making sense of heritage

Castleford Bus Station, Castleford, West Yorkshire

Archaeological Evaluation

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archaeology

Castleford Bus Station
Castleford
West Yorkshire

Archaeological Evaluation and Watching Brief

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Summary

Wessex Archaeology was commissioned by Metro to undertake a programme of archaeological evaluation at Castleford bus station (NGR 44247 42554) to inform the preparation of a planning application for the redevelopment of the bus station. A watching brief was also conducted during geotechnical investigations to ensure that any archaeological deposits disturbed during the works were recorded.

The archaeological potential of the site was outlined in a previous desk-based assessment, with particular focus on the Roman and post-medieval periods; the site lies within the known area of the Roman *vicus* of Castleford and, from the 1850s to the 1890s, it was occupied by the Albion Glass Works and contemporary housing/workshops.

The evaluation comprised the excavation of six trenches. These revealed good preservation, particularly of 19th century structures relating to the former glassworks and adjacent buildings. In addition, there was a discrete area of earlier Romano-British activity, encountered in trenches with only minor disturbance from the 19th century glassworks and later features. The watching brief monitored the excavation of sixteen geotechnical test pits, and identified additional structures and deposits associated with the glassworks.

The archaeological features relate to four phases of activity which pre-date the modern bus station. The earliest activity was Romano-British in date and associated with the *vicus* identified by previous excavations in the vicinity. The features included ditches, a possible beam slot or ditch, a pit and an animal burial. The second phase comprised only a boundary ditch, matching the position and alignment of a mid-19th century boundary. The third phase dates to the second half of the 19th century and comprised structures and deposits associated with the former Albion Glass Works and properties on the former Wainwright Street and Wainwright's Yard. The final phase dates to the mid 20th century and consisted of alterations to properties fronting Wainwright's Yard.

The majority of the finds are of post-medieval date with a small Romano-British component also present. The post-medieval finds are largely waste from pottery manufacture and glass-working on, or in the vicinity of, the site. These are likely to have been derived from the Eagle Pottery (built in 1853), the Eagle Glass Works (1872-76/7) and the Albion Glass Works (1860s-1894). Other finds probably represent domestic refuse.

The evaluation and watching brief have confirmed that significant archaeological remains survive beneath the modern bus station. The majority of these relate to two defining eras in Castleford's history; the earliest settlement (the Romano-British *vicus*) and its 19th century industrial prosperity.

The archive is currently stored at Wessex Archaeology's Sheffield office under project code 88920 and will be deposited with Wakefield Museums upon project completion.

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Acknowledgements

The project was commissioned by Metro and Wessex Archaeology is grateful to Mark Augur, Dean Ellison and Liam Needham for their assistance with this project. The work was monitored for the West Yorkshire Archaeological Advisory Service (WYAAS) by David Hunter.

The excavation was carried out by Sam Fairhead, assisted by Dane Wright, Jonathan Buttery and Andrew Reid. The watching brief was carried out by Andrew Reid, Amy McCabe and Jessica Tibber.

Environmental samples were processed by Steve Winterton and assessed by Sarah F. Wyles. Finds assessment was carried out by Lorraine Mepham.

The report was compiled by Sam Fairhead, Jessica Tibber and Andrea Burgess. Illustrations were prepared by Chris Breeden, Chris Swales and Linda Coleman. The project was managed for Wessex Archaeology by Richard O'Neill.

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Archaeological Evaluation and Watching Brief

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by Metro (hereafter 'the Client') to undertake a programme of archaeological evaluation within the existing bus station in Castleford, West Yorkshire (hereafter 'the Site'; NGR 44247 42554). The work was required to inform the preparation of a planning application for the construction of a new transport interchange (**Figure 1**).

1.1.2 The evaluation involved the excavation of six trenches to investigate the survival of Romano-British remains and 19th century industrial buildings. Following completion of the evaluation, and confirmation that archaeological remains survive at the Site, a watching brief was maintained during geotechnical investigations in order to record any significant archaeological deposits disturbed during the works.

1.1.3 The work was conducted in accordance with a Specification issued by the West Yorkshire Archaeology Advisory Service (WYAAS), archaeological advisors to the Wakefield Metropolitan District Planning Authority (**Appendix 4**).

1.2 The Site

1.2.1 The development Site lies in the centre of the town of Castleford in West Yorkshire. The Site is bounded to the north by Albion Street, to the east by Booth Street, a Sunday school and the Salvation Army Citadel and to the south and partially to the west by Enterprise Way (**Figure 1**).

1.2.2 The Site is currently occupied by the bus station, which will be replaced by the proposed development. The bus station remained in use over the term of the evaluation work. The current ground covering of the Site is hard standing concrete and tarmac. The Site lies on level ground at 20m above Ordnance Datum.

1.2.3 The underlying geology of the Site is the Pennine Middle Coal Measures Formation which consists of Mudstone, Siltstone and Sandstone. This is overlain by slow permeable seasonally wet acid loams and clays.

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The known archaeological and historical background of the Site has been presented in a desk-based assessment (ASWYAS 2012). The following summary is derived from that document.

2.2 Romano-British

2.2.1 Although the landscape around Castleford is known to have been widely settled and utilised during the prehistoric periods, the earliest activity and settlement in the town itself dates to the establishment of a Roman fort in *c.* AD71. The fort was positioned to defend a crossing point on the river Aire and was part of a network of forts built as the army advanced through northern Britain. This fort was occupied (possibly seasonably) until *c.*AD86 when it was demolished to allow the construction of a second fort with a slightly different alignment and layout.

2.2.2 Civilian settlement appears to have followed closely upon the construction of the earliest fort, providing goods and services to the garrison. The fort lay to the east of a road and the civil settlement (or '*vicus*') developed on the southern side of the fort and along this north-south road.

2.2.3 Parts of the fort and *vicus* have been excavated, mainly in the 1970s and 1980s, revealing rows of buildings fronting the road and including workshops, shops and yards. Although the second fort was probably abandoned at the end of the 1st century, the *vicus* continued to thrive. By the first half of the 2nd century the *vicus* included substantial buildings such as a *mansio* (guest house), a temple and a market place. Artefacts from the excavations indicate that by this time Castleford had become highly Romanised and an important settlement.

2.2.4 The *vicus* appears to have been abandoned in the 3rd century; buildings fell into disuse and debris accumulated within them. However some 4th century artefacts have been identified within the *vicus* and the extent of the apparent decline is not clear. Some settlement activity may have moved into the former fort which could be defended. Evidence of occupation after this period is scarce.

2.3 Post-Romano-British to medieval

2.3.1 Although some level of settlement may have continued in the centuries following the Roman occupation, Castleford is not mentioned in the Domesday Book of 1086 and the earliest known historical reference dates to the 12th century. After this date there are references to mills, a church and a ferry crossing in Castleford but the size of the settlement is not known.

2.4 Post-medieval

2.4.1 Glass and pottery industries are recorded in Castleford in the late 17th century but the opening of the Aire-Calder Navigation in the early 19th century led to a rapid expansion in production and premises. With the arrival of the railway in 1840 Castleford had easy access for movement of raw materials and finished goods by road, rail and canal.

2.4.2 The earliest structures on the Site were built between 1822 and 1852 (*cf* ASWYAS 2012, Fig. 5). They appear on the first edition Ordnance Survey of 1852 as a single long structure, possibly a terrace of dwellings.

2.4.3 The Site was occupied by the Albion Glass Works by the 1860s. The works expanded and additional buildings (possibly workers' housing) were constructed within the eastern side of the Site by 1879, forming Wainwright's Yard and Wainwright Street. Those on Wainwright's Yard may have incorporated the pre-1852 properties described above.

2.4.4 Following company mergers and takeovers in the 1880s, which included some re-building of the premises, production ceased in 1894 and the works were demolished by 1908 leaving only the terraced properties. The Site remained largely unchanged until the second half of the 20th century when the remaining buildings were demolished and the bus station was built.

2.5 Recent investigations in the vicinity

2.5.1 Excavations were carried out between 1963 and 1966 near the corner of Albion Street and Carlton Street as part of the construction of the existing bus station, revealing construction trenches for Roman buildings, along with drains, limestone blocks and column bases.

2.5.2 Excavations at the east side of Welbeck Street, to the east of the Site, revealed remains of Roman structures dating to between the 1st and 4th centuries AD, plus a disturbed cremation and evidence of glass working.

2.5.3 Further excavations on the west side of Welbeck Street, and between Booth Street and Dixon Street, identified the remains of a Roman road and evidence of earlier Roman settlement and the wall of a large timber building which was later rebuilt in stone.

2.5.4 All of the above investigations identified significant remains relating to a *vicus* which was settled in the final quarter of the 1st century until around the 3rd century.

2.6 The Site

2.6.1 The Site lies approximately 130m southwest of the defences of Castleford Roman fort, and 110m west of the Roman road. The available evidence indicates that the Site does lie within the *vicus*. The Site also corresponds with the location of the Albion Glass Works and terraces of dwellings constructed between approximately the 1850s and the 1890s.

3 METHODOLOGY

3.1 Aims and objectives

3.1.1 The general aims of the project were:

- to identify the presence or absence of any archaeological deposits within the Site;
- to determine the extent, condition, character, significance and date of any archaeological deposits encountered;
- to accurately record any revealed archaeological deposits;
- to recover artefacts disturbed by the Site works;
- to prepare a comprehensive archive, record and report of any archaeological deposits disturbed by the Site works;
- to aid the production of a mitigation strategy for the Site.

3.2 Fieldwork methodology

3.2.1 The evaluation comprised the excavation of six trenches of varying sizes covering *c.*376m^2 (Trenches 1-6) and the watching brief monitored the excavation of sixteen additional test pits *c.*26.4m (Trenches 7-22; **Figure 1**).

3.2.2 All works were undertaken in accordance with the relevant Institute for Archaeologists' standards (IfA 2008a, 2008b and 2010) and the Specification (WYAAS 2012).

3.2.3 Due to the requirement to keep the bus station operational, the trenches were opened, recorded and re-instated one or two at a time in order to keep at least three bus stands open at any one time. The trenches were located by means of an RTK GPS system and tied into the Ordnance Survey grid to an accuracy of within 0.1m.

3.2.4 All potential trench and test pit locations were scanned to check for uncharted services prior to machining. Trench locations were altered to avoid existing services but also to maintain access in and out of the working bus station. None of the originally proposed trenches under pavements could be excavated because all overlay existing services. The proposed trench locations are included in the Specification (**Appendix 4**) and the excavated trench locations are shown on **Figure 1**.

3.2.5 During the evaluation tarmac and concrete were removed using a floor saw and mechanical excavator fitted with a pecker. Overburden was removed using a mechanical excavator fitted with a toothless ditching bucket, working under the continuous direct supervision of a suitably experienced archaeologist. Overburden was removed in a series of level spits down to the level of the upper archaeological horizon, or the level of the natural geology, whichever was reached first.

3.2.6 The watching brief test pits were hand dug by soil engineers, the tarmac and concrete was removed using a floor saw and pneumatic drill.

3.2.7 All trenches were hand-cleaned to clarify the extent of revealed archaeological remains. Where archaeological features and deposits were encountered, excavation was carried out by hand. A sufficient sample of each layer/feature type was excavated in order to establish the date, nature, extent and condition of the archaeological remains.

3.2.8 The trenches were backfilled with arisings and stone then resurfaced once the WYAAS was satisfied that the excavation had been carried out to an appropriate standard.

3.3 Monitoring

3.3.1 Regular monitoring visits were made by David Hunter (WYAAS).

3.4 Recording

3.4.1 All archaeological features and deposits encountered were recorded using Wessex Archaeology *pro forma* recording sheets and a continuous unique numbering system. A stratigraphic matrix will be compiled to record the relationships between features and deposits. Plans were prepared at appropriate scales showing the areas investigated and their relation to more permanent topographical features. The plans show the location of contexts observed and recorded in the course of the investigation. Other plans, sections and elevations of archaeological features and deposits were drawn as necessary at 1:10, 1:20 and 1:50 as appropriate. All drawings were made in pencil on permanent drafting film.

3.4.2 The spot height of all principal features and levels were calculated in metres relative to Ordnance Datum (OD), correct to two decimal places. Plans, sections and elevations were annotated with spot heights as appropriate.

3.4.3 Photographs were taken as necessary to produce a photographic record consisting of 35mm monochrome prints and colour transparencies. Digital images were taken to support report preparation.

3.5 Finds and samples

3.5.1 Finds were treated in accordance with the relevant guidance (UKIC 2001, MGC 1992, English Heritage 2005 and IfA 2008c) and the Specification (WYAAS 2012). All artefacts from excavated contexts were retained, except those from features or deposits of obviously modern date.

3.5.2 All sealed and stratified archaeological contexts were considered for standard environmental sampling. Bulk soil samples for plant macro-fossils, small animal and fish bones and other small artefacts were taken from appropriate well-sealed and dated/datable archaeological deposits. The collection and processing of environmental samples was undertaken in accordance with English Heritage guidelines (English Heritage 2011).

4 ARCHAEOLOGICAL RESULTS

4.1 Introduction

4.1.1 The following is a summary of the results of the evaluation and watching brief. Detailed context descriptions are provided in **Appendix 1**.

4.2 Trench 1

4.2.1 The earliest feature appeared to be a ditch (**1028**), identified at 15.80m aOD, cut into the natural clay **1004** (**Plate 3, Figures 2** and **6**). No finds were recovered from the fill (**1029**).

4.2.2 Brick structures were identified, at and below *c.*16.40m aOD, and bedded onto a clay layer **1036** which lay above the natural deposits (**Figure 2**).

4.2.3 Red brick walls were identified throughout the trench, the majority of which ran north to south, two of which (**1011** and **1021**) had associated floor/yard surfaces (**1010** and **1020** respectively; **Plate 3**). A further surface, **1008**, was constructed of yellow firebrick. The floor/yard surfaces in particular appear to be constructed of re-used bricks. Walls **1014** and **1015** may have formed a cellar which was filled by demolition layer **1003**, (**Plate 2, Figure 5**). The demolition deposit was typically 0.4m thick and extended across Trench 1. It contained a large quantity of glassworking waste, kiln spacers, pottery, brick fragments and one complete Codd bottle.

4.2.4 Rubble **1003** was most likely associated with the final demolition and levelling of the glassworks. This layer, present over the whole southwestern half of Trench 1, ended abruptly at floor **1022** and appeared to be cut by it (**Plate 1, Figure 5**). The floor and the structures to the northeast were constructed of modern frogged bricks and were overlain by a layer of red crush, **1002**, which also lay over demolition layer **1003** and was present throughout the full length of Trench 1. The existing bus station surface was built on top of this crush layer.

4.3 Trench 2

4.3.1 Trench 2 revealed brick walls and floor surfaces, at and below *c.*16.30m aOD, concentrated in the northeastern half of the trench (**Figure 2**).

4.3.2 North-south oriented wall, **2011** (**Plate 4**) was three bricks wide and thicker than other walls observed in the trench. The structures to the east of **2011** (**2005**-**2010**) formed a series of floors and possible bases (**Plate 5**). Walls **2006** and **2008** may have been internal dividing walls.

4.3.3 To the west of **2011**, a north-south wall with an east-west return (**2012**) abutted a re-used fire-brick yard surface (**2013**). It seems likely that these were external structures, while those to the east of **2011** were internal, **2011** being an outer wall.

4.3.4 The internal features, as well as the outer wall, **2011**, were overlain by **2003**, a rubble layer 0.32m thick. The external features were overlain by demolition deposit **2016**, which was very similar to **1003** in Trench 1,.

4.4 Trench 3

4.4.1 Three features (**3004**, **3006** and **3008**) were identified in Trench 3 at around *c.*16.20m aOD (**Figures 3** and **7**); all produced Romano-British ceramics.

4.4.2 Large pit **3006** was revealed towards the eastern end of the trench, extending into the southern section (**Plate 6**). It was 2.2m across and 0.5m deep and filled by deposits **3007** and **3018**. The lower fill (**3007**) contained several sherds of Romano-British pottery.

