tenuous connection to the earlier Phase 1 feature group Structure **293**. Pit **727** measured 0.96m x 0.88m and was 0.35m deep, with a flat base suggestive of a post-pit; it cut the terminal of possible beam-slot **G746** as well as the smaller pit **729**, and it is possible that the early pottery was redeposited from the fill of one of the earlier features, although the CBM was probably intrinsic to the pit, as only one further fragment was retrieved from the fill of **729**. The pit fill was sampled, but no environmental evidence was retrieved. The extensive CBM assemblage and the presence of wall plaster fragments in the fill (Appendix 10) suggest that this feature cannot be very early, as Roman buildings must have already been demolished in its vicinity in order to provide these inclusions. However, as with the CBM inclusions in the pits of feature complex **G501/506**, this material did not appear to have been inserted into the pit in order to support or stabilise a post, but to have been dumped into the pit at the end of its period of use (fig. 11.4), and it seems plausible that both feature groups represent the remains of early structures, demolished and back-filled with their own demolition materials. Directly to the south of pit **727**, sub-circular pit **676** also cut the west end of **G746**: again, the fill of this pit contained a substantial assemblage of Roman CBM, whose arrangement within the pit suggested a rubble dump rather than the positioning of a post; the tile fabrics present were commensurate with a Phase 1 date (Appendix 6).

The large post-pit **700**, which cut possible beam slot **G746** near its junction with **G687**, contained stone and CBM fragments which did appear to surround a post-pipe (figs. 11.5 and 11.6). Two sherds of early Roman pottery were retrieved from post-pipe fill 702, while both the post-pipe fill and the surrounding post-packing produced small amounts of Roman CBM (Appendices 4 and 6). A smaller post-hole, **718**, was positioned at the north-east angle of **G746**, separating the two branches and making it impossible to tell whether feature **720**, immediately to the north, was a pit or post-hole in its own right or a severed northward extension of **G746** (fig. 11.7). While post-hole **718** could not be dated, its position at this junction seemed unlikely to be coincidental, and the stone and CBM rubble in its fill also suggested that it formed part of the complex. Pit **751**, positioned about half-way along **G746**, was filled by a brownish-grey clayey silt that could not be distinguished from the fill of the beam slot; as the pit was flat-based and no deeper than the beam slot, its presence could only be detected where it cut the natural to either side of **G746**, or cut the fill of earlier pit **747**, which also pre-dated the beam slot (fig. 11.8). **751** seems likely to have been a post-hole within and contemporary with the structure represented by beam slot **G746**, with **747** possibly representing an earlier phase of development.

To the east of the north end of ditch **G453**, the wide, shallow linear feature **797** was cut by the construction trench of later, possibly mid-Roman building Structure **693** (fig. 12.1). This feature produced no finds, but has been assigned to this phase on the basis of its north-north-east to west-south-west alignment, parallel to **G501/G506**, and its stratigraphic relationship to Structure **693**.

Although the main Phase 1 activity appears to have taken place across the centre of the site, two features at the north-western edge, within Zone 4, could be attributed to this phase. The earliest identifiable feature in the area appears to be the west-north-west to east-south-east aligned linear feature **G968**, cut into undated former ground surface 954/992, which contained the remains of stone structure 966 (fig. 11.9). Structure 966 was made of rough-hewn, dry-laid tufa limestone blocks, and appeared to represent the base of a wall within a

foundation trench: it was some 7m long and 1.0m wide, but had survived only as the basal course over much of its length. Its position and alignment suggest that it may have been a boundary wall around the villa's 'farmyard'. No dating evidence was retrieved from this feature, which is assigned to this phase on the basis of its stratigraphic relationships. The line of the wall remnant was continued westwards by linear feature **916**; this feature was 0.80m wide with a flat base, and seems likely to be a part of **G968** from which the wall had been completely robbed out: frequent fragments of stone in fill 906 may have been demolition rubble. This phase is otherwise represented only by a single sherd of late 1st to early 2nd-century pottery retrieved with small pieces of Roman CBM and two iron nails from small pit **927**, directly to the south of **G968**. The find may have been redeposited from pit remnant **939**, which **927** cut; in either case, it is possible that one or both features were associated with the possible boundary.

7.3 Phase 2: Mid-Roman (mid-2nd to beginning of 4th century)

Mid-Roman occupation was chiefly identified in the eastern half of the site, within or close to Zone 6; the features assigned to this phase in Zone 5 were generally smaller, sparser and less reliably dated, although this difference may be due, at least in part, to the higher level of disturbance from later activity on the western half of the site. Systems of ditches, probably both for land demarcation and for water management, were the most marked feature of this phase, although post-built structures were tentatively identified in the area formerly occupied by the Phase 1 buildings. A small, isolated, stone building with a sunken floor, close to the course of the Potwell Dyke, was assigned to this period, and speculatively interpreted as a possible watermill associated with the villa's farmland.

The earliest Phase 2 features within Zone 6 were probably the pair of perpendicular ditches **G282** and **G283**, near the south side of the centre of the site: no stratigraphic relationship could be demonstrated between these features, which were probably contemporary (fig. 11.2), and their alignment, with one ditch running directly north to south and the other east to west, did not correspond to any other linear features within Zone 6. North-to-south-running element **G282** had been heavily truncated from above, probably by ground levelling in advance of the construction of the school, and survived to a maximum of 0.60m wide and 0.15m deep. None of the sections through **G282** produced any dating evidence other than a small assemblage of Roman tile and brick fragments, most in a very abraded condition, with one earthenware *tessera* from section **206**. The fabrics suggest that this material was derived from Phase 1 buildings (Appendix 6). The north end of **G282** was cut by **G543**, the earliest of the substantial sequence of north-north-east to west-south-west running linear features discussed below (fig. 13.2), and could not be traced beyond this intersection; any northward continuation was probably obliterated by the construction of the school. The east-to-west-running element **G283** was not identified during the evaluation, although Trench 3 crossed its course (Rowe, 2010); this is probably because **G283** had also been very heavily truncated from above, and survived to a width of 0.50m and a depth of no more than 0.10m. This ditch passed through a very severely flooded portion of the site; no sections could be excavated to investigate its relationship to Phase 2 ditches **G404** and **G405** (see below), which it intersected. It could be identified as continuing on the eastern side of an area of tree disturbance, probably beyond the eastern site boundary, although this area was also obscured by flooding. No dating evidence was retrieved from any of the sections through ditch **G283**, but the eastward continuation of the ditch, recorded as **G430**, which lay outside the area levelled for the school and was slightly better preserved at a maximum width of 0.80m and depth of 0.20m, produced two sherds of pottery dating to AD 50-110, with a very abraded fragment of Roman brick, from section **415**, a single sherd of pottery only identifiable as Roman and small fragments of Roman CBM from section **431**, and flakes of Roman CBM from section **417**. Ditch **G430** also displayed the only other stratigraphic relationship that could be identified, being cut by post-medieval drain **G366**. There were indications that this feature group might originally have been more extensive: the junction of ditches **G282** and **G283** displayed a small stub on the west side, as though **G283** had previously continued in that direction, while ditch continuation **G430** displayed a possible

fragment of a return northwards from its west end. It was difficult to ascribe these features to either Phase 1 or Phase 2: the very limited dating and stratigraphic evidence suggested a Phase 1 date, but their alignment was so sharply at odds with the other Phase 1 features that they seemed unlikely to be contemporary, while the only other feature group on site with a similar alignment was the Phase 2 complex of **G792** and **795**. Consequently, these features seem best placed very early in Phase 2, post-dating the possible building group in the centre of the site, but pre-dating the large boundary or drainage ditch complexes occupying much of the eastern half of the site.

A small stone structure at the north-eastern corner of Zone 6 was initially encountered in evaluation trench 4 and recorded as feature 408, but was only conjecturally dated by a sherd of possible late 3rd- to 4th-century pottery in an adjacent pit (Rowe, 2010). Structure **693** proved on full excavation to be a rectilinear stone building, approximately 3m square, with walls of limestone and mudstone blocks, of different sizes but with cut faces to both the interior and exterior of the building (fig. 12.2); the evaluation recorded that the wall was bonded with lime mortar, which can be seen on the site photographs (plate 8), but no bonding material was observed in the less favourable conditions experienced during the excavation. The structure stood within construction trench **810**; three fragments of Roman CBM were retrieved from the construction trench fill (Appendix 6), but no pottery was present. The construction trench was cut into clayey silt layer 692, which was widespread but not uniformly present; this layer, which may have represented a natural flooding horizon, produced no artefacts but contained a small group of bones from an animal that could not be identified, but was approximately the size of a hare, cat or small dog (Appendix 15). Within the building was a floor of roughly worked mudstone slabs pressed into layer 692 (plates 8 and 9), which was sealed beneath compact clayey silt layer 811. The stone floor did not extend all the way to the walls: this may have been an element of its construction, incorporating a channel running around the interior of the building, or it may indicate that the floor belonged to an earlier, smaller building, echoing the phase of reconstruction observed in the villa and the south-western building on the present site. If so, it is possible that layer 811 may have been a compacted earth floor within the later building, although the low level of finds retrieved one sherd of Roman *mortarium*, a few very abraded flakes of Roman brick and tile, a fragment of melted, fired clay that may have been hearth lining and one dog bone (Appendices 4, 6, 12 and 15) does not seem to fit this interpretation, and an environmental sample produced nothing but a small amount of charcoal (Appendix 17), also suggesting that this layer may have been deposited after the building went out of use.

To the south of Structure **693** was undated rubble spread 826, which may have arisen from its demolition or collapse, and a group of undated or poorly-dated post-holes and small pits, none more than 0.11m deep. One of these, the fragment of narrow gully **653**, had a flat base and square-ended terminal, and may have been a north-to-south-aligned beam slot, while pit **662** was sub-circular and may have been the base of a post-hole; pit **755** was a long, shallow oval, not precisely aligned with the wall of the building, whose fill produced two sherds of Roman pottery, and pits **655** and **657** were irregular, disturbed (or possibly caused) by tree rooting. Flakes of Roman CBM and a single hare bone were retrieved from the fill of **657** (Appendices 6 and 15), while the only find from fill 656 in pit **655** was a fragment of possible hearth lining resembling that found within deposit 811 inside the building (Appendix 12). On the east side of the building was pit **779**, which at 0.43m deep was considerably deeper than the features to the south of the building, and may have been a substantial post-hole; fill 892 consisted largely of densely packed stones, many vertically or near-vertically positioned, which suggested post-packing, although no obvious post-pipe was seen. On the east side of post-hole **779**, and possibly cutting it, although the relationship could not be confidently ascertained, was short or fragmentary linear feature **780**, some 3-4m long (the south end was not clearly seen), 1.08m wide and 0.37m deep; the north end of this feature was encountered in evaluation Trench 4 and recorded as feature **405**, a possible robbed-out wall. Two fills were identified during the excavation, both consisting largely of stone rubble, while flat stones at the base and sides suggested that it may originally have been a stone-lined channel (plates 10-12), prompting an initial interpretation of this feature as a drain. An

environmental sample taken during the evaluation, when this feature was recorded as **405**, produced small amounts of charred plant remains, fragments of clinker and burnt, calcined and unburnt bone, suggesting domestic or industrial processes in the vicinity; the types of grain present were not indicative of period (ASDU, 2009).

Research into comparative Roman villa sites presented a possible alternative interpretation for Structure **693** as a watermill, with feature **780** representing the wheel-pit for an undershot vertical wheel, on a mill-leat taken off the Potwell Dyke. The relatively substantial pit **799** could be advanced as a post-pit supporting the axle of the mill-wheel; no corresponding feature was identified on the east side of feature **780**, but this area of the site was never excavated due to flooding. This interpretation appears to require the wheel to be sited at a distance of some 1.5m from the wall of the putative mill building, rather than directly adjacent to or within it, but reconstructions of Roman mills seem to incorporate beams that could bridge this distance; it is also possible that Structure **693** did extend to the edge of feature **780**, as the evaluation encountered part of a narrow linear feature that appeared to continue the line of the north wall of the building, although it contained few stones (recorded in Trench 4 as a right-angled return to the north end of feature **780**, although the site photographs show it as a markedly different feature (plate 10)). The wheel-pit of a mill with a vertical wheel was typically its lowest point, and most likely to survive even if the rest of the building collapsed or was demolished (EH, 2011a, p.3); the course of the rest of the putative mill-leat is uncertain, although the fragmentary linear feature **G394**, if extended through the area rendered unworkable by flooding and the unexcavated stub of a linear feature extending from the south side of **G448**, would pass through the length of feature **780**. The majority of Romano-British watermill sites, some 60 in number, have been deduced from the discovery of millstone fragments, although a few mill buildings have been identified by excavation (EH, 2011a, p.2); the possible millstone fragment in Phase 1 pit **596** (plate 7) seems likely to be older than Structure **693**, but two worked stones more readily identifiable as millstone fragments were encountered re-used in the post-holes of Structure **292** (plates 21 and 22).

It is not certain how Structure **693** was entered. During excavation, a break was observed in the north end of the east wall, but disturbance from a modern drain prevented any definite identification of this as a doorway; moreover, the truncated nature of the features on the site, with only the bases of ditches and post-holes surviving, suggests that the existing floor of Structure **693** could not have been at contemporary ground level, but must have lain some distance below it. If the interpretation of this building as a watermill is correct, the side of the building facing the wheel-race, directly adjacent to the wheel machinery, seems a highly unlikely and inconvenient point for an entrance in any case. Assuming that grinding took place on a raised floor above the level of the mill-wheel shaft, as with the reconstruction drawing of the Fullerton villa mill in English Heritage, 2011a, it is possible that the building had no entrance at ground level, but was reached by steps or a ladder from the outside, which would also have provided some protection against the flooding to which the area remains prone; if so, this may be tentatively advanced as a purpose for the group of post-holes to the south of the building.

