

Archaeological Services & Consultancy Ltd

**WATCHING BRIEF:
ALL SAINTS CHURCH
CHURCH ROAD
MARSWORTH**

NGR: SP 9198 1460

on behalf of Marsworth Parochial Church Council



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June 2010

ASC: 1270/MAS/1



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Site Data

<i>ASC project code:</i>	MAS	<i>ASC Project No:</i>	1270
<i>OASIS ref:</i>	archaeol2-77998	<i>Event/Accession no:</i>	AYBCM 2011.275
<i>County:</i>	Buckinghamshire		
<i>Village/Town:</i>	Marsworth		
<i>Civil Parish:</i>	Marsworth		
<i>NGR (to 8 figs):</i>	SP 9198 1460		
<i>Extent of site:</i>	c.5225 m sq		
<i>Present use:</i>	Church and cemetery		
<i>Planning proposal:</i>	Installation of a WC and a tea port and associated drainage		
<i>Planning application ref/date:</i>	n/a		
<i>Local Planning Authority:</i>	n/a		
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<i>Commissioned By:</i>	Shenstone & Partners Architects, Planners and Surveyors St Paul's Institute 302 The Highway London E1W 3DH		
<i>Client:</i>	All Saints Church Church Lane Marsworth Buckinghamshire HP23 4LX		
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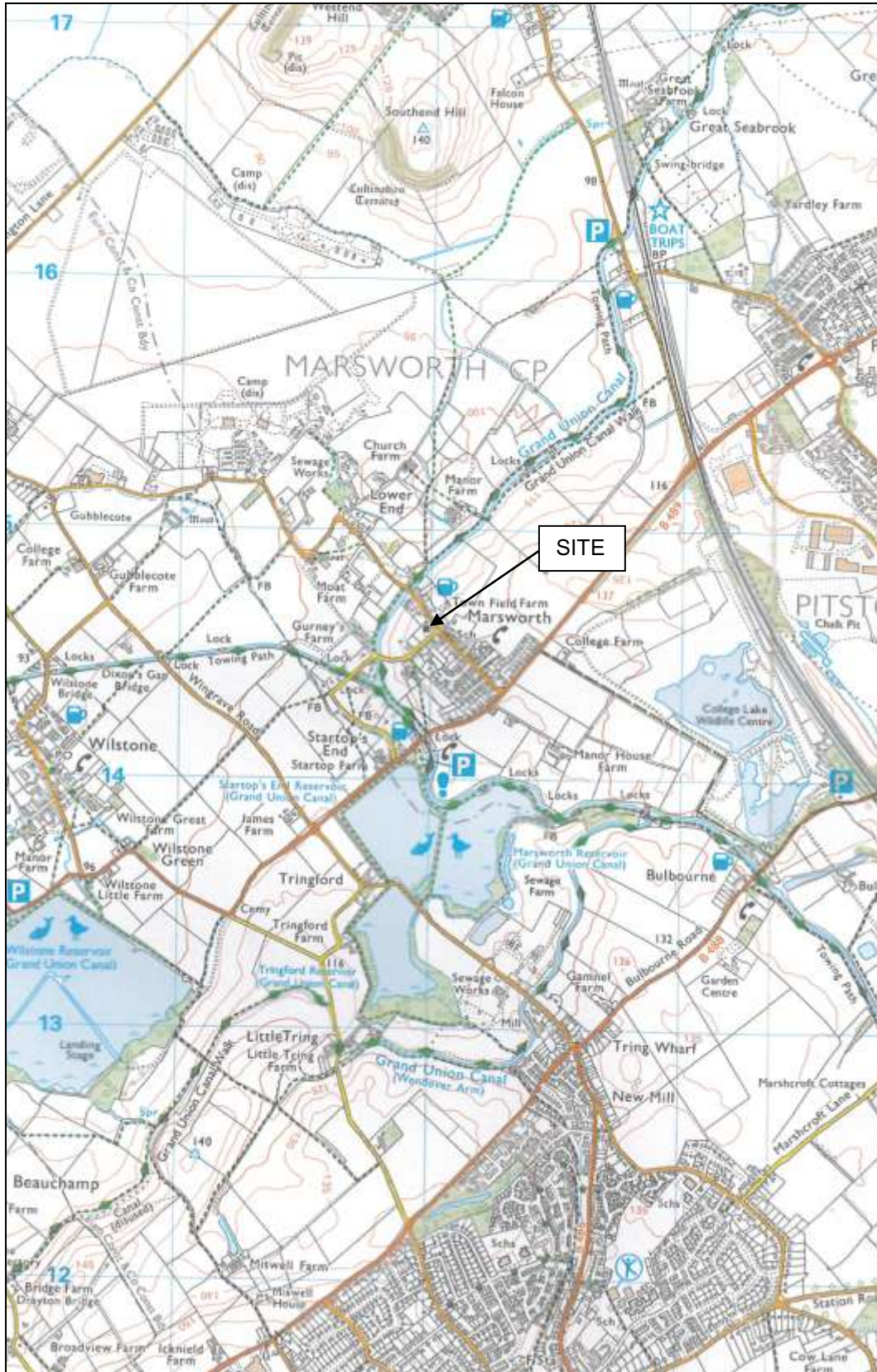


Figure 1: General location (scale 1:25,000)

Summary

During May 2010 an archaeological watching brief was carried out at All Saints Church, Marsworth, Buckinghamshire, during the construction of a new WC and tea port, and associated drainage. Forty-five articulated/partially articulated Christian burials were revealed, along with significant quantities of disarticulated human remains. A wall and possible floor surface were exposed along the southern outer wall of the church, and an L-shaped wall was revealed towards the south-west of the churchyard. Pottery sherds ranging from Roman to post-medieval date, and two oyster shells, were found within the associated drainage trenches.

1. Introduction

1.1 In May 2010 *Archaeological Services and Consultancy Ltd* (ASC) carried out a watching brief at All Saints Church, Marsworth, Buckinghamshire. The project was commissioned by Marsworth Parochial Church Council, and was carried out according to discussions with the Diocesan Archaeological Advisor (DAA).

1.2 *Planning Background*

This watching brief was required by the DAA, under the terms of a faculty from the Chancellor of the Oxford Diocese.

1.3 *Archaeological Services & Consultancy Ltd*

ASC is an independent archaeological practice providing a full range of archaeological services including consultancy, field evaluation, mitigation and post-excavation studies, historic building recording and analysis. ASC is recognised as a *Registered Organisation* by the Institute for Archaeologists and is also accredited ISO 9001, in recognition of its high standards and working practices.

1.4 *The Site*

1.4.1 *Location & Description*

All Saints Church is situated along Church Road in the village and parish of Marsworth, Buckinghamshire, in the district of Aylesbury Vale. The site falls within the Diocese of Oxford and is centred at NGR SP9198 1460 (Fig 1).

The church is built of flint, clunch and stone and consists of a chancel, south chapel, nave, north-east stair turret, north vestry, south aisle, west tower, and a south porch.

The overall site is rectangular in plan measuring *c.*5225 m sq. To the south-east of the site is Church Lane, which provides access to the church and its grounds, whilst to the north-east is Vicarage Road which also provides access. Towards the north-west and south-west are residential housing and fields that lead to the Grand Union Canal (Fig. 2).

1.4.2 *Geology & Topography*

The drift geology of the site area lies within *lower chalk* described as *hard chalk passing down into marly and sandy beds* (BGS, Sheet 238, h5). The soils fall into the Charity 2 Association described as *well drained flinty soils in valley bottoms. Calcareous fine silty soils over chalk or chalk rubble on valley sides, sometimes shallow* (Soil Survey 1983, Sheet 4, 571m).

The site is mainly on a flat plain that significantly slopes down at the south-east and north-east end of the site towards Church Lane and Vicarage Road. The site ranges in height between 113.8m OD towards the north and 118.3m OD towards the south-east.

1.4.3 *Proposed Development*

The proposed development entails the construction of a WC and tea port with associated drainage (Fig. 4).

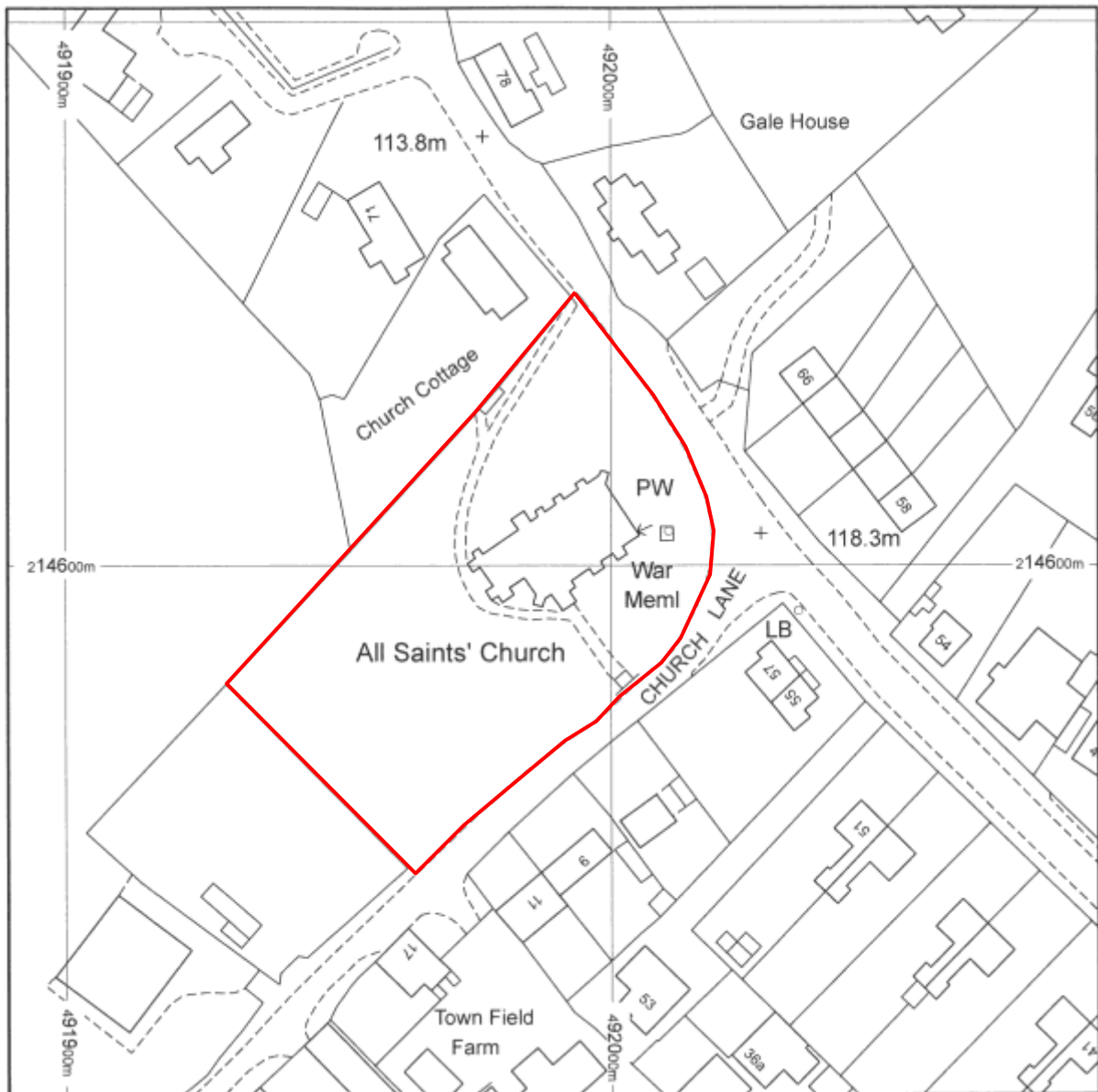


Figure 2: Site plan (scale 1:1250)

2. Aims & Methods

2.1 *Aims*

As defined in discussion with the Diocesan Archaeological Advisor (DAA), the aims of the watching brief were:

- To determine the extent to which human remains survive in the affected area.
- To generally observe the presence of burial vaults and graves.
- To take the opportunity to study the foundations of the building and any remains of former buildings.
- To signal, before work proceeds, the discovery of any archaeological find for which further action is required.
- To provide a report and ordered archive on the investigation.

