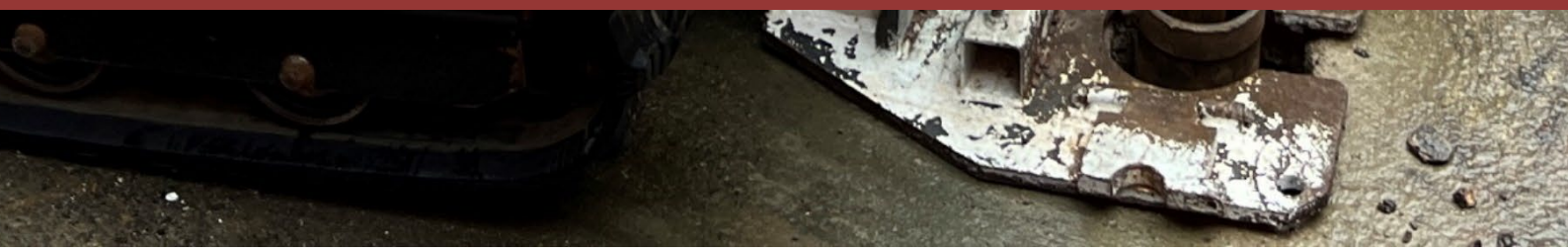




4 Deangate, York Minster Stoneyard  
By Luke Parker and Lucy Johnson

Assessment Report YA/2023/64, March 2023





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## KEY PROJECT INFORMATION

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# 1 INTRODUCTION

## 1.1 Site background

1.1.1 A watching brief was undertaken by York Archaeology (YA) on behalf of Groundtech Consulting for Minster Dean and Chapter between 28<sup>th</sup> February and 1<sup>st</sup> March 2023 at The Minster Stoneyard, 4 Deangate, York, NGR SE 60440 52118 (Figure 1).

1.1.2 Four trial holes were observed. The work was undertaken to locate existing building foundations and observe deposits ahead of the demolition of the buildings presently occupying the site, alongside the installation of an attenuation tank, associated drainage channels and manhole covers.

1.1.3 Two window sample boreholes were also monitored as part of geoarchaeological assessment in order to identify the presence, condition and extent of preserved archaeological and palaeoenvironmental remains within the sub-surface sedimentary sequence.

## 1.2 Geology and Topography

1.2.1. The site is located on a c.700m<sup>2</sup> plot approximately 50m to the south-east of York Minster (Figure 1). The site is an industrial, concrete-covered courtyard area surrounded by buildings associated with the stoneyard, including brick-built structures and warehouses. To the north-west is Deangate and to the east are commercial buildings which face onto Goodramgate.

1.2.1 The underlying geology of the site as mapped by the BGS (2023) comprises Sherwood Sandstone Group formed in the Triassic period. The superficial geology of the site is mapped by the BGS as being of the Vale of York Formation (*ibid*).

## 1.3 Geoarchaeological Background

1.3.1 The Vale of York Formation is characterised by stiff sand and clay sediment with frequent gravel and boulder inclusions which are dominated by carboniferous and sandstone lithologies (Ford *et al.* 2004). This till was deposited by glacial processes during ice advance at the height of the Devensian glaciation which overrode deposits (Hemingborough glaciolacustrine sediment) created by glacial lake Humber (Bateman *et al.* 2015).

1.3.2 The Vale of York Formation sediments which are mapped by the BGS as underlying the site are likewise mapped as being surrounded by Alne Glaciolacustrine Formation sediments which were formed between the York and Escrick moraines during phased ice sheet retreat in the Devensian (Bateman, *et al.* 2015).

## 1.4 Archaeological context

1.4.1 The area of Deangate is located within the York Area of Archaeological Importance, the York Central Historic Core Conservation Area, and within 'Area 9: Minster Precinct' of the *City of York Characterisation Project* (MacRae 2013).

- 1.4.2 The site is situated within the Roman legionary fortress, and excavations in 1967-1972 uncovered remains of the basilica beneath York Minster c.100m to the north-west of the site (Phillips and Heywood, 1995). Although no report is available, stone buildings dating to the 2<sup>nd</sup> century are thought to have been identified during excavations within the Stoneyard in 1982 at a depth of around 2.8m BGL (Milsted, pers. comm. 2023).
- 1.4.3 The area of Deangate is situated within the Minster Close, including land granted to the Archbishopric from the 7<sup>th</sup> century (Norton, 1998). Evidence for early medieval activity in this area is relatively scarce, however an Anglian cemetery was uncovered during excavations beneath the south transept of the Minster in 1970 (Phillips and Heywood 1995). Approximately 50m south-east of the site a watching brief was undertaken on a sewer repair at 47 Goodramgate, reaching a depth of 3.5m BGL. The deposits observed included a demolition layer comprised of material from Roman buildings, structural deposits including a surface with a wattle fence and a cobbled surface, thought to date from the post-Roman period onwards, however no dating evidence was recovered to confirm the dates (Ottaway and Marwood 1996).
- 1.4.4 In the medieval to post-medieval periods, the area was situated within the prebendary of Strensall, and included a residence that was rebuilt on many occasions, with additional ancillary buildings (Milsted 2010). A watching brief and subsequent excavation to a depth of 1.15m was undertaken at the site in 2010. Three phases of activity were encountered relating to early 18<sup>th</sup> century construction activity and mid-18<sup>th</sup> century buildings which formed part of the prebendary of Strensall. Additionally, late 19<sup>th</sup> - early 20<sup>th</sup> century landscape clearance for the creation of Deangate in 1903 and the current Stoneyard buildings, completed in 1913, were also identified (Milsted 2010). Approximately 15m west of the site, a watching brief was undertaken at 7 Minster Yard, revealing 19<sup>th</sup> century yard and building floors, 18<sup>th</sup> century levelling layers and construction deposits of late 15<sup>th</sup> or 16<sup>th</sup> century dates (Harrison 2017).