The most extensive and the best-dated of the Phase 2 features encountered during the excavation was the north-north-east to west-south-west running ditch sequence in Zone 6, which extended across the full width of the excavated area. Ditches **G405** and **G453** were the earlier features in this sequence: it is likely that they were separated parts of the same ditch, but two group numbers were assigned because the ditches could not be traced across the point where they were cut by the perpendicular ditch groups **G446** and **G449**. Ditch **G405** appeared to have been heavily truncated by later site levelling, surviving only to a depth of 0.31m and a full width of 0.95m (fig. 12.3), and was dated principally by its stratigraphic relationship to **G404**. None of the excavated sections displayed more than one fill; section 344 produced a sherd of 2nd century or later pottery with a few fragments of Roman CBM, while four sherds of pottery only identifiable as Roman, with abraded fragments of Roman CBM, were retrieved from section 442. The associated ditch **G453**, which survived to a maximum depth of 0.40m and, like **G405**, had a single fill of light grey to light brown silty clay

across all excavated sections, also produced little dating evidence: of the three sections excavated, section **577** produced small quantities of 3rd century or later pottery and very abraded Roman CBM, while five sherds of late 2nd-century pottery probably derived from section **422**, although these were mis-labelled on site and cannot be attributed with absolute confidence (Appendices 4 and 6).

Ditch **G405** was recut on its west side by **G404**; no corresponding relationship could be shown between ditches **G453** and **G404**, as they diverged slightly towards the north, and a section excavated at the only point where they intercut proved to be so disturbed by a modern drain that the relationship could not be ascertained (figs. 12.4 and 12.5). The small pit **579**, 0.60m in diameter and 0.20m deep, was positioned between the ditches at the north side of the site, intercutting neither ditch but occupying the whole of the space between them (fig. 12.5). No dating evidence was retrieved from this feature, but its position indicates a relationship with one or both ditches, suggesting that it may have held a marker or fence post on the line of the boundary. A similar function may have been served by the larger pit or pos-pit **480**, which was cut into the eastern edge of **G405** at the point where the ditch sequence was cut by perpendicular Phase 3 ditch **G449** (figs. 17.5 and 17.6); pit **480** survived to a width of 1.5m but a depth of no more than 0.28m, and its fill 481 contained numerous large stones that may have represented post-packing; only non-specific Roman pottery was retrieved. Ditch **G404** extended the full width of the site, and probably continued beyond it to the north; it could not be ascertained whether it once continued to the south, and was truncated by the possible quarry pit **G402**, or whether it terminated directly to the north of this feature. As with the earlier ditches, **G404** had been significantly truncated from above during redevelopment of the site: where best preserved, it survived to a width of 2.0m and a depth of 0.55m. Its profile varied widely across the excavated sections. Section **423** through **G404**, near its north end, contained a mass of stone rubble that was separately recorded as Structure 390, although it seems most likely to have been a dump of demolition material, potentially from the nearby Structure **693** (fig. 12.4; plates 13 and 14). The fill surrounding this deposit produced 31 sherds of late 2nd-century pottery, including several large and well-preserved items of samian ware (one featuring a stamp from a previously unknown die), and 36 fragments of Roman brick and roof tile, while the fill of section **575**, also at the north end of the feature, produced further quantities of rubble in association with a substantial finds assemblage comprising 94 sherds of late 1st- to early or mid-2nd century pottery, including amphora fragments (plate 15), with 63 fragments of CBM, bone and glass; most of the large bone assemblage was unidentifiable, although bones of cattle, sheep and pig were present (Appendix 15). The presence of these rubble deposits was a significant factor in the ascription of the poorly-dated Structure **693** to this phase, as if the rubble does derive from the demolition of the watermill building, it follows that the ditch and the structure went out of use at the same time, and therefore that they were likely to have been in use at the same time. Section **419**, dug directly to the north of the rubble deposit, was the only section through this feature to display two clearly stratified earth fills: the lower fill, light grey silty clay 420, produced 17 sherds of mid- to late 2nd century pottery, while the upper fill, dark brownish-grey silty clay 421, which contained no stone rubble but a substantial assemblage of Roman CBM, chiefly *tegula* and *imbrex* roof tiles, produced 33 sherds of late 2nd-century or later pottery, with a small assemblage of animal bone including cattle and goose. Section **425** at the junction of this ditch with post-medieval feature **G447**, was disturbed by modern construction, but produced a further three sherds of mid-2nd to mid-3rd-century pottery (Appendices 4, 6 and 15).

Fragments of several other linear features, possibly representing two parallel ditches on broadly the same north-north-east to west-south-west alignment as ditch sequence **G404/G405/G453**, ran along the flooded eastern edge of the site. In the south-eastern corner, two ditches were identified, separated by a distance of 1m to 2m and both extending beyond the southern site boundary. The western ditch, **G394**, ran for approximately 16m before it was lost in an area disturbed by tree roots and rendered unworkable by flooding; it was up to 1.40m wide and 0.37m deep, with a flat base. Occasional fragments of Roman CBM were recorded in the fill of section **289**, although only one piece was retrieved, while

section **317** produced two fragments from the same Roman roof tile; an environmental sample was inconclusive, containing a single charred grain of barley and a little charcoal (Appendices 6 and 17). The feature seems likely to have continued on the north side of the disturbed area, where it is probably represented by the stub of a feature on broadly the same alignment intersecting the south side of Phase 3 ditch **G448**; however, excavation conditions prevented the investigation of this feature, and its stratigraphic relationship to **G448** is unknown. A further northwards extension is hypothesised, carrying the line of the ditch through cut **780**, a short or fragmentary linear feature speculatively interpreted as the wheel-pit for a watermill; in this interpretation, ditch **G394** would represent the remains of a channel taken off the Potwell Dyke to carry water to the mill. Ditch **G394** was cut by two of the post-holes for Phase 3 post structure **292**: this stratigraphic relationship forms a significant part of the dating of the ditch (figs. 15.5 and 15.6). The parallel feature, ditch **G395**, was cut by the two adjacent post-holes of the Phase 3 structure (figs. 15.9 and 15.10). It could not be traced as far northwards as **G394**: the surviving portion of this feature was only 11m long, and did not extend beyond the cut of post-hole **273**. It seems likely that this feature was more heavily truncated, as it survived only to 1.0m wide and 0.16m deep. A single section was excavated through **G395**, retrieving only a small amount of very abraded Roman CBM; as with the adjacent ditch **G394**, an environmental sample produced only a single charred grain of barley and a little charcoal (Appendices 6 and 17). In the north-eastern corner of the site, a further linear feature on the same alignment did not continue to the south beyond perpendicular Phase 3 ditch **G446**, and appeared to be cut by it. This feature, which may represent a northward continuation of **G395**, has also been assigned to this phase on the grounds of its spatial (and possible stratigraphic) relationships: due to flooding at the eastern site edge, it could not be excavated or recorded.

Another group of intercutting ditches ran on the same north-north-east to west-south-west alignment across the centre of the site, at the western edge of Zone 6, although these features were so extensively disturbed by the construction of the school that they survived only in the southern portion of the site, and their relationships could be traced only with great difficulty. The earliest ditch in this sequence could be identified as **G543**, although this feature could only be confidently identified in two sections excavated at the northern end of the feature complex, towards the centre of the site, where all the features intercut (figs. 13.1 and 13.2; plate 16): they diverged slightly towards the south, as well as becoming more heavily truncated, and some could no longer be traced. Ditch **G543** was best preserved in the most northerly section, where it was recorded as **537** and survived to a width of 0.95m and a depth of 0.39m; it was much reduced in size in section **206** to the south, where it could be seen to cut the earlier Phase 2 ditch **G282**. Five sherds of mid-2nd-century or later pottery, three fragments of tile and a *tessera* cut out of a tile were among the finds retrieved from both sections; the CBM, including the *tessera*, is so heavily abraded as to be clearly residual (Appendices 4 and 6). Two later recuts of this feature were identified, suggesting that the ditch needed constant maintenance due to repeated flooding of the site. Ditch **G543** had been recut on its west side by ditch **G281**; stone and CBM fragments in the fill of section **533** through this ditch were interpreted on site as being Roman demolition material, but no datable finds were retrieved. Either the original ditch or the first recut was lost some 10m from the southern site boundary: a single ditch continued from this point, which was recorded separately as **G437** because the extensive disturbance caused by the school construction made it impossible to ascertain whether the recut had converged with and completely obliterated the original ditch or whether the original ditch continued and the recut had been destroyed by the later works. Ditch remnant **G437** survived to 0.53m wide and 0.17m deep at most, reduced to a depth of 0.05m near its south end (figs. 13.3-5); a sherd of mid/late 1st to mid-2nd-century pottery is doubtfully attributed to section **234**, while section **364** produced a small assemblage of very abraded Roman CBM, including a fragment that may have been derived from a vessel in a tile fabric. An environmental sample from this section was relatively productive, with grains of charred wheat and barley and a few charred seeds of grass, sedge and plants of the cabbage or mustard family, indicating arable cultivation in damp conditions (Appendices 4, 6 and 17).

The second ditch recut was **G548**, which cut recut **G281** and southern ditch segment **G437** on the west side (figs. 13.1-3). Ditch **G548** was relatively strongly marked, 0.70m wide and 0.42m deep in the northernmost section; section **534** contained a number of roughly worked sandstone fragments interpreted as Roman demolition material, but the only dating evidence was provided by two sherds of 2nd-century pottery from section **202**; a later date is suggested by the findings of the evaluation. This feature also appeared to terminate, or had been truncated away from above, before reaching the south side of the site.

At least one of the ditches in this sequence had been encountered in evaluation trench 5, where it was recorded as feature **506**, a large ditch running roughly north-north-east to south-south-west. Two fills were recorded, although no ditch seen in this sequence during the excavation contained more than one, and it seems likely from the report illustration that the upper fill was in fact within an unrecognised recut, and that two ditches had in fact been encountered. Two short lengths of features interpreted as stone rubble footings were also seen, both running parallel to the ditch, with one cut into its fill; no such features were identified during the excavation, suggesting that they did not extend far, if at all, outside the trench. The dating evidence for all these features was ambiguous, as two sherds of probable 2nd to 3rd-century pottery were retrieved from one of the stone footings, while the lower ditch fill (or earlier ditch) produced pottery of all periods from the late 1st to early 2nd century to the late 3rd to 4th, and the upper fill (or later ditch) produced a small assemblage of late 3rd to 4th-century wares (Leary, 2009), suggesting that the second recut had been encountered.

Ditch **G437**, the only part of ditch sequence **G437/G543/G281/G548** to extend almost to the southern site edge, appeared to be cut there by the very large pit **G401**, although **G437** had been reduced to a depth of no more than 50mm by this point, so the relationship could not be confidently ascertained (fig. 13.5). The surviving portion of pit **G401** measured some 12m x 2m in plan and was curved at its north edge, suggesting that it would originally have been roughly circular; it was excavated to a depth of 0.65m in section **296**, but the side exposed in this section was so irregular that it was uncertain whether or not the base had been reached (fig. 13.6). Fill 302, the second of the three fills recorded in section **296**, produced 17 sherds of 3rd century or later pottery, with Roman CBM including roof and box tiles, giving a reliable date towards the end of Phase 2; the CBM assemblage appeared to derive from a number of sources, rather than from a single building (Appendices 4 and 6). The smaller section **311**, dug to investigate the relationship between **G401** and **G437**, produced only a sherd of broadly Roman pottery; an environmental sample was inconclusive, producing two charred wheat grains and a small amount of charcoal (Appendices 4 and 17). While there was no definite evidence of the function of pit **G401**, its large size and irregular sides suggest that it might have been a clay-winning pit, possibly to make daub for the construction of buildings on or near the site, or as raw material for bricks and tiles, since much of the CBM retrieved may have been locally sourced (Appendix 6). Pit **G401** appeared to be truncated on the south side by the large, partially exposed feature **G402**, which ran along the southern boundary of Zone 5, although the cut of a modern drain had disturbed the intersection of the two features and the relationship was not entirely clear (fig. 13.6). The full size and the shape in plan of feature **G402** are unknown, as only its northern edge was seen: this was some 33m long, but only some 2m of its width was exposed, and it was excavated to a depth of 0.80m. It is possible that this feature was also a clay-winning pit on a larger scale. Six sherds of mid- to late 3rd century pottery, retrieved from upper fill 304 in section **298** through **G402**, may bear out the interpretation that this feature was later than **G401**; Roman CBM, including roof and box tile, was retrieved from both fills (appendices 4 and 6).

Two perpendicular ditches at the western edge of Zone 5 appeared to form two sides of a rectilinear enclosure, with north-to-south and east-to-west alignments that suggest a parallel with feature group **G282/G283** in Zone 6; these features were jointly recorded as group **792**. The north-to-south aligned ditch terminated directly to the south of the western terminal of the east-to-west aligned arm; the ditch was 0.30m deep here, with a flared, square end which appeared to be a genuine terminal, rather than marking the point at which the feature had been planed away by truncation from above, as was probably the case with other apparent

terminals to linear features on the site. The eastern end of the east-to-west ditch was truncated by the school buildings, and if a third ditch had closed the east side of the possible enclosure, no remains of it had survived. The two ditches were broadly similar in size and form, with most sections being some 0.50m wide and containing similar dark greyish-brown silty clay fills, although the fill of the north-to-south-aligned ditch was characterised by large patches of redeposited natural marl. Dating evidence for this feature was contradictory, as with a number of features in this part of the site, which had been particularly heavily disturbed by the construction of the school: the finds assemblage from four of the five excavated sections comprised six sherds of mid-2nd century or later pottery, two of possible mid- to late 3rd-century pottery and one sherd that could only be identified as Roman, but the west terminal section **793** of the east to west-running ditch produced four sherds of generally Roman and four of 11th to 12th-century pottery; environmental samples from section **793** and north terminal section **821** were unproductive, with only a single charred barley grain noted from one, a single charred seed of a dock or sorrel-type plant from the other and a small amount of charcoal from both (Appendices 4 and 17). The feature has provisionally been assigned to this period on the grounds that fill The south end of **G792** was cut by the slightly narrower ditch **G844**, which could be seen as making up three sides of a rectilinear enclosure, extending to suggest a possible adjoining enclosure to the west, in combination with **G792** (fig. 13.7; plate 4). Ditch **G844** was approximately 12m long, cut in two by a foundation trench from the school; it was unclear whether either end was a genuine terminal, or whether it had been truncated away at one or both ends. The north end of **G844** cut layer 840, part of a spread of mid-grey clayey silt that had been reduced to three discrete fragments by later site levelling, which produced no finds and may have been a flood deposit (fig. 13.8). It was provisionally dated to late in Phase 2 by a sherd of possible mid- to late 3rd-century pottery and two of mid-2nd century or later date, retrieved variously from three of the four sections excavated through it, as well as by its stratigraphic relationship with **G792**, and may have represented a recut of a putative south side to a quadrilateral enclosure; however, the alignment of **G844** was not precisely square to **G792**, and it is also possible that this feature is a detached fragment of Phase 3 ditch **G448**, separated by the school building.