2.2 *Standards*

The work conformed to the requirements of the DA, to the relevant sections of the Institute for Archaeologists' *Code of Conduct* (IFA 2000) and *Standard & Guidance Notes* (IFA 2001), and to the relevant sections of ASC's own *Operations Manual*.

2.3 *Methods*

The work was carried out according to the requirements of the DA, under the following conditions:

- A general archaeological oversight by ASC.
- Disarticulated human remains were collected and reburied as soon as possible.
- Consent was obtained for the excavation of articulated human remains.

2.4 *Constraints*

The work was carried out with full cooperation of the client and in line with the requirements of the DAA, and no constraints were encountered.

3. Archaeological & Historical Background

3.1 The following section provides a summary of the readily available archaeological historic background to the development site.

This section has been compiled with information from the Buckinghamshire Historic Monuments Record (HER), ASC'S library, an unpublished guide to the church, and historical maps.

3.2 Little is known concerning the earlier history of Marsworth, although prehistoric and Roman activity have been recorded in the vicinity. Flint tools and cores of Neolithic to Bronze Age date been found *c.*1.2km south-east of the site (HER: FBC3575, FBC3576, FBC3577), and *c.*1.1km to the north-east (HER: FBC881). Excavations on the site of a Roman villa (HER: 0126900000) *c.*1.4km north-east of Marsworth revealed quantities of roof and hypocaust tiles, wall foundations and pottery.

3.3 Marsworth first appears in the historical record in AD975 when Elgiva, sister in law to the King of Wessex, Edgar, left the manor of Marsworth to him in her will. By 1086 the Domesday survey assessed Marsworth at 20 hides, when it was held by Robert Doyley. Doyley's lands subsequently became part of the honour of Wallingford, to which Marsworth was attached until the 17th century (Page, 1925: 391-397; Short Guide All Saints Church).

3.4 In *c.*1120 a church was constructed in Marsworth by Thurston Basset. No visible remains of this building now exist, but the present south chapel and aisle are likely to have been built along the lines of the original building. Before 1218 Thurston Basset granted the church to Caldwell Priory in Bedfordshire. At the dissolution of the monasteries the advowson was given to Trinity College, Cambridge in 1546, who held it until 1926 when it was given to the Bishop of Oxford (Page, 1925, 391-397; Short Guide to All Saints Church).

3.5 All Saints Church is constructed of flint, clunch and stone. The original church consisted of the present south aisle, likely dating to the end of the 12th century. In *c.*1330 the south chapel, nave and chancel were built. In the 15th century the west tower was constructed, re-using 13th-century materials. Much remodelling of the church was carried in 1882-91 by the then vicar, Rev. Frederick Ragg: this work included a new east window, new decoration of the chancel, and further remodelling of the south chapel (Pevsner & Williamson 2000, 466).

3.6 On the 1811 inclosure map of Marsworth and the 1st Edition Ordnance Survey sheet, produced in the 1880s, the site boundary appears to be somewhat smaller than the present churchyard. The current plan of the church grounds first appears on the 1899 Hertfordshire map.

3.7 Today the church and surrounding areas of Marsworth are part of a Conservation Area.

4. Results

4.1 *Stratigraphy* (Fig. 7; Plates 3, 5 & 10)

The stratigraphic sequence for the site consisted of *c.*0.10-0.15m of turf, beneath which was *c.*0.07-1.00m of cemetery soil (07) consisting of mid brown/grey, friable silty clay with moderate small-medium sub-angular chalk inclusions. The natural strata was light grey/white, friable, small-large chalk nodules. It was noted that the chalk nodules become larger at *c.*1.50m BGL.

4.2 *New WC and Tea Port Area* (Fig. 3; Plate 1)

Towards the south-west part of the church, within the south aisle, groundworks to accommodate the new WC and Tea Port area were hand excavated. The area measured *c.*3.08-3.30m in length × 2.10m in width, and was excavated to a depth of *c.*0.40m BGL. The church floor tiles were removed, to be re-laid once the groundworks were completed. Beneath the floor a small void was noted, possibly a vaulted burial, though that was difficult to determine at such a shallow depth.

4.3 *Drainage Inspection Chamber* (Figs 3 & 5; Plate 2)

Along the south outer wall of the church a drainage inspection chamber was hand excavated. The chamber measured *c.*1.03m in length × 0.70m in width, and was excavated to a maximum depth of 0.70m BGL. Towards the west end of the inspection chamber the remains of wall were found with a possible floor layer on top. The floor was 0.25m BGL, while the wall measured 0.34m in width, and continued beyond the limit of excavation at the west end. The wall was constructed of flint and stone with sandy mortar below probable floor slabs. A brick and cement rendered drain, 0.35m wide, was also exposed up against the church wall. No human remains or finds were encountered.

4.4 *Klargester Pit* (Figs 3, 4 & 7; Plate 3)

The klargester pit was both hand and machine excavated. It measured *c.*2.35m sq, and was excavated to a maximum depth of 2.60m BGL. The stratigraphy comprised *c.*0.15m of turf, beneath which was *c.*0.85m of cemetery soil (07), and *c.*1.60m of natural strata chalk. A modern drainage pipe was found orientated north-west to south-east, *c.*0.60m BGL.

Within the klargester pit were found significant quantities of disarticulated human remains, twenty articulated human burials, at a depth between *c.*0.35-1.50m BGL (Section 4.8 and Appendix 4), and Roman pottery (Section 4.9 and Appendix 2).

4.5 *Drainage Trench 1* (Figs 3 & 5; Plates 4 & 5)

Drainage trench 1 ran from the north-west side of the klargester pit to the inspection chamber at the south wall of the church. It was hand excavated and measured *c.*1.2m in length, *c.*0.50m in width, and varied between *c.*0.74-1.06m in depth. The stratigraphy comprised *c.*0.15m in depth of turf above cemetery soil (07): modern services ran down part of the length of the trench, causing ground disturbance.

Significant quantities of disarticulated human remains, a total of seventeen articulated human burials were excavated at depths between 0.60 and 1.12m BGL (Section 4.8 and Appendix 4). Pottery ranging from Roman to post-medieval date was found (Section 4.9 and Appendix 2).

4.6 **Drainage Trench 2** (Figs 3, 6 & 7; Plates 6-10)

Drainage trench 2 ran from the south-east side of the klargester pit in a north-east south-west direction, parallel to Church Lane. The trench was hand excavated and measured *c.*0.25m in length, *c.*0.50m in width, and between *c.*0.73-1.01m in depth. The stratigraphy comprised *c.*0.10m in depth of turf, above cemetery soil (07).

Near the north-east end of the trench seven articulated human burials were excavated, at depths between *c.*0.29 and 0.71m BGL (Section 4.8 and Appendix 4). Occasional disarticulated human remains were present throughout the trench, as well as Roman pottery (Section 4.9 and Appendix 2) and two oyster shells.

Towards the south-west end of the trench an L-shaped wall (123) was revealed at a depth of 0.46m BGL at the north-west side of the trench, and 0.48m BGL at the south-east side of the trench. It was exposed to 4-5 brick courses (0.31-0.34m) high. The bricks (23 × 10 × 6cm) were hand-made and light orange in colour, set in light cream lime mortar. The north-east side of the wall had a more smooth/finished appearance and was probably the outer face, whilst the south-west side of the wall had a more rough finish.

Immediately north-east of the wall were deposits (124) and (128). Deposit (124) was *c.*0.50m BGL. It extended for 3m along the trench, and was *c.*0.08m in depth. It consisted of light yellow gravel containing quantities of modern broken brick, roof tile, and a metal fitting, possibly for a gateway. The underlying deposit (128) was *c.*0.58m BGL. It extended for *c.*2.50m in length, and was >0.24m in depth. It consisted of cemetery soil containing modern broken brick and roof tile.

4.7 **Drainage Trench 3** (Figs 3, 6 & 7; Plate 11)

Drainage trench 3 ran from the south-east side of the klargester pit down to the water mains and bib tap on the southern boundary of the site. The trench was hand excavated and measured *c.*6.41m in length, *c.*0.17m in width, and *c.*0.50m in depth. The stratigraphy revealed comprised *c.*0.10m depth of turf, *c.*0.07-0.40m depth of cemetery soil (07), above natural chalk. Because of the slope of the site at its south-east boundary, the natural chalk appeared to rise up towards the south-east site boundary. The trench was also much disturbed by modern services.

Occasional disarticulated human remains were recovered and one partially articulated burial, at a depth of 0.39m BGL, was identified. It was present in the south side of the trench and was disturbed by modern services.

4.8 **Burials** (Figs 3-6; Plates 12-16)

During the monitoring of the overall work a total of forty-five articulated/partially articulated burials were excavated, as well as a significant quantity of disarticulated human remains. The burials were typical Christian burials laid out in an extended, supine position in the general orientation of west-east, the head being to the west. However, the majority of burials within the klargester pit are on more of a south-west

north-east alignment, and one burial within drainage trench 1 (SK094) was on a north-west south-east alignment. It was not always possible to distinguish actual grave cuts within the cemetery soil, though they must have been present. A number of burials showed evidence of having been buried in a coffin with the identification of degraded wood, metal coffin fittings and coffin nails (SK012, SK051, SK055, SK073, SK085, SK100, and SK103).

A fragment of metal lace decoration (2×2cm) used to perform the function of a series of upholstery pins was found associated with SK085 (Plate 15). Comparisons with finds from Christ Church, Spitalfields, London (Reeve & Adams 1993) reveal two similar examples (2307 and 2247) of metal lace decoration. Upholstery was often applied to the outside of the coffin, with upholstery round-headed nails being used. The term 'lace' was given to the decorative strip of metal which was sometimes used to perform the same function as upholstery pins. Examples of such thin strips of pressed metal resembling a double row of upholstery pins are found in contemporary pattern books (Victoria & Albert Museum, M63e), where they are referred to as 'nail lace'. This type of ornament has been given a date range of 1780-1810 by Gentle & Field (1974: 361). However, its use is also mentioned in Sable Plume's instruction manual, dated c.1920 (Reeve & Adams 1993: 83-86).

The coffin handles found with burials SK085 and SK094, although highly corroded seem to have a rosette decoration around them; also one shroud pin was associated with SK109. The level at which the articulated burials were found ranged between c.0.29-1.50m BGL. Osteological analysis of the burials can be found in Appendix 4.

