Appendix 1: Colour Plates

Plate 1: General shot of the site – the east end of the Academy's sports field. Looking south towards the tennis courts.

Plate 2: One of the enigmatic stone-built features: possible drain or robbed-out wall footing [106]. Looking east-southeast. Scale 0.3m.

Plate 3: Stone-built feature [107]. Looking northeast. Scale 1m.

Plate 4: Small pit or posthole [206], sealed by furrow [208], partially excavated. Looking southwest. Scale 1m.

Plate 5: Possible stone footing [305]. Looking south-southwest. Scale 1m.

Plate 6: Possible wall footing [409]: appears to be well constructed using natural limestone fragments. Looking east. Scale 0.5m.

Plate 7: Pit or ditch terminal [406]. Looking south. Scale 1m.

Plate 8: Section excavated through ditch [505]. The redeposited material covering the eastern side of the sports field is most apparent in this trench, sealing the former topsoil. Looking northwest. Scales 1m.

Appendix 2: Levels and context descriptions

Levels are recorded as metres above Ordnance Datum (OD), calculated from a spot height on Running Furrows Gate, north east of the site (53.4m OD).

Trench 1: Ground level 52.98m OD (NNE) – 53.10m OD (SSW).

Context No.	Type	Description
101	Layer	Re-deposited topsoil. Mid brown slightly sandy silt-loam with occasional modern stone chippings and brick fragments. <0.44m thick.
102	Layer	Buried topsoil. Dark brown sandy silt with occasional charcoal flecks and small sub-rounded flint gravels. <0.2m thick.
103	Layer	Subsoil. Mid orange-brown sandy silt with occasional sub-rounded flint gravels. <0.52m thick.
104	Layer	Natural substrate. Mid (bright) orange-brown sand with lenses of small sub-rounded flint gravels. = Limit of excavation.
105	Fill of 106	Linear spread of small limestone fragments, possibly tail end of dump or demolition material or material left behind after robbing out a larger feature or possibly crude 'French' drain. Aligned *c.* WNW-ESE. >1.6m long x <0.3m wide x >0.25m high.
106	Cut	Not clear. Construction or drainage trench (?). Possibly linear with steep sides, base not excavated. >1.6m long x <0.3m wide x >0.25m deep.
107	Fill of 108	Crude footing (?). Small to moderate size natural (unworked) limestone fragments surviving to four courses. >2m long x >1.6m wide x <0.32m high.
108	Cut	Foundation cut – extends beyond north, east and west side of trench. Steep sides with a flat base. >2m long x >1.6m wide x <0.32m high.
109	Cut	Gully. Linear, aligned *c.* NNW-SSE, with shallow moderately steep sides and concave base. >1.8m long x <0.3m wide x <0.12m deep.
110	Fill of 109	Mid grey-brown sandy silt with very rare charcoal flecks. >1.8m long x <0.3m wide x <0.12m deep.

Trench 2: Ground level 53.15m OD (NW) – 53.21m OD (SE).

Context No.	Type	Description
200	Layer	Topsoil. Mid brown slightly sandy silt-loam with occasional modern stone chippings and brick fragments. <0.12m thick.
201	Layer	Redeposited material (thin spread). Mid red-brown silt with occasional brick fragments and clayey patches. <0.2m thick.
202	Layer	Buried topsoil. Dark brown sandy silt with occasional charcoal flecks and small sub-rounded flint gravels. <0.26m thick.
203	Layer	Redeposited/levelling material. Mid orange-brown sandy silt with occasional sub-rounded flint gravels. <0.2m thick.
204	Fill of 208	Former plough soil (?). Mid orange-brown sandy silt with occasional sub-rounded flint gravels. <0.32m thick.
205	Layer	Natural substrate. Mid (bright) orange-brown sand with lenses of small sub-rounded flint gravels. = Limit of excavation.
206	Cut	Pit/Posthole (?). Sub-rounded – extends beyond the south side of trench. Vertical sides with shallow concave base. >0.4m wide x <0.18m deep.

Context No.	Type	Description
207	Fill of 206	Mixed mid grey and orange-brown silty sand. >0.4m wide x <0.18m deep.
208	Cut	Furrow. Filling space between west end of trench and land drain baulk. Alignment unclear, with broad flat base. >2m wide x <0.32m deep.