A number of the dense scatter of post-holes at the west side of Zone 5 contained some mid-Roman material, although in many cases, the finds from these features were so sparse as to be wholly unreliable as dating evidence; a few post-holes and possibly associated features within this area can tentatively be interpreted as parts of structures, potentially succeeding the Phase 1 Structure **293**. Towards the south side of Structure **293**, post-hole **189** contained stone rubble post-packing around a very distinct post-pipe (fig. 14.1) and produced 17 sherds of pottery giving a mid- to late 3rd-century or later spot-date from final fill 201, which sealed the post-pipe, suggesting that that the structure it represented went out of use towards the end of Phase 2 or at the beginning of Phase 3; post-pipe fill 191 and post-packing fill 190 were sampled for environmental analysis, producing a few grains of charred wheat and barley from fill 190, and a little charcoal from both (Appendices 4 and 17). 3m to the west of **189**, post-hole **184** also contained a quantity of post-packing, including Roman CBM (fig. 14.2; plate 17) but little dating evidence; an environmental sample produced a moderate quantity of charcoal, 7 charred wheat grains and a few charred seeds of sedge, goosefoot and knotweed species, broadly commensurate with other samples from Roman contexts, indicating the production of arable crops in a watery environment (Appendix 17). Feature **G286**, which may have been a short length of a linear feature or a narrow, shallow pit, appears to continue the line of Phase 1 feature **214** on the opposite side of the ditch sequence which divides them, but is recorded as stopping just short of (and therefore early Phase 2 ditch **G282** rather than being cut by it; two sherds of late 2nd century or later pottery tenuously associate this feature with post-holes **184** and **189**. Further tenuous associations can be made with pits **220** and **328**, neither of which contained any datable material, but which contained similar post-packing. All of these features occupy the space between the Roman building in the south-west corner of the site and post alignment Structure **292** in the south-east corner, and may represent the remains of a building, although no coherent pattern can now be made from them.

A similar possible structure can be inferred near the centre of the site, to the north of the features discussed above, in among the post-holes and possible beam slots ascribed to Phase 1. Post-hole grouping **G786** was characterised by features with strongly marked post-pipes surrounded by fills containing post-packing of burnt tufa stone and Roman CBM. Its nucleus was a row of four post-holes **769**, **782**, **784** and **744** running approximately east-south-east to west-north-west and generally some 0.40m in diameter, although **784** was smaller at 0.23m. A further possible component of this group was discovered during the evaluation: pit **512**, at the north end of Trench 5, was in approximately the right position to have lain between post-holes **782** and **784**, and was recorded as containing numerous CBM fragments as well as 2nd to 3rd-century pottery (Rowe, 2010); this is the principal dating evidence for the group, as none of the other four features in the row produced finds. To the west of this row, the much larger post-pit **713** was approximately in the same line, and may have been associated with the group, as it also demonstrated a distinct post-pipe, although no post-packing was recorded; this feature, which was clearly designed to bear a substantial load, as it was some 1.15m in diameter and cut 0.80m deep to the surface of the bedrock, produced 21 sherds of late 3rd-century pottery from the fill of its post-pipe, indicating that the structure it represents went out of use towards the end of the mid-Roman period. The results of an environmental sample from this fill were minimal, producing two charred wheat grains and a single charred seed of a cabbage or mustard-type plant (Appendices 4 and 17). Approximately 4m to the south of this row of post-holes, pit **684** cut part of the possible Phase 1 post and beam structure, and may have represented the other side of the structure, possibly as a counterpart to post-pit **713**. This pit was 1.0m wide and 0.47m deep, and displayed the post-pipe typical of the Group **786** features (fig. 11.6); it was assigned to Phase 2 by the presence of two sherds of late 3rd century pottery within the post-pipe fill; a fragment of human cranium from the same fill was probably derived from the Anglo-Saxon cemetery, but is considered to be intrusive in this context, as disarticulated cranium fragments were retrieved from three features across the centre and east of the site, and it seems most likely that they derive from a single skull, smashed and distributed across the site during ground clearance for the construction of the school. Two further features can be very speculatively associated with this post-hole group: on the south side, pits **757** and **763** are on the right alignment to form part of the putative structure, although neither could be dated and, while fill **758** in pit **757** (which could also be assigned to the underlying Phase 1 structure) contained stones that could have represented post-packing, no such characteristics could be seen in **763**. Directly to the north of **G786**, nine potsherds dating from the second half of the 2nd century AD, with a quantity of very abraded Roman CBM, were retrieved from the mixed fill of large, truncated pit **696**, but although this feature has a reliable Phase 2 date, it lies outside the envisaged footprint of the structure, and the various bands and lenses jointly recorded as fill 697 suggested repeated recutting and infilling, rather than the clearly marked traces of construction and demolition found in the **G786** features: it therefore seems unlikely to be associated with the structure group.

The truncated remnant of pit **778**, a further very large post-pit, approximately 8m to the north-west of post-hole group **G786**, is provisionally assigned to Phase 2 by a single sherd of mid- to late 3rd century pottery from post-pipe fill 777, suggesting that this feature belonged to a structure demolished at much the same time as **G786**. The south side of **778** had been cut away by a part of the school building that had obliterated any remains in an area of some 12m x 7m, and no spatial associations could be made for this feature; it appeared to be cut by undated linear feature **G861** (fig. 14.5), although the relationship was uncertain due to the high level of disturbance.

Although the main Phase 2 activity appears to have taken place across the east and centre of the site, some remains at the north-western edge, within Zone 4, could be attributed to this phase. The north-to-south-aligned ditch **938** cut obliquely across the possible Phase 1 boundary **G968**; it was roughly 1.5m wide and 0.55m deep, and could be identified with ditch **1912** encountered in evaluation Trench 19 (Rowe, 2010). No finds were retrieved during the excavation, leaving the single sherd of 3rd-century pottery found during the evaluation to stand as its sole dating. This feature appeared to continue beyond the cut of the modern

school foundations as ditch **1128**; although this ditch segment was truncated above by the cut and recut of a medieval ditch, it was relatively well-preserved at 1.6m wide and 0.65m deep (figs. 14.6 and 14.7), and contained at least four fills (six were identified on site, but the uppermost two seem more likely to lie within one of the later ditches). Four sherds of pottery dating from AD 120-200 were retrieved from 1135, its fourth and probably final fill, while a relatively productive environmental sample contained charred grains of both barley and wheat, as well as spelt and glume wheat chaff, charcoal and charred seeds of grasses, goosefoot and cabbage or mustard-type plants (Appendices 4 and 17). Undated ditch remnant **G1036** may be associated with this feature (see section 7.9). Directly to the east of ditch **938**, the evaluation identified a narrow, north-west to south-east aligned feature recorded as **1916**, from which four 2nd to 3rd-century potsherds were retrieved (Rowe, 2010). This feature was located during the excavation and recorded as **918**; it could not be traced past the school foundation trench which cut it on the south side of evaluation Trench 19, and no further light could be cast on its nature, as the whole of the exposed portion had already been excavated.

Curvilinear feature **1154** in Zone 4 can be identified as equating to evaluation feature **1808** found in Trench 18: as with the evaluation, no finds were retrieved, and this feature remains speculatively associated with NE-SW running evaluation feature **1818** on the grounds of a similarity in fills recorded during the evaluation. Feature **1818**, in the north-west corner of the site, was also identified, but this feature had already been dated by a sherd of 2nd century pottery found during the evaluation and was not further investigated or recorded.

At the north-western edge of Zone 3, a short section of roughly north-to-south-aligned ditch, truncated at both ends by the modern school building, was shown both by the excavation and by evaluation Trench 2 (where it was recorded as feature **206**) to be cut by Phase 5 grave **077**. Ditch **G085** measured 0.65m wide and 0.27m deep, and survived to less than four metres in length; its continuation to the south had been obliterated by a school footing running on the same alignment. The evaluation produced only Roman CBM, but two sherds of 3rd century pottery were retrieved from the fill of section **176** through ditch **G085** during the excavation; its alignment, unusual for the site, also suggests a connection with Phase 2 feature groupings **G282/283** and **G792**.

7.4 Phase 3: Late Roman (beginning of 4th century to end of imperial rule in Britain)

During this period, the site appears to have been substantially redeveloped, with the network of boundary and drainage ditches laid out anew, and the relatively modest ancillary buildings in the villa's 'farmyard' replaced by large and orderly structures ranged along the south side of the site.

A rectangular stone building, on a north-west to south-east alignment (perpendicular to the building found during the evaluation) was exposed in the south-western corner of Zone 5. The building appeared to have undergone at least one phase of redevelopment, presumably commensurate with that noted during the excavation of the villa, as the lines of robbed-out walls were found within the footprint of walls existing to the machined surface level, potentially indicating that the building stone had been re-used for reconstruction of the same building as well as being taken away for re-use after the building had been abandoned. Two internal dividing walls were observed, one with the remains of a floor surface on either side (plates 18 and 19). Unlike the substantial walls of well-fitted blocks that characterised the Roman structure encountered by the evaluation (Rowe, 2010), the walls exposed in this building were relatively slight, and constructed of roughly dressed stone blocks and rubble, suggesting that they were of lesser significance, probably the agricultural outbuildings of the known villa. The cemetery encountered in Zone 3 extended into this part of Zone 5 (plate 2), and several burials took place within the footprint of the building, including one where the base of grave **145** was formed by the upper surface of wall G156, on which skeleton 32 lay (fig. 19.1; plate 20). The building was also disturbed by later ditches of probable early medieval and medieval date, a circular well cut through one of the interior robber trenches,

and the construction of the modern school. During the excavation, the decision was taken to preserve this building *in situ*, and excavation in this area ceased; inhumations already exposed within the building footprint were reburied, and no further recording took place. As little excavation work took place, there is little dating evidence for the building: it had clearly been levelled by the time the cemetery was instituted, but it is otherwise dated by a single sherd of 3rd-century or later pottery retrieved from layer 1198 within the building footprint (Appendix 4). The building has been assigned to the late Roman period by analogy with the securely dated stone structure found during the evaluation, and with the original villa discovered by Charles Daniels.

Structure **292**, at the south-east corner of Zone 6, consisted of 16 substantial post-holes arranged in two paired rows, characterised by quantities of stone rubble forming post-pads and post-packing in their fills (plate 3; figs. 15, 16 and 17.1-4), and outlining the shape of a large, long, rectangular building. The generous use of stone within the post-holes was probably necessitated by the wet ground conditions, in which a post was likely to sink unless its weight was spread: the stone was probably re-used demolition rubble from Phase 1 and 2 structures, including the putative watermill Structure **693**. This building was roughly two-thirds the size of the Roman stone building at the south-west site corner, and ran broadly in a line with it. There was some indication that the building s lifespan had been extended by replacing structural members, as post-hole **340**, at the south-east corner of the building, was cut by a second post-hole, **341** (figs. 15.1 and 15.2). Dating evidence for the structure was relatively slight. Four of the post-holes **273**, **277**, **300** and **326** cut the two linear features **G394** and **G395**, which are currently dated to the mid-Roman period, albeit chiefly by their spatial associations; of these, post-hole **326**, in the north row, contained the worked stone SF 26, which appeared to be part of a millstone or grindstone broken into several pieces and re-used as a post-pad (plate 21, figs. 15.3 and 15.4), with a sherd of mid-1st century or later pottery; a single fragment of Roman CBM apiece was retrieved from post-holes **273** and **277**, while post-hole **300** contained no dating evidence at all. The post-packing in post-hole **254**, at the west end of the south row, included SF 25, a large oval stone with a square central hole, also identified as part of a millstone re-used as a post-pad (plate 22, figs. 15.11 and 15.12); the fill also included animal bone and a fragment of human cranium. An assemblage of 10 fragments of Roman CBM were retrieved from the lower of two fills in post-hole **341**, at the east end of the south row, which also contained articulated parts of the skeleton of a calf about 7 months old, while a sherd of mid-2nd century pottery, with two fragments of Roman brick and an undatable scrap of lead melt, were retrieved from post-hole **256**; post-holes **324** and **334** produced only flakes of Roman CBM (Appendices 4, 6, 9 and 17). All but two of the post-hole fills were sampled, but the results were inconclusive: nine of the samples produced low numbers of charred wheat and barley grains (the greatest amounts being 10 wheat grains from post-hole **256** and 12 grains of mixed wheat and barley from post-holes **315**, **324** and **334**). Charred seeds of dock, meadow grass, sedge, chickweed, cabbage or mustard and goosefoot were also present in low numbers in these nine samples, indicating cultivated land and wetland in the vicinity, while the other five produced nothing but a small amount of the charcoal common to all the samples (Appendix 17). The millstone fragments could not be retrieved for assessment, but photographs of them *in situ* were submitted to a specialist who considered them likely to be Roman (N. Cooper, ULAS, pers. comm.). The structure was sealed by silty clay layer 266, which was largely removed during machining, but whose remnants produced six sherds of late 2nd-century or later pottery (Appendix 4). The balance of the dating evidence indicates that the structure was Roman, and it seems most likely that it was contemporary with the stone building in the south-west site corner: the only later material found in any of the post-holes was the fragment of human cranium from fill 255 in post-hole **254**, and this, as with the similar find from Phase 2 pit **684**, was probably derived from the Anglo-Saxon cemetery, but is considered to be intrusive in this context. Structure **292** was probably a farm outbuilding, such as a barn, associated with the Roman villa; its position nearer the Potwell Dyke also suggests that it was built at a later date, simultaneously with or following a reorganisation of the major drainage layout in the eastern part of the site.