4.9 **Pottery** (Plate 17)

Pottery sherds were found within the cemetery soil (07) in the largest pit area and drainage run 2 and 3. In the largest pit the pottery comprised eighteen body sherds including one base sherd of crude/abraded Roman pottery. The majority were of a grey/black fabric with small stone inclusions, whilst three sherds had an orange slip applied to the surface. Drainage trench 1 contained pottery ranging from the Roman period to post-medieval. The assemblage comprised five Roman pottery sherds as seen in the largest pit, with one sherd having a lattice decorative motif on the outer surface, one sherd of medieval pottery with the typical green glaze of that period, and two sherds of post-medieval pottery. Drainage trench 2 contained three sherds of Roman pottery including one rim sherd, of the same fabric as seen in the largest pit and drainage trench 1.

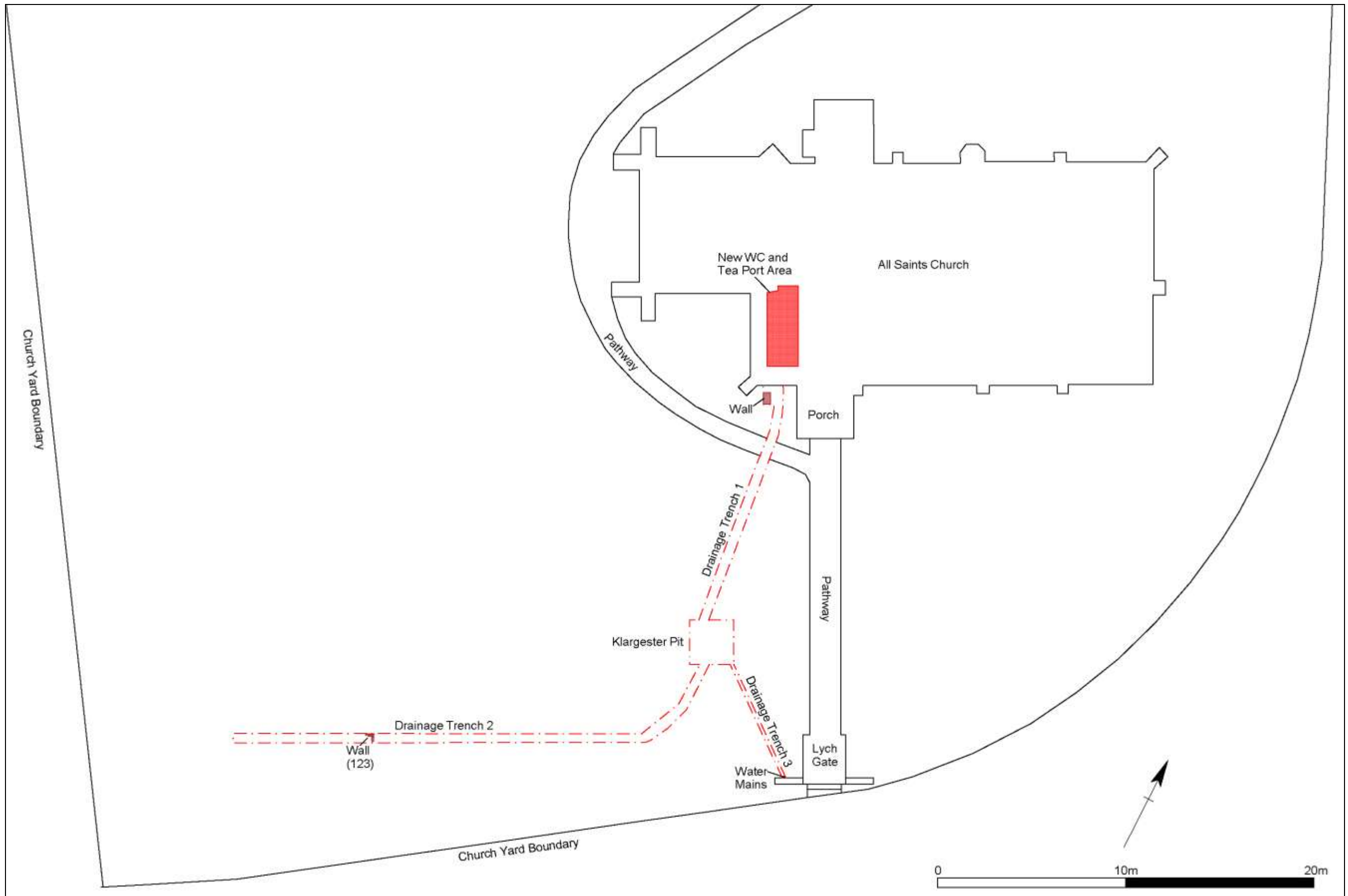


Figure 3: Site Plan depicted excavation areas (scale 1:200)

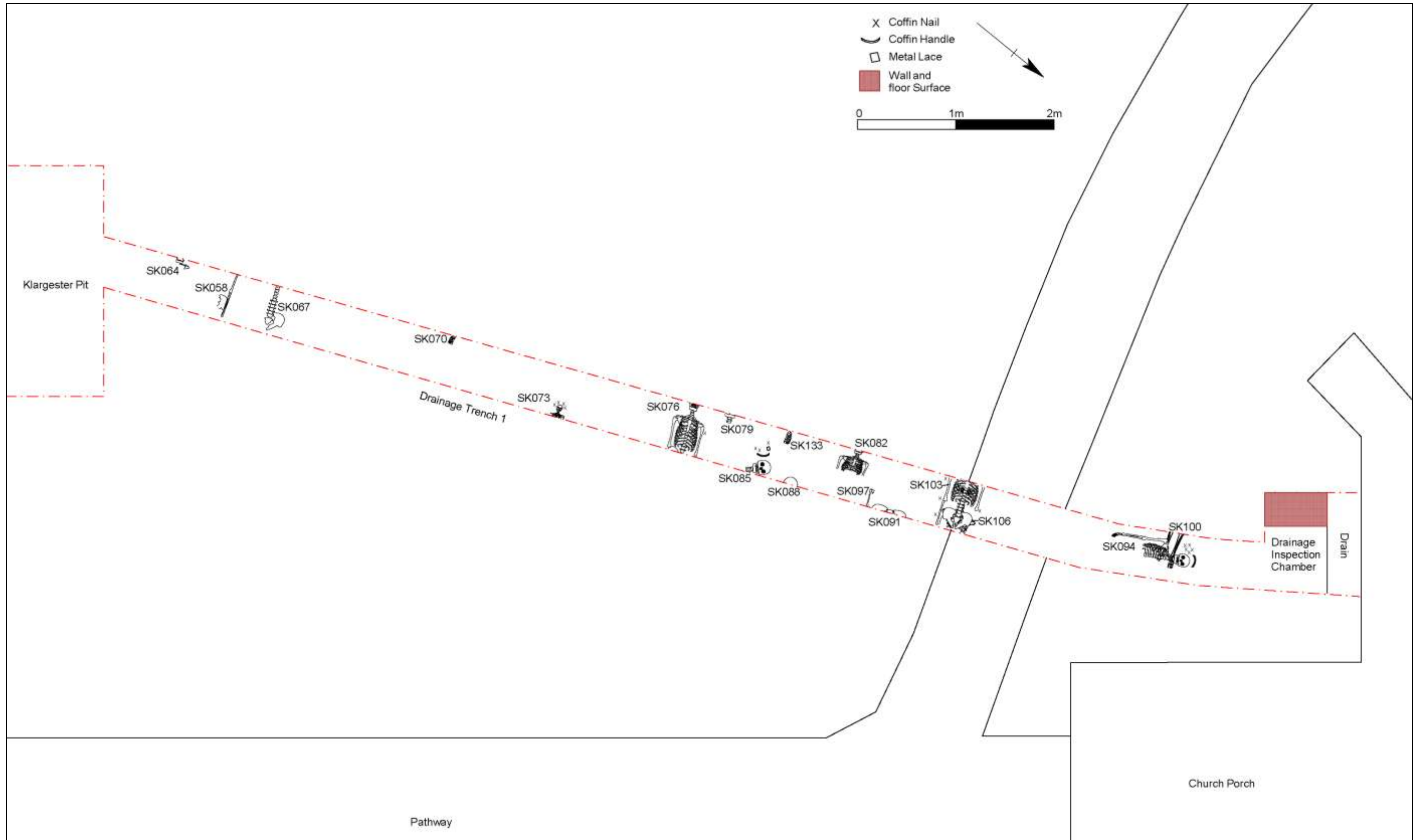
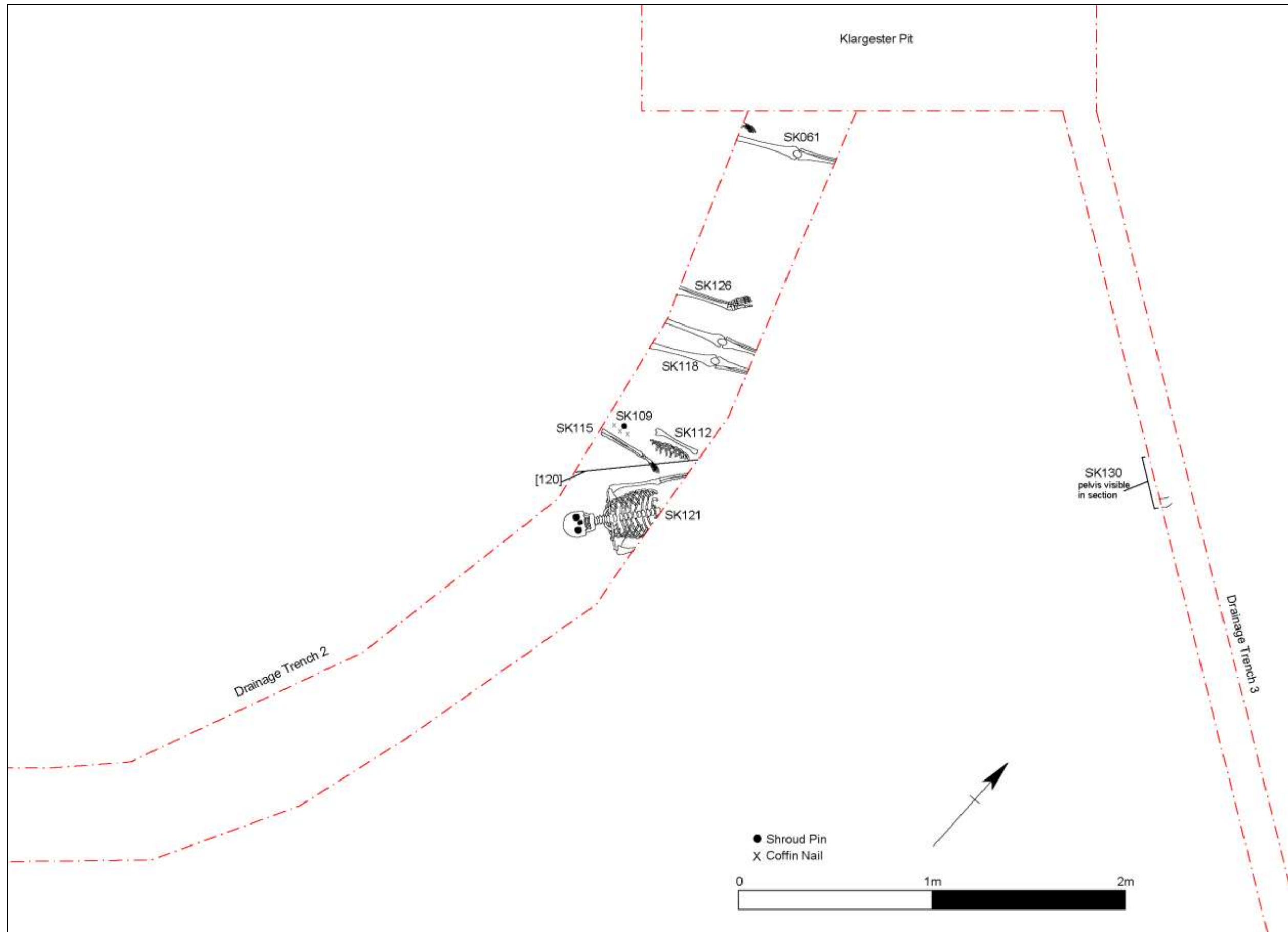