## **2 METHODOLOGY**

### **2.1 Fieldwork Methodology**

- 2.1.1 Boreholes were located by an engineer from the geotechnical subcontractor, utilising plans provided by Minster Dean and Chapter. The two boreholes were undertaken by a tracked window sampling rig, which was operated by the geotechnical subcontractor. These boreholes were drilled to a maximum depth of five metres below the present ground level. The uppermost metre of each borehole was excavated by hand in order to mitigate against the possibility for sub-surface services.
- 2.1.2 The lithology of the geoarchaeologically monitored boreholes was recorded using the Troels-Smith system of sediment classification (1955, see Appendix 1). The scheme breaks down a sediment sample into four main components and allows the inclusion of extra components that are also present, but that are not dominant. Key physical properties of the sediment layers are darkness (Da), stratification (St), elasticity (El), dryness of the sediment (Sicc) and the sharpness of the upper sediment boundary (UB). A summary of the sedimentary and physical properties classified by Troels-Smith and a stratigraphic breakdown of the deposits was recorded on proforma log sheets. The logs were supplemented by digital photography.
- 2.1.3 Works on four trial holes to locate the building foundations were observed within the standing building in the Stoneyard, as well as one trial hole outside of the building which

was excavated to determine the sequence of deposits ahead of the installation of an attenuation tank (Figure 2). The four trial holes for the building foundations ranged in size from around 0.30m-0.57m long and 0.25m-0.34m wide and were excavated to a maximum depth of 0.67m. The trial hole for the attenuation tank measured 0.26m long by 0.25m and was initially excavated to a depth of 0.97m, before a borehole was excavated in the same location. The concrete deposits were excavated with a mechanical breaker, and then softer deposits excavated by hand by the geotechnical subcontractor. All excavation was monitored and all recording was undertaken in line with the YA recording manual (YAT 2009).

## **2.2 Fieldwork constraints**

2.2.1 The trial holes and the boreholes were not located using accurate geolocation equipment, and were instead approximately located by the geotechnical subcontractor utilising plans provided by the client. Elevations OD for each intervention are not known. Although the locations of each intervention are provided in Figure 2 they have not been accurately geolocated and are given as rough approximations.

## **3 RESULTS**

### **3.1 Borehole Lithology**

3.1.1 The lowermost sedimentary unit within both boreholes was a very firm orange-grey clay which extended beyond the maximum boreholed depth of 5.00m BGL, with an upper boundary at around 3.80m BGL in both boreholes. The very robust stiffness and very low degree of sorting for the deposit indicates that this deposit was glacial till. The subsequent deposits within both boreholes were highly complex and differed greatly from one another which resulted in inter-borehole deposit correlation not being possible.

### **3.2 WS02 Lithology**

3.2.1 Within WS02 (Plate 1), overlying the glacial till at 3.80m BGL, was a very poorly sorted sandy silt which was very varied in colour and matrix texture. The deposit was 0.20m thick, between 3.60-3.80m BGL. This poorly sorted sandy silt contained few inclusions, though a mussel (*Mytilus edulis*) shell was recorded at 3.64m BGL. There were abundant charcoal- or organic-rich lenses within this sediment.

3.2.2 A deposit of shattered angular limestone fragments, ranging from pebble to cobble size, was recorded between 3.40-3.60m BGL. These limestone fragments were contained within a brown silty sand matrix, although the deposit was clast-supported.

3.2.3 From 3.40m BGL there was a dark orange silty sand with occasional ceramic building material (CBM) gravel and charcoal inclusions. The upper boundary of this deposit, at 2.84m BGL, was demarked by fragments of sandstone (absent a matrix) which were present between 2.74-2.84m BGL. Although the sandstone was recorded as being fragmented, it is possible that this sandstone was shattered during boreholing, particularly given the lack of a sedimentary matrix.

3.2.4 Overlying the sandstone fragments at 2.74m BGL was a dark grey silty clay with infrequent CBM gravel and charcoal. This deposit had a relatively graduated upper

boundary which transitioned at around 1.28m BGL into a dark brown silty sandy clay which contained occasional fine CBM gravel and indeterminate charred material.