Trench 3: Ground level 53.24m OD (NNE) – 53.26m OD (SSW).

Context No.	Type	Description
301	Layer	Topsoil. Mid brown slightly sandy silt-loam. <0.12m thick.
302	Layer	Redeposited material. Mid red-brown silt with occasional brick fragments. <0.18m thick.
303	Layer	Buried topsoil. Dark brown sandy silt with occasional charcoal flecks and small sub-rounded flint gravels. <0.16m thick.
304	Layer	Subsoil. Mid orange-brown sandy silt with occasional sub-rounded flint gravels. <0.28m thick.
305	Construction in 307	Mixed moderate-large natural (unworked) limestone and sandstone (?) blocks laid horizontally with some lime mortar patches. Appears to be large footing/foundation. >2.4m long x >1.6m wide x <0.44m high.
306	Backfill in 307	Mixed redeposited subsoil with patches of light yellow-brown lime mortar around 305. >2.4m long x >1.6m wide x <0.44m high.
307	Cut	Construction cut for 305 – extends beyond east, south and west side of trench. Irregular/amorphous in plan with steep sides and a flat base.
308	1st fill of 307	Disturbed/re-deposited natural sand at base of [307]. <0.04m thick.
309	Layer	Natural substrate. Mid (bright) orange-brown sand with lenses of small sub-rounded flint gravels. = Limit of excavation.

Trench 4: Ground level 53.09m OD (NW) – 53.18m OD (SE).

Context No.	Type	Description
401	Layer	Topsoil. Mid-dark brown sandy silt-loam with occasional charcoal flecks and small sub-rounded flint gravels. <0.18m thick.
402	Layer	Redeposited material. Mid red-brown silt with frequent imported gravels/scalpings. <0.14m thick.
403	Layer	Buried topsoil. Dark brown sandy silt with occasional charcoal flecks and small sub-rounded flint gravels. <0.2m thick.
404	Layer	Subsoil. Mid orange-brown sandy silt with occasional sub-rounded flint gravels. <0.42m thick.
405	Layer	Natural substrate. Mid yellow/orange-brown sand with lenses of small sub-rounded flint gravels. = Limit of excavation.
406	Cut	Ditch terminal (?) – only partially exposed. Irregular, sub-rounded end, moderately steep sides and a concave base. >1.6m long x >2.15m wide x <0.47m deep.
407	Fill of 406	Mid orange-brown sandy silt matrix with occasional sub-rounded flint gravels. >1.6m long x >2.15m wide x <0.47m deep.

Context No.	Type	Description
408	Cut	Foundation trench – extends beyond the east side of trench. Linear, aligned *c.* E-W with a rounded terminus, steep sides and a flat base. >1.8m long x >0.9m wide x <0.26m deep.
409	Construction in 408	Stone footings (?). Moderate sized natural limestone blocks laid horizontally surviving to four courses. <0.35m wide x <0.22m high.
410	Cut	Pit/footing (?), heavily truncated – only base survived. Similar to [408] with a rectangular plan and a flat base. <1.8m long x <0.56m wide x <0.08m deep.
411	Fill of 410	Mixed deposit including dark brown-black and mid brown sandy silt and some redeposited sand with rare moderate limestone fragments and occasional charcoal flecks. <1.8m long x <0.56m wide x <0.08m deep.
412	Backfill in 408	Mixed deposit including dark brown-black and mid brown sandy silt and some redeposited sand with rare moderate limestone fragments and occasional charcoal flecks. >1.8m long x >0.9m wide x <0.26m deep.

Trench 5: Ground level 53.15m OD (NE) – 53.15m OD (SW).

Context No.	Type	Description
501	Layer	Topsoil. Mid-dark brown sandy silt-loam with occasional charcoal flecks and small sub-rounded flint gravels. <0.18m thick.
502	Layer	Redeposited material. Mid red-brown silt with frequent imported gravels/scalpings. <0.2m thick.
503	Layer	Buried topsoil. Dark brown sandy silt with occasional charcoal flecks and small sub-rounded flint gravels. <0.26m thick.
504	Layer	Subsoil. Mid orange-brown sandy silt with occasional sub-rounded flint gravels. <0.26m thick.
505	Cut	Ditch. Aligned *c.* NW-SE, with moderately steep sides (more steep along southern side) with a slight narrow slot ('ankle breaker') base. >1.6m long x <1.66m wide x <0.6m deep.
506	Fill of 505	Mid red-brown sandy silt with occasional small flint gravels. >1.6m long x <1.66m wide x <0.6m deep.
507	Layer	Natural substrate. Light-mid yellow/orange-brown sand with lenses of small sub-rounded flint gravels. = Limit of excavation.