Figure 5: Drainage Trench 1 and Inspection Chamber Plan (scale 1:30)



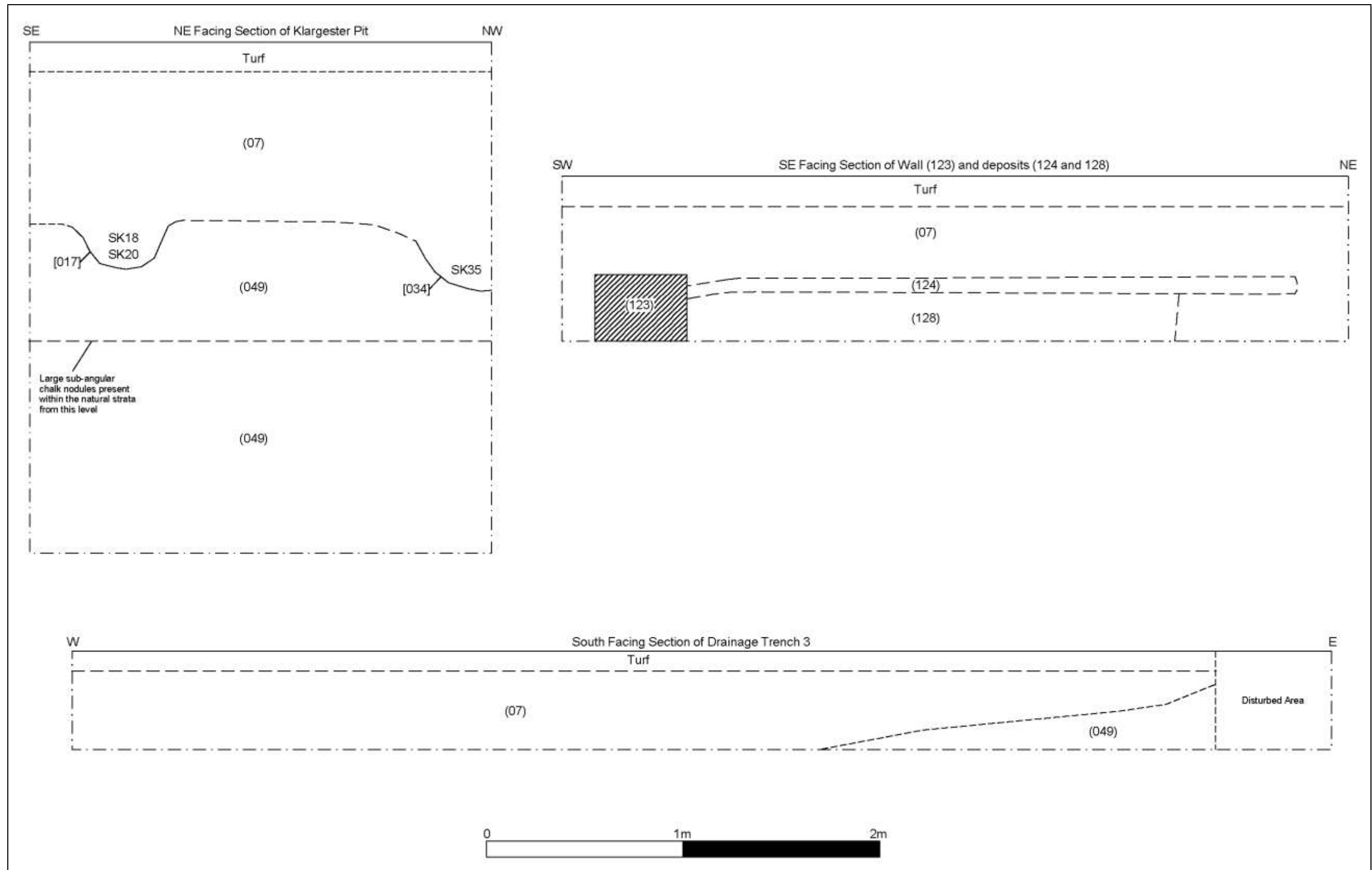


Figure 7: Section Drawings (scale 1:20)



Plate 1: New WC and Tea Port Area (scale 1m)



Plate 2: Inspection Chamber: Wall and floor surface (scale 500mm)



Plate 3: NE facing section of klargester pit (scale 2m)



Plate 4: Drainage trench 1, looking N (scale 1m)



Plate 5: Drainage trench 1, west facing section (scale 1m)



Plate 6: Drainage Trench 2, wall (123) (scale 500mm)



Plate 7: Drainage trench 2, looking SW
(scale 2x1m)



Plate 8: Drainage trench 2, inner face of wall
(123), looking NE (scale 500mm)



Plate 9: Drainage trench 2, outer face of wall
(123), looking SW (scale 500mm)

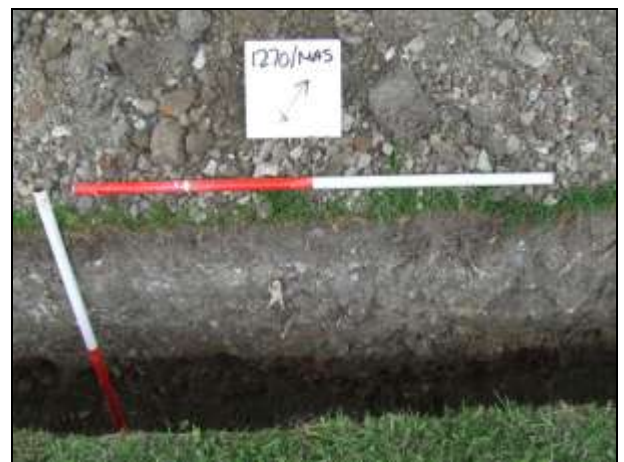


Plate 10: Drainage trench 2, SE facing section,
deposits (124) and (128) (scale 2x1m)



Plate 11: Drainage trench 3, looking SE
(scale 2x1m)



Plate 12: SK094: Burial on a true SW-NE alignment
(scale 500mm)



Plate 13: SK085: Coffin handle, coffin nails and decorated metallic coffin trim
(scale 500mm)



Plate 14: Coffin furniture associated with SK085, detail
(scale 200mm)



Plate 15: Metal lace associated with SK085
(scale 100mm)



Plate 16: Coffin handles associated with SK094
(scale 200mm)



Plate 17: Drainage trench 1: pottery (scale 200mm)

5. Conclusions

- 5.1 From the medieval period onwards, Marsworth churchyard has been in use continuously as a burial ground and still inters burials today. Forty-five articulated/partially articulated burials were excavated during the watching brief, along with a significant amount of disarticulated human remains. Due to the lack of dateable finds it is difficult to determine an actual date for the burials. However, the date of SK085 can be elaborated on due to the finding of a fragment of metal 'lace'. Upholstery was often applied to the outside of the coffin, with upholstery round-headed nails being used. The term 'lace' was given to the decorative strip of metal which was sometimes used to perform the same function as upholstery pins. This type of ornament has been given a date range of 1780-1810, though it was apparently still in use in the early 20th century.
- 5.2 Many of the burials were lacking in evidence for the method of interment, with few showing actual grave cuts. However, a number of burials (SK012, SK051, SK055, SK073, SK085, SK100, and SK103) did have coffin fittings associated with them, and SK109 also had a shroud pin.
- 5.3 Most burials extended beyond the limit of excavation so the sample shows a lack of complete burials. From such a small sample no detailed statistical analysis can be carried out, and no full conclusions as to the demography and health of the population may be confidently reached. The exact cause of death of individuals is not generally apparent, as no traces are present on the skeletons. This most likely indicates that death was normally due to infirmity or diseases that commonly leave no trace on the bones. The sample did exhibit a fairly high rate of child mortality: out of the forty-five individuals 18 were immature burials, two of which were pre-natal deaths between 30-37 weeks after conception. The proportion of younger burials is to be expected, as these individuals were more susceptible owing to their not yet fully developed immune systems. The sample also highlighted common pathologies such as dental pathology associated with diet and hygiene and joint disease associated with advancing age.
- 5.4 Excavation of the inspection chamber uncovered the remains of a wall overlying a possible floor surface. The wall was constructed of flint and stone with sandy mortar below probable floor slabs. It is likely that this structure forms an earlier part of the church that may date back to the 12th century.
- 5.5 Another wall was uncovered towards the south-west end of Drainage Trench 2. This L-shaped wall was constructed of hand-made bricks, and survived to at least 4-5 brick courses. Its north-east face was better finished than its south-west side. Related to the wall on its north-east side were deposits of modern building debris, one containing a metal fitting. The wall could belong to a structure, though its size, date and function remain uncertain. From cartographic evidence it is apparent that the churchyard boundary has changed since the late 19th / early 20th century, so it is possible that the wall is associated with the earlier boundary.
- 5.6 The watching brief also uncovered a number of pottery sherds that range in date from the Roman period to the post-medieval, pointing to the continued use of the area for a

significant period. Due to the constant disturbance of the ground through continued burial use of the cemetery it is not thought that the pottery is associated with the excavated burials.

5.7 ***Confidence Rating***

The work was carried out in good conditions with full cooperation of the client and on-site construction team; therefore the results are given a high confidence rating.

6. Acknowledgements

The project was commissioned by Shenstone & Partners on behalf of Marsworth Parochial Church Council. The writer is grateful to John White (Church Warden) and to Michael Poteliakhoff (Shenstone & Partners) for their assistance. The project was monitored by Julian Munby, Diocesan Archaeological Advisor. Thanks are also due to the on-site contractors Nigel Lamb, Lee and Steve.

The project was managed for ASC by Karin Semmelmann MA MIFA. Fieldwork was carried out by Karin Semmelmann, Calli Rouse BA PIFA, and Carina Summerfield-Hill BA MSc. The report was prepared by Carina Summerfield-Hill BA MSc and edited by Bob Zeepvat BA MIFA.

7. Archive

7.1 The project archive will comprise:

1. Faculty Schedule
2. Initial Report
3. Clients site plans
4. Site Monitoring Sheets
5. Finds records
6. Site record drawings
7. List of photographs
8. B/W prints & negatives
9. Original specialist reports and supporting information
10. CDROM with copies of all digital files.

7.2 The archive will be deposited with *Buckinghamshire County Museum*.

8. References

Standards & Specifications

- EH 1991 *The Management of Archaeological Projects, 2nd edition*. English Heritage (London).
- IFA 2000a Institute of Field Archaeologists' *Code of Conduct*.
- IFA 2000b Institute of Field Archaeologists' *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology*.
- IFA 2001 Institute of Field Archaeologists' *Standard & Guidance documents (Desk-Based Assessments, Watching Briefs, Evaluations, Excavations, Investigation and Recording of Standing Buildings, Finds)*.