Groups **G446** and **G449** were two parallel linear features running roughly east-north-east to west-south-west across Zone 6, to the south of Structure **693**, the putative Roman watermill, and probably extending beyond the eastern site edge. All features in this group are recorded as being stratigraphically later than the perpendicularly aligned feature group **G404/405/453**, although the **G449** features could not be traced to the west of it; this feature complex also cuts across the projected line of the putative mill-leat for Structure **693**, suggesting that the structure and this ditch complex cannot be contemporary. The earliest feature that could be identified in this sequence was ditch fragment **483**, a roughly east-to-west-running linear feature that had probably not been on quite the same alignment as the later ditches, as it was present only at the west end of the group, having been entirely cut away elsewhere (fig. 17.5). Where best preserved, ditch **483** survived to a width of 1.42m and a depth of 0.34m; 10 sherds of 4th-century pottery and 8 fragments of Roman CBM were retrieved from fill 482, a basal fill of silty clay which did not extend across the full width of the excavated section. Ditch remnant **483** did not extend to westward beyond the eastern Phase 2 ditch **G405/453**; at its west end, it cut the pit or large post-hole **480**, which was in turn cut into the edge of **G405** (fig. 17.5). This relationship may suggest that the later, western Phase 2 ditch **G404** was still at least partially open when ditch **483** was cut, and that **483**, the earliest Phase 3 ditch, was dug in order to connect to it and improve the drainage of the area. Ditch fragment **G483** was cut along its north side by the probable drainage ditch **G449**, a broad linear feature with a varying profile, surviving to a maximum width of 1.30m and depth of 0.43m, which also cut section **491** through the perpendicularly-aligned Phase 2 ditch segment **G453** and the possible post-pit **480**, cut into the edge of **G405** (figs. 17.5 and 17.6). It was not well dated: two sherds of non-specific Roman pottery were retrieved from section **450** and two of pottery dating from AD 120 to 160 from section **485**, the latter probably redeposited from **G453** (Appendix 4). An environmental sample from the fill of section **450** produced low numbers of charred barley grains, grasses and campion, a plant associated with arable land (Appendix 17).

The northern edge of the ditch recut was cut by **G446**, which was on the same alignment, but extended further to the west, to a total length of some 30m. This ditch cut across both the perpendicular Phase 2 features **G453** and **G404**; its west end cut pits **550** and **552** at the south end of Phase 1 pit grouping **G501/506** (fig. 10.6), and appeared to terminate shortly before reaching the line of perpendicular ditch **618**, which may suggest that the ditches were contemporary, although it is also possible that **G446** was simply truncated by the school construction at this point. Ditch **G446** was steep-sided, a maximum of 1.07m wide and 0.46m deep, with quantities of stone rubble in its fills suggesting that it had either been back-filled with demolition rubble or had originally contained a robbed-out wall. In the westernmost excavated stretch of this ditch**,** the stone inclusions were so dense as to be recorded on site as structure 389 a mass of limestone rubble, suggesting the core of a wall footing from which the facing stones had been robbed within upper fill 549 in section **392** (fig. 10.6; plate 24) and extending into fill 488 in section **497**. Fill 549, a dark brown silty clay with frequent stone inclusions, produced five sherds of 4th-century pottery and a particularly large animal bone assemblage including the bones of cattle, sheep and dog, while the lower fill 393, which closely resembled the fill above but contained fewer stone inclusions, produced 13 sherds of mid-3rd century or later pottery, with a very large assemblage of CBM; much of the CBM was heavily abraded, again suggesting that it had been re-used. This deposit also produced small find 028, a fragment of a ceramic vessel that had apparently been used for melting glass; however, the vessel was identified as post-medieval, and most likely to be intrusive within this context. A moderate assemblage of mid-3rd to very late 4th century pottery, with a fired clay *tessera* and Roman CBM, was recorded from fill 488 in section **487** (Appendices 4, 6, 9 and 17).

Approximately 10m to the south of ditch sequence **G446**/**G449**, and on roughly the same alignment, the linear feature **G448** also cut across Phase 2 feature group **G404/405/453** (fig. 17.7). Ditch **G448** has been assigned to this phase chiefly on the basis of its limited stratigraphic relationships and its apparent spatial association with **G446**/**G449**, as very little dating evidence was retrieved six sections excavated into this feature produced in total

only three sherds of pottery that could not be identified any more closely than Roman . Ditch **G448** had probably been a substantial feature, as it was still 1.20m wide even though it had been truncated down to a depth of no more than 0.12m. It extended to, and probably beyond, the eastern site edge; to the west, it could not be traced either into or past evaluation Trench 5, and no relationship with mid- to late Roman ditch group **G437/G281/G548** could be shown, although it is possible that linear feature fragment **G844** was a detached part of this ditch, separated from it by the disturbance caused by the construction of the school. As well as the mid-Roman ditches **G404** and **G405**, **G448** also cut the group of small non-specific Roman features occupying the south-west angle of its junction with those ditches (figs. 18.5 and 18.6); towards the eastern side of the site, it was cut by post-medieval drain **G366**. Due to flooding and tree root disturbance on the site, no relationship could be ascertained with the stub of a feature running southwards from the south side of **G448**, which might have been a detached part of the possible Phase 2 ditch **G394**. Two small, closely-set features, possibly post-holes, adjoined the northern edge of this feature: 13 fragments of Roman CBM were retrieved from western post-hole **406**, which cut the edge of section **408** (fig. 17.8), while eastern post-hole **360**, which did not intersect the ditch, produced a sherd of post-medieval pottery. It is possible that the two features represent successive positions of a replaced post associated with adjacent post-medieval ditch **G447**, and if so, the Roman CBM may have been redeposited from the fill of **G844**.

Ditch **G548**, the most recent part of the ditch sequence **G437/G543/G281/G548**, which was otherwise dated to Phase 2, seems most likely to be a Phase 3 recut, on the grounds of finds recorded by the evaluation (see Phase 2 above). To the west of this ditch sequence was the anomalous curvilinear feature **G609**, running roughly east to west in a shallow arc for approximately 14m and truncated at its east end by **G548** this portion of **G609**, recorded as **539**, cut the non-specific Roman ditch **541** and was separated from the rest of **G609** by a modern school foundation trench (fig. 13.1). The ditch survived to a maximum width of 0.68m and depth of 0.63m; two fills were identified in each of the two best-preserved sections. Dating evidence from ditch **G609** was abundant, but inconclusive: uppermost fill 818 in section **815**, at the west end of the feature, produced 11 sherds of mid- to late 3rd-century or later pottery with 12 of medieval pottery of a possible early to mid-12th-century date, along with Roman CBM, including roof tile, brick and box flue tile, and a single earthenware *tessera*; stone rubble was also present, suggesting Roman demolition material. A further five sherds of mid-2nd-century or later Roman pottery, with further Roman roof tile fragments, were retrieved from upper fill 574 in section **572**. An environmental sample from lower fill 573 in section **572** was completely unproductive (Appendix 17). A short length of a much smaller gully, apparently truncated at both ends by modern construction (it was not encountered in evaluation Trench 3), cut the western terminal of curvilinear ditch **G609** on a perpendicular alignment (fig. 17.9): a small assemblage of non-specific Roman pottery and Roman CBM was retrieved from section **845** through gully fragment **G847**, although this may have been redeposited from **G609**, as the majority of the **G609** finds derived from the section at its junction with **G847**. There is no obvious interpretation for feature **G609**: no other features appear to correspond to it or to form the other side of its arc, and the presence of substantial but roughly equal amounts of contradictory dating evidence makes it difficult to assign it to a phase. A late Roman date seems more plausible than a medieval one, chiefly because ditch **G548**, which cuts and must therefore be later than **G609**, makes better sense as a late Roman recut of the mid-Roman ditches on its east side than as a medieval feature coincidentally following the line of ditches that had been infilled generations ago; also, the medieval finds in **G509** were retrieved from the third (final) fill in the only section where more than two fills were observed, suggesting that they are more likely to be intrusive than the Roman finds are to be residual. A possible interpretational parallel comes from the Redlands Farm villa, in the Nene valley in Northamptonshire, where rectangular barns were replaced in a later phase of Roman occupation by large roundhouses (Keevill, 1996), and it may be significant in this context that a projection of the line of **G609** into a full circle would occupy much of the space between the rectangular stone building and the post-built Structure **292**, in an area where earlier buildings may have been demolished, although this suggestion

remains highly conjectural, particularly since the depth of **G609** at its west end indicates that this was a genuine terminal rather than the point at which it had become too shallow to survive machining.

The linear feature **618** in the north-western corner of Zone 6 appears to continue the line of the Phase 2 and 3 feature group **G437/G543/G281/G548** on the far side of the modern school buildings, but cannot be identified as part of any one of the features in this sequence. Ditch **618** ran for some 13m from the school buildings to the northern edge of the site, cutting one of the earlier pits in Phase 1 pit complex **G501/506** (fig. 10.5); its spatial relationship with late Roman ditch **G446**, which appears to respect it, may suggest that this feature is part of the Phase 3 recut **G548**. Its single fill 619 produced no closely datable material, but had a high organic content and included flakes and fragments of Roman CBM, fired clay, animal bone including cattle and pig, shell and charcoal, suggesting domestic and/or industrial refuse; however, an environmental sample produced only a moderate amount of charcoal and a single charred barley grain (Appendix 17).

At the south edge of the site, the short length of slightly curving linear feature **G400** cut across the west edge of the possible mid-Roman quarry pit **G401** (fig. 13.6); late 3rd century pottery was retrieved from section **307** at its western terminal. Since little more than 5m length of this possible ditch survived, it is uncertain whether it was genuinely curvilinear, or whether it was a slightly irregular remnant of a generally linear feature; it had been heavily truncated from above, surviving to a depth of no more than 0.15m, which suggested that it had once extended further. The ditch fragment was on approximately the same alignment as late Roman ditch **G448**, and may have been a remnant of the late Roman enclosure and/or drainage pattern. Its stratigraphic relationship with **G401** indicates that the large pits at the south site edge were probably not left lying open to be infilled by casual and natural events, but were deliberately back-filled and the reclaimed ground utilised.

At the western edge of the site, ditch or gully fragment **195** ran south-south-west from the edge of ditch recut **G284**, which truncated its eastern side (fig. 22.2; not on main site plan): this feature, which survived only to a width of 0.62m and depth of 0.14m, might be the detached western edge of the original ditch **G037**, but the site recording suggests rather this is a remnant of a discrete feature on an alignment which corresponds to the mid- and late Roman linear features in the centre of the site. The suggestion that this may be a surviving fragment of the western layout of the Roman farmstead is supported by the retrieval of 10 sherds of mid- to late 3rd-century or later pottery, with two fired clay *tesserae*, an iron nail and a fragment of sheet lead identified as a probable roofing patch (Appendices 4, 6 and 9), from a relatively small excavated area.

7.5 'Phase 4': Non-Specific Roman

A number of features and feature groups, particularly in the centre of the site, produced only pottery that could not be dated more accurately than 'Roman', and either had no stratigraphic relationships or could not be ascribed to a single phase from those that they had. These features cannot be considered to be a phase as such, but a phase number was assigned to distinguish them during specialist assessment.

Two complexes of small, narrow intercutting linear features at the western edge of Zone 6 appeared to represent beam slots, with possible associated post-holes. The northern complex, made up of feature groups **G664**, **G668** and **G926**, lay within the north-western angle of the junction of sequential ditch complexes **G404/G405** and **G447/G452** (fig. 18.1). It had a roughly rectilinear structure, with three approximately north-north-east to south-south-west running beam slots and one perpendicular one. The feature complex had no external stratigraphic relationships and produced no accurately datable finds. It appears to represent a structure, but not all its elements were in place at the same time: central beam slot **568** cut the adjacent post-hole **570** (fig. 18.2), but two larger post-holes, **462** and **767**, cut the western beam slot, and this in turn appeared to cut the perpendicular beam slot **G688** (figs.

18.3 and 18.4). It may be significant that post-holes **462** and **767** were closely aligned with the western group of post-holes from the possible early Roman (Phase 1) structure **G501/G506** to the north, while the general alignment of the beam slots was comparable to that of the Phase 1 feature group directly to the west, but no evidence can be presented for a connection between the feature groups. Post-hole **462** displayed a quantity of stone post-packing and produced fragments of Roman CBM, while large fragments of Roman tile, probably also post-packing, were retrieved from pit **767**.

The southern beam slot complex was made up of feature groups **G669**, **G670** and **G671**, and lay within the south-western angle of the junction of **G404** and **G448**: the area was so disturbed by flooding during the excavation that stratigraphic relationships with **G404** could not be established, although the ditch appeared in plan to truncate the small feature complex. The surviving part of the complex consisted of west-north-west to east-south-east aligned spinal slot **G669**, with two shorter slots extending perpendicularly from its north side, and one branching at 45 from its south side. Two intercutting post-holes, **454** and **511**, were sited to the north of the main beam slot. Late Roman ditch **G448** cut both the northern slots (figs. 18.5 and 18.6). The majority of the structural elements here appear to have been contemporary, with the exception of the north-to-south aligned gully **G671**, which may in fact have pre-dated the feature complex: it was cut at its south end by possible beam slot **G669** (fig. 18.7), and may have extended northwards past **G448** and post-medieval ditch complex **G447/G452**; the possible terminal of such a feature appears on the site plan, but it was not excavated or recorded, and any extension that might have shown up between the later ditches had been cut away by pit **521**. Sections excavated at the junctions of the other apparent beam slots failed to establish relationships, and these features were interpreted as being contemporary. The relationship between post-holes **454** and **511** could also not be ascertained. The eastern end of possible beam slot **G669** intersected a third post-hole, **458**, on its northern side: although **458** was recorded as cutting **G669** (fig. 18.8), the features had similar fills and may also have been contemporary parts of the structure.. Roman CBM was retrieved from three sections, but no other dating evidence was present.