Appendix 3: Specialist Reports

The Ceramic Finds

by Dr Anne Irving

ROMAN POTTERY

Table 1, Roman Pottery Archive

Cxt	Cname	Full name	Form	NoS	NoV	W (g)	Part	Comment	Date
506	CR	Cream ware	Beaker	1	1	1	BS	?ID	Roman
506	GREY	Grey ware	?	1	1	1	BS	Very abraded; soot	Roman

CERAMIC BUILDING MATERIAL

Table 2, Ceramic Building Material Archive

Cxt	Cname	Full name	NoF	W (g)	Comment	Date
407	TEG	Tegula	1	198	Signature	Roman

SPOT DATING

The dating in Table 3 is based on the evidence provided by the finds detailed above.

Table 3, Spot dates

Cxt	Date	Comment
407	Roman	Date on CBM
506	Roman	

Palaeoenvironmental Assessment

by Archaeological Services, Durham University

1.0 Summary

1.1 The project

This report presents the results of palaeoenvironmental assessment of two bulk samples taken during archaeological works at Priory Ruskin Academy, Grantham, Lincolnshire.

The works were commissioned by Pre-Construct Archaeological Services Ltd, and conducted by Archaeological Services Durham University.

1.2 Results

Both bulk samples (506) and (407) produced evidence of domestic waste with varying amounts of charcoal and clinker/cinder occurring within the residues and/or flots.

Charred plant remains were recorded in both of the samples. The results suggest that spelt wheat was used at the site. This was one of the major field crops in the Iron Age and Roman periods in Britain. The presence of chaff in both contexts may suggest crop processing occurred at or near to the site.

1.3 Recommendations

No further analysis is recommended for the plant macrofossils as the assemblages were scanned in their entirety and no further information would be provided during an analysis. If additional work is undertaken at the site, the results of this assessment should be added to any further environmental data produced.

The flots should be retained as part of the physical archive of the site. The residues were discarded following examination.

2.0 Project background

2.1 Location and background

An archaeological evaluation was conducted by Pre-Construct Archaeological Services Ltd at Priory Ruskin Academy, Grantham, Lincolnshire. This report presents the results of palaeoenvironmental assessment of two bulk samples comprising material from a ditch terminus (context 407) and a ditch fill (context 506). From the associated site, PRGE11, pottery spot dates ranged from the late Bronze Age/Roman to the mid-late 3rd century.

2.2 Objective

The objective of the scheme of works was to assess the palaeoenvironmental potential of the samples, establish the presence of suitable radiocarbon dating material, and provide the client with appropriate recommendations.

2.3 Dates

Samples were received by Archaeological Services on 26th September 2011. Assessment and report preparation was conducted between 27th September and 8th October 2011.

2.4 Personnel

Sample processing, assessment and report preparation were conducted by Dr Carrie Drew.

2.5 Archive

The site code is PRAE11, for Priory Ruskin Academy Evaluation 2011. The flots and small finds are currently held in the Environmental Laboratory at Archaeological Services Durham University awaiting collection.

3.0 Methods

The bulk samples were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery sherds, flint and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification for charred and waterlogged botanical remains using a Leica MZ6 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997). Habitat classifications follow Preston et al (2002).

4.0 Results

No finds were recovered from the residue of context (506). However, from the flot small amounts of charcoal, clinker/cinder and coal/coal shale were recovered. From the residue of context (407) a potentially worked flint was recovered. A small amount of unburnt bone and a tooth fragment was also recovered from the residue of context (407). Two fragments of pot and a small fragment of possible glass were also recorded. The flot of both contexts included roots and insect/beetle fragments, as well as a small number of uncharred seeds. The presence of roots and the non-waterlogged nature of the site, suggest that the uncharred seeds are modern intrusions. Assemblages of charred plant macrofossils were present in both contexts (506) and (407). The results are presented in Appendix 1.