4.4.3 A possible beamslot or ditch (**3008**) was identified approximately 5m to the southwest of the pit, running north to south across the trench (**Plate 7**). It was 0.92m in width and 0.23m deep with sharp sloping sides. The secondary fill (**3009**) contained Romano-British ceramics.

4.4.4 Ditch (**3004**) crossed the southwestern end of the trench, running northwest to southeast (**Plate 8**). The ditch was 1.92m in width and 0.38m in depth and contained Romano-British pottery and brick/tile.

4.4.5 All the Roman-British features were cut into the natural clay **3003**, and were sealed by buried soil **3011**/**3015**. The buried soil also contained a small quantity of Romano-British ceramics.

4.4.6 Only two other features were identified in Trench 3 (**Figure 3**). Walls **3010** and **3012**, both aligned north-south and constructed from red bricks, were identified at 16.82m and 16.71m aOD respectively and were bedded onto clay layer **3017**. These were sealed by demolition deposit **3014**.

4.5 Trench 4

4.5.1 The earliest feature in this trench was a poorly-preserved burial of a young cow (**4032**) identified at *c.*16.10m aOD, cut into the natural clay **4003** (**Plate 9**). Ceramics recovered from the fill indicate a Romano-British date.

4.5.2 North-south ditch **4025** was located at a similar level to the cow burial and the Romano-British features in Trench 3 (*c.*16.10m aOD), but no finds were recovered from the fills.

4.5.3 Post-medieval activity was represented by brick structures, at and below *c.*16.60m aOD (**Figure 3**).

4.5.4 At the southwestern end of the trench was a curvilinear structure, **4004**, made up of two parallel rows of red brick bedded on clay layer **4034**, which overlay natural clay. The bricks of structure **4004** and the surrounding clay were heavily heat-affected suggesting **4004** may be the remains of a flue (**Plate 10**). A similar but truncated structure (**4005**) was identified approximately 2m to the northeast.

4.5.5 Towards the eastern extent of the trench was a red-brick surface, **4013**, which also showed signs of heat damage and possible evidence of burning on the surface. Surface **4013** was raised up from adjacent floor surface **4012**, suggesting it may be a platform or base.

4.5.6 A substantial wall, **4011**, ran west from surface **4012** and bounded a possible cellar backfilled with a deposit of industrial waste and rubble (**4029**; **Plate 11**). In addition to filling this area, deposit **4029**/**4031** also overlay most of the structures in Trench 4.

4.5.7 In the centre of Trench 4, structure **4015** was constructed from an assortment of re-used bricks (mainly firebrick), and formed a floor or platform which stepped up to the northeast (**Plate 12**). This part of the structure was visible only in section and post-dated a deposit of industrial waste and rubble (**4028**) similar to demolition layer **4031** (**Figure 8**).

4.5.8 To the northeast of floor **4015** was a series of red brick walls (**4018-4021**) which were a single brick thick and appeared to be internal dividing walls.

4.6 Trench 5

4.6.1 Trench 5 contained structures and deposits at and below *c.*16.66m aOD. These were cut into clay layer **5018**, which overlay the natural deposits.

4.6.2 Structure, **5005**, identified at the southwest end of the trench, consisted of four brick walls surrounding brick base **5006** (**Figure 4**). The structure contained an integral ceramic pipe and was lined with white clay (**Plate 13**).

4.6.3 To the northeast of structure **5005** was a heavily truncated possible drystone wall (**5008**), constructed of irregular stone blocks (**Plate 14**).

4.6.4 In the centre of Trench 5 was a large, deep deposit of rubbish, industrial waste and rubble (**Plate 15**). This deposit, **5021**, contained large quantities of glass slag, cullet, kiln furniture, sagger fragments and pottery, similar to **4028** (in Trench 4). This rubbish dump had been capped with clay layer **5020** (**Figure 9**).

4.6.5 The structures in Trench 5 were all covered by demolition layer **5019**.

4.7 Trench 6

4.7.1 Comparatively few features were identified in this trench at and below *c.*17.41m aOD (**Figures 4** and **9**). A brick yard surface, **6008**, and four red-brick walls (**6009**-**6012; Plate 16**) were bedded onto clay layer **6006**/**6007** and were overlain by demolition layer **6005**.

4.8 Trenches 7, 8, 9, 14, 18 and 22

4.8.1 Trenches 7, 9, 18 and 22 all contained deposits with a variety of intact bricks/large stones (**7007**, **9007**, **18006** and **22005**) which could have been *in situ*, but the test pits were too small to determine whether these were associated with structural remains or demolition debris (**Figure 10**).

4.8.2 Trench 8 contained structural elements including a wall, possible steps and a brick floor surface (**Figure 10**). Feature **8004** consisted of shallow brick steps abutted by wall **8005**. Both structures were abutted by heat-affected brick floor **8006**.

4.8.3 The southeast end of Trench 14 contained a wall (**14010**) abutted by a rectangular structure containing a flagstone base (**14009**/**14011**) and a number of modern services (**Figure 10**).

4.9 Trench 10

4.9.1 This trench contained a 20th century wall running east-west, linked with a modern manhole.

4.10 Trenches 11, 12, 13, 15, 16, 17, 19, 20 and 21

4.10.1 No structures or features were identified in these trenches; they consisted of layers of demolition rubble associated with the glassworks and modern services.

5 ARTEFACTUAL EVIDENCE

5.1 Introduction

5.1.1 A moderate quantity of finds was recovered from the Site. Apart from a small Romano-British component, all this material is post-medieval, and a large proportion represents waste from pottery manufacture and glassworking on the Site, by the Eagle Pottery (built in 1853), and the subsequent Eagle Glass Works (1872-76/7) and Albion Glass Works (1860s-1894). Other finds probably represent domestic refuse. Quantities of finds by material type and by context are given in **Appendix 2**.

5.2 Ceramics

5.2.1 This category encompasses pottery, ceramic building material and other ceramics. Of most interest here is the evidence for 19th century pottery manufacture on the Site, in the form of wasters (biscuit wares and finished wares with firing faults) and kiln furniture (saggars and spacers). There is also, however, a small group of Romano-British wares.

Romano-British

5.2.2 Romano-British wares amount to 57 sherds, recovered mainly from Trench 3, with a smaller group from Trench 4. The majority comprise coarsewares, which have been broadly classified at this stage as greywares, oxidised wares and whitewares, each category possibly including the products of more than one source. Products of the Black Burnished ware (BB1) industry of south-east Dorset are also present. Coarseware vessel forms comprise an everted rim jar, a lipped dish, and a flagon neck; two of the greywares carry rusticated decoration.

5.2.3 Imports are limited to seven sherds of samian (including one form 27 cup, a possible 18/31 platter, and an inkwell) and three of Spanish Dressel 20 amphora, and there are also two sherds of British finewares, in the form of Nene Valley colour-coated ware. Overall the wares and vessel forms present suggest a date range at least from the later 1st into the 2nd century AD, and possibly extending later.

Biscuit wares

5.2.4 Biscuit wares form a large group within the ceramics category. These are the unfinished wares, fired once but which had not gone through the second, glost firing. There is a

considerable range of vessel forms, comprising flatwares (plates, dishes, oval and sub-rectangular serving dishes) and hollow-wares (tea cups, cylindrical mugs, larger cylindrical tankards, small flared bowls, larger rounded bowls, small and large rounded jugs, teapots and their lids, decorative jars). The larger jugs and bowls are likely to have made up washing stand sets. Various decorative treatments are apparent: transfer-printing (used particularly on flatwares); banded decoration in blue slip, generally separated by narrow bands of beading in relief, and with some examples also carrying sprigged (applied) motifs (used on flared bowls, cylindrical tankards and decorative jars); and relief moulded decoration (used on large jugs).

5.2.5 One probable yellow ware was identified, with applied blue and white banded decoration. Otherwise these biscuit wares appear to represent only whitewares.

5.2.6 The largest quantities of biscuit wares were recovered from Trenches 4 and 5, with much smaller quantities from Trenches 1, 2 and 6, and from the watching brief (Trenches 18 and 20).

Pottery

5.2.7 The majority of the pottery, particularly the groups from Trenches 4 and 5, appears to represent the finished wares of which the first stage of manufacture is evident in the biscuit wares. The range of forms is almost identical, but the decorative treatments are more apparent: transfer-printing, although mainly in blue and white, was also seen in green and white, and blue sponging was also used. Teapots were covered in an overall deep blue glaze.

5.2.8 Probable wasters are present amongst the refined whitewares - at least one sponged ware jug and one blue-slipped tankard.

5.2.9 One base has a stamped rosette mark on the underside, but perhaps the most interesting pieces are two flatware rims, each with a transfer-printed backstamp on the underside. This is in the form of a bird with spread wings, and the initials ‘H Mc’ below, which can be identified as the mark of the Eagle pottery, operated by Hugh MacDowall in the 1860s. These backstamps provide the evidence that at least some (and probably all) of the kiln waste, and a large proportion of the finished wares found on the Site derive from the Eagle pottery operating from 1853 to 1872, when it was converted to a small bottle glass works.

5.2.10 A small group of white-slipped redware bowls (found unstratified) may also be wasters – one has firing faults, and several appear to have been burnt, or have adhering burnt residues.

5.2.11 Other pottery seems to be standard domestic waste – further refined whitewares and redwares (teapots, including hand-painted and lustre-decorated), stonewares with feldspathic glaze (mostly cylindrical preserve jars in varying sizes, at least one flagon), earlier salt-glazed stonewares, and porcelain/bone china. There is also a porcelain telegraph insulator (watching brief Trench 18).

Kiln furniture

5.2.12 Kiln furniture occurs in two main types: spacers and saggars, both used during the firing process.

5.2.13 The saggars are all of the same forms: thick-walled, squat, cylindrical vessels made of a coarse, refractory clay. Glaze from the firing process is present on both internal and

external surfaces. There are at least two complete profiles from Trench 5. These vessels would have been used to contain (and protect) small fineware vessels during firing.

5.2.14 A range of different spacer forms is present: bars, stilts (including tripod forms), spurs, and small flat, rounded pieces probably simply formed from flattened balls of clay. All would have performed the function of supporting and separating vessels when stacked in the kiln for firing. While some of the spacers are glazed (and therefore presumably were used during the second, glost firing), most are not, and probably therefore relate to the first, biscuit firing.

Ceramic Building Material

5.2.15 One piece from Trench 3 has been identified as Romano-British. This is an undiagnostic flat fragment, identified on fabric grounds, and cannot be assigned to specific tile or brick type.

5.2.16 Five fragments from Trench 4, one from Trench 2, and one from watching brief Trench 18, are from firebricks, used either in the pottery kilns or glassworks. All are heavily affected by the extremes of temperature.

5.2.17 Remaining fragments are from roof tiles, mainly curved pantiles but also including some flat fragments.

5.3 Glass

5.3.1 This category includes vessels, waste from glassworking, and window glass. As for the pottery, a large proportion of this evidence derives from on-site manufacture, in this case by the successors to the Eagle Pottery - the Eagle Glass Works (1872-1876/7) and Albion Glass Works (1860s-1894).

5.3.2 Raw material is represented here by fragments of cullet, while other waste occurs in the form of melted droplets and dribbles. Some pieces were observed adhering to ceramic, probably furnace lining.

5.3.3 Most of vessel glass belongs to bottles and jars in pale greenish (aqua) glass. Soda bottles are particularly well represented, and bottles with patent Codd closures are much in evidence, identifiable from the distinctive neck/shoulder formation; there are also a few separate marble closures.

5.3.4 One complete soda (Codd) bottle (complete with glass marble stopper), is embossed on both sides, combining the marks of both bottle manufacturer (Sykes Macvay & the Codd Bottle Company) and contents manufacturer (John Roberts, late Allport of Castleford). The Albion Glass Works was sold to Sykes Macvay and Company in 1864. This particular bottle must date later than the merger of this company with the Codd Company in the 1880s, and also later than 1881, when John Allport is listed as an ‘aerated water manufacturer’ in a trade directory (Kelly’s Directory of the West Riding of Yorkshire, 1881). There is at least one other bottle with John Roberts’ mark, two more from the ‘Crystal Aerated Water Works’ of Castleford, and two jar stoppers embossed ‘Sykes Macvay & Co / Albion GlassWorks Castleford’. The Albion works seem to have been making soda bottles (amongst other forms) for a range of local manufacturers, until the demolition of the works in 1894.

5.3.5 One other soda bottle carries the mark of another Castleford bottle-maker, in this case E. Breffit & Company Ltd (watching brief Trench 14). Breffit’s were beer bottle manufacturers between about 1860 and 1913; by 1868, E. Breffit & Company are listed as being the

proprietors of the Aire and Calder Glass Bottle Works, and in 1884 became a limited liability company. This example clearly belongs to the period after 1884.

5.4 Slag

5.4.1 Dense, vitreous slag recovered from Trenches 4 and 5, and from watching brief Trenches 18 and 20, relates to glassworking, and presumably derives from the Eagle and/or Albion Glass Works, but there are also some pieces which may represent metalworking.

5.5 Metalwork

5.5.1 The few metal objects include iron nails and miscellaneous strip fragments; a lead strip; a copper alloy tube of uncertain function; and a composite iron/wooden object (heavily corroded) which may be a scale-tang knife (or other cutlery item) with a wooden handle.

5.6 Other finds

5.6.1 Other finds comprise a small quantity of animal bone including ; a few fragments of clay tobacco pipe (plain stems and part of a 19th century bowl); one oyster shell; and fragments of what appears to be a timber roundwood post.

6 ENVIRONMENTAL EVIDENCE

6.1 Introduction

6.1.1 Five bulk samples were taken from post-medieval boundary ditch **1028** in Trench 1, from Romano-British phase ditch **3004** and pit **3006** in Trench 3, and from ditch **4025** and layer **4035** in Trench 4, to evaluate the presence and preservation of palaeo-environmental remains. The samples were processed for the recovery and assessment of charred plant remains and wood charcoal and the results are provided in **Appendix 3**.

6.2 Charred plant remains

6.2.1 The bulk samples were processed by standard flotation methods; the flot retained on a 0.5 mm mesh, residues fractionated into 5.6 mm, 2mm and 1mm fractions and dried. The coarse fractions (>5.6 mm) were sorted, weighed and discarded. The flots were scanned under a x10 – x40 stereo-binocular microscope and the preservation and nature of the charred plant and wood charcoal remains recorded in **Appendix 3**.

6.2.2 The flots varied in size with low numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. Charred material was poorly preserved.

6.2.3 No charred plant remains were recovered from the post-med boundary ditch **1028** and only a few indeterminate grain fragments were recorded from the Romano-British ditch **3004** and pit **3006**, and a fragment of hazelnut shell (*Corylus avellana*) from undated layer **4035**. There was also no evidence of any waterlogged plant material within pit **3006**.

6.3 Wood charcoal

6.3.1 Wood charcoal was noted from the flots of the bulk samples and is recorded in **Appendix 3**. Very small quantities of wood charcoal fragments greater than 4mm were retrieved from the two samples from Trench 3.

7 DISCUSSION

7.1 Summary

7.1.1 The evaluation and watching brief identified archaeological features which can be considered within four phases of activity pre-dating the construction of the modern bus station.

7.2 Romano-British *vicus*

7.2.1 The earliest activity was Romano-British in date and consisted of a ditch, a possible beam slot or ditch, a pit and a buried soil in Trench 3 and a ditch and cow burial in Trench 4. These features survived at *c.*16.1-16.2m aOD and were cut into natural deposits.

7.2.2 These remains are likely to be associated with the *vicus* identified by previous excavations in the vicinity of the Site. The pottery indicates that they date from the later 1st century into the 2nd century and therefore correspond with the period when Castleford was a significant and highly Romanised settlement.