A loosely north-to-south aligned constellation of discrete features in the centre of Zone 5, with no clear structural pattern and little dating evidence, was recorded as pit/post-hole group **G629**; features **621**, **622**, **627**, **635**, **638**, **659**, **672**, **673**, **676**, **705** and **707** were assigned to this group. Although no pattern could be identified in plan, the features were mostly between 0.90m and 1.30m in diameter, displayed a roughly north to south alignment, and were characterised by the presence of possible post-packing stones (the exception being pit **635**, which was smaller and contained no inclusions identifiable as post-packing). A quantity of wall plaster was retrieved from fill 623, the fill of a possible post-pipe in pit **621** near the north end of the group (Appendix 10), but no dating evidence that might have identified a phase of site redevelopment was present; the fill otherwise produced only a sherd of non-specifically Roman pottery, while an environmental sample contained three charred wheat grains, a single charred chickweed seed (a typical weed of arable land) and a moderate amount of charcoal. Another sherd of Roman pottery was retrieved from 675, the upper fill of pit **673** (Appendices 4 and 17). Together, the features of group **G629** produced a sizeable mixed group of Roman ceramic building material comprising 68 fragments of *imbrex* and *tegula* roof tiles and one piece of brick: the CBM assessment observed that all of the four most common tile fabrics were to be found in Phase 1 deposits, suggesting that the material in this pit/post-hole group represents residual or disturbed material from this phase (Appendix 6). Pit **722**, to the south of the group, was initially phased as medieval by the presence of disarticulated human bone, probably derived from the Anglo-Saxon cemetery; the only artefactual material retrieved was undatable CBM. However, since disarticulated fragments of human cranium were also retrieved from Phase 2 pit **684** in pit group **G786** and in post-hole **254** in Phase 3 Structure **292**, it seems most likely that the human remains here are also intrusive, and pit **722** has been assigned to group **G629** on the grounds of its position alone.

To the north-west of post-hole group **G629**, remnants of an apparent double ditch, very heavily disturbed by the construction of the school, ran on the same north-north-east to

south-south-west alignment as the Phase 2 ditches in Zone 6. Ditches **G861** and **G806** ran very close together, but did not intersect; both features were approximately 0.5m to 0.6m wide and no more than 0.20m deep. Both were cut at their north ends by medieval ditch fragment **G870** (fig. 18.9); one of the features appeared to extend a short distance beyond it, although it was uncertain which one. The undated eastern ditch, **G861**, could be traced for a length of some 12m and appeared in plan to terminate or have been truncated away to the south, but the presence of an apparent small, unrecognised recut in the section of the large post-pit **778** suggests that **G861** may originally have continued to cut the post-pit (fig. 14.5): fill 775 in pit **778** corresponds well to fill 788 in the southernmost section through **G861**, and this section did appear to have been machined away at the end rather than coming to a terminal. However, this possible relationship does not provide reliable dating evidence, as pit **778** was itself only speculatively dated to Phase 2. Directly to the west, ditch **G806** was also poorly dated, with two sherds of non-specifically dated Roman pottery coming from southernmost section **791** (Appendix 4); the interpretation of these ditches as being Roman rests chiefly on the similarity in their alignments to the better-dated ditches to the east.

In the north-west corner of Zone 3, the short length of north-to-south-aligned ditch **G035** ran a length of some 5m between the edge of the site and part of the school foundations: at its south end, it intersected the east end of the narrow gully **G036**, running westwards to the edge of the site, and may have been contemporary with it, as the feature fills could not confidently be distinguished in section. Section **005** at the junction of **G035** with **G036** produced two earthenware tesserae with other small fragments of Roman CBM, while a single fragment of box flue tile was retrieved from **G036**: however, it seems most likely that the Roman material in **G035** was redeposited from **G036**, and that the larger ditch is in fact of medieval date (see section 7.7).

7.6 Phase 5: Saxon to Early Medieval

From the end of the Roman period, little if any activity appears to have taken place on the eastern half of the site: the ditch groups **G548** and **G609** in the centre of the site were the most easterly features to produce post-Roman finds, although the dating evidence for these features was ambiguous and they are considered more likely to be late Roman. The site appears to have been almost deserted during the Saxon and early medieval period, except for the encroachment of the Minster cemetery into its western edge: although pottery of this date was found in a number of features, it provided definitive dating evidence for none.

The cemetery encountered in Zones 3 and 5 (plate 25) was initially ascribed to the late Saxon and/or early medieval phase by analogy with previous discoveries. One of three skeletons partially uncovered during the 2010 evaluation was radiocarbon-dated to 1262±34 BP, giving a likely inhumation date between the late 7th and the mid- to late 8th century (Rowe, 2010); other areas of the cemetery excavated in the 1950s and 1970s produced no dating evidence but were interpreted as being parts of the graveyard of Southwell Minster, due to their overtly Christian character and their proximity to the minster church.

As with the previously excavated portions of the cemetery, the character of the Zones 3 and 5 cemetery was distinctively Christian. Cremation burials were absent from the site: all of the 42 burials encountered were inhumations. Two of the skeletons exposed were so heavily disturbed that they could not be considered to be articulated, and were found within a construction cut and a robber trench respectively, indicating an *ad hoc*, probably surreptitious reburial after they had been accidentally exhumed during later work. Of the remaining 40 burials, all were supine and extended, and all but two were east to west-aligned with heads to the west, as is typical of Christian burials (fig. 6). The atypical examples were graves **145** and **147**, in which skeletons 32 and 33 were also supine and extended, but aligned north-west to south-east with head to the north-west and north-east to south-west with head to the south-west respectively; grave **145** was cut into the surface of the remains of one of the walls of the Roman building (fig. 19; plate 20). Radiocarbon dating indicated that skeleton 33 in grave **147** and the neighbouring skeleton 29 in grave **132** (fig. 20) were likely to be later than

the other burials dated (Appendix 14; graves marked in light orange on fig. 6), and it is possible that these three burials represent a later extension to the cemetery and the burial practices of a different generation. The majority of the graves were arrayed in two orderly rows with little intercutting, possibly suggesting that records of the inhumations were kept or markers maintained; the positions of the more widely spread graves suggest that many of these may also have originally been ordered in rows. The presence of disarticulated bone in a number of grave fills may also suggest that the graves were once more closely packed, but that only the deepest burials have survived the construction of the former school. Grave **180** was particularly badly disturbed: the west end had been cut by a medieval pit, but the east end seemed to have been destroyed by site levelling for the construction of the school, leaving nothing but the pelvis of skeleton 39 and incorporating two sherds of late 18th to 20th-century pottery into the grave fill (Appendix 5).

Grave goods were almost wholly absent, also a characteristic of Christian burials. A copper alloy split ring, small find 014, was found in grave **134**, but it lay within the edge of the grave rather than being directly associated with skeleton 34, and may have been residual in the grave fill or a casual loss during the burial process, rather than having been a personal possession of the deceased; the item has similarities with a known example of a 14th-century earring, but it may also have been a functional object such as a suspension loop (Appendix 9). Apart from this single find, all artefacts encountered in potential association with skeletons were of iron, and were probably chiefly coffin nails, although a hobnail was retrieved from grave **111**. A number of the grave fills produced other artefacts, but the majority of these could be identified as redeposited Roman material, including *tesserae* (mosaic tiles); a total of 10 out of the 33 earthenware *tesserae* retrieved from the site came from the fills of graves, presumably transported via a process of soil reworking, typical of graveyards in regular use, from the upcast of those graves excavated through the floors of the Roman villa itself. Post-Roman material was found only in grave **045**, which produced a single sherd of late 10th to 12th-century pottery; grave **047**, which produced one 10th to 11th-century and one late 10th to 12th-century sherd; grave **066**, in which a potsherd was datable only as post-Roman; grave **079**, from which 3 sherds of 10th to 12th-century pottery was retrieved, and grave **154**, which produced the only fragment of medieval CBM to derive from any grave fill, although this was identified as 12th to 13th-century and therefore intrusive; all these graves also produced redeposited Roman material (Appendices 4-6).

Almost no stratigraphic dating was possible within the cemetery, as only two pairs of graves intercut one another. Grave **111** cut the south edge of grave **109**, but the condition of skeleton 24 in grave **109** was too poor to ascertain how much of the truncation it had suffered was due to the excavation of grave **111** (fig. 20.1; plate 26). Grave **351** cut grave **349**, but no further dating evidence is available, as skeletons 40 and 41 lay within the Roman building and were reburied without recording. A programme of radiocarbon dating of sampled skeletal material, however, proved to be in good agreement with the initial assumptions, suggesting that the period of use of the cemetery lay between the 7th and the 9th centuries AD, with a good probability that it lay between AD 685 and 805. Six burials were sampled, in addition to a date already obtained during the evaluation: the date range was relatively close across all samples, although it is notable that the two samples taken furthest to the south, skeletons 29 and 33, lay at the later end of the range with a calibrated date of AD 710-940, possibly suggesting that the cemetery had expanded in this direction. A general north-to-south movement could not be inferred, however, as the earliest of the dated burials, skeleton 20 with a calibrated date of AD 650-780 (fig. 21.1), lay slightly south of centre of the excavated area. The two intercutting graves were both sampled, but proved to be effectively contemporary, with the earlier skeleton 24 having a calibrated date of AD 660-780, and the later skeleton 25 at AD 680-880. The study indicated that the lifespan of the cemetery, within the potential date range, may have been very short, possibly no more than three generations (Appendix 14).

The composition of the cemetery as represented by the articulated burials was biased towards adult males, with fewer women than men, no infants or young children, and only

three sub-adults. However, the disarticulated remains displayed a fuller demographic profile, with bones from a neonate or infant, a child and a sub-adult among the 11 individuals identified. The presence of women and children among the burials indicates that the cemetery served a lay rather than an ecclesiastical community. Analysis of the skeletons suggests a population of low economic status, with indications of nutritional deficiencies and heavy physical labour. Some of the breaks and other bone traumas that were observed may have been the result of accidents at work, but two of the burials appeared to have been the victims of violence. Skeleton 7, a young adult male, had apparently been attacked from behind, with a blade wound to the right shoulder-blade which he had survived for some time, but which had not been fully healed at the time of death, while the mature male Skeleton 13 (fig. 21.2) had four broken ribs, all of which had healed, a fracture to a thoracic vertebra and two depressed skull fractures, one of which had completely healed, while the other was incompletely healed at the time of death; injuries of this type frequently derive from hand-to-hand combat, and the variation in the size and shape of the fractures indicates that a different weapon had been used (and therefore, potentially, a different opponent faced) on each occasion (Appendix 13), suggesting that this individual's exposure to violence was long-term and may have been on a professional basis. Environmental samples taken from the pelvic areas of skeletons 16, 17 and 24 proved to contain the ova of intestinal parasites (Appendix 17).

Environmental samples from two of the graves – grave **047** (skeleton 5) and grave **147** (skeleton 33) – were both rich in charcoal flecks and the chaff of spelt and emmer wheat, suggesting that the processing of cereal crops was taking place near the site at the time that the cemetery was in use (and possibly that these burials took place at harvest time). Analysis of micro-debris in dental calculus sampled from ten skeletons identified starch granules and cereal bran derived from the Triticaceae species group (barley, rye and wheat), starch granules from legumes (beans and vetches) and epidermis fragments from leeks and other leafy vegetables, suggesting that all these had formed substantial parts of the population's diet; the leeks are particularly significant as dating evidence, as leeks are known to have been widely consumed during the Anglo-Saxon period (the Anglo-Saxon word for a vegetable plot was 'leek-garth'), but are believed to have been replaced by cabbage in the national diet during the medieval period. Wool fibres and fibres of plants provisionally identified as flax and hemp were widely present, but in greater quantities on the teeth of the female skeletons than on the males, suggesting that spinning, weaving and sewing (activities that probably involved biting off threads as well as inhaling loose fibres) were chiefly carried out by women. In contrast, phytoliths (microscopic siliceous structures) from the epidermis of common reed were present to some degree on the teeth of all eight male skeletons, but absent in both females. This division suggested that the reeds were being used in an activity that was carried out only by men (as opposed to sitting or sleeping on floors covered with cut reeds or living in houses thatched with reeds, where evidence would be expected to show up evenly across both sexes). The Potwell Dyke was probably the source of the reeds, and the nature of the remains suggests a process – the reeds were being cut and worked with, rather than simply walked among, as hunters or fishermen might do – but the nature of that process remains speculative. Pollen from trees suggests a wooded environment, while microcharcoal may indicate smoky dwellings as well as the consumption of smoked or burnt food; mineral grit was likely to be derived from the grindstones used to process cereals. These findings are provisional, and will be addressed in more detail as part of a larger study in progress, being conducted by Anita Radini as doctoral research (Appendix 17).

7.7 Phase 6: Medieval (Norman Conquest to Dissolution of the Monasteries)

Although medieval activity was more intense on the site than Anglo-Saxon and early medieval activity appeared to have been, it was still confined to the west side, with several ditches, probably dating to the earliest part of this phase, passing through the former cemetery and a particularly dense complex of later ditches and pits overlying possible structural remains in the north-west corner: the latter may have been clay extraction pits associated with construction work elsewhere.

A doubly recut ditch, aligned north-north-east to south-south-west, passed through Zones 3 and 5 at the western edge of the site, cutting a number of Phase 5 burials. The original ditch cut, **G037**, was a substantial feature, 2.0m wide and 0.65m deep, with a single fill seen in each excavated section; in total, one sherd of early 10th to mid-11th-century pottery and one of 10th to 13th-century pottery were retrieved, with two late Roman sherds, two of non-specific Roman date, and flakes and small fragments of Roman CBM, all of which were shown to be residual by the stratigraphic relationships of the ditch, and disarticulated human bone from the disturbed burials (Appendices 4, 5, 6 and 13.3). Ditch **G037** had been recut by parallel ditches **G284** on the west side and **G285** on the east (figs. 22.1 and 22.2): the later ditches did not intersect one another, so it could not be ascertained whether either one post-dated the other, or whether they were contemporary. Both the later ditches were about half the width and depth of the original **G037**, possibly lending weight to the theory that they were contemporary, forming an equally effective boundary by replacing a single ditch with a double one. Finds from the two recuts were not distinguished during the excavation: a common assemblage of one sherd of early Roman pottery, two of late 10th to 12th-century pottery and seven fragments of Roman roof and box tile were retrieved (Appendices 4-6).