The flot from context (506) contained two indeterminate cereal grains and a number of wheat glume bases. The majority of the identified glume bases were spelt wheat. A single charred tuber/rhizome and a few charred weed seeds were also identified from context (506). The weed seed assemblage consisted of a heath-grass caryposis, a fruit of the carrot family and two dock nutlets. None of the grains or charcoal fragments are in good enough condition for radiocarbon dating.

Context (407) also contained a number of charred plant macrofossils. These comprised a greater number of cereal remains than context (506). All of the glume bases which could be identified were spelt wheat and many of the wheat grains also resembled those of spelt wheat, although wheat grains cannot be identified to species with certainty due to their variability. Also identified from context (407) was a single charred heath-grass caryopsis, a single vetch seed and four charred grass caryopses. Charred grain suitable for radiocarbon dating is available from context (407).

5.0 Discussion

Both samples produced evidence of domestic waste and the results suggest that wheat was both used and processed at the site. Spelt chaff was identified in both the samples. Spelt wheat was one of the major field crops during the Iron Age and Romano-British periods (Greig 1991; Hall & Huntley 2007). The charred weed seeds may have grown amongst the cereal crops, or may have occupied waste disturbed ground at the site. The range of plant macrofossil remains assessed here are very similar to those assessed from two contexts at the related site PRGE11, although context (411) from that site contained a much greater number of cereal remains (Archaeological Services 2011) than the contexts assessed in this report.

6.0 Recommendations

No further analysis is recommended for the plant macrofossils as the assemblages were scanned in their entirety and no further information would be provided during an analysis. If additional work is undertaken at the site, the results of this assessment should be added to any further environmental data produced.

The flots should be retained as part of the physical archive of the site. The residues were discarded following examination.

7.0 Sources

Archaeological Services 2011 *Priory Ruskin Academy Grantham: palaeoenvironmental assessment.* Unpublished report 2726, Archaeological Services Durham University

Greig, J R A, 1991 The British Isles, in W Van Zeist, K Wasylikowa & K-E Behre (eds) *Progress in Old World Palaeoethnobotany*. Rotterdam

Hall, A R, & Huntley, J P, 2007 *A review of the evidence for macrofossil plant remains from archaeological deposits in northern England, Research Department Report Series no. 87*. London

Preston, C D, Pearman, D A, & Dines, T D, 2002 *New Atlas of the British and Irish Flora*. Oxford

Stace, C, 1997 *New Flora of the British Isles, 2nd Edition.* Cambridge

Appendix 1: Data from palaeoenvironmental assessment

Sample		**1**	**2**
Context		**506**	**407**
Feature		**ditch**	**ditch terminus**
Material available for radiocarbon dating		-	□
Volume processed (l)		15.5	12.5
Volume of flot assessed (ml)		20	20
Residue contents			
Bone (unburnt)	indet. frags	-	+
Flint (number of fragments)		-	1
Glass (number of fragments)		-	1
Pot (number of fragments)		-	2
Tooth (number of fragments)		-	1
Flot matrix			
Charcoal		+	-
Clinker / cinder		+	+
Coal / coal shale		+	+
Crinoids (pre-Quaternary fossil)		(+)	-
Earthworm egg case		+	+
Insect / beetle		++	+
Roots (modern)		+	+
Tuber / rhizome (charred)		(+)	-
Uncharred seeds		++	+
Charred remains (total count)			
(c) *Cerealia* indeterminate	grain	2	-
(c) *Triticum* cf. *spelta* (cf. Spelt Wheat)	grain	-	11
(c) *Triticum spelta* (Spelt Wheat)	glume base	7	25
(c) *Triticum spelta* (Spelt Wheat)	spikelet fork	1	-
(c) *Triticum* sp (Wheat species)	glume base	1	4
(c) *Triticum* sp (Wheat species)	grain	-	7
(h) *Danthonia decumbens* (Heath-grass)	caryopsis	1	1
(x) *Apiaceae* undiff. (Carrot family)	fruit	1	-
(x) *Poaceae* undiff. (Grass family)	>1mm caryopsis	-	4
(x) *Rumex* sp (Docks)	nutlet	2	-
(x) *Vicia* sp (Vetches)	seed	-	1

Appendix 4: OASIS summary