### **3.3 WS03 Lithology**

- 3.3.1 From 3.82m BGL within WS03 (Plate 2) there were two deposits of distinctly laminated material. The first of these was a pale grey fine-sandy silt (possibly marl) which transitioned very gradually at around 3.74m BGL to a dark grey/grey laminated silty clay.
- 3.3.2 At 3.65m BGL there was a sharp transition into a series of three pea-gravel deposits of varying colours which terminated at 3.42m BGL. These pea-gravel deposits contained a relatively coarse sandy matrix and the second of the three (between 3.48-3.52m BGL) had a faint organic odour.
- 3.3.3 Overlying the pea-gravel deposits at 3.42m BGL was a well-sorted dark grey coarse sand with dark grey clay laminations. This extended upwards to 3.10m BGL where it transitioned into a very dark grey/black silty clay with very occasional charcoal fragments. Between 2.30-2.42m BGL within the very dark grey/black silty clay there was a discrete inclusion of shattered sandstone which visually resembled what was recorded between 2.74-2.84m BGL in WS02. A significant quantity of charcoal fragments was also recorded between 2.52-2.58m BGL. Recovery of the very dark grey/black silty clay was variable between 2.84-2.00m BGL, with periodic voids in core recovery. However, it is very likely that the deposit extends upwards to the lower boundary of the subsequent sedimentary unit, between 2.00-2.20m BGL.
- 3.3.4 The subsequent deposits recorded from 2.00m BGL were poorly sorted dark-brown sediments which contained infrequent-moderate CBM fragments, brick, and charred material (likely coal). These are likely to be relatively recent made ground deposits.

### **3.4 Trial hole watching brief results**

- 3.4.1 The sequence of deposits was relatively similar across the four trial holes located within the Stoneyard building (T.1 – T.4), with most deposits observed relating to its construction. The sequence of trial hole 5 (T.5) located in the courtyard differed slightly due to the lack of concrete foundations observed and the depth of the excavated area.
- 3.4.2 The earliest deposit observed in T.1 (Plate 3, Figure 3.1) was (1007), a loosely compacted, mid grey-brown sandy silt rubble backfill or levelling deposit with frequent CBM fragments dating to the 17<sup>th</sup> century onwards. The deposit was observed at 0.51m BGL, measuring at least 0.11m thick as it was not fully excavated. The construction cut [1006] for the concrete foundations of the Stoneyard building was observed truncating deposit (1007) at a depth of 0.51m BGL. The cut was filled by the concrete building foundations, (1005), observed from 0.51m with a thickness of 0.14m. Deposited over the concrete foundations was (1004), a rubble backfill layer, observed from a depth of 0.23m BGL to a thickness of 0.14m. Above (1004) was a deposit of gravel and light yellow sand (1003), a probable levelling layer observed from 0.18m BGL with a thickness of 0.05m. A layer of concrete with plastic sheeting to the base (1002) was observed overlaying the rubble backfill layer from 0.03m BGL measuring 0.15m thick. The latest deposit in the sequence of T.1 was (1001), a thin layer of dark grey concrete which was the floor surface of the Stoneyard building, measuring 0.03m thick.

- 3.4.3 In T.2 the earliest deposit observed was (2006) which was a loosely compacted mid greyish-brown silty sand with occasional sewer pipe fragments and brick fragments dating to the mid-19<sup>th</sup> century or later. This deposit was interpreted as a probable backfill or levelling deposit and observed from a depth of 0.49m BGL with a minimum thickness of 0.11m. Cut into this deposit was [2005], the construction cut for concrete foundations (2004). The cut and foundations were observed from a depth of 0.21m with a thickness of 0.10m. A backfill layer consisting of loosely compacted light yellowish-brown and darker mixed sands (2003) was deposited above the foundations, from a depth of 0.23m BGL measuring 0.18m thick. As observed in T.1, the latest two deposits were a light grey concrete layer with plastic sheeting to the base (2002) observed from 0.03m BGL with a thickness of 0.18m, under a thin layer of dark grey concrete, the Stoneyard building floor surface (2001), which measured 0.03m thick.
- 3.4.4 The earliest deposit observed in T.3 was (3005), a levelling or backfill layer, comprised of loosely compacted dark grey clayey sandy silty with occasional charcoal flecks. The deposit was observed at 0.39m BGL to a minimum thickness of 0.21m, observed in the south facing section of the trial hole. Cutting this deposit was [3004], the construction cut for concrete foundations (3003), both observed from 0.47m BGL measuring from 0.13m – 0.23m thick. Deposit (3002) was a mid-brown grey sand backfill of the building foundations from a depth of 0.34m measuring 0.13m thick. The latest deposit observed in T.3 was the light grey concrete floor surface (3001) which measured 0.34m thick.
- 3.4.5 In T.4, the earliest deposit observed was (4005), a loosely compacted dark greyish brown silty sand with brick fragments dating to the mid-19<sup>th</sup> century or later. The deposit was observed at 0.34m BGL to a minimum thickness of 0.38m. The construction cut [4006] for the concrete building foundations (4004) were truncating this deposit. The cut and foundations were both observed at 0.32m BGL to a thickness of 0.36m. A deposit of light yellow sand a gravels (4003), interpreted as a made ground levelling layer, was observed overlying the foundations at a depth of 0.22m BGL to a thickness of 0.10m. Above this deposit was a light grey concrete floor base (4002) observed from 0.07m BGL with a thickness of 0.15m, a the thin, dark grey floor surface (4001) above, also observed in T.1 and T.2, and measured 0.07m thick.
- 3.4.6 T.5 (Plate 4, Figure 3.2) was located within the Stoneyard courtyard and was excavated to a depth of 0.97m BGL, therefore the sequence of stratigraphy varied slightly from trial holes 1-4. The lowest two deposits observed were interpreted as pre-dating the courtyard construction. The earliest deposit in the sequence, (5004), was a moderately compacted mid brown silty clay with occasional charcoal flecks, frequent light yellowish grey mortar flecks and occasional limestone fragments. This deposit was observed from a depth of 0.64m BGL to a minimum depth of 0.33m, as it was not fully excavated. No finds were observed in this deposit. The deposit above (5004) was (5003), a mid grey-brown backfill or levelling layer with occasional plain tile fragments dating from the 13<sup>th</sup>-16<sup>th</sup> centuries, observed from a depth of 0.50m BGL to a thickness of 0.14m.
- 3.4.7 The deposits observed above (5003) in T.5 appeared to relate to the construction of the Stoneyard courtyard. Deposit (5002) was a probable levelling layer, consisting of a loosely compacted rubble and sand backfill layer observed at 0.11m BGL, to a thickness of 0.39m. Above this deposit was the concrete surface of the courtyard (5001), measuring 0.11m thick.