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Unpublished Works

- A Short Guide: All Saints Church Marsworth*. Leaflet

Appendix 1: Monitoring Table

DATE	TIME	REASON FOR VISIT/OBERVATIONS
14/04/10	10:00-12:00	Preliminary site visit
19/04/10	8:30-11:30	Observed hand excavation of inspection chamber c.1.03 × 0.70m, remains of wall found with possible floor layer on top, wall: c. 0.34m E-W, 0.66m in depth, floor: c. 0.25m BGL. Brick and cement rendered drain also recorded up again church wall c.0.35m wide.
21/04/10	c.15 minutes	Observed ground reduction inside church, area measured c. 3.08-3.30m from south wall, c.2.10m from west wall, to a depth of c.0.40m BGL. Void beneath large stones possibly a burial.
22/04/10	11:40-12:45	Observed remainder of ground reduction in church – no archaeological finds or features. Topsoil was removed from klargester pit area, small amount of disarticulated human bone recovered from topsoil. Electricity cable encountered, therefore pit will be moved.
23/04/10	10:30-15:30	Observed hand dug part of klargester pit down to c.0.60m BGL. Disarticulated human bone found in soil, c.0.1m topsoil over cemetery soil (silty grey clay). Articulated burial uncovered in the NE corner of klargester pit c.0.6m BGL. Skull destroyed by land drain running through trench.
27/04/10	7:45-16:30	Observed the hand digging of klargester pit. Excavated articulated human burials: SK05 SK09 SK012 SK015 SK018 SK020 SK022 SK024. Uncovered two skulls thought to be fully articulated at the end of the day that will be excavated tomorrow.
28/04/10	7:45-16:30	Excavated articulated burials SK026 SK029 SK032 SK035 within klargester pit.
29/04/10	7:45-16:30	Excavated articulated burials SK038 SK041 SK044 SK047 within klargester pit. Arranged to come back on the 4 th may to machine watch further excavation in the klargester pit. Upon leaving site spend an hour getting up to date with paperwork.
4/05/10	7:45-16:30	Observed the machine excavation of klargester pit. Excavated articulated human burials SK051 SK053 and SK055. Continued machine excavation of klargester pit to a depth of c.2.60m BGL. Stratigraphy measured c.0.15m topsoil, c.0.85m cemetery soil c.1.60 natural chalk.
5/05/10	7:50-16:30	Observed the hand digging of drainage trench 1, stemming from the church towards the klargester pit. End nearest klargester pit c.0.93m BGL, c.0.50m in width. Stratigraphy: turf and cemetery soil. Excavated articulated human burials SK058 SK061 SK064 SK067 and a significant quantity of disarticulated human bone. Modern services visible in trench causing ground disturbance.
10/05/10	7:50-16:00	Observed further hand digging of drainage trench 1, excavated articulated human burials SK070 and SK073.
11/05/10	8:00-16:30	Observed further hand digging of drainage trench 1, excavated burials SK076 and SK079.
12/05/10	7:50-16:20	Observed further hand digging of drainage trench 1, excavated articulated human burials SK082 SK085 SK088 SK091 SK094 and disarticulated human bone.
13/05/10	7:50-14:30	Observed further hand digging of drainage trench 1, excavated articulated human burials SK097 SK100 SK103 SK106. Drainage trench 1 was completed, measured c.12.20m in length, 0.40-0.50m width, 0.74-1.06m BGL. Arranged to return on Monday 17 th may to start drainage trench 2.
17/05/10	7:50-16:30	Observed the hand excavation of drainage trench 2, excavated articulated human burials SK109 SK112 SK115 SK118.
18/05/10	7:50-16:20	Observed further excavation of drainage trench 2, excavated articulated human burial SK121. Very few disarticulated human bone and some animal bone, likely sheep. Towards the far end of drainage trench 2 excavated wall (123) and a light yellowy gravelly deposit (124) that contained modern broken orange bricks, roof tile likely a result of dumping. Deposit (124) is present up to wall (123) and measures c.3m in length, 0.08m in depth and c.0.50m BGL.

DATE	TIME	REASON FOR VISIT/OBERVATIONS
19/05/10	7:50-16:20	Observed further hand excavation of drainage trench 2. Excavated deeper around the wall (123) area. Found the wall to be L-shaped and was excavated to 5/4 brick courses. To the right of the brick wall below deposit (124) was further dumped material of brick and roof tile within the brown/grey silty clay possibly originally part of structural feature (123). Excavated articulated human burial SK126.
20/05/10	11:30-16:15	Observed hand excavation of drainage trench 3. The trench measured c.6.41m in length, 0.17m width, c.0.50m in depth BGL. The stratigraphy was made up of c.0.10m turf, c.0.07-0.40m cemetery soil, and towards the NE end of the trench the natural chalk was hit between 0.10-0.33m BGL. Excavated articulated human burial SK130, modern services throughout trench causing much disturbance.

Appendix 2: Finds Concordance

Context	Pottery		Shell (g)	Other Finds	
	(no)	(g)		Type	(no)
Klargester Pit Cemetery Soil (07)	18 sherds	105g		SK012:- Coffin Nails	1
				SK051:- Coffin Nails	9
				SK055:- Coffin Nails	2
Drainage Trench 1 Cemetery Soil (07)	8 sherds	101g		SK073:- Coffin Nails	4
				SK085:- Coffin Nails	3
				Coffin Handle	1
				Fragment of metallic decorated coffin trim	1 frag
				SK094:- Coffin Nails	8
				Coffin Handle	1
				SK103:- Coffin Nails	4
Drainage Trench 2 Cemetery Soil (07)	3 sherds	26g	2 oyster shells:- 37g	SK109:- Coffin Nails	3
				Shroud Pin	1

Note: Coffin fittings associated with burials were reburied along with the bones, whilst other finds have been left in the care of All Saints Church, Marsworth.

Appendix 3: List of Photographs

SITE NAME: All Saints Church, Marsworth			SITE NO/CODE: 1270/MAS	
Shot	B&W	Digital	Subject	
1		√	Initial site visit photos of site – All Saints Church	14/04/10
2		√	Initial site visit photos of site – All Saints Church	14/04/10
3		√	Initial site visit photos of site – All Saints Church	14/04/10
4		√	Initial site visit photos of site – All Saints Church	14/04/10
5		√	Initial site visit photos of site – All Saints Church	14/04/10
6		√	Initial site visit photos of site – All Saints Church	14/04/10
7		√	Initial site visit photos of site – All Saints Church	14/04/10
8		√	Initial site visit photos of site – All Saints Church	14/04/10
9		√	Initial site visit photos of site – All Saints Church	14/04/10
10		√	Initial site visit photos of site – All Saints Church	14/04/10
11		√	Initial site visit photos of site – All Saints Church	14/04/10
12		√	Initial site visit photos of site – All Saints Church	14/04/10
13		√	Initial site visit photos of site – All Saints Church	14/04/10
14		√	Initial site visit photos of site – All Saints Church	14/04/10
15		√	Initial site visit photos of site – All Saints Church	14/04/10
16		√	Initial site visit photos of site – All Saints Church	14/04/10
17		√	Initial site visit photos of site – All Saints Church	14/04/10
18		√	Initial site visit photos of site – All Saints Church	14/04/10
19		√	Initial site visit photos of site – All Saints Church	14/04/10
20		√	Initial site visit photos of site – All Saints Church	14/04/10
21	√	√	Inspection chamber: wall and floor surface, looking SW	19/04/10
22	√	√	Inspection chamber: wall and floor surface, looking NW	19/04/10
23	√	√	Inspection chamber: wall and floor surface, looking SW	19/04/10
24	√	√	Inspection chamber: wall and floor surface, looking NW	19/04/10
25		√	Klargester pit, looking NW	22/04/10
26		√	Klargester pit, looking NW	22/04/10
27		√	Ground reduction inside church, looking NW	22/04/10
28		√	Ground reduction inside church, looking W	22/04/10
29		√	Ground reduction inside church, looking NW	22/04/10
30	√	√	Klargester pit, looking NW	23/04/10
31	√	√	Klargester pit, looking NW	23/04/10
32	√	√	SK002, looking SE	23/04/10
33		√	SK002, looking SE	23/04/10
34		√	SK009, looking N	27/04/10
35		√	Overall site shot, looking W	27/04/10
36		√	General site shot, looking S	27/04/10
37	√	√	SK012, looking W	27/04/10
38		√	SK015, looking N	27/04/10
39	√	√	SK018, looking W	27/04/10
40		√	SK018 and SK020, looking W	27/04/10
41		√	SK022, looking E	27/04/10
42		√	SK022 – Pathology	27/04/10
43		√	SK022 – Pathology	27/04/10
44		√	SK022 – Pathology	27/04/10
45		√	SK022 – Pathology	27/04/10
46		√	SK022 – Pathology	27/04/10
47		√	SK022 – Pathology	27/04/10

SITE NAME: All Saints Church, Marsworth			SITE NO/CODE: 1270/MAS
Shot	B&W	Digital	Subject
48		√	SK022 – Pathology 27/04/10
49		√	SK022 – Pathology 27/04/10
50		√	SK022 – Pathology 27/04/10
51		√	SK022 – Pathology 27/04/10
52		√	SK022 – Pathology 27/04/10
53		√	SK022 – Pathology 27/04/10
54		√	SK002 and SK024, looking E 27/04/10
55		√	SK026 SK029 SK032, looking SE 28/04/10
56		√	SK032 detail, looking SE 28/04/10
57		√	SK026 detail, looking SE 28/04/10
58		√	SK029 and disarticulated bones, looking SE 28/04/10
59		√	SK032 fully exposed, looking SE 28/04/10
60		√	SK032 – Pathology 28/04/10
61		√	SK032 – Pathology 28/04/10
62		√	SK032 – Pathology 28/04/10
63		√	SK032 – Pathology 28/04/10
64		√	SK032 – Pathology 28/04/10
65		√	SK032 – Pathology 28/04/10
66		√	SK032 – Pathology 28/04/10
67		√	SK032 – Pathology 28/04/10
68		√	SK032 – Pathology 28/04/10
69		√	SK032 – Pathology 28/04/10
70		√	SK032 – Pathology 28/04/10
71		√	SK032 – Pathology 28/04/10
72		√	SK032 – Pathology 28/04/10
73		√	SK032 – Pathology 28/04/10
74		√	SK032 – Pathology 28/04/10
75		√	SK035, looking SW 28/04/10
76		√	SK038, looking SE 29/04/10
77		√	SK041 SK044 SK047, looking SE 29/04/10
78		√	SK041 detail, looking NW 29/04/10
79		√	SK044 detail, looking NW 29/04/10
80		√	SK047 detail, looking SE 29/04/10
81		√	SK047 – Pathology 29/04/10
82		√	SK047 – Pathology 29/04/10
83		√	SK047 – Pathology 29/04/10
84		√	SK047 – Pathology 29/04/10
85		√	SK047 – Pathology 29/04/10
86		√	SK047 – Pathology 29/04/10
87		√	SK047 – Pathology 29/04/10
88		√	SK047 – Pathology 29/04/10
89		√	SK047 – Pathology 29/04/10
90		√	SK047 – Pathology 29/04/10
91		√	SK047 – Pathology 29/04/10
92		√	SK047 – Pathology 29/04/10
93		√	SK051 and SK053, looking SE 4/05/10
94		√	SK055, looking SW 4/05/10