Directly adjoining the eastern edge of the double ditch **G037/G284/G285** were two large pits whose long axes were parallel to the ditches. Both could confidently be dated by their stratigraphic relationships: pit **105** truncated skeleton 22 in grave **103**, while section **159** of pit **G291**, directly to the south, cut graves **109**, **111**, **157** and **180** as well as the edge of ditch recut **G285** (fig. 22.3; plate 27). The northern pit, **105**, was the smaller at 1.35m x 0.92m in plan and 0.21m deep: its single clayey silt fill produced a very mixed assemblage of mid- to late 3rd century pottery (2 sherds), 10th-11th century pottery (3 sherds), a fragment of iron bar, a fired clay *tessera*, flakes and small fragments of Roman CBM, a quantity of disarticulated human bone, and animal bone including the partial skeleton of a piglet. The larger southern pit **G291** was a narrow oval in plan, measuring some 2.2m x 0.82m in plan but no more than 0.31m deep (fig. 22.3), and also had a single fill: two sections produced a combined assemblage of two redeposited sherds of Roman pottery, one datable as late Roman and the other not further datable, a fragment of Roman CBM, a single human vertebra and animal bone (Appendices 4, 6, 13.3 and 15.2).

Approximately 4m to the east of **G037**, parallel ditch **G038** also cut a number of burials (fig. 22.4). This feature was truncated at both ends by the school footings, and survived to a length of less than 8m; at 1.0m wide and 0.22m deep, it was of similar proportions to the possible double ditches to the west, and like them, had a single fill. A piece of iron horse harness, possibly dating to the 14th century (Appendix 9), was given the group number for this feature on site, and probably derived from the fill of one of its sections, although it is also possible that it came from **G037**; otherwise, only a sherd of redeposited mid-Roman pottery, a few fragments of Roman CBM and disarticulated human bone were retrieved from two sections through this ditch (Appendices 4, 6.1 and 13.3). It is possible that this series of ditches represent a rearrangement of the ecclesiastical boundaries associated with the early Norman rebuilding of the Minster.

To the east of ditch **G038**, grave **052**, a solitary burial lying to the east of the main cemetery area, was cut by the large, shallow pit **054** (plate 25), which had truncated the head and left shoulder of skeleton 7. Pit **054** was 1.6m in diameter but only 0.30m deep, with a flat base; as with the medieval ditches, the finds assemblage was heterogeneous, including both Roman pottery and CBM and 10th to 12th century pottery. Environmental samples taken from the fills of the pits and ditches in this area all proved to be completely without palaeobotanical remains.

The easternmost features in this area potentially dating to Phase 6 were a group of three ditch and gully fragments, the largest of which was the north-north-east to south-south-west aligned linear feature fragment **G871** (plate 4), surviving to a length of some 15m. The evaluation Trench 21 in Zone 5 had encountered two ambiguously dated features: an alluvial spread producing ceramics from the 4th, the 10th to 12th and the 13th to 14th centuries, cut by

ditch **2104**, which corresponded to ditch **G871** and whose lower fill produced Roman and late Saxon to early medieval finds. At the time, it could not be ascertained whether the post-Roman pottery was intrusive or the Roman material residual (Rowe, 2010). Ditch **G871** measured 0.90m wide and 0.36m deep, with a flat base, and was associated with a post-hole, which cut the lower fill of the ditch but was filled by the same deposit as the upper fill, indicating that it had been inserted during the lifetime of the ditch (fig. 22.6); pottery from post-hole **896** could not confidently be identified as either Roman or post-Roman. A single Roman *tessera* and sherds of late to post-Roman pottery were retrieved from lower fill 859 of section **858** in the main ditch. The probable north end of this ditch, separated from **G871** by part of the school building, was recorded separately as **G882**: this feature had a similar profile to **G871**, but was either narrower or had been more heavily truncated. No dating evidence was retrieved from the excavated sections. The north end of **G882** was cut by gully fragment **887** (fig. 22.7), no more than 3m long, which was not quite perpendicular to the ditch, but closer in alignment to the medieval ditches to the north; it also produced no dating evidence. No alluvial spread corresponding to evaluation context 2102 was identified during the excavation. The dating of this feature group has not been clarified very far by the excavation, but the presence of a post-hole cut into a partial ditch fill suggests that it may have had a long working lifespan. A possible, if speculative, interpretation may be that this ditch started out as a Phase 5 feature, possibly even a boundary to the cemetery, and that it continued in use into Phase 6 after funerary activity had ceased, being widened or partially recut through a later layer and acquiring a possible fence or palisade.

The most substantial of the dense complex of Phase 6 features in the north-west corner of the site was the large, east-north-east to west-south-west aligned ditch **G1066**, near the northern edge of Zone 5. It ran for some 21m, being truncated by school footings at its south-west end, while its eastern end apparently intersected a recut sequence of north to south-running ditches: the relationship here was completely obscured by two large pits, **1147** and **1200** (fig. 23.1), and it could not be ascertained whether **G1066** continued around the angle as any of these ditches, or whether it was cut or terminated there. Where a complete profile was obtained (most sections were partial, excavated to ascertain relationships), ditch **G1066** was a substantial feature, surviving to 1.80m width and 0.94m depth even though it lay within the structural footprint of the school. Its fills were variable along its length; most sections identified two fills and retrieved finds from neither, but section **1172** contained a single fill, from which a redeposited fired clay *tessera* was retrieved, while three fills were identified in section **1061**. A sherd of 12th to 13th-century pottery and a redeposited Roman sherd were dubiously assigned to basal fill 1062, while the final fill, 1064, produced six 12th to 13th-century sherds as well as a small amount of redeposited Roman material; an environmental sample from the basal fill produced only charred grass seeds and a little charcoal (Appendices 4, 5, 6 and 17). The northern edge of ditch **G1066** was intersected by a 4m long fragment of a north-to-south-aligned gully, **G1065**, which at 1.50m wide and 0.16m deep was narrower and much shallower than **G1066**. Its fill could not be distinguished from the upper fill of section **1058** through **G1066** (fig. 23.2), suggesting that the features had been infilled at the same time, and were probably contemporary: **G1065** seemed most likely to be a minor drain running into the main ditch **G1066**.

The north-east end of **G1066** was cut by a closely-spaced cluster of features, the largest of which was steep-sided, sub-circular pit **1200**, measuring 2.6m in diameter where not truncated by the school foundations, and cutting its south edge. Due to flooding, the pit could not be excavated beyond a depth of 0.45m, but four fills were distinguished, deposited in a way that indicated that the pit might have been partially backfilled by material dumped or tipped from one side, before filling in completely by natural silting (fig. 23.1). It was poorly dated, with only two sherds of 13th to 14th-century pottery retrieved from penultimate fill 1222. Directly adjacent, cutting the north side of **G1066**, was pit **1147**, another steep-sided, sub-circular pit, smaller than **1200** at 2m x 1.90m, and excavated to its full depth of 0.60m (fig. 23.3); this pit could be dated only by its stratigraphic relationships, as neither of its two fills produced finds. The two large pits were flanked by a scatter of small pits or post-holes: to the north, shallow, oval pit **1104**, which cut the edge of **G1066** but had been truncated almost

down to its base, nonetheless produced 2 sherds of 12th to 13th-century pottery, while the flat-based possible post-hole **1102** had neither stratigraphic relationships nor finds (fig. 23.4); to the south, sub-circular pit **1202**, which measured 1.30m wide and 0.34m deep and was of less regular form, also produced 2 sherds of 12th to 13th-century pottery (fig. 23.1). **Pit 1202** cut both the ditch edge and the small undated pit or post-hole base **1203**; the feature grouping displayed no clear form (Appendix 5).

To the north of pits **1147** and **1200** was a sequence of north-to-south running intercutting ditches, of which the earliest was **1128**, which appeared to be a continuation of mid-Roman ditch **938** at the northern site edge, from which it was separated by a modern foundation trench (see section 7.3). Ditch **1128** was then truncated from above by two later ditches (figs. 14.6 and 14.7). It is uncertain whether the next ditch cut in the sequence, **1088**, was a recut of the Roman ditch or the original cut of a medieval ditch on the same line: it was 2.15m wide, with the remains of two fills visible to the west and possibly also the east side of the later recut, but none of the fills produced any artefacts other than flakes of Roman CBM. The attribution of fills 1136 and 1137, on the east side of the south-facing section, to ditch **1088** was made post-excavation (fig. 14.6): if this interpretation is valid, medieval feature **1100** cut **1088** and was in turn cut by later recut **1087**, giving some weight to the interpretation that **1088** should be assigned to the Roman ditch sequence rather than the medieval. The upper recut **1087** was 1.90m wide and 0.56m deep, and also had two fills: 26 sherds of 12th to 13th century pottery, with 5 residual Roman sherds, were retrieved from its upper fill, suggesting that this feature might be contemporary with, and perhaps a continuation of, ditch **G1066**. The Roman and medieval ditches appeared to be stratigraphically separated by two deep post-holes, **1085** and **1086**, in the north-facing section; **1085** was clearly marked cutting the fills of ditch **1128** on its east side, although **1086**, which cut its base, was only clearly visible where it cut through the ditch base into natural (fig. 14.7). Since ditch **1088** only survived at the western edge of the north-facing excavated section, it could not be ascertained whether the post-holes cut it, were cut by it or were contemporary with it (and therefore whether this ditch should be ascribed to Phase 2 or Phase 6), although they were cut by the latest ditch, **1087**.

To the east of ditch **1128** and its recuts, a complex of small, intercutting linear features was investigated by a box section (fig. 23.5) through the east-to-west aligned linear feature fragment **1029/1100** (recorded separately on either side of the excavated section), whose west end, **1100**, cut the fills of first recut **1088** in the ditch **1128** sequence and was cut by second recut **1087** (fig. 14.6). The earliest identifiable feature in this section was 1013, whose small size (0.35m wide), steep to vertical sides and flat base indicated a post-hole; a single sherd of 11th to 12th-century pottery was retrieved from its fill. Post-hole **1013** was sealed by clayey silt layer 962, a possible occupation layer which contained both late Roman and 13th to 14th-century pottery, with a fragment of lead that appeared to be a conglomerate of several sheets, possibly suggesting roofing material (Appendices 4, 6 and 9); all other features within the excavated section were cut into it. The north side of the section intersected sub-circular, flat-based pit **1188**, which was 1.02m wide but only 0.25m deep, and produced one sherd of 12th to 13th-century pottery; on the west side, small feature **1031**, 0.34m wide with possibly vertical sides, may have been a post-hole, with stone fragments at the base of fill 1032 suggesting a post-pad, but it was truncated above and its full profile was not seen. Both features were cut from above by gully fragment **1029/1100**, which was some 4m long, and where completely exposed was 0.79m wide and 0.17m deep: it may have been the base of a small drainage ditch similar to **G1065**, although in this case the drawn section does not suggest contemporaneity with any of the large ditch cuts into which such a drain might have fallen. The site recording interpreted this feature as the course of a possible robbed-out wall, due to the frequent inclusions of stone and CBM rubble in fill 1030 (plate 28); it is possible that some of this might in fact have been redeposited rubble derived from the putative Roman boundary wall **G968**, whose projected course **1029/1100** intersects, but the only fragment of CBM retrieved was post-Roman (Appendix 6). The large, shallow rectangular feature **1033** also cut both **1031** and **1188**: no function could be suggested for this feature, which was some 2m wide but no more than 0.12m deep, truncated to the north

by the school footings, but its fill 1034 produced the largest quantity of dating evidence in this feature sequence, comprising 11 sherds of 12th to 13th-century pottery and two redeposited Roman sherds (Appendices 4 and 5). The dating sequence of this feature complex is hard to ascertain, as much of the dating evidence from the features was earlier than that from the layer into which they were cut, but the general narrative suggests a sequence of probably ephemeral structures spanning the High Middle Ages, with a redefinition of the boundary represented by **G1066/G1087** putting a close to it.

A curvilinear gully and its recut recorded in evaluation Trench 12 (outside the current excavation area) and Trench 19 were dated during the evaluation by one 10th to 11th-century potsherd in Trench 12 and one of 8th to 12th-century pottery in Trench 19, both from the more easterly (more recent) of the gully pair. These features were exposed by the excavation as running approximately 18m south-east to north-west and then turning northward for a further 10m across the north-western quadrant of Zone 5, diverging towards its northern edge, and were recorded across most of their lengths as original cut **G957** and recut **G956**; the truncated original cut survived to a maximum width of 0.44m and depth of 0.30m, while the recut at its broadest measured 0.72m and 0.30m at its deepest, but the two features varied in breadth, depth and profile across every excavated section. Where the two gullies merged towards the south-east, and the disturbance caused by the school construction rendered it impossible to ascertain whether the recut had completely obliterated the original cut or whether the original cut was continuing and the recut had ceased, the merged feature was recorded separately as **1170**. The merged gully **1170** cut the north-west edge of medieval ditch **G1066** (fig. 23.6); neither feature could be traced south-westwards beyond the junction, and while it is possible that both had been truncated away by the school building, the presence of two relatively undisturbed graves **077** and **079** in the space through which the projected line of **G1066** would pass suggests that this feature at least never extended further to the south-west. Further to the north, recut **G956** cut medieval pit **969** and appeared to be cut by medieval beam slot **1093**, and both gullies were cut by medieval ditch **1204**, stratigraphically placing this feature complex roughly in the middle of the wider sequence. However, very little dating evidence was added to that already discovered by the evaluation; although a total of 12 sections were excavated through the paired features, only a single sherd of 11th to possibly 12th-century pottery was recovered, from section **1001** through **G956** (Appendix 5).

The northward bend in paired gully **G956/957** cut through several features with doubtful medieval dates. The south-east side of recut **G956** cut the small pit **940** and the very large pit **G1035**, which measured 3.0m x 2.40m in plan and 1.52m deep. Pit **940** was shallow, heavily truncated and produced no datable material, but its south side appeared to cut the north end of gully fragment **1021**, which as part of **G1065** is provisionally interpreted as a tributary of large ditch **G1066** (fig. 23.7). Pit **G1035** had very steep to vertical sides and a flat base (fig. 24.1), and was provisionally identified on site as a well or waterhole. The four fills distinguished in section **969** produced only small amounts of residual Roman material; primary fill 970 was waterlogged and contained preserved fragments of wood, but these were not retrieved as no indications of working were seen. An environmental sample from second fill 971 produced only three charred grains of wheat with seven charred seeds of grasses and goosefoot and a small amount of charcoal, generally indicative of arable land (Appendix 17). This feature has been assigned to Phase 6 on the tenuous grounds that it is sited within a complex of medieval features including several other large pits and that it cuts undated ditch remnant **G1036**, but it is entirely possible that it was earlier.