7.2.3 The artefacts from this period are mainly ceramic and include greywares, oxidised wares, whitewares and Black Burnished ware along with imported samian (a cup, a platter and an inkwell) and amphora.

7.2.4 The presence of a buried soil sealing the Romano-British features, and itself containing Roman-British ceramics, may provide evidence of the disuse and abandonment of this part of the *vicus*, as observed in earlier excavations.

7.3 Post-medieval (pre-1850)

7.3.1 A second phase of activity at the Site may be represented by a single boundary ditch in Trench 4. This feature appears stratigraphically to pre-date the establishment of industrial premises on the Site in 1853 and may correspond with a boundary depicted on an Ordnance Survey map of 1852. The ditch was identified at 15.8m aOD and had been cut into the natural clay.

7.4 The pottery and glassworks (1853-1894)

7.4.1 The third and most extensive phase of activity at the Site dates to the second half of the 19th century and comprises structures and deposits associated with pottery and glass production. Features from this phase were identified in Trenches 1, 2, 4, 5, 7–9, 11 and 13-22 at *c.*16.3-16.6m aOD.

7.4.2 A large quantity of post-medieval finds was recovered from this phase, mainly waste from pottery manufacture and glassworking on, or in the vicinity of, the Site. This material is likely to have been derived from the Eagle Pottery (built in 1853) and the subsequent Eagle Glass Works (1872-76/7) and Albion Glass Works (1860s-1894). The Eagle Glass Works, located to the west of the Site, was thought to have been incorporated into the Albion Glass Works in the late 1870s.

7.4.3 The 1890 Ordnance Survey map depicts the layout of the Site just prior to the closure of the glassworks in 1894 (**Figure 11**). The map shows that the structures identified by the evaluation correspond with the Albion Glass Works, properties on both sides of Wainwright's Yard, and properties on the western side of Wainwright Street. It is not clear whether these were part of the Works or separate premises. Comparison with the 1850 Ordnance Survey map (not illustrated) indicates that the buildings on the western side of Wainwright's Yard may be the earliest on Site.

Structural remains

7.4.4 It appears that, prior to the construction, a layer of clay was deposited to prepare the ground for building. This deposit was identified in Trenches 1 and 3-6. It was not clear from the evaluation whether any significant groundworks, such as levelling, had been carried out prior to the deposition of the clay.

7.4.5 The identified structural remains mainly comprised red-brick walls and floor/yard surfaces. Some of the bricks displayed evidence of proximity to intense heat (particularly in Trench 4), indicating kilns or flues in the vicinity.

7.4.6 The western end of Trench 1 and all of Trench 2 contained remains which correspond with a square structure within the Albion Glass Works as shown on the 1890 Ordnance Survey (**Figure 11**). This is possibly the location of a furnace as 'chimney' is labelled on the map. The only other trench to contain structures with evidence of industrial use was Trench 4 which contained unmapped heat damaged surfaces in the western half of the trench. The only other clearly industrial feature was a large, deep deposit of rubbish, including waste from both glass and pottery manufacture, was found in Trench 5 which corresponded with a yard area within the Works.

7.4.7 Other structures recorded during the evaluation accord with the properties on Wainwright's Yard (Trenches 1, 3, 4 and 5), but no evidence of the function of the buildings could be determined. These may be industrial premises, possibly workshops, or dwellings, or both. Of note is the drystone wall identified in Trench 5 which was the only non-brick structure identified on Site. This appears to correspond with the western side of Wainwright's Yard and could be evidence of the re-use of pre-1954 buildings suggested from the map evidence.

7.4.8 The structures identified in watching brief Trenches 7-9, 14, 18 and 22 are more difficult to interpret due to the size of the trenches but, with the exception of Trench 18, they correspond approximately with structures marked on the 1890 map (**Figure 11**). A heat-damaged brick floor observed in Trench 8 is of particular note: it corresponds with one of the buildings on the western side of Wainwright's Yard and this suggests that industrial processes were taking place in these premises.

Evidence for pottery manufacture

7.4.9 The evidence for pottery manufacture includes: unfinished ceramics (biscuit wares); finished wares and wasters; kiln furniture (saggers and spacers). A transfer-printed backstamp depicting a bird with spread wings, and the initials ‘H Mc’ below, has been identified as the mark of the Eagle pottery, operated by Hugh McDowall in the 1860s. The Eagle Pottery operated from 1853 to 1872, when it was converted to a small bottle-glass works. White (1962) records the Eagle Pottery as an earthenware manufacturer in Castleford with no specific address given in 1858, but White gives the address of H. McDowall and Co ('potter and earthenware manufacturer') as Albion Street; the road that bounds the Site to the north in 1862.

7.4.10 The archaeological evidence indicates that much of the pottery manufacturing waste was re-deposited after the demolition of the glassworks - possibly for levelling (mainly in Trenches 5 and 18). It is therefore suggested that the pottery waste was initially dumped during the operation of the Eagle Pottery (1853-72) perhaps on Site or in the vicinity, and the dump was only levelled in 1894 when the Albion Glass Works was demolished.

Evidence for glassworking

7.4.11 The artefactual evidence for glassworking comprises raw materials (cullet), waste (melted droplets) and glass adhered to furnace lining. Most of the recovered vessel are bottles, jars, soda bottles and bottles with patent Codd closures in particular. One complete bottle is marked with the bottle manufacturer (Sykes Macvay & the Codd Bottle Company). The Albion Glass Works was sold to Sykes Macvay and Company in 1864 and merged with the Codd Company in the 1880s. The Albion Glass Works seem to have been making soda bottles (amongst other forms) for a range of local manufacturers, until the demolition of the works in 1894.

Demolition of the glassworks

7.4.12 The Albion Glass Works was demolished after its closure in 1894 and before 1908. The archaeological evidence indicates that the buildings were demolished to ground level and then the area was levelled by redistributing the demolition debris, including large quantities of waste derived from both pottery and glass manufacture.

7.4.13 Map evidence indicates that the demolitions did not include the buildings on Wainwright's Yard and Wainwright Street, however the archaeological evidence does show that some structures in this part of the Site were demolished and covered with similar debris to the glass works buildings. This suggests that it may not have been possible to distinguish between more than one phase of demolition during the evaluation.

7.5 Modern

7.5.1 The final phase dates to the mid-20th century and consists of modern constructions or alterations to properties on the western side of Wainwright Street; structures in the northeastern end of Trench 1 had been cut through the demolition deposit that marked the end of the previous phase, and were constructed from modern frogged bricks.

7.6 Potential

Romano-British

7.6.1 The evaluation confirmed that Romano-British remains do survive within the Site. Remains of this date were only found at the eastern ends of Trenches 3 and 4 but none were found in Trenches 1 or 6 which also evaluated the eastern side of the Site. This may reflect the true extent of the *vicus* or may be due to the distribution of later disturbance. It is possibly that the ground in these areas was not reduced prior to the deposition of the bedding layer which preceded construction in the 19th century. Other factors may include shallower foundations and no cellars (Trench 3) or the presence of a yard area (Trench 4).

Post-medieval

7.6.2 Post-medieval remains survived in good condition across the Site. It appears that the former glassworks and adjacent properties were demolished to ground level and the land was then built up and levelled with demolition debris. Preservation of 19th century floors and walls/foundations did not appear to vary dramatically across the Site. The majority of the recorded structures corresponded with mapped buildings but it was evident that some unmapped glassworks features also survive.

Artefacts

7.6.3 Of particular interest within the finds assemblage are the components relating to pottery manufacture and glassworking on the Site. This material warrants further analysis in order to determine in more detail the range of pottery and glass vessel forms produced here and to discuss this evidence in the context of what is known of pottery manufacture and glass-working in 19th century Castleford, and across West Yorkshire

Environmental remains

7.6.4 The environmental samples indicated low levels of stratigraphic movement and possibility of contamination by later intrusive elements. However, charred material within the samples was sparse and poorly preserved. There is no potential for detailed analysis of the evaluation samples to provide any additional information due to the paucity of charred plant remains and small quantity of wood charcoal recovered.

7.7 Conclusions

7.7.1 Although detailed interpretation of the Romano-British features is not possible from the evidence recovered from narrow trenches, it is clear that significant remains from this date do survive within the Site. These remains are likely to be associated with the *vicus* associated with Castleford Roman fort. The features date from the later 1st century into the 2nd century and therefore correspond with the period when the *vicus* was a significant and highly Romanised settlement.

7.7.2 The earliest structure on the Site appears to be a row of buildings on the western side of Wainwright's Yard. Map evidence indicates that these were built between 1822 and 1854, and may correspond with a drystone wall identified during evaluation.

7.7.3 The most extensive remains at the Site date to the second half of the 19th century and comprise structures and deposits associated with the Eagle Pottery and Glass Works and the Albion Glass Works. The Eagle factory was located outside of the Site from 1853 but is thought to have been incorporated into the Albion Glass Works (established in the 1860s) in the late 1870s. Manufacturing waste from both industries and factories has been recovered.

7.7.4 The Albion Glass Works was located in the western half of the Site and properties on Wainwright's Yard and Wainwright Street lay to the east. The function of the buildings in the eastern part of the Site is not clear; they could be industrial premises, possibly workshops, or dwellings, or both. However, a heat-damaged brick floor suggests that industrial processes were taking place in these premises.

7.7.5 The Albion Glass Works was demolished after its closure in 1894. The archaeological evidence indicates that the Works buildings were demolished to ground level and the area was levelled by redistributing the demolition debris, including large quantities of waste derived from the pottery and glass factories.

8 STORAGE AND CURATION

8.1 Archive

8.1.1 The project archive has been compiled into a stable, fully cross-referenced and indexed archive in accordance with current guidelines (Museum and Galleries Commission 1992, UKIC 2001 and Brown 2007). The archive is currently held at the offices of Wessex Archaeology in Sheffield, under the project code **88920**.

8.2 Museum

8.2.1 The archive from the fieldwork will be deposited with Wakefield Museum Service in due course under an accession number to be confirmed. An OASIS form will be submitted at the time of deposition.

8.3 Copyright

8.3.1 This report, and the archive generally, may contain material that is non-Wessex Archaeology copyright (e.g. Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which we are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferrable by Wessex Archaeology. Users remain bound by the conditions of the Copyright, Designs and Patents Act 1988 with regard to multiple copying and electronic dissemination of the report.

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10 APPENDICES

APPENDIX 1: CONTEXT DESCRIPTIONS

Trench 1		
Context	Description	Interpretation
1001	Thin tarmac surface, overlaying a concrete raft, all bedded over a yellow crushed levelling layer	Bus station surface
1002	Crushed red brick spread	Levelling layer
1003	Demolition rubble layer	Demolition of glassworks
1004	Yellow silty clay, with occasional blue mottling. No inclusions	Natural
1005	Red bricks bonded by a white lime mortar with charcoal inclusions	Wall
1006	Single course of red brick bonded by a white lime mortar with charcoal inclusions	Wall
1007	Red bricks bonded by a white lime mortar with charcoal inclusions. Two skin wall, with alternating stretchers and headers	Possible garden wall
1008	Single course of yellow brick bonded by lime mortar with charcoal inclusions	Floor surface
1010	Single course of red brick bonded by a lime mortar	Wall - constructed from reused glasswork demolition material
1011	Single course of red brick bonded by a lime mortar	Wall - possibly structural
1012	Single course of red brick, with no bonding material	Floor surface
1013	Red bricks bonded by a white lime mortar with charcoal inclusions. Some bricks frogged, constructed with alternating stretchers and headers	Wall - possibly associated with glasswork outbuildings
1014	Red bricks bonded by a white lime mortar with charcoal inclusions. Two skin wall, with an English garden wall bond (headers every3/4 courses)	Wall - possibly related to 1015
1015	Red bricks, some frogged others unfrogged, bonded by a white lime mortar with charcoal inclusions. Two skin wall, with the upper two courses stretchers and the third course headers	Wall - possibly associated with glasswork outbuildings
1016	Red bricks, some frogged	Drain
1017	Straight, vertical sided cut	Drain
1018	Mixed yellow, brown and black, clay and medium sized/ crushed gravel	Backfill within drain cut 1017
1019	Two courses of red brick, bonded by a grey lime mortar with charcoal inclusions. Two skin wall, lower course consists of one header and one stretcher, with the upper course headers	Wall
1020	Red brick and fire brick	Floor surface
1021	Red brick, bonded by a grey lime mortar	Wall – possibly associated with 1020
1022	Frogged red brick, machine cut, with ‘castleford’ stamped into fabric	Floor
1023	Red brick, bonded by a grey lime mortar with large charcoal	Wall – possibly associated with

	inclusions. Courses predominantly stretcher in structure, with a singular course of headers forming the upper second course	later housing
1024	Modern machine cut, frogged, red bricks. Bonded by a white lime mortar with large charcoal inclusions. One skin.	Wall – associated with modern buildings
1026	Modern machine cut, frogged, red bricks. Bonded by a white lime mortar with large charcoal inclusions.	Manhole
1028	Ditch cut. Full extent unknown, due to disturbance	Boundary ditch
1029	Light greenish yellow firm sandy clay loam, with a clear horizon. 1% of rare medium well rounded and well sorted stone inclusions	Secondary fill of boundary ditch 1028
1030	Construction cut, cutting the top of boundary ditch [1028]	Construction cut
1031	Dark brown black, loose/ friable course slag and construction rubble, with a mixed horizon. Angular slag and brick rubble forming 60% of component material. Ceramic and glass also abundant	Backfill of construction cut 1030
1032	Modern cut for a ceramic pipe, containing wooden shoring	Modern service cut
1033	Yellowish green firm sandy clay, mixed with black industrial waste and slag. 40% frequent mixed stone and slag inclusions, with non-abraded ceramic archaeological components	Backfill of service cut
1034	Dark brown loose sandy clay, with a mixed horizon. 30% frequent angular stones, moderately well sorted. Context also contains an abundant volume large angular fragments of slag	Possible bedding layer
1036	Light brownish yellow clay	Levelling layer
1037	Straight sided vertical cut for wall construction	Construction cut
1038	Black loose gravel and crushed rubble. Contains some red brick fragments and slag	Backfill of construction cut 1037
1039	Straight sided vertical cut for wall construction	Construction cut
1040	Black loose gravel and crushed rubble. Contains some red brick fragments and slag	Backfill of construction cut 1039
1041	Straight sided steep sloped cut, heavy disturbance from later demolition and levelling	Construction cut
1042	Dark greyish black loose/friable sandy clay, with a mixed horizon. 50% abundant angular poorly sorted stone inclusions, with angular brick fragments as well whole bricks a frequent component. Slag and non-abraded ceramic also frequent.	Backfill of 1041
1043	Light greyish green compact sandy clay, with a clear horizon. 20% frequent mortar and slag inclusions	Backfill of foundation cut 1044
1044	Straight sided vertical cut for wall construction	Construction cut
1045	Straight sided vertical cut through demolition layer	Construction cut
1046	Straight sided vertical cut for wall construction	Construction cut
1047	Mid grey clay, containing red brick fragments and charcoal flecking throughout	Backfill of 1046
1048	Straight sided vertical cut	Possible demolition cut
1049	Black rubble and medium fine gravel. Contains red brick fragments and slag.	Backfill of 1048
1050	Cut for modern features at E end of trench	Construction cut