SITE NAME: All Saints Church, Marsworth			SITE NO/CODE: 1270/MAS
Shot	B&W	Digital	Subject
95		√	Klargester pit, looking SE 4/05/10
96		√	NE facing section of klargester pit 4/05/10
97		√	NE facing section of klargester pit 4/05/10
98		√	SK058, looking SW 5/05/10
99		√	SK061, looking W 5/05/10
100		√	SK067, looking SW 5/05/10
101		√	Drainage trench 1, looking S 5/05/10
102	√	√	SK073, looking W 10/05/10
103		√	SK073 detail 10/05/10
104		√	SK073 detail 10/05/10
105		√	SK073 detail 10/05/10
106		√	SK073 detail 10/05/10
107		√	SK073 detail 10/05/10
108	√	√	SK076, looking W 11/05/10
109	√	√	SK082, looking W 12/05/10
110	√	√	SK085 and disarticulated bone, looking S 12/05/10
111		√	SK085 and disarticulated bone, detail, looking S 12/05/10
112		√	SK085 – Coffin furniture associated with burial 12/05/10
113		√	SK085 – Coffin furniture associated with burial 12/05/10
114		√	SK085 – Coffin furniture associated with burial 12/05/10
115		√	SK085 – Coffin furniture associated with burial 12/05/10
116		√	SK085 – Coffin furniture associated with burial 12/05/10
117		√	SK085 – Coffin furniture associated with burial 12/05/10
118		√	SK085 – Coffin furniture associated with burial 12/05/10
119		√	SK085 – Coffin furniture associated with burial 12/05/10
120	√	√	SK094, looking NW 12/05/10
121		√	SK094 – Coffin furniture associated with burial 12/05/10
122		√	SK094 – Coffin furniture associated with burial 12/05/10
123		√	SK094 – Coffin furniture associated with burial 12/05/10
124		√	SK094 – Coffin furniture associated with burial 12/05/10
125	√	√	SK100, looking N 13/05/10
126	√	√	SK103, looking W 13/05/10
127	√	√	SK106, looking W 13/05/10
128	√	√	Drainage trench 1, looking NW 13/05/10
129	√	√	NE facing section of drainage trench 1 13/05/10
130		√	SK112 SK115, looking W 17/05/10
131		√	SK118, looking W 17/05/10
132		√	SK121, looking W 18/05/10
133		√	East facing section of drainage trench 2 18/05/10
134		√	Wall (123), looking NW 18/05/10
135	√	√	SE facing section of drainage trench 2, deposit (124) 18/05/10
136		√	Drainage trench 2, looking SW 18/05/10
137	√	√	Drainage trench 2, looking SW 18/05/10
138	√	√	Drainage trench 2, looking N 18/05/10
139	√	√	Wall (123) more exposed, looking NW 19/05/10
140	√	√	Wall (123), inner face, looking NE 19/05/10
141	√	√	Wall (123), outer face, looking SW 19/05/10

SITE NAME: All Saints Church, Marsworth			SITE NO/CODE: 1270/MAS
	B&W	Digital	Subject
142	√	√	SK126, looking W 19/05/10
143		√	SE facing section of drainage trench 2, deposit (124) and (128) 19/05/10
144		√	Drainage trench 2, looking SW 19/05/10
145	√	√	Drainage trench 3, looking SE 20/05/10
146		√	Drainage trench 3, looking SE 20/05/10
147		√	Drainage trench 1 – Pottery 3/06/10
148		√	Drainage trench 1 – Pottery 3/06/10
149		√	Klargester pit – Pottery 3/06/10
150		√	Klargester pit – Pottery 3/06/10
151		√	Drainage trench 2 – Pottery and oyster shells 3/06/10
152		√	Drainage trench 2 – Pottery and oyster shells 3/06/10

Appendix 4: Osteological Analysis – Specialist Report

4.1 Introduction

Forty-five articulated/partially articulated human burials were excavated, as well as a significant amount of disarticulated human remains. A detailed list of the assemblage appears in Tables 2-9.

Regarding the articulated remains, the assessment of sex of the individuals (Table 1) was based, where possible, around the morphological characteristics of the skull and pelvic regions (Schwartz 1995: 280-281; Buikstra and Ubelaker 1994). Individuals that could not be confidently sexed, due to a lack of preservation or where the burial extended beyond the limit of excavation, are termed ‘Sex Unknown’. The assessment of the age of the individuals was based primarily on epiphyseal fusion of the long bones (Schwartz 1995: 185-222), and where possible the auricular surface (Lovejoy *et al.* 1985), pubic symphysis (Brooks and Suchey 1990), dental development (Ubelaker 1978), whilst the age of pre-natal individuals was based on Professor Black’s scheme (Schaefer, Black and Scheuer 2009). Ages are categorised as pre-natal, weeks since conception, younger child (0-5), older child (6-11), adolescent (12-18), adult (18+), younger adult (20-35), older adult (35-50), and mature adult (50+), (note: the term child and adult are used when preservation does not allow a more precise age range to be assigned).

Table 1: Articulated Burials

	Pre-Natal	Younger Child	Older Child	Adolescent	Child	Young Adult	Older Adult	Mature Adult	Adult
Male						2		1	4
Male?							1		
Female						1	5	1	
Female?						1			
Sex Unknown	2		6	2	8			1	10

4.2 Preservation

As a whole the articulated human burials show evidence of good bone preservation, the bone being hard and dry with little evidence of surface cracking and degradation. A number of burials show signs of having been disturbed by modern services, and there is the common occurrence of earlier graves being cut by later one causing disarticulation.

4.3 Pathology

The identification of any abnormalities present on the bone/teeth of the articulated individuals was assessed, where possible, so as to build up a fuller picture of the health of past populations (see Tables 2-5 for detail).

4.3.1 **Dental Pathology**

A common form of pathology that is often preserved in the archaeological record is associated with the dentition. Five forms are present within the sample:

- Ante-mortem tooth loss (AMTL), whereby the loss of the tooth occurs during lifetime, and is linked to the age, diet and oral hygiene of the individual.
- Periodontal disease, *i.e.* the accumulation of plaque between the gum and the teeth, resulting in the exposure of the tooth roots (resorption of the alveolar margin), (Roberts & Manchester 2005: 73-74).
- Dental carries occur in the form of small opaque spots on the teeth surface or as cavities. Infectious and transmissible disease that is caused by the fermentation of food by bacteria that is present on the teeth as plaque (Roberts & Manchester 2005)
- Enamel hypoplasia, defined as ‘deficiencies in enamel matrix composition’, whereby defects in the teeth are present as lines, pits or grooves on the enamel surface. Such defects occur only while the tooth is developing, and are linked to ‘indicators of stress’ (Roberts & Manchester 2005). Type seen with sample is horizontal hypoplasia whereby the defect lines are orientated horizontally along the tooth.
- Calculus, *i.e.* the accumulation of dental plaque that mineralizes. Type present in sample is supragingival, whereby the calculus accumulates above the gum (Roberts & Manchester 2005).

Anti mortem tooth loss (AMTL) was present on burials SK032, SK047, SK079, SK082, SK094, in the majority of cases the AMTL occurred a considerable amount of time before the individual had died as the bone was fully healed and smooth.

A moderate level of periodontal disease was present on both the upper and lower dentition of SK094.

Small round carries, 1mm × 1mm in diameter, were present on SK085 on the LM₁ RM₁ and RM₂ on the buccal side, and on the occlusal surface of the RM² and LM².

Horizontal hypoplasia was slightly visible on the RI₁ of SK044, also the RI₁ RI₂ LI₁ and LI₂ has a slight translucent appearance.

Heavy calculus was present on the lower deciduous incisors of SK055.

4.3.2 **Pathology - Other**

A further three individuals show signs of other forms of pathology, as follows:

SK022 – Mature Adult Sex Unknown

Osteophytes, which are the proliferative deposit of new bone at joint margins in order for the joint to cope with stress by spreading the load (Roberts & Manchester 2005: 135) and macroporosity a form of degeneration of the bone, are present at the sternum end of the right clavicle where the clavicle and

sternum meet (Plate 18). Severe osteophytes are also present on the thoracic vertebrae, two of which show ankylosis, whereby the bone has remodelled and in this case partly fused together due to the severity of the osteophytes (Plate 19). The presence of osteophytes points to the degenerative joint disease osteoarthritis commonly associated with advancing age. Schmorls nodes, whereby indentations occur in the body surfaces of the vertebrae due to herniation of the intervertebral disc (Roberts & Manchester 2005), are present on the thoracic vertebrae bodies (Plate 20).

SK032 – Mature Adult Female

Osteophytes are slightly present on the thoracic vertebra and on the cervical vertebra C1 and C1, around the articular facet of the dens of C2 where the bone articulates with C1. Ankylosis is present on the C2 and C3 whereby the bones have completely fused together, and macroporosity is present on the cervical vertebrae, whilst the entire spinal column and pelvis feel light in weight, suggesting osteoporosis, whereby a reduction in bone density occurs that is linked most commonly to age (Roberts & Manchester, 2005: 242-247).

Osteophytes are present around the right and left margin of the acetabulum (where the pelvis joins with the femur), as well as severe macroporosity within the acetabulum. Both the right and left femoral heads also have osteophytes and macroporosity. Although the condition is clearly visible on both the right and left sides, it is considerably more severe on the left side of the body (Plates 21 & 22), and diagnosed as the degenerative joint disease osteoarthritis.

SK047 – Mature Adult Male

Osteophytes and macroporosity are present on the cervical, thoracic and lumbar vertebrae around the body margins and facets indicating degenerative joint disease, spinal osteoarthritis (Plate 23). The thoracic and lumbar vertebrae also have small depressions within the body surfaces and macroporosity (Plate 24).

4.3.3 ***Muscular Skeletal Markers***

Two individuals showed pronounced muscular skeletal markers on SK018 along the linea aspera of the right and left femurs, and SK022 on both the right and left humeri around the deltoid tuberosity. Such pronounced muscle marking point to physical activity whereby the associated muscles have developed more fully so as to leave a more pronounced mark on the bone around the muscle attachment area.

4.4 ***Conclusion***

No evidence for the causes of death was present on the skeletons. This is common as disease will often leave no trace on the skeleton. Most burials extended beyond the limit of excavation, so the sample shows a lack of fully complete burials. From such a small sample no detailed statistical analysis can be carried out, and no full conclusions as to the demography and health of the population may be confidently reached. The sample did have a fairly high rate of child mortality, whereby out of the forty-five individuals 18 were immature burials, two of which were pre-natal deaths between 30-37 weeks since conception. The sample also highlighted common pathologies such as dental pathology associated with diet and hygiene and joint disease associated with advancing age.

Upon completion of the project the remains were reburied within the churchyard.