## **4 DISCUSSION AND CONCLUSIONS**

### **4.1 Discussion of trial hole watching brief**

4.1.1 During the works, deposits were identified which pre-dated the existing Stoneyard buildings in all trial holes. An interpretation of post-medieval backfill or levelling deposits has been given for the earliest deposits in T.1 – T.4. T.5 was excavated to 0.97m, and the earliest deposit observed, (5004), was different in nature to the rubble backfill or levelling deposits observed across all other trial holes. However due to the limited area excavated and the lack of finds recovered from the deposit, a clear interpretation for this deposit cannot be given and further work would be required to do so.

### **4.2 Discussion of lithological sequence**

4.2.1 The underlying glacial till which was recorded as a basal deposit within both borehole sequences was overlain by a complex sequence of predominantly anthropogenic deposits which extended from the modern ground level down to depths of nearly four metres. The basal glacial till is likely of the Vale of York Formation which is mapped by the BGS as being the superficial geology for the site. Given low sorting and stiffness of the deposit, it is unlikely to relate to the two possible glaciolacustrine deposits (Alne or Hemingborough Formations) which are located to the north of the York Moraine (Ford *et al.* 2004).

4.2.2 Borehole WS03 demonstrated two well-sorted, low-energy laminated silt and clay deposits immediately overlying the glacial till. The boundary between the two is very graduated and although they marginally differ in texture (and more definitively in colour), they are still reflective of similar formation processes. Both of these laminated sediments have been formed within a very low-energy depositional environment, probably lacustrine in nature. Given the location of the site, to the north of the York Moraine, and their stratigraphic location immediately overlying Vale of York Formation till, these lacustrine sediments probably pertain to the Alne Glaciolacustrine Formation. These glaciolacustrine sediments were deposited as thinly to thickly laminated silts/clays between the retreating Devensian ice sheet and the York Moraine following the end of the last glacial maximum (Bateman *et al.* 2015).

4.2.3 These deposits within WS03 sharply transitioned into a series of pea-gravel dominated deposits at 3.65m BGL which varied in colour, though were texturally very similar. It is clear that they were all deposited by relatively high-energy processes, as demonstrated by the coarse texture and poor sorting of the sediment; however, it is difficult to determine whether these are naturally-deposited sediments or anthropogenically derived.

4.2.4 The subsequent loosely laminated dark grey coarse sand and clay possibly derives from relatively low-energy alluvial processes, however it is difficult to be confident with this assertion; particularly given that the river Ouse is just over 400m to the south-west of the site. Beyond this, it is difficult to confidently determine which low-energy process could have formed this deposit.

4.2.5 Overlying the loosely laminated dark grey coarse sand/clay was a loosely laminated black/very dark grey silty clay with significant limestone inclusions at 2.95-2.98m BGL. This deposit likely represents a sediment which had undergone pedogenesis, becoming

a palaeosol. The limestone fragment at 2.95-2.98m BGL 2.98m BGL is very likely anthropogenic and could be speculated to be structural in origin. This palaeosol steadily lost its laminations by 2.58m BGL and extended upwards to at least 2.20m BGL. A significant quantity of charcoal fragments were present between 2.52-2.58m BGL, as was a significant quantity of shattered sandstone between 2.30-2.42m BGL. As described in section 3.2.3, it is possible that this sandstone had been shattered by the boreholing rig and not pre-deposition.