Trench 2		
Context	Description	Interpretation
2001	Tarmac and concrete covering Site	Bus station surface
2002	Yellow gravel crush layer	Levelling layer
2003	Mix of red brick rubble, slag, pottery and glass	Demolition of glassworks
2004	Yellow silty clay, with no inclusions	Natural
2005	Handmade red brick, bonded by a grey lime mortar with large charcoal inclusions.	Floor surface
2006	Handmade red brick, bonded by a grey lime mortar with large charcoal and lime inclusions.	Wall – possibly an internal structural wall of glassworks
2007	Handmade red brick, no bonding agents	Floor surface
2008	Handmade red brick, bonded by a grey lime mortar with large charcoal and lime inclusions.	Wall – possibly an internal structural wall of glassworks
2009	Handmade red brick, bonded by a grey lime mortar with large charcoal inclusions.	Floor surface
2010	Handmade red brick, bonded by a grey lime mortar with large charcoal inclusions.	Possible pillar base
2011	Handmade red brick, bonded by a grey lime mortar with large charcoal and lime inclusions.	Wall - possibly the W external wall of main glassworks building
2012	Handmade red brick, bonded by a grey lime mortar with large charcoal inclusions. Two skins	Wall - possibly associated with glasswork outbuildings
2013	Yellow fire brick, with sandstone slabs	Floor surface
2014	Yellow fire brick, with sandstone slabs	Floor surface
2015	Red brick, with a ceramic drainpipe and sandstone slabs	Drain
2016	Black rubble, slag and industrial waste with ceramic and glass inclusions	Demolition layer

Trench 3		
Context	Description	Interpretation
3001	Thin tarmac surface, overlaying a concrete raft, all bedded over a yellow crushed levelling layer	Bus station surface
3002	Crushed red brick spread	Levelling layer
3003	Yellow silty clay, with occasional blue mottling. No inclusions	Natural
3004	Wide steep irregular sided ditch	Ditch
3005	Yellowish grey firm silty clay, with a mixed horizon. 5% sub angular well sorted stone inclusions, with some animal none and non-abraded pottery	Secondary fill of ditch 3004
3006	A stepped convex steep sided cut.	Pit cut
3007	Dark grey brown friable silty clay loam, with a clear horizon. 5% small sub angular well sorted stone inclusions, as well as frequent components of charcoal and some non-abraded ceramics	Primary fill of pit cut 3006

Trench 3		
Context	Description	Interpretation
3008	Straight steep sided linear cut with a flat base	Possible beam slot
3009	Light yellowish grey firm sandy clay, with a mixed horizon. 1% angular well sorted small stone inclusions	Secondary fill of possible beam slot 3009
3010	Two courses of red brick, bonded by a lime mortar. Two skins thick	Wall – possible boundary wall
3011	Light greyish brown firm silt clay, with a clear horizon. Some charcoal flecking present	Buried soil/ upper horizon of 3015
3012	Handmade red brick, bonded by a lime mortar with large charcoal and lime inclusions. Two skins thick, with multiple bonding structures within coursing	Wall
3013	Cross shaped widen structure, inserted with steel spikes	Post base
3014	Black loose coarse gravel, with a clear horizon. 30% large angular stone inclusions, with glass, slag and red brick frequent components	Demolition layer
3015	Dark greyish brown mottled silty clay loam. 5% small angular stone inclusions, with sparse fired clay and abundant charcoal flecking as components	Buried soil/ lower horizon of 3011
3016	Dark grey firm silty clay loam, with a clear horizon. 1% well sorted rounded stone inclusions, with charcoal flecking and non-abraded ceramic components	Primary fill of possible beam slot 3008
3017	Dark grey compact sandy clay, with a clear horizon. 30% angular stone inclusions, with abundant charcoal flecking and sparse non-abraded ceramic components	Levelling layer over 3011
3018	Orangey yellow compact sandy clay, with a mixed horizon	Secondary fill of pit cut 3006
3019	Shallow irregular cut	Irreguar cut, possibly natural
3020	Vertical straight sided cut for wall construction	Construction cut

Trench 4		
Context	Description	Interpretation
4001	Tarmac and concrete covering Site	Bus station surface
4002	Red gravel / crush	Levelling layer
4003	Yellow silty clay, with no inclusions	Natural
4004	Red brick, bonded by a lime mortar. Brick shows signs of heavy ware and heat damage. Single skin	Possible flue
4005	Red brick and fire brick, bonded by a grey lime mortar. Brick shows signs of heavy ware and heat damage. Single skin	Flue
4006	Un-frogged Red brick and limestone slabs	Floor surface
4007	Red brick, frogged, bonded by a black concreted mortar, possibly asphalt. Three skins thick	Wall
4008	Red brick and fire brick, bonded by a white lime mortar with charcoal inclusions	Wall

Trench 4		
Context	Description	Interpretation
4009	Red brick, with a single limestone slab in centre of context, bonded by a white lime mortar	Floor surface
4010	Red brick and fire brick, bonded by a white lime mortar with charcoal inclusions. Bedded into a lime mortar layer	Wall
4011	Red brick, bonded by a grey lime mortar with charcoal inclusions. Three skins thick. Some heat damage present on brickwork	Wall
4012	Red brick, un-bonded, with some heat damage present on brickwork	Floor
4013	Red brick, bonded by a grey lime mortar with charcoal inclusions. Two courses, upper course headers and the lower course stretchers. Some heat damage present on brickwork	Base
4014	Red brick, bonded by black asphalt. Two skins thick	Wall
4015	Mix of re-used fire brick and re-used red brick, frogged and un-frogged, bonded by black asphalt. Both glass and slag components found on fire brick surface	Wall
4016	Mix of re-used fire brick and re-used red brick, frogged and un-frogged, bonded by black asphalt. Two skins thick	Wall
4017	Red brick, bonded by a grey lime mortar with charcoal inclusions. Two skins thick, with alternating headers and stretchers forming course structure	Wall – possibly load bearing external wall
4018	Red brick, bonded by a grey lime mortar. Two skins thick	Wall
4020	Red brick, bonded by a white lime mortar. One skin thick	Wall – possible internal structural wall
4021	Red brick, bonded by a grey lime mortar with charcoal inclusions. One skin thick	Wall – possible internal structural wall
4022	Red brick, bonded by a grey lime mortar with charcoal inclusions. Two skins thick	Wall
4023	Frogged red brick, machine cut, with ‘castleford’ stamped into fabric. A sandstone curb lines the W side of the red brickwork	Floor surface
4025	A shallow linear cut with moderately sloped sides	Ditch – possible field boundary
4026	Light greyish blue compact silty clay, with a clear horizon. 3% small well sorted angular stone inclusions	Secondary fill of ditch 4025
4027	Red brick, bonded by a white lime mortar with charcoal inclusions. One skin thick	Wall
4028	Black clinker, slag and rubble, with red brick fragments, glass, ceramic and saggar fragments frequent components	Demolition / levelling layer
4029	Black rubble and clinker, with red brick fragments, slag, glass and ceramic fragments frequent components	Demolition layer
4030	Mixed industrial waste and clay, with ceramic, slag and red brick fragments frequent components	Made ground
4031	Black rubble and industrial waste with patches of greyish red. Red brick, slag, glass and ceramic fragments frequent components	Demolition layer
4032	Concave steep sided irregular shaped cut	Cut for animal burial

Trench 4		
Context	Description	Interpretation
4033	Dark brownish grey compact sandy clay loam, with a mixed horizon. 3% small angular and sub-angular stone inclusions, with sparse non- abraded ceramic components. Animal burial ABG1 within context	Fill of cut 4032
4034	Light grey brown friable sandy silt, with a clear horizon. 3% small angular stone inclusions	Layer, possible levelling
4035	Dark greyish blue compact silty clay, with a clear horizon	Layer, possible buried soil below 4027
ABG1	Bovine remains found in cut [4032], primary fill (4033). Highly degraded.	Animal burial

Trench 5		
Context	Description	Interpretation
5001	Red tarmac and grey concrete layer	Bus station surface
5002	Red gravel crush	Levelling layer
5003	Yellow silty clay, with no inclusions	Natural
5004	Red brick, bonded by white lime mortar	Wall
5005	Red brick and fire brick slabs, bonded by white lime mortar. Running bond structure with the foundation course of structured by headers. Lined with clay	Possible water tank
5006	Red brick, bonded by white lime mortar	Floor surface
5007	Yellow fire brick, not bonded	Floor surface
5008	Mudstone blocks, not bonded	Wall
5009	Red brick, bonded by a white lime mortar, with some bricks showing signs of re-use. Two skins thick	Wall
5010	Red brick, bonded by a white lime mortar. Two skins thick	Wall
5011	Red brick, bonded by a white lime mortar, with some bricks showing signs of re-use	Wall
5012	Red brick, bonded by a white lime mortar	Wall
5013	Red brick, not bonded	Floor surface
5014	Red brick, bonded by a grey lime mortar. One skin thick. Keyed into 5012 and 5015	Wall
5015	Red brick, bonded by a white lime mortar. Two skins thick. Alternating courses of stretchers and headers. Keyed into 5012 and 5014	Wall
5016	Red brick, bonded by a grey limestone mortar, with a limestone slabs lining the W side. Two skins thick	Wall
5017	Orangey red rubble, predominantly red brick and fire brick fragments. Some ceramic and saggar components	Demolition layer
5018	Greyish brown clay, with charcoal flecking	Placed deposit, levelling/damp proofing

Trench 5		
Context	Description	Interpretation
5019	Black clayey silty, with red brick rubble inclusions. Slag, ceramic, saggars, clay pipes and metal fragments also form components	Demolition layer
5020	Brown slightly silty clay, with some ceramic building material inclusions	Possible levelling layer
5021	Black silty gravel. 30% small angular stone inclusions, with ceramic, saggars and clay pipe components	Rubbish layer

Trench 6		
Context	Description	Interpretation
6001	Red tarmac and grey concrete layer	Bus station surface
6002	Yellow gravel crush	Levelling layer
6003	Red gravel crush	Levelling layer
6004	Yellow silty clay, with no inclusions	Natural
6005	Black clayey silt, with red brick rubble inclusions. Ceramic, slag, saggars, clay pipes and metal fragment components	Demolition layer
6006	Dark grey slightly silty clay. <1% sub rounded gravel pebble inclusions, with a pottery component	Clay layer, levelling/damp proofing
6007	Light brown slightly silty clay. <1% sub rounded limestone inclusions, with a pottery component	Clay layer, levelling/damp proofing
6008	Red brick, bonded by a grey lime mortar	Floor surface
6009	Red brick, bonded by a grey lime mortar	Wall
6010	Red brick, bonded by a grey lime mortar, with varying structures for each course	Wall
6011	Red brick, bonded by a grey lime mortar. Two courses stretchers and two courses headers	Wall
6012	Red brick, bonded by a grey lime mortar. Two courses stretchers and one course headers. Buts 6011	Wall
6013	Irregular cut	Tree throw
6014	Light greyish brown silty clay	Fill of tree throw 6013

Trench 7 (O.T.4)			**Length 1.84 x Width 0.64 x Depth 1.00 (m)**
Context	Description	Interpretation	Depth (m)
7001	Paving Slabs	Bus station kerbside	0 – 0.06
7002	Black clinker debris	Bedding for paving	0.06 – 0.16
7003	Natural	Not encountered	
7004	Light grey slightly silty clay deposit with frequent angular brick and stone inclusions. Mixed in with yellow sand material.	Infill of service trench	0.16 – 1
7005	Light grey sand deposit with regular, angular stone inclusions.	Infill of service trench	0.23 – 0.37
7006	Yellow sand deposit	Infill of service trench	0.06 – 0.40
7007	Slab of composite material including brick sherds (l=0.37 x w = 0.22 x d = 0.09)	Possible floor or yard surface	0.68
7008	Concrete slab	Concrete slab	0.37

Trench 8 (T.P. 3)			**Length 4.2 x Width x 1.15 x Depth 1.00 (m)**
Context	Description	Interpretation	Depth
8001	Tarmac & Concrete	Bus Station surface	0 – 0.37
8002	Brown silty clay with small rubble inclusions & sub rounded gravel pebbles	Made ground	0.37 – 1.00
8003	Yellow silty clay with no inclusions	Natural	1.00 +
8004	NW-SE red brick/fire brick wall with white lime mortar. Stretcher built, appears stepped but possibly due to demolition. Brick size: 0.24 x 0.11 x 0.08m (lxwxd)	Large exterior brick wall of glassworks	0.51 – 1.02
8005	NW-SE red brick wall with white lime mortar. Stretcher built from two skins along the edge of [8004] and [8006]. (Brick size same as above)	Red brick skin tacked on to [8004] associated with the glassworks	0.63
8006	E-W red brick surface with grey lime mortar. Stretchers on bed with occasional blackened scorch marks. (Brick size same as above)	Brick floor surface	0.65

Trench 9 (O.T. 3)			**Length 2.24 x Width x 0.84 x Depth 1.00 (m)**
Context	Description	Interpretation	Depth
9001	Paving slab	Bus station kerbside	0 - 0.06
9002	Black clinker deposit	Bedding for paving	0.06 – 0.17
9003	Natural	Not encountered	
9004	Light grey slightly silty clay with large rubble inclusions of brick (some frogged)	Demolition layer/backfill	0.17 – 1.00
9005	Ligth brown sand deposit	Infill of service trench	0.06 – 0.34
9006	Concrete	Infill of service trench	0.15 – 0.54
9007	Large stone flag approx 0.45 x 0.16 (lxw)	Isolated flagstone	0.85

Trench 10 (T.P. 4)			**Length 2.82 x Width x 1.18 x Depth 1.20 (m)**
Context	Description	Interpretation	Depth
10001	Tarmac & Concrete	Bus station surface	0 – 0.25/0.25 – 0.52
10002	Type 1 crushed white stone	Bedding layer for concrete	0.52 – 0.91

Trench 10 (T.P. 4)			**Length 2.82 x Width x 1.18 x Depth 1.20 (m)**
Context	Description	Interpretation	Depth
10003	Yellow silty clay with no inclusions	Natural	1.20 +
10004	Red brick wall running E-W with grey lime mortar. Stretcher built, brick size: 0.24 x 0.11 x 0.05m (lxwxd)	Manhole chamber	0.36
10005	Dark brown silty clay with sub-angular gravel inclusions and a small amount of brick rubble	Demolition layer	0.91 – 1.05
10006	Light brown silty clay with rubble inclusions such as large bricks.	Demolition layer	0.94 – 1.20

Trench 11 (T.P 7)			**Length 3.08 x Width x 0.83 x Depth 1.10 (m)**
Context	Description	Interpretation	Depth
11001	Red tarmac with black tarmac inclusions, above concrete with rebar	Bus station surface	0 - 0.13
11002	Type 1 crushed white stone, pebble inclusions approx 0.01 x 0.03m in size.	Bedding layer for concrete	0.13 – 0.20
11003	Black silty sand with frequent burnt material including slag fragments	Demolition layer	0.20 – 0.34
11004	Mid brownish yellow crushed silty sand	Levelling layer	0.20 – 0.34
11005	Mid brownish red crushed brick and tile	Levelling layer	0.34 – 0.44
11006	Light brownish sand	Levelling layer	0.44 – 0.50
11007	Mid brown silty sand with some fine gravel inclusions evenly distributed. Slightly humic/moist	Levelling layer	0.5 – 0.54
11008	Mid greyish brown silty clay with no inclusions	Levelling layer	0.54 – 0.68
11009	Yellow silty clay with occasional blue mottling	Natural	0.68 +

Trench 12 (O.T. 2)			**Length 2.02 x Width x 0.60 x Depth 1.00 (m)**
Context	Description	Interpretation	Depth
12001	Tarmac	Bus station surface	0 – 0.11
12002	Light orangey yellow clayey silty sand	Levelling layer for tarmac	0.11 – 0.21
12003	Black silty sand with small clinker fragments (0.02-0.05m)	Levelling layer	0.21 – 0.23
12004	Linear cut with steep sides	Cut of service trench (0.6 x 0.42 x 0.23m lxwxd)	0.23 – 0.46
12005	Type 1 crushed limestone directly overlaying 3 x 100mm green plastic ducts (internet services)	Fill of service trench	0.23 – 0.46
12006	Layer of crushed CBM	Levelling layer	0.23 – 0.27
12007	Mid brown silty sand containing clinker, glass, coal fragments	Demolition deposit	0.27 – 0.35
12008	White lime mortar layer	Levelling layer	0.35 – 0.37
12009	Mixed mid brown silty sand loam with clinker, slay, glass, cbm, post med pottery and bone fragments	Demolition deposit	0.37 – 0.75
12010	Dark blackish brown humic silty sand with clarcoal inclusions	Demolition deposit	0.75 – 0.77
12011	Light yellowish white lime mortar	Levelling layer	0.77 – 0.82
12012	Mid greyish brown silty clay with occasional CBM fragments & clinker	Demolition deposit	0.82 – 1.00