Plate 18: SK022, right clavicle and sternum with osteophytes and macroporosity (*scale 200mm*)



Plate 19: SK022, osteophytes present on the spinal column causing two of the thoracic vertebrae to fuse (*scale 200mm*)



Plate 20: SK022, Schmorl's Nodes seen here on the thoracic vertebra (*scale 200mm*)



Plate 21: SK032, left side of pelvis and femur, osteophytes and macroporosity (*scale 200mm*)



Plate 22: SK032, right side of pelvis and femur, osteophytes and macroporosity (*scale 200mm*)



Plate 23: SK047, depicting osteophytes and macroporosity on the cervical vertebra (*scale 200mm*)



Plate 24: SK047, depicting osteophytes and macroporosity on the lumbar vertebra (*scale 200mm*)

ABBREVIATIONS TO TABLES 2-9:

ADO Adolescent
BLE Burial runs beyond limit of excavation
FE Burial fully excavated
Fem Female
Bgl Below ground level

(Note: capital letters are used to reference permanent dentition, whilst lower case letters are used for deciduous dentition).

Table 2: Articulated Burials and Skeletal Analysis – Klargesteer Pit

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
002	-Skull area disturbed by modern services -Evidence of fragmentation -Fairly good preservation of bone present	<20% BLE	ADO	?	<u>Ageing Methods:</u> - Long bones present unfused = immature - Permanent dentition present including right and left M2 upper and lower = 15 ± 36 months years old
005	- Fragmentary - Skull area disturbed	<10% BLE	Older Child	?	<u>Ageing Methods:</u> - Cervical vertebra arches fused to bodies = > 3-4 years old - Left dp ₁ dp ₂ and M ₁ present = 9 ± 24 months years old
009	- Fairly disturbed only long bones surviving	<10%	Child	?	<u>Ageing Method:</u> - Long bones unfused = immature
012	- Evidence of fragmentation - Fairly good preservation of bone present - Skull area disturbed by modern services	<60% BLE	Child	?	<u>Ageing Method:</u> - Long bones unfused = immature
015	- Highly disturbed burial only lower leg bones surviving - Fairly good preservation of bone present	<10%	Child	?	<u>Ageing Method:</u> - Long bones unfused = immature
018	- Lower legs and feet disturbed - Fairly good preservation of bone present	<25% BLE	Younger Adult	Male	<u>Ageing Methods:</u> - Auricular surface – billowing much reduced = 30-34 years old - Pubic symphysis - Phase III: Mean Age S.D 95% Range 23.4 3.6 19-34 <u>Other:</u> - Pronounced muscle markings present on both right and left femur along the linea aspera
020	- Right leg and left lower leg disturbed - Good preservation of bone present	<25% BLE	Adult	Male	<u>Ageing Methods:</u> - Bones present fully fused = 18+ years old
022	- Skull disturbed by drainage pipe - Fairly good preservation of bone present	<20% BLE	Mature Adult	?	<u>Ageing Methods:</u> - Bones present fully fused = 18+ years old <u>Pathology:</u> - Osteophytes and macroporosity present where right clavicle meets sternum - Severe osteophytes present on thoracic vertebra two of which are partly fused together - Schmorls nodes present on thoracic vertebra <u>Other:</u> - Pronounced muscle markings present on right and left humerus, along deltoid tuberosity

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
024	- Highly disturbed - Fairly good preservation of bone present	<5% BLE	Adult	?	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old
026	- Left side of body cut by SK032 - Fairly good preservation of bone present	<75% FE	Child	?	<u>Ageing Method:</u> - Bones present unfused = immature
029	- Highly disturbed - Fairly good preservation of bones present	<15% BLE	Adult	?	<u>Ageing Method:</u> - Bones present fused = 18+ years old
032	- Left humerus disturbed - Good preservation of bones present	<80% BLE	Mature Adult	Fem	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old <u>Pathology:</u> - Macroporosity on cervical vertebra, slight osteophytes on thoracic vertebra, spinal column and pelvis feels light in weight - Osteophytes present on cervical vertebra C1 and C2 around the dens area, also C2 and C3 are fused together - Macroporosity present on pubic bone - Osteophytes present around the joint margin of the acetabulum, severe macroporosity present in the acetabulum and on the femoral head, both right and left. Condition more severe on the left side - Complete AMTL on the mandible, bone fully healed and smooth - Maxilla: teeth present- RC RP ¹ RP ² , heavily worn - Maxilla: RM ¹ RM ² RM ³ AMTL bone fully healed and smooth <u>Other:</u> - Right humerus c.33cm (L), right radius c.26cm (L), right ulna c.28.5cm (L) - Left radius c.26cm (L), left ulna c.27cm (L)
035	- Right femur disturbed by workmen - Good preservation of bone present	<25% BLE	Adult	?	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old
038	- Undisturbed - Good preservation of bones present	c.80% BLE	Older Child	?	<u>Ageing Methods:</u> - Bones present unfused = immature - Mandible: Teeth present- Right and left M ₁ , RM ₂ just erupting. Deciduous teeth present- right and left dc dp ₁ dp ₂ ; Maxilla: left M ¹ present, LM ² just erupting = 9 ± 24 months years old
041	- Skull area and right side of body disturbed - Fairly good preservation of bones	<20% BLE	Adult	Male	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
044	- Left side and lower legs but by SK047 - Fairly good preservation of bone present	<55% FE	Older Child	?	<u>Ageing Methods:</u> - Long bones and pelvis unfused = immature - Neutral arches recently fused to vertebra bodies = >c. 6 years old - Mandible: teeth present- front incisors permanent, 1 st right and left M ₁ ; deciduous teeth present- right and left dc dp ₁ dp ₂ = c. 9 ± 24 months years old - Maxilla: teeth present- front incisors permanent, 1 st right and left M ¹ , can see right and left M2 developed within bone unerupted; deciduous teeth present- right and left dc dp ¹ dp ² = c. 9 ± 24 months years old <u>Pathology:</u> - RI ₁ RI ₂ LI ₁ LI ₂ slightly translucent - RI ₁ Slight horizontal hypoplasia
047	- Undisturbed - Fairly good preservation of bone present - Little fragmentation	80% BLE	Mature Adult	Male	<u>Ageing Methods:</u> - Bones present fully fused = 18+ years old - Right and left auricular surface – lipping around joint margin, macroporosity, dense irregular bone/spurs = 50+ years old - Right pubic symphysis = Phase VI Mean Age S.D 95% Range 61.2 12.2 34-86 <u>Pathology:</u> - Cervical vertebra: macroporosity, osteophytes present around body margins and facets - Thoracic/Lumbar vertebra: depressions within body surface, osteophytes, macroporsity - Mandible: dentition- right and left canines present, front incisors lost post-mortem, rest of dentition AMTL with bone fully healed and smooth
051	- Undisturbed - Fairly good preservation of bone present	85% BLE	Older Adult	Fem	<u>Ageing Methods:</u> - Bones present fully fused = 18+ years old - Right and left auricular surface = 30s years old <u>Pathology:</u> - Mandible: AMTL of complete dentition, bone fully healed aside from RI ₂ RC area in the process of healing at time of death <u>Other:</u> - Left tibia c.31.5cm (L), left fibula c.31cm (L), left femur c.40cm, left radius c.20cm, left ulna c.21cm, left humerus c.28cm, right tibia c.31cm (L), right femur c.40cm (L)

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
053	- Highly disturbed, cranium only - Fairly good preservation of bone present	<10% FE	Adult	Male	<u>Ageing Method:</u> - Cranium shows signs of significant suture closure = 18+ years old
055	- Mid section disturbed - Fair preservation of bone present	<20% FE	Older Child	?	<u>Ageing Methods:</u> - Bones present unfused = immature - Permanent teeth present right and left M ² M ₂ , lower LC erupting, remaining dentition deciduous teeth = c.10 ± 30 months years old <u>Pathology:</u> - Heavy calculus present on lower deciduous incisors

Table 3: Articulated Burials and Skeletal Analysis – Drainage Trench 1

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
058	- Highly disturbed - Fairly good preservation of bone present	<8% BLE	Child	?	<u>Ageing Method:</u> - Bones present unfused = immature
064	- Skull disturbed partly by workmen - Fragmentary	<10% FE	Older Child	?	<u>Ageing Method:</u> - Mandible: right 1 st molar just erupting = c. 6 ± 24 months years old
067	- Highly disturbed - Fairly good preservation of bone present	<10% BLE	Young Adult	Fem?	<u>Ageing Methods:</u> - Bones present fully fused = 18+ years old - Left pubic symphyasis – Phase II <u>Mean Age S.D 95% Range</u> 25.0 4.9 19-40
070	- Party disturbed, left foot missing - Fairly good preservation of bone present	<5% BLE	Adult	?	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old
073	- Undisturbed - Good preservation of bone present	30% BLE	Pre-natal	?	<u>Ageing Methods:</u> - Bones present unfused = immature - Left humerus c.5cm (length), left scapula c. 2cm (length of spine) c.3cm (length height), left clavicle c.4cm (length), right clavicle c.3.5cm (length) = c. 32 weeks
076	- Undisturbed - Good preservation of bone present	40% BLE	Older Child	?	<u>Ageing Methods:</u> - Dentition: upper and lower front incisors permanent and M1 present upper and lower deciduous teeth dc dp1 dp2 = c. 9 ± 24 months years old - Neural arches recently fused to vertebra bodies = > 6 years old
079	- Highly disturbed by modern services - Good preservation of bone present	<5% BLE	Older Adult	Male?	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old <u>Pathology:</u> - Mandible: dentition LC LI ₂ present, remaining dentition AMTL with bone fully healed around right and left molar area

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
082	- Lower body disturbed by modern services - Fairly good preservation of bone	20% BLE	Older Adult	Fem	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old <u>Pathology:</u> - Complete AMTL of lower dentition, bone fully healed; fragment of maxilla shows complete AMTL of front incisors showing signs of healing, however bone not completely healed at the time of death
085	- Undisturbed - Good preservation of bone present	<25% BLE	Young Adult	Fem	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old <u>Pathology:</u> - Mandible: teeth present- LM ₃ just erupting, RM ₃ unerupted; little wear present; small round carries (1mm×1mm) present on LM ₁ RM ₁ RM ₂ all present on the buccal side - Maxilla: two small carries present on the occlusal surface of RM ² , LM ²
088	- Undisturbed - Good preservation of bone present	<8% BLE	Adult	?	<u>Ageing Method:</u> - Cranium shows signs of significant suture closure = 18+ years old
091	- Highly disturbed - Good preservation of bone present	<15% BLE	Older Adult	Fem	<u>Ageing Methods:</u> - Bones present fully fused = 18+ years old - Left auricular surface: slight billowing, striae present = 30s years old
094	- Highly disturbed by modern services - Good preservation of bone present	<40% FE	Older Adult	Fem	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old <u>Pathology:</u> - Mandible: dentition- RP ₂ RM ₁ RM ₂ AMTL, bone fully healed, LM ₃ unerupted, gap present between LP ₂ and LM ₁ , moderate resorption of the alveolar margin - Maxilla: dentition- RP ¹ root only, RM ¹⁻³ AMTL, LP ¹ LP ² LM ¹⁻³ AMTL bone in the process of healing at time of death, LI ¹ root only <u>Other:</u> - Right radius c.20cm (L), right ulna c.21.5cm (L), right humerus c.29.5cm (L)
097	- Highly disturbed - Good preservation of bone present	<8% BLE	Child	?	<u>Ageing Method:</u> - Bones present unfused = immature
100	- Undisturbed - Good preservation of bone present	<30% BLE	Adult	?	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old
103	- Undisturbed - Good preservation of bone present	35% BLE	Older Adult	Fem	<u>Ageing Methods:</u> - Bones present fully fused = 18+ years old - Left auricular surface: faint billowing, striae present = 30s years old