- 4.2.6 The subsequent overlying deposits from 2.00m BGL to the present-day surface were of relatively recent anthropogenic origin. They were likely formed from the post-medieval period onwards, as suggested by the CBM, brick and burnt coal inclusions.
- 4.2.7 Borehole WS2 demonstrated a stratigraphic sequence which was relatively less complex than WS3, though of a more comprehensively anthropogenic origin. Overlying glacial till at 3.80m BGL there was a 0.20m-thick deposit of very poorly sorted sandy silt which had a very varied intra-deposit texture and colour alongside lenses of charcoal, mussel shell, and organic-rich sediment. This is likely a deliberate backfill deposit; potentially (if speculatively) of an archaeological feature which has been cut into the underlying glacial till.
- 4.2.8 A 0.20m clast-supported limestone gravel, composed of shattered limestone masonry was present between 3.40-3.60m BGL. This shattered limestone may be remnants of *in-situ* structural remains which were shattered by the boreholing rig, however this is somewhat speculative. This limestone resembles what was recorded within BH3 between 2.95-2.98m BGL, though was more extensive in thickness.
- 4.2.9 Overlying the shattered limestone between 2.84-3.40m BGL was a dark orange silty sand with occasional CBM gravel and charcoal. It is difficult to confidently determine the formation process for this deposit, however it is possible that this represents a deliberate levelling deposit. The uppermost boundary of this deposit at 2.76-2.84 BGL was demarcated by shattered sandstone fragments; strongly resembling what was recorded between 2.30-2.42m BGL within WS3.
- 4.2.10 A dark grey silty clay with infrequent CBM gravel and charcoal overlaid the shattered sandstone fragments before gradually transitioning at around 1.28m BGL into a similar deposit which contained sandy elements to the matrix texture alongside burnt coal fragments. These deposits (particularly the upper deposit, from 1.28m BGL) are viewed as probably being post-medieval in origin.

### **4.3 Deposit survival and existing impacts**

- 4.3.1 Post medieval made ground was recorded from the present surface up to around 2.00m BGL within WS3 whereas post medieval made ground was recorded within WS2 to at least 1.28m BGL.
- 4.3.2 Beyond the post-medieval made ground, archaeologically-significant deposits are present within both sequences down to glaciogenic sediment at around 3.60-3.80m BGL.
- 4.3.3 *In-situ* archaeological structural remains were recorded as potentially being present at two locations within each of the two boreholes. Possible limestone masonry was recorded at 3.40-3.60m BGL within WS2, as well as at 2.95-2.98m BGL within WS3.

Shattered sandstone fragments, possibly the remnants of previously intact sandstone prior to boreholing, were recorded between 2.76-2.84m BGL within WS2 and 2.30-2.42m BGL in WS3. The limestone and sandstone within both boreholes may be correlated between the two; although they are not at identical depths, they are broadly similar with only 0.30-0.50m difference. The limestone is likely of some antiquity, however the sandstone may be more recent; it is located under more recent sedimentary deposits which for WS2 is post-medieval made-ground.

#### **4.4 Potential impact on deposits**

- 4.4.1 All proposed works, including the installation of the attenuation tank and nearby drainage channels will exceed the above depths for deposits identified as probable post-medieval in date, up to around 2.00m BGL around WS3 and up to around 1.28m BGL for WS2. The majority of drainage channels (S1-S6) will exceed the 1.28m BGL depth established by WS2 and will be located between 1.30-1.54m BGL. The attenuation tank will likewise exceed the 1.28m BGL depth at 1.67m BGL.
- 4.4.2 The installation of the attenuation tank and S1-S6 drainage channels will therefore impact buried archaeological deposits immediately underlying the post-medieval made ground.
- 4.4.3 Deeper drainage channels, C1 and C2, will be excavated to a depth of 3.20 and 3.30m BGL respectively which will have more extensive impacts through a large proportion of the recorded sedimentary sequence identified as having a high probability for archaeological remain. This would include depths which have been identified as potentially containing *in-situ* structural archaeological remains.

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## APPENDIX 1 – TROELS-SMITH

Darkness		Degree of Stratification		Degree of Elasticity		Degree of Dryness	
nig.4	black	strf.4	well stratified	elas.4	very elastic	sicc.4	very dry
nig.3		strf.3		elas.3		sicc.3	
nig.2		strf.2		elas.2		sicc.2	
nig.1		strf.1		elas.1		sicc.1	
nig.0	white	strf.0	no stratification	elas.0	no elasticity	sicc.0	water

Sharpness of Upper Boundary	
lim.4	< 0.5mm
lim.3	< 1.0 &> 0.5mm
lim.2	< 2.0 &> 1.0mm
lim.1	< 10.0 &> 2.0mm
lim.0	> 10.0mm

	Sh	Substantia humosa	Humous substance, homogeneous microscopic structure
I Turfa	Tb	T. bryophytica	Mosses +/- humous substance
	Tl	T. lignosa	Stumps, roots, intertwined rootlets, of ligneous plants
	Th	T. herbacea	Roots, intertwined rootlets, rhizomes of herbaceous plants
II Detritus	Dl	D. lignosus	Fragments of ligneous plants >2mm
	Dh	D. herbosus	Fragments of herbaceous plants >2mm
	Dg	D. granosus	Fragments of ligneous and herbaceous plants <2mm >0.1mm
III Limus	Lf	L. ferrugineus	Rust, non-hardened. Particles <0.1mm
IV Argilla	As	A. steatodes	Particles of clay
	Ag	A. granosa	Particles of silt
V Grana	Ga	G. arenosa	Mineral particles 0.6 to 0.2mm
	Gs	G. saburralia	Mineral particles 2.0 to 0.6mm
	Gg(min)	G. glareosa minora	Mineral particles 6.0 to 2.0mm
	Gg(maj)	G. glareosa majora	Mineral particles 20.0 to 6.0mm
	Ptm	Particulaetestaemollosorum	Fragments of calcareous shells