Trench 12 (O.T. 2)			**Length 2.02 x Width x 0.60 x Depth 1.00 (m)**
Context	Description	Interpretation	Depth
12013	Linear cut with steep sides	Cut for electricity cable	0.23 – 0.40
12014	Dark brown silty sand with occasional small limestone fragments	Fill of cable trench	0.23 – 0.40

Trench 13 (T.P. 1)			**Length 2.82 x Width x 1.18 x Depth 1.20 (m)**
Context	Description	Interpretation	Depth
13001	Red tarmac & Concrete with rebar	Bus station surface	0 – 0.08/0.08 – 0.25
13002	Light yellowish white crushed sandy stone type 1	Bedding layer for concrete	0.25 – 0.28
13003	Mid brownish red crushed CBM	Levelling layer	0.28 – 0.28
13004	Black sandy silty loam with patches of burnt material, post med pottery and sandstone brick fragments.	Demolition deposit	0.35 – 0.90
13005	Mid greyish yellow clay	Natural	0.90 +

Trench 14 (O.T. 1)			**Length 2.62 x Width x 0.60 x Depth 0.82 (m)**
Context	Description	Interpretation	Depth
14001	Tarmac & concrete	Bus station surface	0 – 0.11
14002	Light yellowish white type 1 crushed stone	Levelling layer	0.11 – 0.16
14003	Black sandy silt loam with occasional burnt patches	Demolition deposit	016 – 0.22
14004	Mid brown sand with CBM, bone, glass, and post med pottery	Demolition deposit	0.22 – 0.76
14005	Linear cut with V shaped sides and base	Cut for modern services	0.22 – 0.44
14006	Mid orangey brown sand with x3 100mm green plastic ducts for internet cables	Fill of service trench	0.22 – 0.44
14007	Concrete deposit slightly angled	Demolition backfill	0.76 – 0.82
14008	Concrete support on top of [14004] abutting bus station wall	Concrete wall support	0.22 – 0.27
14009	Red brick wall aligned NW-SE with white lime mortar with charcoal inclusions, stretcher built and tacked onto [14010]	Wall forming corner of building – possible outhouse for glassworks?	0.68 – 0.82
14010	Handmade red brick wall aligned E-W. Brick size varies from L=0.20/0.22 W =0.07/0.09 D =0.07/0.09	Load bearing wall of glassworks	0.62 – 0.82
14011	Grey stone slab surface L = >0.3 x W = >0.28m	Floor surface	0.82 (?)
14012	Crushed CBM material infilling between structures	Demolition deposit	0.65 – 0.82
14013	Deposit below concrete base similar to [14004], contains large hand made bricks	Demolition deposit	0.82 – 0.96

Trench 15 (T.P. 2)			**Length 3.50 x Width x 0.84 x Depth 1.04 (m)**
Context	Description	Interpretation	Depth
15001	Tarmac & concrete with rebar	Bus station surface`	0 – 0.06/0.06 – 0.28
15002	Light yellowish white sand with crushed stone (type 1)	Bedding layer for concrete	0.28 – 0.36
15003	Mid brownish red crushed CBM	Levelling layer	0.36 – 0.46
15004	Blackish brown sandy silt with high levels of burnt wood, clinker & brickwork	Demolition deposit	0.46 – 0.80
15005	Dark greyish yellow clay with occasional sandy laminations	Natural	0.80 – 1.50
15006	Mid greyish brown sandy clay with occasional wood & charcoal, also small fragments of CBM (0.02-0.03m)	Demoilition deposit	1.50 – 1.85
15007	Ligh bluish grey clay with large areas of burnt wood & brick towards the bottom of the context.	Backfilling deposit?	1.85 – 2.10
15008	Mudstone	Natural	2.10 +

Trench 16 (T.P. 5)			**Length 3.4 x Width x 0.60 x Depth 1.20 (m)**
Context	Description	Interpretation	Depth
16001	Paving slab	Bus station kerbside	0 – 0.05
16002	Black gravely sand/clinker	Bedding for paving	0.05 – 0.18
16003	Mid brownish red crushed CBM	Levelling layer	0.26 – 0.46
16004	Black gravely sand/clinker (same as [16002]	Levelling layer	0.18 – 0.26
16005	Light pinkish brown silty clay with occasional bricks/CBM	Levelling layer	0.46 – 0.58
16006	Light brownish red silty clay with occasional bricks	Levelling layer	0.58 – 0.72
16007	Light pinkish brown clay with occasional brick inclusions	Levelling layer	0.72 – 1.20
16008	Yellowish grey clay	Natural	1.20 +

Trench 17 (T.P. 6)			**Length 1.05 x Width x 0.60 x Depth 1.07 (m)**
Context	Description	Interpretation	Depth
17001	Tarmac & Concrete with rebar	Bus station surface	0 – 0.32
17002	Mid brownish red crushed red brick and tile, small-medium fragments & charcoal inclusions.	Levelling layer	0.32 – 0.55
17003	Dark brown silty clay with occasional charcoal fragments & flecks. Infrequent CBM material & post med ceramic	Demolition deposit	0.55 – 0.87
17004	Light brown silty clay with occasional charcoal flecks and small fragments of post-med ceramic	Demolition deposit	0.87 – 1.07
17005	Light yellowish clay	Natural	1.07 +

Trench 18 (O.P 3)			**Length 0.95 x Width x 0.60 x Depth 1.40 (m)**
Context	Description	Interpretation	Depth
18001	Paving slabs	Bus station kerbside near south wall	0 – 0.06
18002	Loose black clinker/tarmac bedding	Bedding layer	0.06 – 0.16
18003	Brown silty clay with frequent brick, post med ceramic and charcoal	Demolition deposit	0.16 – 0.56
18004	Mid brownish red crushed red brick and tile, small-medium fragments & charcoal inclusions.	Levelling layer	0.56 – 0.63
18005	Dark greyish brown silty clay, industiral rubble backfill	Demolition deposit	0.63 – 1.00
18006	Possible red brick wall WNW-ESE aligned, stretcher built. Bricks approx 11.5m wide x 0.07m deep. Patches of glass slag fused to bricks	Red brick internal wall/structure associated with glassworks	0.74
18007	Dark reddish brown silty clay with frquent CBM, post med ceramic, iron slag and charcoal. Possibly contains additional structure but insufficient space to confirm	Demolition deposit	1.10 – 1.20
18008	Yellow clay with possible small charcoal inclusions and brick fragments	Levelling deposit, disturbed natural	1.20 +

Trench 19 (O.P. 5)			**Length 0.50 x Width x 0.50 x Depth 1.10 (m)**
Context	Description	Interpretation	Depth
19001	Reddish black tarmac	Bus station surface	0 – 0.11
19002	Concrete with rebar	Bedding for tarmac	0.11 – 0.33
19003	Mid brownish red crushed red brick and tile, small-medium fragments & charcoal inclusions.	Levelling layer	0.33 – 0.55
19004	Dark brown silty clay with frequent crushed fragments of CBM including x1 frogged brick, occasional coal and slate frags, and post med ceramic	Demolition deposit	0.55 – 0.80
19005	Greyish brown sandy clay with occasional small rounded pebbles and ash flecks	Levelling layer	0.80 – 0.90
19006	Light greyish brown silty clay with patches of sand and infrequent charcoal flecks	Levelling layer	0.90 – 1.10
19007	Yellow clay	Natural	1.10 +

Trench 20 (O.P. 2)			**Length 0.50 x Width x 0.50 x Depth 2.50 (m)**
Context	Description	Interpretation	Depth
20001	Reddish black tarmac	Bus station surface	0 – 0.12
20002	Concrete with rebar	Bedding for tarmac	0.12 – 0.34
20003	Mid brownish red crushed red brick and tile, small-medium fragments & charcoal inclusions.	Levelling layer	0.34 – 0.50
20004	Dark brown silty clay with frequent CBM/post med ceramic/glass, also unfrogged bricks with fire damage	Demolition deposit	0.50 – 0.73
20005	Dark brown silty clay with frequent post med material including slag, CBM, pottery. Looser than [20004].	Demolition deposit	0.73 – 1.30

Trench 20 (O.P. 2)			**Length 0.50 x Width x 0.50 x Depth 2.50 (m)**
Context	Description	Interpretation	Depth
20006	Yellowish brown sandy clay with frequent gravel inclusions and occasional charcoal flecks/CBM	Levelling deposit, disturbed natural	1.3 – 2.50 +

Trench 21 (O.P. 1)			**Length 0.50 x Width x 0.50 x Depth 1.2 (m)**
Context	Description	Interpretation	Depth
21001	Reddish black tarmac	Bus station surface	0 – 0.13
21002	Concrete with rebar	Bedding for tarmac	0.13 – 0.24
21003	Mid brownish yellow silty sand with frequent crushed rubble including clinker/charcoal (40%)	Levelling layer	0.24 – 0.34
21004	Mid brownish red crushed red brick and tile, small-medium fragments & charcoal inclusions.	Levelling layer	0.34 – 0.44
21005	Dark brown silty clay with frequent post med material including slag, CBM, pottery. Looser than [20004].	Demolition deposit	0.44 – 1.20 +

Trench 22 (O.P. 4)			**Length 0.50 x Width x 0.50 x Depth 1.2 (m)**
Context	Description	Interpretation	Depth
22001	Red & black tarmac	Bus station surface	0 – 0.12
22002	Concrete with rebar	Bedding for tarmac	0.12 – 0.21
22003	Mid brownish yellow silty sand with frequent crushed rubble including clinker/charcoal (40%)	Levelling layer	0.21 – 0.34
22004	Mid brownish red crushed red brick and tile, small-medium fragments & charcoal inclusions.	Levelling layer	0.34 – 0.46
22005	Dark brown clayey silt, with red brick rubble inclusions. One brick visible in the east facing section – could be end of a structure?	Demolition layer	0.46 – 1.2 +

APPENDIX 2: ALL FINDS BY CONTEXT

							CERAMICS								
Context	Animal Bone	Shell	CBM	Glass	Glass Slag	Total Glass	Metal	RB pottery	Post-med pottery	Biscuit wares	Saggar	Kiln Furniture + Other Cer.	Slag	Clay Pipe	Leather
1003	6/224	2/80		42/1737	24/1285	66/3022	20/2926		65/3889		2/88	42/200			5/984
1019									6/50	4/59	9/1196	27/132		1/20	
2003				1/95	4/164	5/259				3/41	3/100				
2016			1/1687		5/746	5/746	1/66		1/6	1/15					
3005	24/144		1/146					10/45							
3007	3/13							6/69							
3009	5/44							7/81							
3015								3/30							
3016	15/22														
3018	5/64							11/46							
3019	4/19							13/78							
4004	1/1			6/41	2/139	8/180			1/4			2/9			
4005				3/24		3/24			1/2	3/109		4/16		1/4	
4022			1/3745												
4028				1/6		1/6	1/29		15/528	48/1614	3/1357	56/359	4/637		
4029			6/14705	22/320	36/6273	58/6593	1/3906		26/1659	135/4109	75/36873	49/258			
4030										4/373	5/1946	1/4	2/1012		
4033	140/319							7/145							
5008					14/6387	14/6387									
5019		1/73		25/679	55/2729	80/3408	9/352		29/826	75/1715	13/2899	10/731	5/1017		
5021				3/361	1/40	4/401			34/1553	76/	6/11253	74/672			

										5889					
6005				3/167	1/64	4/231			3/50	1/96				2/4	
6007									4/31						
14004				1/117		1/117									
15007			6/5425						1/34						
17003									4/10						
17004									7/19						
18002									24/125	46/470		20/93			
18003				1/2	5/152	6/154			16/708						
18005			1/1350	36/109	86/1423	122/15 32									
18006									20/251	10/115		6/33	1/30		
19005									9/16						
20005					1/18	1/18			23/152	72/625	8/570	29/150	1/76		
20006													5/ 3112		
U/S	1/125			37/889	16/919	53/180 8			15/2125	2/130	1/275	1/8			
TOTAL	**204/ 975**	**1/ 73**	**16/ 27058**	**181/ 4547**	**250/ 20339**	**431/ 23601**	**32/ 7213**	**57/ 494**	**304/ 12038**	**480/ 15360**	**125/ 56557**	**254/ 2665**	**18/ 5884**	**4/ 28**	**5/ 984**

(number / weight in grammes)
CBM = ceramic building material; Cu = copper alloy; Fe = iron; Pb = lead
* excluding 11.6kg of slag unprocessed at time of writing

APPENDIX 3: ASSESSMENT OF THE CHARRED PLANT REMAINS AND CHARCOAL

Samples				Flot								
Feature	Context	Sample	Vol. Ltrs	Flot (ml)	% roots	Charred Plant Remains				Charcoal >4/2mm	Other	Analysis
						Grain	Chaff	Other	Comments			
Trench 1												
Post-med Boundary Ditch												
1028	1029	6	10	40	5	-	-	-	-	-	coal	-
Trench 3												
Romano-British Ditch												
3004	3005	7	10	10	5	C	-	-	Indet. grain frag	1/1 ml	coal	-
Romano-British Pit												
3006	3007	8	8	60	5	C	-	-	Indet. grain frag	2/5 ml	coal	-
Trench 4												
Undated Ditch												
4025	4026	14	10	10	10	-	-	-	-	0/<1 ml	coal	-
Undated Layer												
	4035	15	10	60	7	-	-	C	*Corylus avellana* shell frag	0/<1 ml	coal	-

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5;

APPENDIX 4: SPECIFICATION FOR EVALUATION (WYAAS)

WEST YORKSHIRE ARCHAEOLOGY ADVISORY SERVICE:
SPECIFICATION FOR AN ARCHAEOLOGICAL EVALUATION BY TRIAL TRENCHING AT CASTLEFORD BUS STATION

Specification prepared for Alistair Branch of Aedas Architects Ltd. (acting on behalf of Metro & Wakefield Council)

1. Summary

1.1 A limited amount of archaeological work consisting of trial trenching is proposed to help establish the archaeological significance of the above site. Any work arising from the results of the evaluation will be covered by a further specification.

1.2 This specification has been prepared by the West Yorkshire Archaeology Advisory Service, the holders of the WY Historic Environment Record
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NOTE: The requirements detailed in paragraphs 6.3, 6.4, 6.5, 6.6 and 8.1 are to be met by the archaeological contractor **prior** to the commencement of fieldwork by completing and returning the attached form to the WY Archaeology Advisory Service.

Grid Reference: centred on SE 4247 2554

2. Site Location & Description

2.1 The development lies in the centre of the town of Castleford. The site is bounded to the north by Albion Street, to the east by Booth Street, a Sunday school and the Salvation Army Citadel and to the south and partially to the west by Enterprise Way. The site is currently occupied by the Bus Station, which will be replaced by this development. The bus station will remain in use over the term of the evaluation work. The current ground covering of the site is hard standing concrete and tarmac. The site is level at 20m O.D.

2.2 The geology of the site is Pennine Middle Coal Measures Formation which consists of Mudstone, Siltstone and Sandstone. This is overlain by slow permeable seasonally wet acid loams and clays.

Background Information

2.3 Aedas Architects Ltd. (acting on behalf of Metro & Wakefield Council) intends to apply for full planning permission to build a new bus station on the site of the current bus station. It is also intended to develop a link to the Castleford railway station.

2.4 The WYAAS has been requested by Alistair Branch (of Aedas Architects Ltd. tel. (0113) 385 8787; Aedas Leeds Office, 7 Brewery Place, Brewery Wharf, Leeds), acting on behalf Metro and Wakefield Council, to provide a specification for an archaeological evaluation by trial trenching of this site, prior to the submission of a planning application for construction of a replacement bus station. This is on the advice of the WYAAS, who have indicated that should such planning application currently be submitted for the site, that the WYAAS would recommend to WMDC that it be deferred until information could be supplied on the impact of the proposed

development on the potential archaeological remains that are presumed to survive on this site. This evaluation should help elucidate what, if any archaeological remains survive beneath the proposed development site.