On the north-west side of paired gully **G956/957**, original cut **G957** cut small feature **997**, one in an intercutting sequence of pits and post-holes, whose shallow depths indicated that this area had been heavily truncated during the construction of the school (fig. 24.2). The earliest feature in this sequence was truncated sub-rectangular pit **995**, which survived to 1.60m x 1.10m in plan and 0.17m deep, and was dated by a single sherd of 12th to 13th-century pottery, which provides the only date for this feature sequence. It was cut to the north-west by the undated post-hole base **993**, and to the south-east by undated feature **997**, which

might have been either a truncated pit or the severed terminal of a shallow north-east to south-west-aligned ditch, and measured 1.60m x 1.10m x 0.17m. No coherent pattern or purpose could be deduced for these features: as with those to the east of **G1128**, they may represent a sequence of ephemeral structures moving with the line of a boundary that had been replanned on several occasions.

Directly to the west of this feature group was another large, flat-based pit, **G955**, which proved to be more securely dated than the majority of the Phase 6 features. This feature had been truncated by the school footings, but had originally been very large, as it survived to 3.0m x 1.45m in plan, although at a depth of 0.37m it seemed disproportionately shallow: an extraction pit for clay to make daub seems a possibility. It was excavated by quarter-section, and produced 19 sherds of mid-12th to early 13th-century pottery from upper fill 915; an environmental sample from lower fill 914 was unprepossessing, producing a single charred barley grain and a scatter of charred seeds from plants typical of cultivated land (Appendices 3 and 17). The pit had no stratigraphic relationships apart from otherwise undated post-hole **921**, which cut its northern edge and may have been associated with post-hole **993** (above).

Towards the western site edge, the double gully **G956/G957** was cut by west-north-west to east-south-east aligned ditch **1204**. The ditch was 1.05m wide and 0.70m deep, with very steep sides and a flat base: a length of some 9m was exposed, truncated by the school construction at the western edge of the site, but ending in a deep, steep-sided, rounded terminal to the east, possibly respecting the north edge of medieval ditch **G1066**. Section **1095**, excavated at the terminal (fig.24.3) produced a total of 20 sherds of 12th to 13th-century pottery from 1097 and 1098, the upper two of its three fills, with three pig bones identified as deriving from the same animal, one showing butchery marks, also coming from final fill 1098 (Appendices 5 and 15). A fragment of horse bone that had been partially worked into a skate (widely known on sites from the early medieval period onwards) was retrieved from basal fill 1096, which otherwise produced only redeposited Roman CBM; an environmental sample from this fill was negative other than a small amount of charcoal (Appendices 6, 15 and 17). Section **1205**, a short distance to the west of the terminal section, encountered only two fills and noted that lower fill 1206 appeared to be redeposited natural, suggesting that the ditch may have been deliberately back-filled with its own upcast, possibly in the form of a levelled bank. A further 12th to 13th-century sherd and a residual Roman sherd, with Roman and post-Roman CBM, were retrieved from this section (Appendices 4-6).

Directly to the north of ditch **G1204** was a complex of small features suggesting a post-and-beam structure, assigned the group number **G1125** (fig. 24.4). The south and east sides of the complex were defined by the right-angled gully **1093**, which measured 2.90m from north to south and 2.50m from east to west, the gully itself being 0.38m wide and 0.10m deep, with a broad, flat base suggesting a possible beam slot. The east end of this feature intersected section **1089** of the paired gully **G957**, but had dwindled to only 40mm deep by this point and was too shallow for the relationship to be confidently ascertained (fig. 24.3); the north end is likely to have been the result of truncation due to site levelling rather than a genuine terminal. Possible beam slot **1093** incorporated two circular post-holes, **1121** and **1123**, which appeared to be parts of the same structure, as no difference could be seen between the fills of the post-holes and those of the beam-slot sections. A potential east side to the structure was formed by the straight, narrow, north-to-south-aligned gully **1110**, which measured at least 5.4m in length its south end had been machined away and its north end was truncated by medieval pit **G1074** but was only 0.19m wide and 0.10m deep, also suggesting a beam slot. Towards its north end, **1110** intersected circular post-hole **1164**, and appeared to be contemporary with it: the fills of the beam slot and the post-hole could not be distinguished, although **1164** also contained stone fragments laid flat to form a post-pad. A fourth post-hole, **1126**, was situated beyond the point where **1110** could no longer be traced southwards, but in its line, suggesting that it might once have been incorporated in it. The north end of possible beam slot **1110** cut through the dark brownish-grey silty clay layer 1082, which covered an area of 1.4m x 0.6m to a depth of 0.12m: this layer contained no finds, but abundant charcoal inclusions, and may have been a remnant of an occupation

layer (fig. 25.1). Within the possible structure formed by these features, but not necessarily associated with it, were three further post-holes and a pit. Pit **1114** was sub-circular, 0.38m deep and measured 2.0m x 1.7m in plan, fitting closely into the projected width of 'structure' **G1125** without intersecting any of the features comprising it. Small quantities of wall plaster were retrieved from its single fill 1113, which also contained four Roman potsherds, one sherd of probable post-Conquest 11th-12th century Stamford ware and fragments and flakes of Roman CBM (Appendices, 4, 5, 6 and 10). Although the proportions of Roman to medieval finds within the pit fill suggest that the medieval sherd is more likely to be intrusive and that feature complex **G1125** simply happened to overlie the position of a long-forgotten Roman pit, the density of medieval features cutting a few doubtfully-dated Roman features in the immediate area increases the probability that this pit is also medieval and the Roman finds redeposited; it remains uncertain whether it had been deliberately sited within the structure, and if so, for what purpose. To the south of pit **1114**, feature complex **G1125** also contained circular post-hole **1162**; square post-hole **1117**, whose fill was chiefly formed by a large piece of tile (not retrieved) placed flat to act as a post-pad, and sub-rectangular post-hole **1119**, which was chiefly occupied by two pieces of stone serving as a post-pad; no matrices are recorded around these post-pads in either case, and it is possible that the varying shapes of these post-holes derive from the stone or CBM inclusions being pushed into the ground by the weight of the posts.

To the north of and cutting feature complex **G1125**, pit **G1074** was 0.55m deep and measured approximately 2.9m x 2.6m, although it was so disturbed by the construction of school footings and the cut of a modern drain that its shape and size in plan were not certain. Quarter-section **1099** produced a total of nine 12th to 13th-century potsherds from its first and final fills, suggesting that **G1125** must have been in use in the earliest part of Phase 6, roughly contemporary with the excavation of the ditch sequence through the former cemetery. The lowest fill, 1106, contained patches of redeposited natural, as though the pit had been partially back-filled with its own upcast. The eastern edge of pit **G1074** was cut by two undated post-holes: the southern feature, **1112**, was particularly substantial at 0.45m wide and 0.50m deep (fig. 25.1), while **1077** to the north was both narrower and shallower.

Towards the northern edge of the medieval feature complex, pit **964** was dated to Phase 6 by two sherds of 13th to 14th-century pottery, although it also produced a fired clay *tessera*. At 1.0m x 0.90m, the pit slightly exceeded the width of possible early Roman wall foundation 966, into which it was cut (fig. 25.2), suggesting that it was targeted on 966, probably to retrieve a small amount of building material for re-use.

The isolated ditch fragment **G870** lay to the south-east of the main medieval feature complex, cutting the north ends of paired gullies **G806** and **G861**. It was aligned roughly east-to-west, and was truncated at both ends by massive portions of the school foundations, surviving to a length of roughly 6m (fig. 25.3). Two excavated sections produced a total of two 13th to 14th-century potsherds and a substantial but heterogeneous assemblage of thirty fragments of CBM: of these, four abraded fragments are of Roman and a further two of Roman or post-Roman date. The other twenty-four fragments come from medieval flat roof tiles of probable late 12th to 13th-century date, four of which have spots or splashes of reduced glaze. Four of the nine fabric types present appear to be related and probably come from the same workshop, suggesting that at least ten of the tiles may have derived from the same building (Appendices 5 and 6).

7.8 Phase 7: Post-Medieval (Dissolution of the Monasteries to c. 1850)

The latest phase of activity on the site before the construction of the former Minster School appears to have taken place in the late post-medieval period, possibly at the time of the Parliamentary Enclosures, and to have been largely concerned with water management; only a cobbled area near the northern site edge suggests that any part of the site was occupied or used as anything but agricultural land.

In Zone 6, the mid-Roman ditch group **G404/G405/G453** was cut by roughly east to west-aligned ditch **G447** and its recut, **G452**. The alignment of these features was at odds with all other features in Zone 6, apart from associated ditch **G366**: they converged on probable late Roman ditch **G448** to the west, and although the features never intercut, the west end of recut **G452** cut the small flat-based pit or post-hole **521**, which in turn cut the north edge of the west end of **G448** (fig. 26.1). Ditch **G447** survived to a width of 0.85m and a depth of 0.24m, with a single clayey silt fill, and was provisionally identified on site as a medieval drainage ditch. The ditch appeared to terminate to the west, as it was not identified either in evaluation trench 5 or further to the west in the excavation area, although disturbance by the school foundations may in fact be responsible for its absence; it probably extended beyond the excavated area to the east to an eventual outfall in the Potwell Dyke, although it could not be traced to the edge of the site due to flooding. Little dating evidence was retrieved: section **427** produced a small amount of Roman pottery and CBM, which could well have been redeposited, as this section was excavated at the ditch s junction with Roman ditch **G404** (fig. 26.2), while no finds at all were retrieved from section **410**, and an environmental sample produced nothing of interest (Appendices 4 and 17). The feature can therefore only be conjecturally assigned to a phase. As its recut **G452** has been dated to the post-medieval period by a radiocarbon date on wood in associated feature **G366**, ditch **G447** seems likely to be either late medieval or early post-medieval in origin, and its anomalous alignment, neither parallel nor perpendicular to any medieval or earlier ditch or gully features on the site, suggests a later date.

Ditch **G452** recut **G447** along the full length of its south side; again, it could not be traced westwards either into or beyond evaluation trench 5, but probably extended beyond the flooded eastern edge of the site. The ditch was 0.58m wide and 0.21m deep, and had a single silty fill in both excavated sections: section **412** also contained lengths of roundwood (timber 414) laid along the length of the ditch, probably in order to improve the flow of water in the manner of a French drain (figs. 25.4 and 26.3; plate 29). Two samples of this timber were taken, one of which proved to be willow or poplar, while the other was a fruit wood of probable apple, pear or hawthorn type (Appendix 18). Although Roman pottery was retrieved from both sections through recut **G452**, it has been assigned to the post-medieval period by analogy with the smaller linear feature **G366**, which extended southwards from and perpendicular to its south side, and was very probably associated with it, although the relationship had been destroyed by the cut of a modern drain. **G366** was 8.7m long as exposed by the excavation, no more than 0.40m wide and 0.15m deep, with vertical sides and flat base, and contained two different arrangements of timber, collectively recorded as structure 380. In the northern portion of the ditch, the timber structure consisted of four pairs of vertically driven stakes against the ditch sides; in the southern portion, horizontally laid timbers were present. There was no overlap between the two types of structure (figs. 26.4.-8; plate 30). Four samples were taken from the horizontal timber of 380: three of these proved to be oak, while the fourth was a fruit wood of probable apple, pear or hawthorn type. A radiocarbon date from one of these samples was assessed as 131 BP 31, or AD 1819, within a probable date range from 1673 to 1943 (Appendix 18). At the eastern edge of Zone 6, the east-north-east to west-south-west aligned linear feature **369** was clearly associated with **G366**, although it was not on a corresponding alignment, as it also contained horizontally laid timber with an upper layer of brushwood (no vertical stakes were seen here); the whole of the timber deposit was recorded as 371, and five samples from it were all identified as oak (figs. 26.9 and 26.10; Appendix 18). Both features were cut into clayey silt layer 403, which overlay the natural and appeared to be an alluvial deposit, probably flooding from the Potwell Dyke, although finds of 3rd century or later pottery, animal bone and CBM suggested an occupation horizon of late Roman or later date.

A portion of a cobbled surface, measuring approximately 3m square and truncated by school footings to north and east and by a massive portion of the school structure to west, was encountered directly to the north of medieval ditch fragment **G870** (plate 31). Cobbled surface 1010 was bedded on sandy clay layer 1046; this in turn sealed possible pit **1045**, partially exposed in a sondage. Deposit 1048, which appeared to be the lower of the pit s two

fills, was reliably dated by 30 sherds of 18th-century pottery, indicating that the cobbled surface must have been post-medieval to modern, probably immediately pre-dating the construction of the school.

A stone-lined well, **G889**, was encountered at the northern edge of Zone 4. The well was roughly 1.3m in diameter, and was excavated to a depth of 0.8m (figs. 27.1 and 27.2; plate 32), retrieving two sherds of mid-16th to mid-17th-century pottery and six fragments of post-Roman CBM, with one Roman fragment, from upper fill 903; the post-Roman CBM is likely to be of 15th to 16th-century date (Appendix 6). Three sherds of Roman pottery, including samian ware, were retrieved from the back-fill of the well's construction cut, and a Roman date was postulated on site for this feature. However, the presence of mortar-covered bricks within the upper surface of fill 903 suggests a brick cap or well-head, which, with the proximity of a medieval to post-medieval well found in Trench 18 during the evaluation, suggests that the well is likely to be considerably later and the Roman material residual.