### Physical and sedimentary properties of deposits according to Troels-Smith (1955)

## APPENDIX 2. BOREHOLE LITHOLOGIES

Borehole Number	Depth (m)	Troels Smith						Description
		Da	St	El	Sicc	UB	Texture	
WS2	1.00-1.28	3	3				As2, Ag1, Ga1	Dark brown silty sandy clay with occasional fine CBM gravel and charred material
WS2	1.28-2.84	4	3			3	Ag2, As2	Dark grey silty clay with infrequent CBM gravel and charcoal. Sandstone fragments present between 2.76-2.84m
WS2	2.84-3.40	3	3			5	Ga2, Ag2	Dark orange silty sand with occasional CBM gravel and charcoal
WS2	3.40-3.60	4				4	Gs3, Ag1	Clast-supported limestone gravel (limestone masonry) within brown silty sand matrix. Possibly in-situ structural
WS2	3.60-3.80	4			1	5	Ag3, Ga1	Very poorly sorted sandy silt. Few inclusions but very varied colour and matrix texture. Mollusc shell (mussel) at 3.64m. Abundant charcoal/organic-rich lenses. Likely deliberate backfill
WS2	3.80-5.00	2	4			3	As4	Very firm orange-grey clay
WS3	1.00-1.56	3	2				As2, Ga1, Gs1	Dark brown sandy clay with moderate CBM, brick and charred material (burnt coal). Made ground
WS3	1.56-2.00	3	2			2	Ag2, Ga1, Gs1	Dark brown sandy silt with infrequent coarse CBM sand and charred material (burnt coal). Made ground.
WS3	2.00-2.20							Void
WS3	2.20-2.58	4	3				As3, Ag1	Very dark grey/black silty clay with very occasional charcoal fragments. Significant quantity of shattered sandstone between 2.30-2.42m. Significant quantity of charcoal fragments between 2.52-2.58m
WS3	2.58-2.84							Void
WS3	2.84-3.10	4	3				As3, Ag1	Loosely laminated black/dark grey silty clay. Large limestone fragment at 2.95m-2.98m
WS3	3.10-3.42	4	4		1	4	As3, Gs1	Dark grey coarse sand and clay. Loosely laminated
WS3	3.42-3.48	1	1			4	Gs3, Ag1	Pale yellow coarse sand and pea gravel
WS3	3.48-3.52	4	1		1	5	Gs2, Ag2	Black coarse sandy silt with pea gravel. Faint organic aroma
WS3	3.52-3.65	1	1		1	5	Gs4, Ag+	Orange coarse sand with pea gravel
WS3	3.65-3.74	4	5		2	4	As3, Ag1	Dark grey/grey laminated silty clay
WS3	3.74-3.82	1	5		2	3	Ag3, Ga1	Laminated pale grey fine sandy silt
WS3	3.82-5.00	2	4			5	As4	Very firm orange-grey clay

## APPENDIX 3 – TRIAL HOLE CONTEXT LIST

### T. 1

Context	Thickness	Description
1001	0.03m	Dark grey concrete ground surface of Stonemasons Lodge
1002	0.15m	Light grey concrete layer with thin layer of plastic sheeting to the base, construction of current building (seen in all other trial holes).
1003	0.05m	Type 1 yellow sand and gravel – levelling for concrete surface
1004	0.14m	Rubble backfill/makeup layer over building footings
1005	0.14m	Concrete building foundations
1006	>0.14m	Construction cut for foundations
1007	0.11m	Rubble backfill/levelling layer, a loosely compacted sandy silt with frequent brick fragments and frequent charcoal flecks.

### T. 2

Context	Depth	Description
2001	0.03m	Dark grey concrete ground surface of Stonemasons Lodge
2002	Maximum depth 0.18m	Light grey concrete layer with thin layer of plastic sheeting to the base, construction of current building (seen in all other trial holes).
2003	0.18m	Loosely compacted light yellowish-brown and darker mixed sands
2004	0.10m	Concrete building foundations
2005	>0.10m	Cut for building foundations
2006	0.11m	Backfill or levelling deposit, loosely compacted mid grey brown silt sand with occasional glazed drain fragments, occasional tile fragments and occasional brick fragments.

### T. 3

Context	Depth	Description
3001	0.34m	Light grey concrete similar/same as 1002 and 2002
3002	0.13m	Mid brown grey sand backfill of building foundations
3003	0.13m – 0.23m	Concrete foundations of standing building
3004	>0.13m -0.23m	Cut for building foundations
3005	Maximum depth 0.21m	Levelling or backfill layer, loosely compacted dark grey clayey sandy silt, with occasional charcoal flecks, seen in the south facing section to c.0.21m maximum

**T. 4**

<b>Context</b>	<b>Depth</b>	<b>Description</b>
4001	Maximum depth 0.07m	Concrete ground surface of Stonemasons Lodge
4002	0.15m	Light grey concrete layer for construction of the floor.
4003	0.10-0.15m	Hardcore type 1 light yellow sand and gravels
4004	0.36m	Concrete foundations for building at 0.20m depth
4005	Maximum depth 0.38m	Rubble backfill or levelling layer, a loosely compacted dark grey brown silty sand with moderate brick fragments.
4006	>0.36m	Cut for building foundations

**T. 5**

<b>Context</b>	<b>Depth</b>	<b>Description</b>
5001	0.11m	Concrete ground surface of Stoneyard courtyard
5002	0.39m	Light grey brown sand and rubble layer for the construction of the concrete surface of the courtyard.
5003	0.14m	Backfill or levelling layer. Loosely compacted mid grey brown silty sand with frequent CBM fragments.
5004	0.30m	Moderately compacted mid brown silty clay with occasional charcoal flecks, frequent light yellowish grey mortar flecks and occasional limestone fragments, with no dateable finds recovered.