3. Background

3.1 This specification has been prepared by the WYAAS at the request of Mr. Alistair Branch of Aedas acting on behalf of the applicants, to detail what is required for the evaluation and to allow an archaeological contractor to provide a quotation.

4. Archaeological Interest

4.1 The development site lies c.110m to the west of the Roman road (the course of which runs north to south through Castleford) and the defences of the Roman fort ('Lagentium') is located c.130m to the north east of the development area. The full extent of the Roman civilian settlement ('vicus') which would have grown up around the fort has not been established, but previous excavations have revealed significant archaeological remains in the proximity of the proposed development. Previous excavations within the area have shown that archaeological remains survive even in areas which have been developed in the 19th and 20th century.

4.2 A desk-based assessment (DBA) for the development site was written in October 2012. The DBA suggested a high potential for the survival of well preserved Roman remains to be situated within the proposed development area. The development area is located within the area of the Roman civilian settlement or *vicus*. The *vicus* is suggested to have occupied an area to the south and west of the 1st and 2nd century fort at Castleford.

4.3 The DBA also showed that the development area was also occupied by a large glassworks in the second half of the 19th century, and it is likely that structural elements of the glasshouses may also survive beneath the bus station. This is of interest as it may provide information on the glassmaking industry of Castleford (a major national manufacturer of glass in the late 19th century)

5. Aim of the Evaluation

5.1 The aim of the evaluation is to gather sufficient information to establish the extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits within the area of interest. The information gained will allow the Planning Authority to make a reasonable and informed decision on the planning application as to whether archaeological deposits should be preserved in-situ, or more appropriately, be recorded prior to destruction (whether this be a summary record from a salvage excavation or watching brief, or a detailed record from full open area excavation).

5.2 It is the intention of the developer to submit the results of the evaluation in the form of a report, with a planning application following completion of works. It is the intention to undertake the fieldwork and produce a report on the findings within an 8 week period. If specialist reports are awaited within this period an interim report noting the absence of specialist analyses may be submitted with the planning

application. A final report will then be produced when the specialist reports are received. This final report once accepted by WYAAS will form the basis for any recommendations regarding any further mitigation works. Any interim report will also need to be supplied to WYAAS.

6. General Instructions

6.1 Health and Safety

6.1.1 The archaeologist on site will naturally operate with due regard for Health and Safety regulations. Where archaeological work is carried out at the same time as the work of other contractors, regard should also be taken of any reasonable additional constraints that these contractors may impose. This work may require the preparation of a Risk Assessment of the site, in accordance with the Health and Safety at Work Regulations. The West Yorkshire Archaeology Advisory Service and its officers cannot be held responsible for any accidents or injuries that may occur to outside contractors while attempting to conform to this specification. As the bus station needs to remain open during the evaluation not all trenches may be opened at once. This is specifically the case for trenches positioned in the bus lanes and a phased approach will be necessary. This will need to be agreed in advance with the developers.

6.2 Confirmation of Adherence to Specification

6.2.1 Prior to the commencement of *any work,* the archaeological contractor must confirm adherence to this specification in writing to the WYAAS, or state (with reasons) any proposals to vary the specification. Should the contractor wish to vary the specification, then written confirmation of the agreement of the WYAAS to any variations is required prior to work commencing. Unauthorised variations are made at the sole risk of the contractor. **Modifications presented in the form of a re-written specification/project design will not be considered by the WYAAS.** Any technical queries arising from the specification detailed below should be addressed to the WYAAS *without delay*.

6.3 Confirmation of Timetable and Contractors' Qualifications

6.3.1 Prior to the commencement of *any work*, the archaeological contractor **must** provide WYAAS **in writing** with:

- a projected timetable for the site work;
- details of the staff structure and numbers;
- names and *CVs* of key project members (the project manager, site supervisor, any proposed specialists, sub-contractors *etc.*),

6.3.2 All project staff provided by the archaeological contractor must be suitably qualified and experienced for their roles. The timetable should be adequate to allow the work to be undertaken to the appropriate professional standard, subject to the ultimate judgement of WYAAS.

6.4 Notification

6.4.1 The project will be monitored as necessary and practicable by the WYAAS, in its role as "curator" of the region's archaeology. The WYAAS should receive as much

notice as possible, and certainly one week, of the intention to start fieldwork. This notification is to be supplied **in writing**, and copied to the relevant District Museum (see para. 9.1 below). As a courtesy, English Heritage's Science Adviser Dr Andy Hammon should also be notified of the intention to commence fieldwork (contact : tel. 01904 601983; email andy.hammon@english-heritage.org.uk). A copy of the contractor's risk assessment should accompany notification of intention to commence work.

6.5 Documentary Research

6.5.1 Prior to the commencement of *fieldwork*, the WY HER should be visited by either the project manager or the site supervisor, in order to gain an overview of the archaeological/historical background of the site and environs. In addition to providing a knowledge base for the work in hand, the results of this assessment may be incorporated into the contractor's report where they are considered to contribute to that report, but any extraneous material should be omitted. WYAAS will not charge for any HER consultation as the ultimate client for this project is WMDC. Specifically, the desk-based assessment of the site will need to be looked at. The results of this exercise should be used to inform the whole project. Please note, however, that a formal desk-based report is not required and the results of this stage of work should be incorporated in the final report.

7. Fieldwork Methodology

7.1 Trench Size and Placement (Fig. 1)

7.1.1 The work will involve the excavation of five 50m by 2m, eight 25m by 2m trenches and one 6m x 2m trench, which can be machine-opened. The contractor should also allow for a contingency amount of 93 square metres. The use of the contingency will depend upon the results obtained in the initial trial trenching. The use of the contingency will be at the decision of the WYAAS, whose decision will be issued in writing, if necessary in retrospect after site discussions. Proposed trench locations are shown on Figure 1.

Trench No	Dimensions (m)	Area (m^2)	Reason for trench location
1	25m X 2m	$50m^2$	To test blank area as shown on O.S. mapping 1890/1932
2	12.5 X 2m	$25m^2$	To test area of proposed concourse
3	12.5 X 2m	$25m^2$	To test area of proposed concourse
4	12.5 X 2m	$25m^2$	To test area of former glassworks
5	12.5 X 2m	$25m^2$	To test area of proposed concourse
6	12.5 X 2m	$25m^2$	To test area of proposed concourse
7	12.5 X 2m	$25m^2$	To test area of proposed concourse

8	12.5 X 2m	25m^2	To test area of proposed concourse
9	12.5 X 2m	25m^2	To test area of proposed concourse
10	6m X 2m	12 m^2	To test blank area
11	25m X 2m	50m^2	To test area of former glassworks
12	25m X 2m	50m^2	To test blank area as shown on O.S. mapping 1890/1932
13	25m X 2m	50m^2	To test area of former glassworks
14	25m X 2m	50m^2	To test blank area as shown on O.S. mapping 1890 and glassworks

Total site area: **9256m^2**
Total area of trenching: **462m^2**
Contingency trenching: **93m^2**

This equates to a 5% sample of the area of the bus station**.**

7.2 Method of Excavation
7.2.1 The trial trenches may be opened and the tarmac, topsoil and recent overburden removed down to the first significant archaeological horizon in successive level spits of a **maximum** 0.2m. thickness, by the use of an appropriate machine using a wide toothless ditching blade. **Under no circumstances should the machine be used to cut arbitrary trenches down to natural deposits.** All machine work must be carried out under direct archaeological supervision and the machine halted if significant archaeological deposits are encountered. The top of the first significant archaeological horizon may be exposed by the machine, but must then be cleaned by hand and inspected for features and then dug by hand.

7.2.2 No archaeological deposits should be entirely removed unless this is unavoidable in achieving the objectives of this evaluation, although **all** features identified are expected to be half-sectioned and the **full** depth of archaeological deposits must be assessed. It is likely that 19th-century structures will be present in many areas of the site. These will be recorded in full and then removed in order to investigate the remainder of the sequence down to natural deposits. All trenches are to be the stated dimensions at their base.

7.2.3 All artefacts are to be retained for processing and analysis except for unstratified 20th-century material, which may be noted and discarded. Finds will be stored in secure, appropriate conditions following the guidelines in First Aid for Finds (3rd edition).

7.3 Method of Recording
7.3.1 The trenches are to be recorded according to the normal principles of stratigraphic excavation. The stratigraphy of each trial trench is to be recorded even where no archaeological deposits have been identified.

7.3.2 The actual areas of trenching and any features of possible archaeological concern noted within the trenches should be accurately located on a site plan and recorded by photographs, summary scale drawings and written descriptions sufficient to permit the preparation of a report on the material. The site grid is to be accurately tied into the National Grid and located on the largest scale map available of the area (either 1:2500 or 1:1250).

7.3.3 Except where otherwise requested, black and white photography using orthodox monochrome chemical development should be used. Film should be no faster than ISO400. Slower films should be used where possible as their smaller grain size yields higher definition images. Technical Pan (ISO 25), Pan-F (ISO50), FP4 (ISO125) and HP5 (ISO400) are recommended. The use of dye-based films such as Ilford XP2 and Kodak T40CN is unacceptable due to poor archiving qualities. Black and white photography should be supplemented by colour photography; this should be in transparency format (i.e. slides or digital photography as an acceptable alternative, see paragraph 7.3.4 below).

7.3.4 Digital photography: as an alternative for colour slide photography, good quality digital photography may be supplied, using cameras with a minimum resolution of 4 megapixels. Note that conventional black and white print photography is still required and constitutes the permanent record. Digital images will only be acceptable as an alternative to colour slide photography if each image is supplied in three file formats (as a RAW data file, a DNG file and as a JPEG file). The contractor must include metadata embedded in the DNG file. The metadata must include the following: the commonly used name for the site being photographed, the relevant centred OS grid coordinates for the site to at least six figures, the relevant township name, the date of photograph, the subject of the photograph, the direction of shot and the name of the organisation taking the photograph. **Any digital images are to be supplied to WYAAS on gold CDs by the archaeological contractor accompanying the hard copy of the report.**

7.4 Use of Metal Detectors on Site

7.4.1 Spoil heaps are to be scanned for both ferrous and non-ferrous metal artefacts using a metal detector capable of making this discrimination, operated by an experienced metal detector user (if necessary, operating under the supervision of the contracting archaeologist). Modern artefacts are to be noted but not retained (19th-century material and earlier should be retained.)

7.4.2 If a non-professional archaeologist is to be used to carry out the metal-detecting, a formal agreement of their position as a sub-contractor working under direction must be agreed in advance of their use on site. This formal agreement will apply whether they are paid or not. To avoid financial claims under the Treasure Act a suggested wording for this formal agreement with the metal detectorist is: "In the process of working on the archaeological investigation at [*location of site*] between the dates of [*insert dates*], [*name of person contributing to project*] is working under direction or permission of [*name of archaeological organisation*] and hereby waives all rights to rewards for objects discovered that could otherwise be payable under the Treasure Act 1996."

7.5 Environmental Sampling Strategy

7.5.1 Bulk samples must be taken from **all** securely stratified deposits using a strategy which combines systematic and judgement sampling, but which also follows the methodologies outlined in the English Heritage (2011) 'Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (Second Edition)' guidance.

7.5.2 Samples for scientific dating (radiocarbon dating, archaeomagnetic dating, dendrochrology etc.) should be taken if suitable material is encountered during the excavation. The English Heritage Science Advisor should be consulted (Dr Andy Hammon, tel.: 01904 601983, email: andy.hammon@english-heritage.org.uk) and provision should be made for an appropriate specialist(s) to visit the site, take samples and discuss the sampling strategy, if necessary.

7.6 Conservation Strategy

7.6.1 A conservation strategy must be developed in collaboration with a recognised laboratory. All finds must be assessed in order to recover information that will contribute to an understanding of their deterioration and hence preservation potential, as well as identifying potential for further investigation. Furthermore, all finds must be stabilised and packaged in accordance with the requirements of the receiving museum. As a guiding principle only artefacts of a “displayable” quality would warrant full conservation, but metalwork and coinage from stratified contexts would be expected to be X-rayed if necessary, and conservation costs should also be included as a contingency.

7.7 Location of Services, etc.

7.7.1 The archaeological contractors will be responsible for locating any drainage pipes, service pipes, cables *etc*. which may cross any of the trench lines, and for taking the necessary measures to avoid disturbing such services.

7.8 Human Remains

7.8.1 Any human remains that are discovered must initially be left *in-situ*, covered and protected. WYAAS will be notified at the earliest opportunity. If removal is necessary the remains must be excavated archaeologically in accordance with the *Guidance for Best Practice for Treatment of Human Remains Excavated from Christian Burial Grounds in England* published by English Heritage (2005), a valid Ministry of Justice licence and any local environmental health regulations.

7.9 Treasure Act

7.9.1 The terms of the Treasure Act 1996, as amended, must be followed with regard to any finds that might fall within its purview. Any finds must be removed to a safe place and reported to the local coroner as required by the procedures as laid down in the “Code of Practice”. Where removal cannot be effected on the same working day as the discovery, suitable security measures must be taken to protect the finds from theft.

7.10 Outreach

As the contractor will be excavating within a working bus station, there will be considerable public interest. The public will not be encouraged to view trenches,

particularly where to do so would involve crossing a concourse, but provision should be made to inform the public of what is going on and to provide background information on why the excavation is taking place.

8. Monitoring

8.1 The representative of the WYAAS will be afforded access to the site at any reasonable time. It is usual practice that the visit is arranged in advance, but this is not always feasible. The WYAAS' representative will be provided with a site tour and an overview of the site by the senior archaeologist present and should be afforded the opportunity to view all trenches, any finds made that are still on site, and any records not in immediate use. It is anticipated that the records of an exemplar context that has previously been fully recorded will be examined. Any observed deficiencies during the site visit are to be made good to the satisfaction of the Advisory Service's representative, by the next agreed site meeting. Access is also to be afforded at any reasonable time to English Heritage's Archaeological Science Advisor.

9. Archive Deposition

9.1 Before commencing the project, the archaeological contractor must contact the archaeological curator of the museum to determine the museum's requirements for the deposition of an excavation archive. In this case the contact is Wakefield M.D.C. Museum and Arts, Pontefract Museum, 5 Salter Row, Pontefract, WF8 1BA. telephone 01924 305352; Museums Curatorial and Collections Officer: Mr David Evans (davidevans@wakefield.gov.uk).

9.2 It is the policy of Wakefield Museum Service to accept complete excavation archives, including primary site records and research archives and finds, from all excavations carried out in the District that it serves.

9.3 It is the responsibility of the archaeological contractor to endeavour to obtain consent of the landowner, in writing, to the deposition of finds with Wakefield Museum Service

9.4 It is the responsibility of the archaeological contractor to meet Wakefield Museum Service requirements with regard to the preparation of excavation archives for deposition.

10. Unexpectedly Significant or Complex Discoveries

10.1 Should there be unexpectedly significant or complex discoveries made that warrant, in the professional judgement of the archaeologist on site, more detailed recording than is appropriate within the terms of this specification, then the archaeological contractor should urgently contact the WYAAS with the relevant information to enable them to resolve the matter with the developer.

11. Post-Excavation Analysis and Reporting

11.1 Finds and Samples

11.1.1 On completion of the fieldwork, any samples taken shall be processed and any finds shall be cleaned, identified, assessed/analysed, dated (if possible), marked (if appropriate) and properly packed and stored in accordance with the requirements of national guidelines.

11.1.2 Samples should be processed for the recovery of artefactual material, animal/fish/human bones, industrial residues, shell, molluscs, charcoal and mineralised plant remains as a minimum. 'Specialist' samples (e.g. monoliths, cores, plant/invertebrate macrofossils) should be processed separately as appropriate.