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
106	- Undisturbed - Good preservation of bone present	15% BLE	Adult	Male	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old
133	- Partly disturbed, only left foot - Good preservation of bone present	<5% BLE	Adult	?	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old

Table 4: Articulated Burials and Skeletal Analysis – Drainage Trench 2

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
061	- Highly disturbed - Fairly good preservation of bone present	<8% BLE	Adult	?	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old
109	- Highly disturbed, poor preservation skull frags and part of pelvis surviving	<10%	Pre-natal	?	<u>Ageing Method:</u> - Bones present unfused = immature - Left illum c.3cm (length) and c.2cm (width) = c. 30-37 wks
112	- Highly disturbed - Good preservation of bone present	<10% BLE	Child	?	<u>Ageing Method:</u> - Bones present unfused = immature
115	- Highly disturbed - Good preservation of bone present	<10% BLE	Adult	?	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old
118	- Undisturbed - Good preservation of bone present	<15% BLE	Child	?	<u>Ageing Method:</u> - Bones present unfused = immature
121	- Undisturbed - Good preservation of bone present	<40% BLE	Young Adult	Male	<u>Ageing Method:</u> - Bones present fully fused = 18+ years old - Clavicle at sternum end recently fused = young adult - All dentition present including 3 rd molars. <u>Other:</u> - Left humerus c. 29.5 cm (L), left radius c.22cm (L), left and right clavicle c.13.5cm
126	- Highly disturbed - Good preservation of bone present	<15% BLE	Adolescent	?	<u>Ageing Methods:</u> - Long bone unfused = immature - Right 1 st metatarsal fused at distal end, unfused at proximal end = Fusion begins c.12 years old

Table 5: Articulated Burials and Skeletal Analysis – Drainage Trench 3

Sk	Preservation	%	Age	Sex	Ageing Methods/ Pathology/Other
130	- Highly disturbed by modern services and workmen - Good preservation of bone present - Burial mainly visible in section only	<3% BLE	Adult	?	<u>Ageing Method:</u> - Bone visible fully fused = 18+ years old

Table 6: Articulated Burials – Burial data and levels – Klargest Pit

Sk	Grave Type/Finds	Bgl Skull	Bgl Sacrum	Bgl Feet	Bgl Other
02	- No visible evidence for grave type: coffin/shroud? - No visible evidence for grave cut [01] however SK02 immediately overlies SK024 likely within same cut - No finds		Pelvis - 0.63m		R. Humerus - 0.60m
05	- No visible evidence for grave type: coffin/shroud? - No visible evidence for actual grave cut - No finds				Mandible - 0.63m
09	- No visible evidence for grave type: coffin/shroud? - No visible evidence for actual grave cut - No finds				R. Radius - 0.60m
012	- Coffin burial, one coffin nail found associated with burial - Visible grave cut [011]		Pelvis - 0.61m		Grave Base [011] - 0.71m
015	- No visible evidence for grave type: coffin/shroud? - No visible evidence for actual grave cut - No finds				R. Tibia - 0.54m
018	- No visible evidence for grave type: coffin/shroud? - Visible grave cut [017] contains both SK018 underlying which is SK020 - No finds				R. Hand - 0.99m
020	- No visible evidence for grave type: coffin/shroud? - Visible grave cut [017] contains both SK018 underlying which is SK20 - No finds				L.Femur – 1.10m BGL Grave Base [017] - 1.15m
022	- No visible evidence for grave type: coffin/shroud? - No visible evidence for actual grave cut - No finds				Spinal Column - 0.61m

Sk	Grave Type/Finds	Bgl Skull	Bgl Sacrum	Bgl Feet	Bgl Other
024	- No visible evidence for grave type: coffin/shroud? - No visible grave cut, however SK024 immediately underlies SK02 likely within same cut -No finds				Spinal Column - 0.67m
026	- No visible evidence for grave type: coffin/shroud? - No visible evidence for actual grave cut - No finds	0.79m	R. Ilium - 0.95m	0.86m	
029	- No visible evidence for grave type: coffin/shroud? - No visible evidence for actual grave cut - No finds				R. Humerus - 0.81m
032	- No visible evidence for grave type: coffin/shroud? - Visible grave cut [031] - SK032 cuts SK026, SK032 underlies SK029 - No finds	0.84m	0.96m		Grave Base [031] - 1.06m
035	- No visible evidence for grave type: coffin/shroud? - Visible grave cut [034] - No finds			1.10m	L. Femur - 1.18m Grave Base [035] - 1.23m
038	- No visible evidence for grave type: coffin/shroud? - Visible grave cut [038] - No finds	1.06m	1.17m		Grave Base [037] - 1.20m
041	- No visible evidence for grave type: coffin/shroud? - No visible evidence for grave cut - No finds		R. Ilium - 1.10m		R. Knee - 1.02m
044	- No visible evidence for grave type: coffin/shroud? - No visible evidence for grave cut -SK044 cut by SK047 - No finds	1.08m	L. Ilium - 1.20m		
047	- No visible evidence for grave type: coffin/shroud? - Visible grave cut [046] - SK047 cuts SK044 - No finds	1.10m	1.20m		L. Tibia - 1.25m Grave Base [047] - 1.27m

Sk	Grave Type/Finds	Bgl Skull	Bgl Sacrum	Bgl Feet	Bgl Other
051	- Coffin burial, nine coffin nails and traces of degraded wood associated with burial - Visible grave cut [050] - SK051 possibly cause of SK53 disturbance	1.18m	1.30m	1.25m	Grave Base [050] - 1.33m
053	- No visible evidence for grave type: coffin/shroud? - No visible grave cut - Cranium only, SK053 possibly disturbed by SK051 - No finds	1.17m			
055	- Coffin burial, three coffin nails and traces of degraded wood associated with burial - No visible grave cut	1.50m			

Table 7: Articulated Burials – Burial data and levels – Drainage Trench 1

Sk	Grave Type/Finds	Bgl Skull	Bgl Sacrum	Bgl Feet	Bgl Other
058	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds		Pelvis - 0.78m		
063	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds	0.87m			
067	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds		0.94m		
070	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds			R. Foot - 1.01m	
073	- Coffin burial, four coffin nails found associated with burial - No visible grave cut	0.60m			
076	- Coffin burial, one coffin nail and degraded wood found associated with burial - No visible grave cut		1.04m		Spinal Column -1.02m

Sk	Grave Type/Finds	Bgl Skull	Bgl Sacrum	Bgl Feet	Bgl Other
079	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds				Cervical Vertebrae - 0.85m
082	- Coffin burial, one metal rivet found associated with burial - No visible grave cut	Mandible - 0.75m			Spinal Column - 0.75m
085	- Coffin burial three coffin nails, one coffin handle and a piece of metal lace - No visible grave cut	1.12m			
088	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds	1.12m			
091	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds		0.70m		
094	- Coffin burial, nine coffin nails, two coffin handles and degraded wood found associated with burial - No visible grave cut	0.61m			R. Hand - 0.68m
097	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds				Spinal Column - 0.85m
100	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds			0.91m	
103	- Coffin burial, four coffin nails found associated with burial - No visible grave cut - SK103 overlies SK106		0.68m		
106	- Coffin burial, two coffin nails found associated with burial - No visible grave cut SK106 underlies SK103	0.78m			
133	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds			L. Foot - 1.12m	

Table 8: Articulated Burials – Burial data and levels – Drainage Trench 2

Sk	Grave Type/Finds	Bgl Skull	Bgl Sacrum	Bgl Feet	Bgl Other
061	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds				L. Knee - 0.72m
109	- Coffin burial and body wrapped in shroud, three coffin nails and shroud pin associated with burial - No visible grave cut				Shroud Pin - 0.66m
112	- No visible evidence for grave type: coffin/shroud? - No visible grave cut - SK112 cut by SK115 -No finds				L. Humerus (proximal end) - 0.60m
115	- No visible evidence for grave type: coffin/shroud? - No visible grave cut - SK115 cuts SK112 -No finds				L. Hand - 0.70m
118	- No visible evidence for grave type: coffin/shroud? - No visible grave cut - SK118 cuts SK126 -No finds				L. Knee - 0.71m
121	- No visible evidence for grave type: coffin/shroud? - Visible grave cut [120] - No finds	0.63m			Grave Base [120] - 0.86m
126	- No visible evidence for grave type: coffin/shroud? - No visible grave cut - SK126 cut by SK118 -No finds			R. Foot - 0.29m	

Table 9: Articulated Burials – Burial data and levels – Drainage Trench 3

Sk	Grave Type/Finds	Bgl Skull	Bgl Sacrum	Bgl Feet	Bgl Other
130	- No visible evidence for grave type: coffin/shroud? - No visible grave cut -No finds				R. Head of Femur - 0.39m

Appendix 5: ASC OASIS Form

PROJECT DETAILS			
Project Name:	All Saints Church, Marsworth	OASIS reference:	archaeol2-77998
Short Description:	During May 2010 an archaeological watching brief was carried out at All Saints Church, Marsworth, Buckinghamshire, during the construction of a new WC and tea port, and associated drainage. Forty-five articulated/partially articulated Christian burials were revealed, along with significant quantities of disarticulated human remains. A wall and possible floor surface were exposed along the southern outer wall of the church, and an L-shaped wall was revealed towards the south-west of the churchyard. Pottery sherds ranging from Roman to post-medieval date, and two oyster shells, were found within the associated drainage trenches.		
Project Type:	Watching Brief		
Previous work: (eg. SMR refs)	Unknown	Site status: (eg. none, SAM, listed)	Grade II Listed
Current land use:	Church and Cemetery	Future work: (yes/no/unknown)	Unknown
Monument type:	Church	Monument period:	Medieval
Significant finds: (artefact type & period)	Burials, coffin furniture, Roman- post-medieval pottery		
PROJECT LOCATION			
County:	Buckinghamshire	OS reference: (8 figs min)	SP 9198 1460
Site address: (+ postcode if known)	All Saints Church, Church Lane, Marsworth, Buckinghamshire, HP23 4LX		
Study area: (sq. m. / ha)	c.5225 m sq	Height OD: (metres)	c.118.3m
PROJECT CREATORS			
Organisation:	Archaeological Services & Consultancy Ltd		
Project brief originator:	N/A	Project design originator:	N/A
Project Manager:	Karin Semmelmann MA MIFA	Director/Supervisor:	Bob Zeervat BA MIFA
Sponsor / funding body:	Marsworth Parochial Church Council		
PROJECT DATE			
Fieldwork start date:	19/04/10	Fieldwork end date:	20/05/10
PROJECT ARCHIVES			
	Location (Accession no.)	Content (eg. pottery, animal bone, files/sheets)	
Physical:	Buckinghamshire County Museum	None	
Paper:		B&W prints and negatives, site records, report	
Digital:		Images, report	
BIBLIOGRAPHY (Journal/monograph, published or forthcoming, or unpublished client report)			
Title:	Watching Brief: All Saints Church, Marsworth, Buckinghamshire		
Serial title & volume:	ASC Ltd Report ref. 1270/MAS/1		
Author(s):	Carina Summerfield-Hill BA MSc		
Page nos	49	Date:	4/06/10