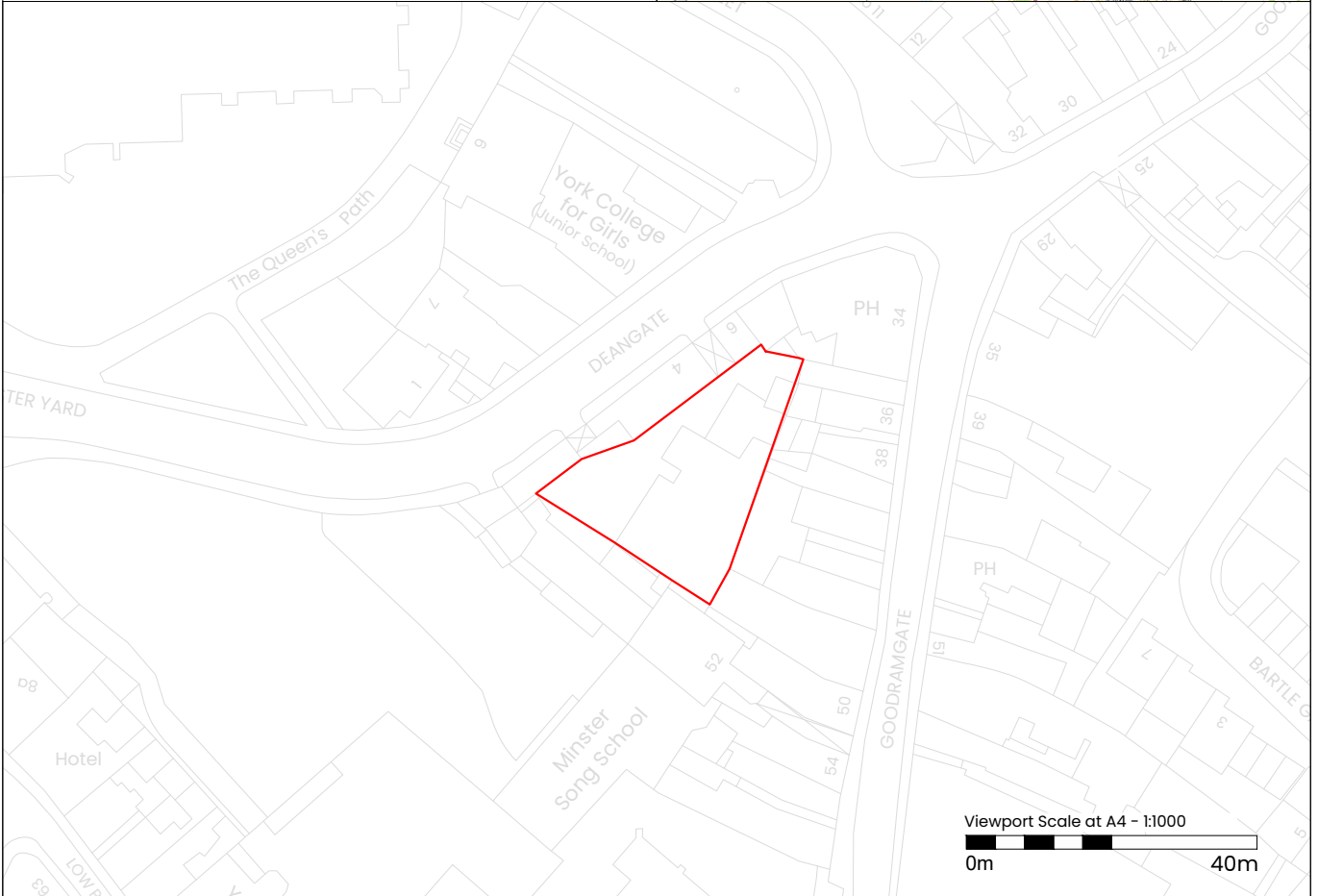


Figure 01 - Location Map  
6353 - 4 Deangate, York Minster Stoneyard, York

Scale at A4 - varies  
Drawn by MI

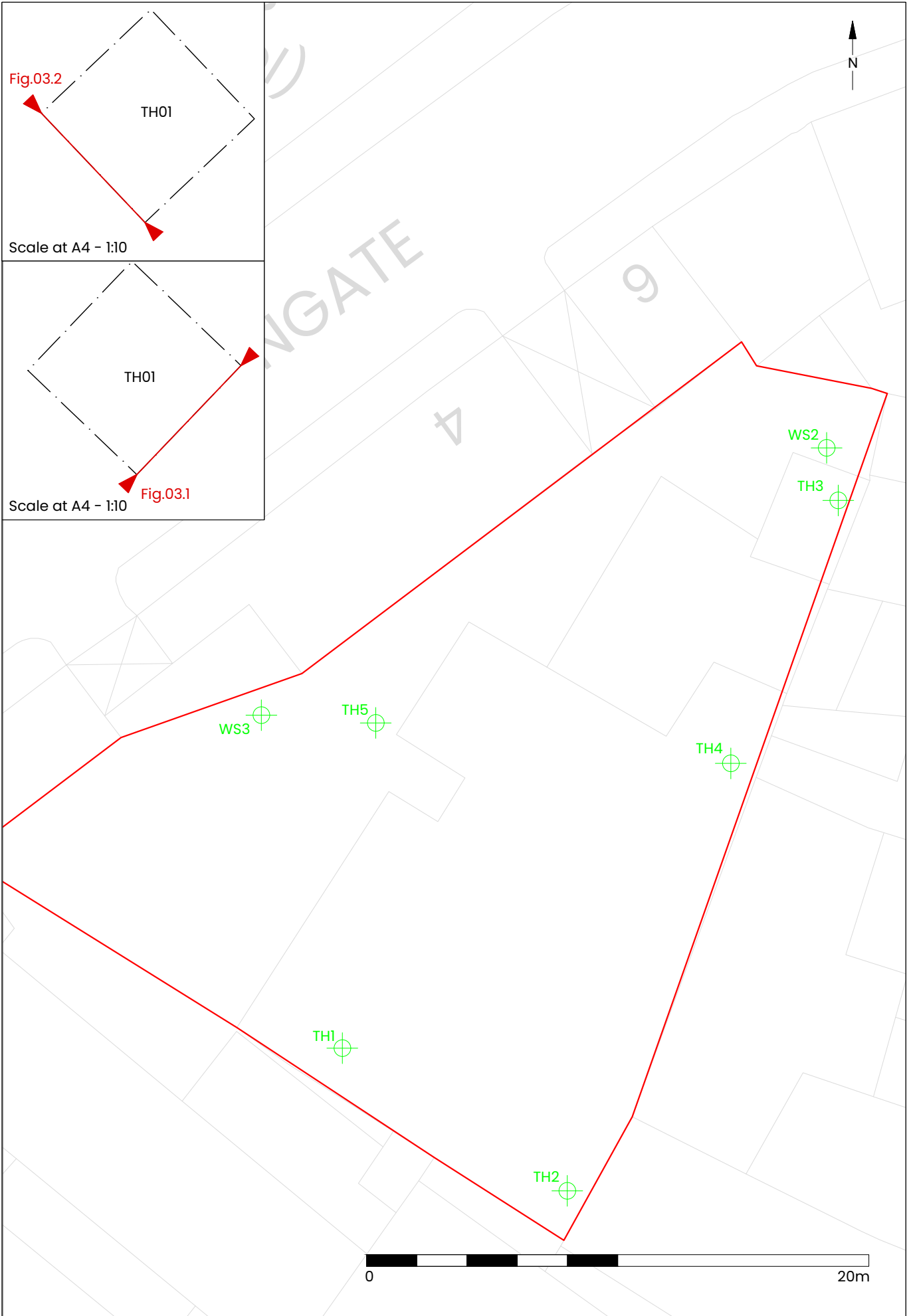


Figure 02 - Site Plan Showing Borehole & Trial Hole Locations  
6353 - 4 Deangate, York Minster Stoneyard, York

Scale at A4 - 200  