11.1.3 Material suitable for scientific dating (e.g. charcoal) should be identified to species and assessed for suitability by an environmental specialist prior to submission to a dating laboratory. Any human remains submitted for C14 dating should also have carbon (delta 13C) and nitrogen isotope analysis carried out by the radiocarbon laboratory.

11.1.4 All finds and biological material must be analysed by a qualified and experienced specialist.

11.1.5 Following identification, finds of 20th-century date should be noted, quantified and summarily described, but can then be discarded if appropriate. All finds which are of 19th century or earlier date should be retained and archived.

11.2 Field Archive

11.2.1 A fully indexed field archive shall be compiled consisting of all primary written documents, plans, sections, photographic negatives and a complete set of labelled photographic prints/slides. Standards for archive compilation and transfer should conform to those outlined in Archaeological Archives – a guide to best practice in creation, compilation, transfer and curation (Archaeological Archives Forum, 2007). An index to the field archive is to be deposited with the West Yorkshire Archaeology Advisory Service (preferably as an appendix in the report).

11.2.2 Prints may be executed digitally from scanned versions of the film negatives, and may be manipulated to improve print quality (but **not** in a manner which alters detail or perspective). **All digital prints, including those presented in the report, must be made on paper and with inks which are certified against fading or other deterioration for a period of 75 years or more when used in combination. If digital printing is employed, the contractor must supply details of the paper/inks used in writing to the WY Archaeology Advisory Service, with supporting documentation indicating their archival stability/durability.** Written confirmation that the materials are acceptable must have been received from the WYAAS prior to the commencement of work on site.

11.2.3 The original archive is to accompany the deposition of any finds, providing the landowner agrees to the deposition of finds in a publicly accessible archive (see para. 8.4 above). In the absence of this agreement the field archive (less finds) is to be deposited with the West Yorkshire Archaeology Advisory Service.

11.3 Report Format and Content

11.3.1 A report should be produced, which should include background information on the need for the project, a description of the methodology employed, and a full description and interpretation of results produced. It is not envisaged that the report is likely to be published, but it should be produced with sufficient care and attention to detail to be of academic use to future researchers.

11.3.2 Location plans should be produced at a scale which enables easy site identification and which depicts the full extent of the site investigated (a scale of 1:50,000 is not regarded as appropriate unless accompanied by a more detailed plan or plans). Site plans should be at an appropriate scale showing trench layout (as dug), features located and, where possible, predicted archaeological deposits. Upon completion of each evaluation trench all sections containing archaeological features will be drawn. Section drawings (at a minimum scale of 1:20) must include heights O.D. Plans (at a minimum scale of 1:50) must include O.D. spot heights for all principal strata and any features. Where no archaeological deposits are encountered at least one long section of each trench will be drawn.

11.3.3 Artefact analysis is to include the production of a descriptive catalogue, quantification by context and discussion/interpretation if warranted, with finds critical for dating and interpretation illustrated.

11.3.4 Environmental analysis is to include identification of the remains, quantification by context, discussion/interpretation if warranted, and a description of the processing methodology. Radiocarbon results must be presented in full (laboratory sample number, conventional radiocarbon age, delta C13 value, calibration programme). Copies of the laboratory-issued dating certificates must be included as an appendix to the report.

11.3.5 Details of the style and format of the report are to be determined by the archaeological contractor, but should include a full bibliography, a quantified index to the site archive, and as an appendix, a copy of this specification.

11.4 Summary for Publication

11.4.1 The attached summary sheet should be completed and submitted to the WYAAS for inclusion in the summary of archaeological work in West Yorkshire published on WYAAS' website.

11.5 Publicity

11.5.1 If the project is to be publicised in any way (including media releases, publications etc.), then it is expected that the WYAAS will be given the opportunity to consider whether it wishes its collaborative role to be acknowledged, and if so, the form of words used will be at the WYAAS' discretion.

11.6 Consideration of Appropriate Mitigation Strategy

11.6.1 The report should not give a judgement on whether preservation or further investigation is considered appropriate, but should provide an interpretation of results, placing them in a local and regional, and if appropriate, national context.

However, a client may wish to separately commission the contractor's view as to an appropriate treatment of the resource identified.

11.7 Report Submission and Deposition with the WY HER

11.7.1 **A hard copy of the report (plus a digital copy on gold disk) is to be supplied directly to the WYAAS, in a timely manner to allow further work, if necessary, to be scheduled and the planning application to be determined in an informed manner, and certainly within a period of four weeks following completion of fieldwork** so as not to delay a planning decision to be made. As stated in section 5.2 if specialist reports are awaited an interim report can be submitted with a planning application. Completion of this project and advice from WYAAS on an appropriate mitigation strategy are however, dependant upon receipt by WYAAS of a satisfactory final report (inclusive of specialist analyses) which has been prepared in accordance with this specification. Any comments made by WYAAS in response to the submission of an unsatisfactory report will be taken into account and will result in the reissue of a suitably edited report to all parties, within a timescale which has been agreed with WYAAS.

11.7.2 The report will be supplied on the understanding that it will be added to the West Yorkshire Historic Environment Record where it will be publicly accessible once deposited with the WYAAS unless confidentiality is explicitly requested, in which case it will become publicly accessible six months after deposition.

11.7.3 A copy of the final report (in .pdf format) shall also be supplied to English Heritage's Science Advisor (Andy Hammon, English Heritage, 37 Tanner Row, York Y01 6WP)

11.7.4 Copyright - Please note that by depositing this report, the contractor gives permission for the material presented within the document to be used by the WYAAS, in perpetuity, although The Contractor retains the right to be identified as the author of all project documentation and reports as specified in the *Copyright, Designs and Patents Act* 1988 (chapter IV, section 79). The permission will allow the WYAAS to reproduce material, including for non-commercial use by third parties, with the copyright owner suitably acknowledged.

11.7.5 The West Yorkshire HER supports the Online Access to Index of Archaeological Investigations (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The archaeological contractor must therefore complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/. Contractors are advised to contact the West Yorkshire HER officer prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, the West Yorkshire HER may place the information on a web-site. Please ensure that you and your client agree to this procedure in writing as part of the process of submitting the report to the case officer at the West Yorkshire HER.

12. General Considerations

12.1 Authorised Alterations to Specification by Contractor

12.1.1 It should be noted that this specification is based upon records available in the West Yorkshire Historic Environment Record and on a brief examination of the site by the WYAAS. Archaeological contractors submitting tenders should carry out an inspection of the site prior to submission. If, on first visiting the site or at any time during the course of the recording exercise, it appears in the archaeologist's professional judgement that:

i) a part or the whole of the site is not amenable to evaluation as detailed above, and/or
ii) an alternative approach may be more appropriate or likely to produce more informative results,

then it is expected that the archaeologist will contact the WYAAS as a matter of urgency. If contractors have not yet been appointed, any variations which the WYAAS considers to be justifiable on archaeological grounds will be incorporated into a revised specification, which will then be re-issued to the developer for redistribution to the tendering contractors. If an appointment has already been made and site work is ongoing, the WYAAS will resolve the matter in liaison with the developer and the Local Planning Authority.

12. 2 Unauthorised Alterations to Specification by Contractor

12.2.1 It is the archaeological contractor's responsibility to ensure that they have obtained the WYAAS' consent in writing to any variation of the specification prior to the commencement of on-site work or (where applicable) prior to the finalisation of the tender. Unauthorised variations may result in the WYAAS being unable to recommend determination of the planning application to the Local Planning Officer based on the archaeological information available and are therefore made solely at the risk of the contractor.

12.3 Technical Queries

12.3.1 Similarly, any technical queries arising from the specification detailed above, should be addressed to the WYAAS without delay.

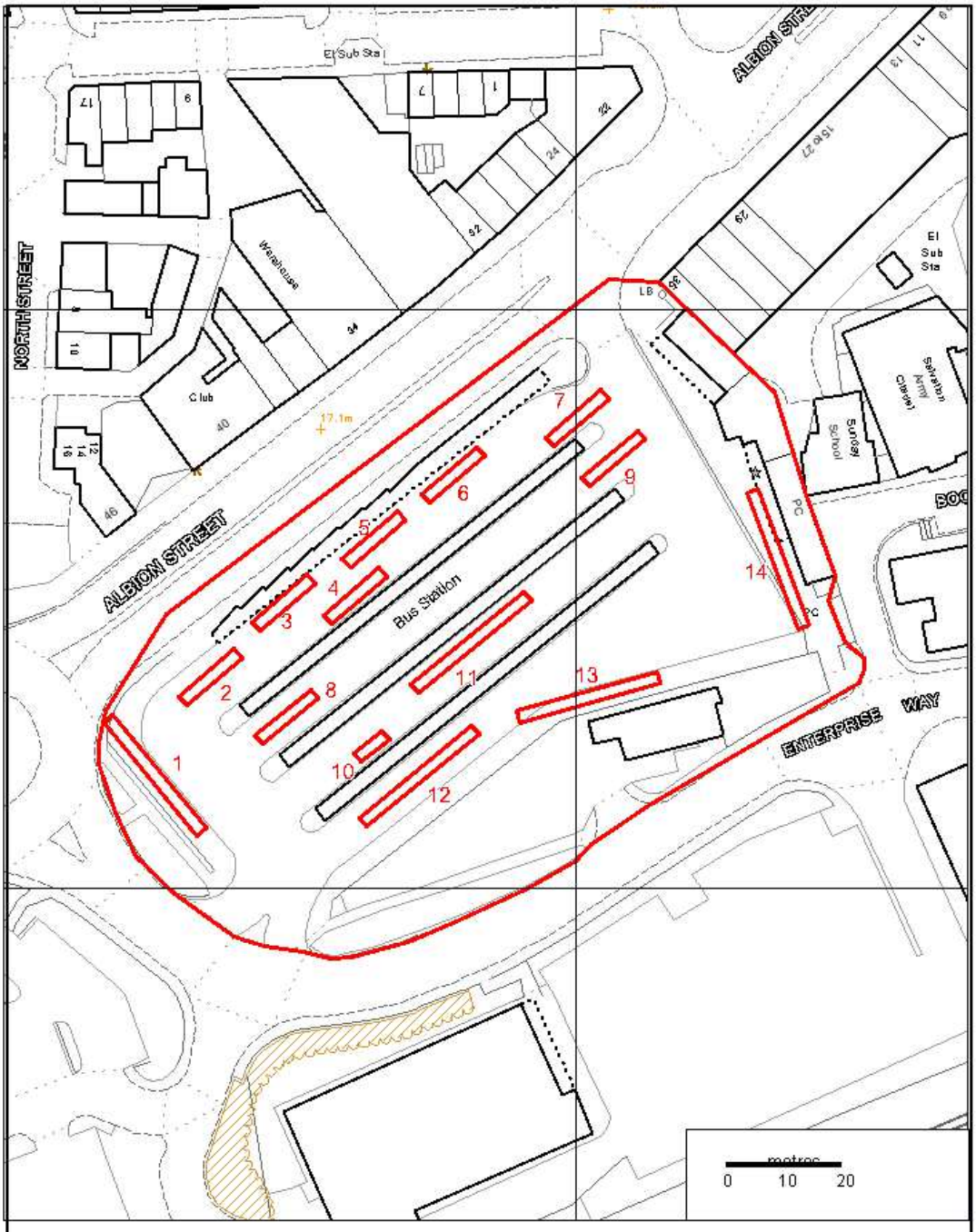
12.4 Valid Period of Specification

12.4.1 This specification is valid for a period of one year from date of issue. After that time it may need to be revised to take into account new discoveries, changes in policy or the introduction of new working practices or techniques.

Jason Dodds **December 2012**
West Yorkshire Archaeology Advisory Service

WY Historic Environment Record
West Yorkshire Archaeology Advisory Service
Registry of Deeds
Newstead Road
Wakefield
WF1 2DE

Telephone: (01924) 305992
Fax: (01924) 306810
E-mail: jdodds@wyjs.org.uk



WYAAS
County Historic Environment Record
Registry of Deeds, Newstead Road
Wakefield WF1 2DE

Tel. 01924 306797 Fax. 01924 306810

Fig. 1 Trench Locations

Jason Dodds

Castleford Bus Station

Date Plotted: 18/12/2012

Sheet No.: SE4225NW

Scale 1: 900

Licence No WMDC 100019574
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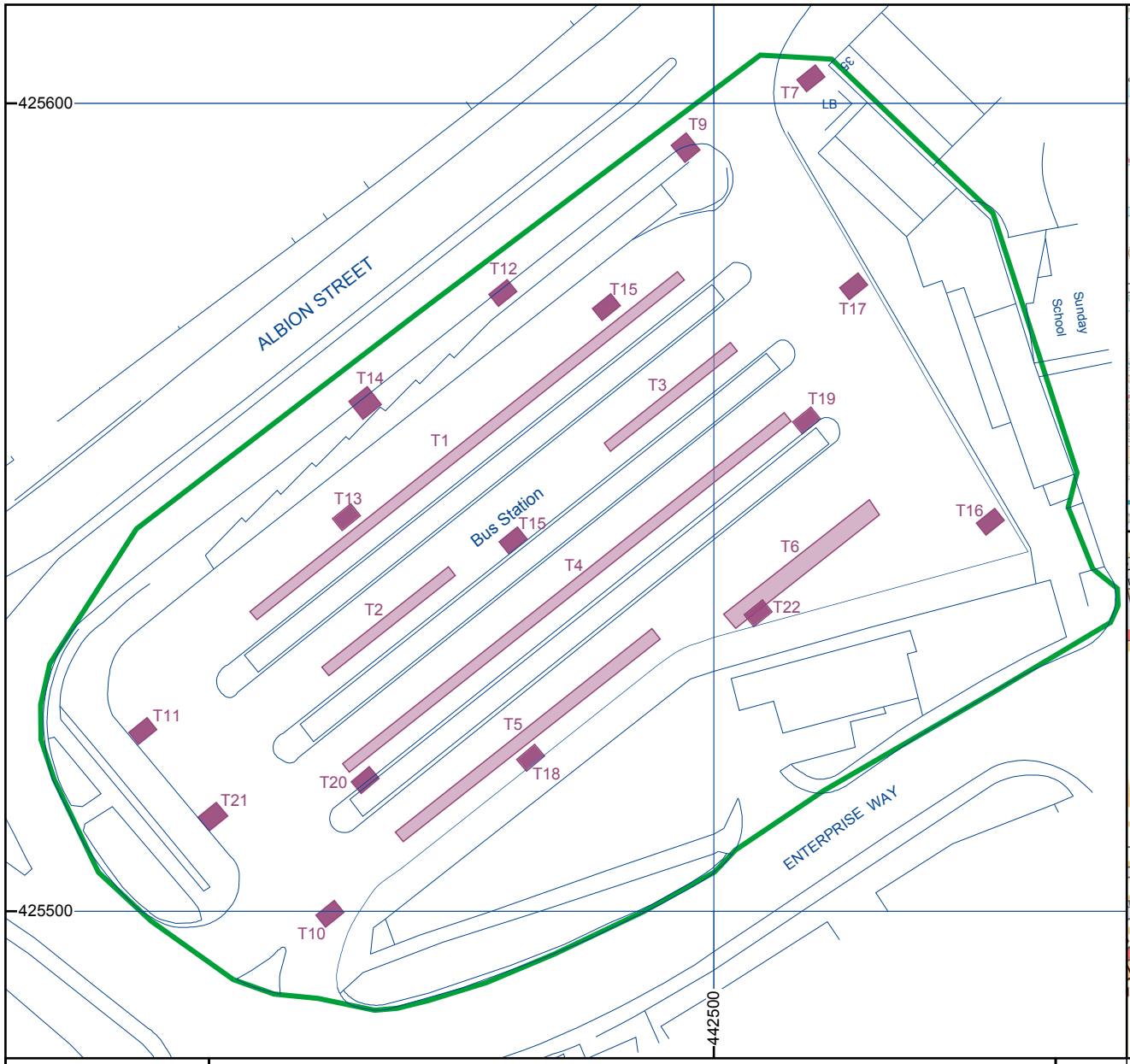