A north to south-aligned ditch in evaluation trench 23 cut a Roman stone structure, and was further dated by a sherd of 10th to 11th century pottery and disarticulated human bone, indicating that it post-dated the cemetery: this feature is identifiable on the site plan, but fell within the area to be preserved *in situ*, and was not further excavated or recorded. It was on the same line as linear features **G035** and **016**, but the features were widely separated by the school footings, and at considerable variance in the dating of their finds: the most northerly ditch segment, **G035**, produced Roman structural material and disarticulated human bone, while disarticulated human bone was also retrieved from the fill of **016**, which runs along much of the western site edge, but CBM seen in this feature was identified on site as post-medieval, and was not retrieved. Ditch **016** cut post-medieval pit **014**, which was reliably dated by 18th-century and later pottery; **G035** intersected **G036,** a short length of narrower ditch branching off to the west, and it seems plausible that the Roman material was redistributed from this feature, and that ditches **G035** and **016**, with evaluation feature **2304**, represent detached parts of a post-medieval to modern feature, probably a later phase in the episodic remodelling of the plot boundaries around the Minster that appears to have given rise to the sequence of north-to-south-aligned medieval ditches at this side of the site.

7.9 Undated

In the north-west corner of the site, the short length of east-to-west aligned ditch **G1036** was truncated at the west end by medieval pit **G1035** and gully **G956** (fig. 24.2), and at the east end by ditch recut **1088** and pits **1147** and **1239** (fig. 27.3). The ditch remnant was 1.40m wide and up to 0.55m deep, and displayed three fills, none of which produced any dating evidence. It is possible that this ditch fragment represents a right-angled return of the putative mid-Roman ditch **938**, which was of similar proportions and occupied a similar position in the stratigraphic sequence, but too little was visible to draw any reliable conclusions.

8.0 Discussion and Conclusion

The excavation results from the Minster School site have been reinterpreted and rephased in the light of the full specialist assessments, supplanting the phasing derived from initial spot-dating in the interim report produced shortly after the excavation (Savage and Sleap, 2012). However, the dating of archaeological features remains affected by a high degree of residuality of finds, where new features have been cut through older ones, and material derived from the fills of the older features has been incorporated into the fills of the features cut through them. Some degree of intrusion of more recent material into older features, chiefly caused by levelling of the site for the construction of the Minster School, has also occurred, and many features have been truncated, disturbed or partially destroyed by the school building works. Consequently, although dates derived from single sherds of pottery, or from low numbers of artefacts, have been used where no better evidence was forthcoming,

these dates cannot be considered reliable, and such dates have been set aside if they appear to contradict an interpretation derived from a feature s nature and stratigraphic and/or spatial relationships (e.g. a post-hole producing two sherds of medieval pottery, but lying within a row of post-holes of similar size and appearance, which jointly have a more convincing Roman date, would be considered to be Roman).

There was no indication that the site had been inhabited prior to the Roman occupation of Britain. As the site borders on a natural watercourse, and appears to have required water management throughout its history, it seems likely that the beginning of settled activity on the site was associated with a period of lower sea levels that coincided with the Roman occupation, in which land that had previously been marginal, and would be so again, became temporarily habitable and cultivable.

The Roman finds assemblage broadly indicates that the earliest occupation on this site was pre-Hadrianic (in or before the first quarter of the 1st century AD). Although much of the early Roman dating evidence is sparsely distributed and erratically stratified, activity from this period does seem to be concentrated within a roughly north-to-south-aligned band across the approximate centre of the site, between Zones 5 and 6. The principal groupings of Phase 1 features, **G501/506**, **G287/288** and **G601/602/687**, all suggest the presence of a range of small buildings, altered and extended several times before being demolished; the presence of post-holes and beam-slots, together with wider linear features that may have been foundation trenches and large amounts of roof tile and stone rubble, indicates buildings partly of stone and partly of timber, with tile roofs. The sets of intercutting post-holes probably indicate that timber posts rotted and needed to be replaced frequently in the wet ground. Other complexes of post-holes and beam-slots have been identified directly adjacent to the Phase 1 buildings , but feature groups **G669/670** and **G664/668/926** were even more poorly dated; these possible buildings could only be identified as Roman, although their position and alignment may suggest that they formed part of the earliest settlement on the site. The two ditch or foundation/robber trench fragments **G968** and **916**, with the stone wall remnant 966, may have demarcated the north side of the property on which the buildings stood; if the wide, shallow linear feature **797** can genuinely be attributed to this period, it may also represent a remnant of an earlier boundary, on broadly the same alignment as its successors, obliterated by later activity across the rest of the site.

Mid-Roman occupation was chiefly identified in the eastern half of the site, within or close to Zone 6; the features assigned to this phase in Zone 5 were generally smaller, sparser and less reliably dated, although this difference may be due, at least in part, to the higher level of disturbance from later activity on the western half of the site. Systems of serially recut ditches, probably both for land demarcation and for water management, were the most marked feature of this phase, although post-built structures were tentatively identified in the area formerly occupied by the Phase 1 buildings; the number of recuts and replacements of these ditches suggests that the eastern half of the site remained vulnerable to flooding.

Structure **693**, a small, isolated stone building with a sunken paved floor, close to the course of the Potwell Dyke, was assigned to this period, and speculatively interpreted as a possible watermill associated with the villa s farmland, with a mill-leat taken off the Potwell Dyke, now only partiallly traceable through a heavily disturbed area that was flooded during much of the course of the excavation, running to a stone-lined pit or trench that may have contained the undershot water wheel typical of Roman mills. This interpretation is supported to some extent by the finds of several fragments of millstones re-used as post-pads in later features, as the majority of Romano-British watermill sites were characterised by the discovery of millstone fragments. Architectural and technological advances such as water-powered mills are known in the Roman Empire from the 1st century AD, although they only became widespread on Romano-British villa estates in the 3rd and 4th centuries (de la B doy re, 1993, p.92); Structure **693** appears to lie towards the beginning of this date range. The dimensions of the wheels of Roman watermills can rarely be ascertained, but a 1st-century AD example at Venafro near Pompeii, preserved as an impression by the eruption of Vesuvius, could be

reconstructed as 1.85m in diameter and 0.30m wide. A Roman mill with an undershot wheel was excavated at the beginning of the 20th century at Haltwhistle Burn in Northumberland: the building, dated to the 3rd century AD, was identified by the presence of fragments of millstones approximately 0.78m in diameter. No remains of the wheel itself survived, but the mill-race was lined with oak timbers in the immediate vicinity of the building, suggesting that a wheel estimated at 3.0m to 3.6m in diameter had turned in a close-fitting trough some 0.36m wide (Reynolds, 1983, p.36). The apparently stone-lined feature **780**, which was 3 to 4m long and about 0.40m wide at the base, could, therefore, comfortably have accommodated such a wheel. Assuming that the dimensions of Structure **693** have been correctly ascertained, this interpretation appears to require the wheel to be sited at a distance of some 1.5m from the wall of the putative mill building, rather than directly adjacent to or within it, but reconstructions of Roman mills seem to incorporate beams that could bridge this distance: a 5th-century overshot water wheel excavated in Athens turned on a beam 3.5m long, which would be approximately correct to reach from a wheel turning in feature **780** into the interior of Structure **693** (Reynolds, 1983, p.36). The mill building that formed the first phase of the Redlands Farm Roman villa in Northamptonshire consisted of two rooms, one of which was sunk some 0.5m below the other (Keevill, 1996), presenting a possible parallel to the apparent lowered floor of Structure **693**.

The view was also put forward during post-excavation work that Structure **693** may have been an outside lavatory associated with the villa, flushed by an early course of the Potwell Dyke or by a channel taken off it. Although the presence of a channel around the interior of the building at the base of its walls lends some plausibility to this theory, it seems to be a prohibitively long way from the villa for such a use; moreover, while several fragments of millstones have been found on the site, no worked stones of the keyhole type normally associated with Roman lavatory seats were identified (although wooden seats, such as that recently discovered at Vindolanda Fort on Hadrian s Wall, would have left no trace). A third interpretation is suggested by the two fragments of possible hearth lining found during the excavation and the potential industrial residues from environmental sampling during the evaluation: the building may have been a smithy or other industrial building, set apart from the rest of the farmstead for safety and in proximity to the Potwell Dyke for a constant water supply; feature **780** might, in this interpretation, represent a water tank for activities such as the cooling of worked metal.

The late Roman period appears to have seen consolidation and extension of the villa s farmyard plot. The complexes of post-and-beam buildings were demolished, to be replaced by two much more substantial buildings on the same axis, one stone-built, or at least on wholly stone footings, the other supported on a double row of large posts. The small stone building was also demolished and its rubble used to infill redundant ditches whose pattern was being laid out anew; if this building had in fact been a watermill, it could no longer have functioned, as the Phase 3 ditch system cut across the putative mill-leat. Stones and roof tiles from demolished buildings were also used as post-pads and post-packing during the construction of the new buildings. The new ditch layout appears to have been a success as a drainage scheme, as the large post-based Structure **292** stood in the wettest area of the site, where no indication of earlier buildings was found. This programme of redevelopment appears to correspond to a phase of rebuilding and embellishment identified by Daniels as taking place at the villa itself, as some of the re-used or infilled rubble incorporates *tesserae* from the floors of a high-status dwelling and box flue tiles from its underfloor heating system, while painted wall plaster displaying a high level of craftsmanship had been discarded in some features.

Throughout the period of Roman occupation, environmental sampling displayed results commensurate with the cultivation of arable crops in a wetland-margin environment, although the levels of palaeoenvironmental preservation were extremely low compared to typical sites of this period (EH, 2011b), while the animal bone corpus indicated the keeping of cattle, pigs and sheep/goats, with the use of horses as working animals and the presence of dogs.

From the end of the Roman period, little if any activity appears to have taken place on the eastern half of the site: it is possible that this represents a deliberate withdrawal from marginal land at a time when sea levels are known to have risen again and wetland encroached on the previously habitable and cultivable zone. The site appears to have been almost deserted during the Saxon and early medieval period, except for the encroachment of the Minster cemetery into its western edge during the later Anglo-Saxon period; it is possible that it remained as agricultural land of a sort but was used for some seasonal purpose such as hay-marsh or water-meadow, which would have left no traces. No eastern boundary to the cemetery was identified with any certainty, although it can be suggested that the north-to-south-aligned ditch **G871** originally performed this function.

The very low level of intercutting among the graves in the cemetery suggests that the cemetery had a short period of use, during which records were probably kept and/or grave markers maintained, and that the agency responsible for the administration of the cemetery had no need to economise on space by cutting new graves through old ones. This suggests that the cemetery was backed by considerable wealth, extensive estates and a well-functioning administration, supporting the interpretation that it was associated with Southwell Minster. The impression of a short working lifespan for this part of the cemetery was borne out by radiocarbon-dating of selected skeletons, suggesting that these individuals had all died in a period between the 7th and the 9th centuries AD, with a good probability that this timespan lay between AD 685 and AD 805: this part of the cemetery may have been in use for no more than three generations. The presence of a potentially 8th or 9th-century population of lay people, featuring more men than women, inured to hard work and occasional violence, and with a common activity apparently uniting all the men whose remains were sampled for dental calculus analysis but not extending to the women, may imply a community of specialist labourers or craftsmen engaged on a single project, and it is appealing to speculate that this short-lived portion of the cemetery was reserved for, or chiefly used by, the itinerant workers who built the original Minster and their families. The dental calculus research project is currently still in progress, and further studies may lead to a fuller interpretation.

The disuse of this portion of the cemetery seems likely to be associated with the substantial rebuilding of Southwell Minster at the beginning of the 11th century, which may well have included a reorganisation of its boundaries and the layout of its grounds. It certainly seems most plausible that the sequence of 10th or 11th-century ditches cut and recut through the former cemetery represent work carried out under the auspices of the ecclesiastical authorities, who need have had no concerns about disturbing so many relatively recent burials on their own consecrated land.

Although medieval activity was more intense on the site than Anglo-Saxon and early medieval activity appeared to have been, it was still confined to the west side, with the serial reorganisation of the probable minster boundary along the western site edge and a particularly dense complex of medieval features in the north-west corner. The multiple intercutting of these features, exacerbated by the disruption caused by the groundworks for the construction of the school, caused considerable difficulties in interpretation, but the general narrative appears to be of a sequence of small post and beam structures, the earliest of which dated to the beginning of Phase 6 and was probably contemporary with the boundary ditches cutting the cemetery, interspersed with several phases of repositioning of a boundary featuring either a large single or smaller double ditch, and the intermittent excavation of a sequence of pits. No indication of hearths was found, and the level of finds indicative of domestic activity, such as utensils and burnt or butchered animal bones, was low, suggesting that these structures were ancillary buildings on the minster estate rather than dwellings. The medieval pits in the north-west corner appear to be mainly large, shallow and flat-based, and the nature of their lower fills, where more than one fill was present, suggest that they were partially backfilled with upcast material, suggesting that they may have been for clay extraction; if so, it is possible that the pits were not back-filled with their own upcast, but that the upcast of each pit was deposited in an adjacent, previously worked

pit. However, if the clay was being extracted to work into construction daub, it is possible that they were being dug for the construction of the adjacent buildings, and in this case it would clearly have been imperative that the pits were back-filled directly after excavation.

The latest phase of activity before the construction of the former Minster School appears to have taken place in the late post-medieval period, and to have been largely concerned with water management. The post-medieval ditch complex **G452/G447/G366/369** may be associated with one of the extensive land drainage and reclamation schemes widely carried out in association with the process of enclosure, since the radiocarbon date from the lengths of timber laid within drain **G366** suggests that these features date to the late 18th or early 19th centuries; if the two wood samples identified as being of *Pomoideae* type were in fact hawthorn, this would also suggest an enclosure-period date, as quickset hawthorn hedging was the most popular method of establishing the boundaries of newly enclosed fields. The large recut ditch **G452/G447** may correspond to a field boundary shown on the 1841 tithe award map of Southwell, which crosses the eastern part of the site on broadly the right alignment and ends at the Potwell Dyke. No evidence was found for the western portion of this feature, which the map shows as turning slightly northwards to join the southern boundary of the plot within which the Minster stands (NSLDF, 2005), but as the existing portions of both ditches survived to a depth of no more than 0.24m, it is entirely plausible that the construction of the school might have obliterated their continuations to the west.

9.0 Project Archive

There is currently no designated museum of record for the district of Newark and Sherwood. Following the acceptance of the report, the project archive will remain in the custody of PCAS until transference to a suitable receiving museum can be arranged.

10.0 Acknowledgements

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