Drawn by MI

Fig.03.1  
North East Facing Section Trial Hole 01

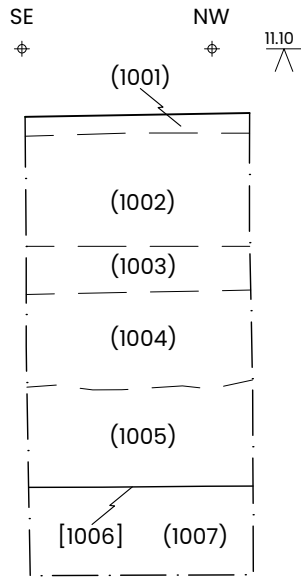


Fig.03.2  
North West Facing Section Trial Hole 05

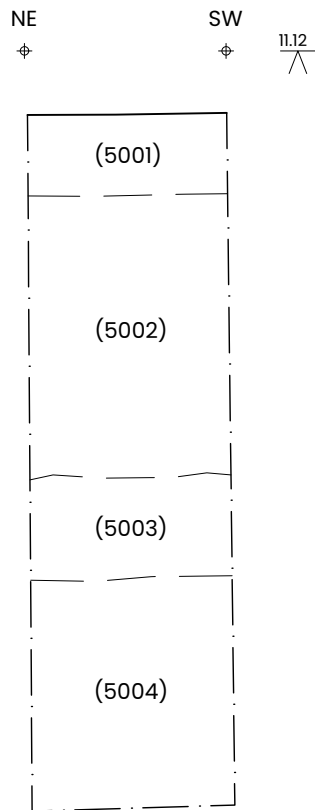




Plate 1: WS02, overview



Plate 2: WS03, overview



*Plate 3: Trial hole 1, overview*



*Plate 4: Trial hole 5, overview*