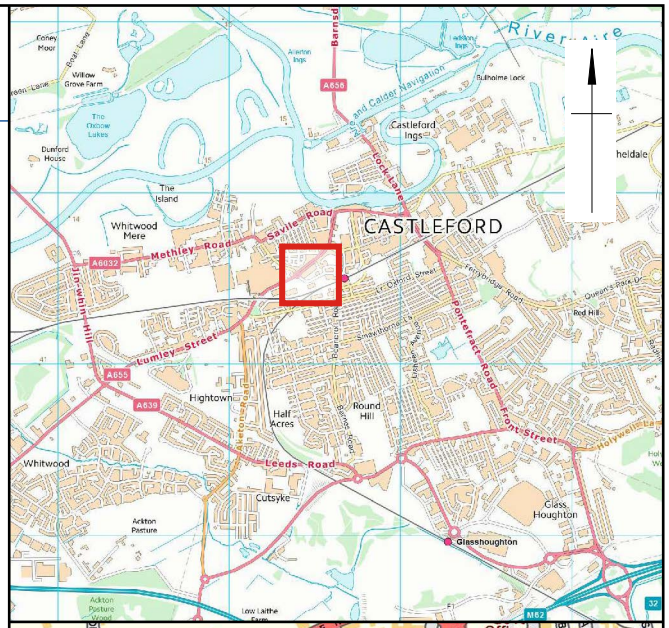

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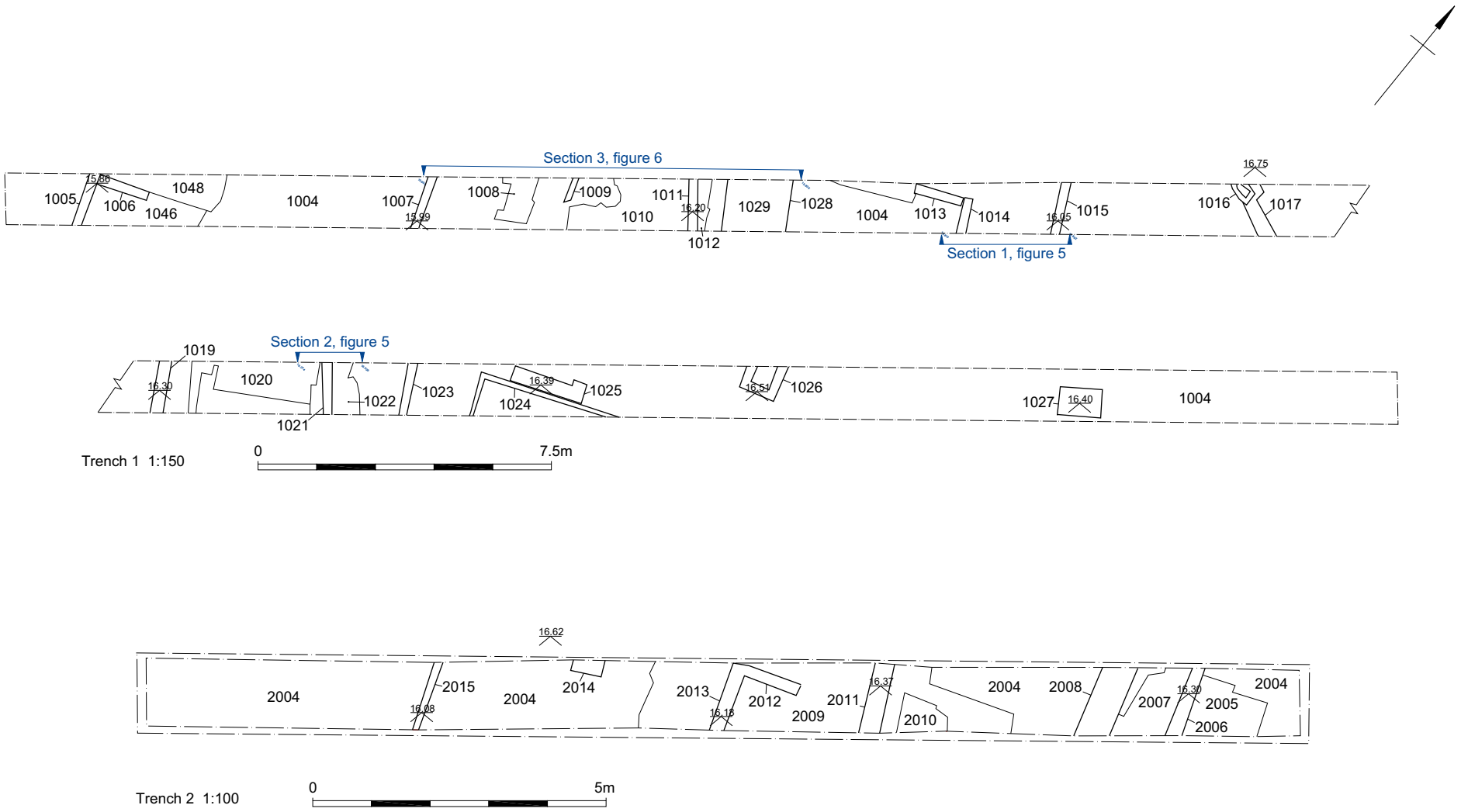
Site location

Figure 1



All levels are in metres above Ordnance Datum

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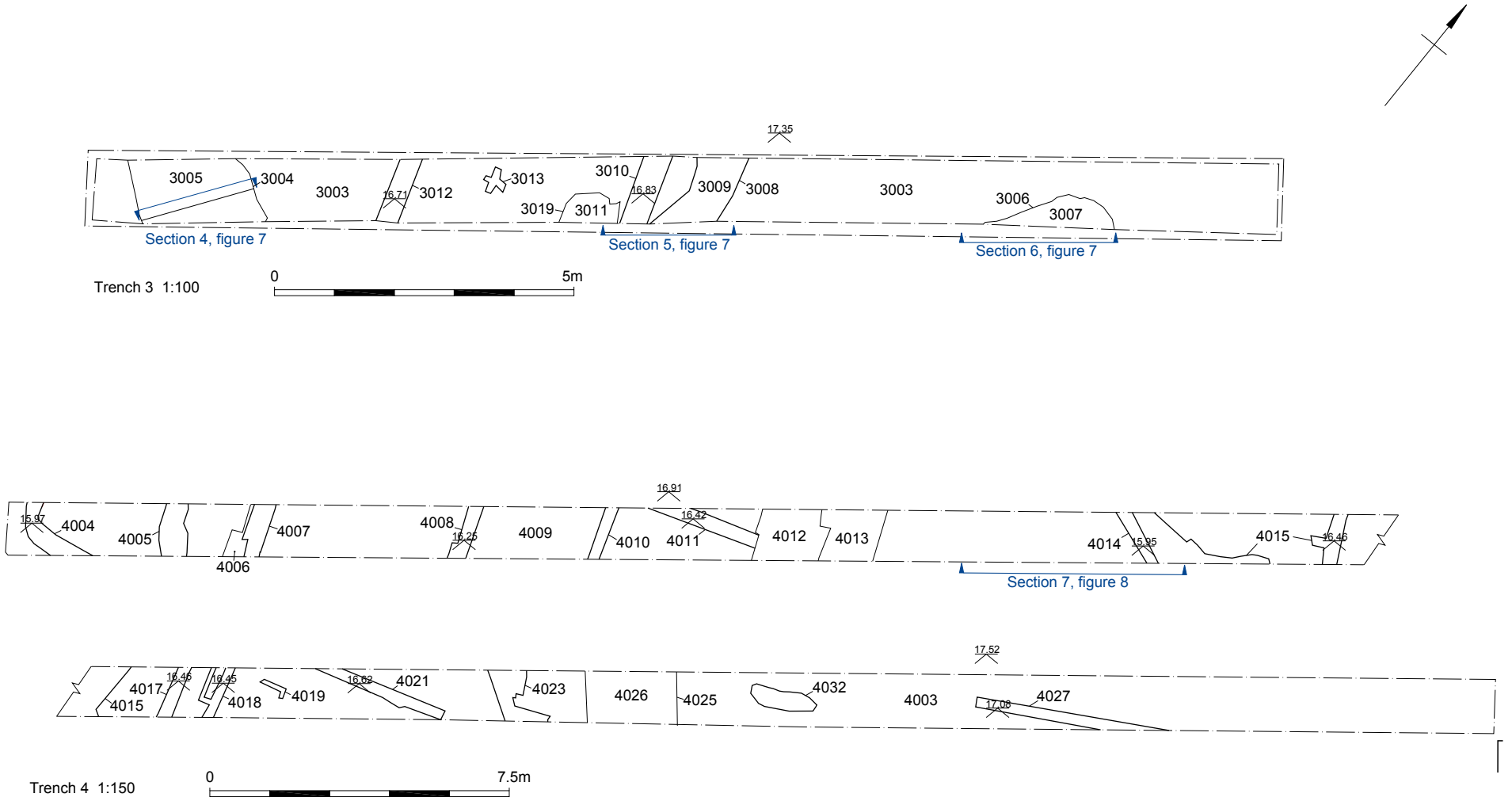
Trenches 1 and 2

Figure 2



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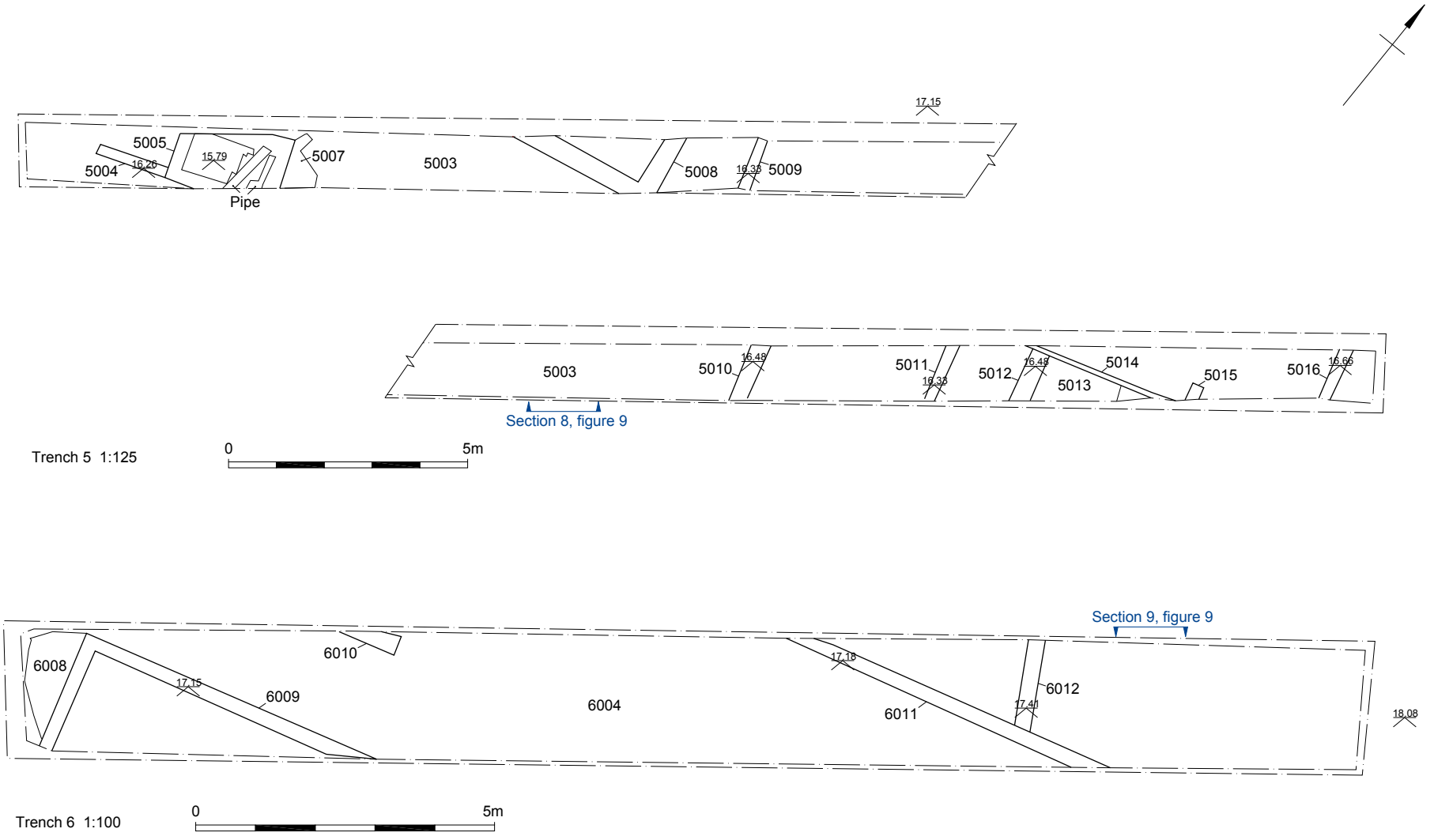

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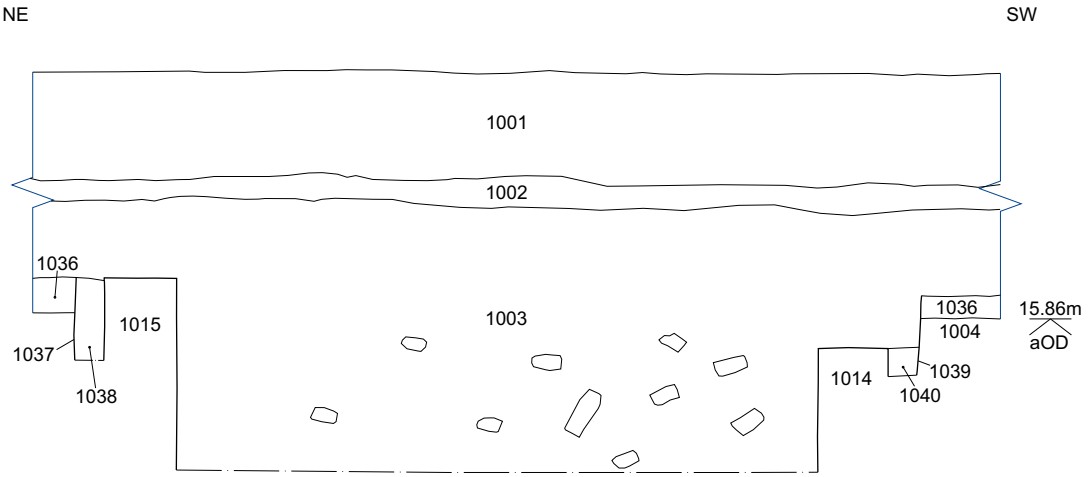
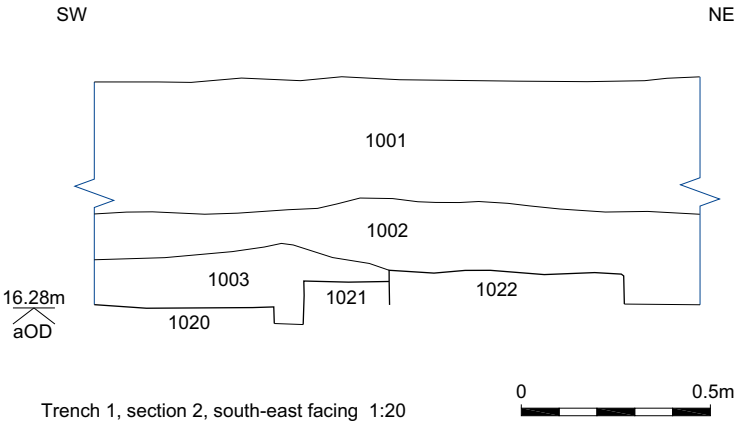
Trenches 5 and 6

Figure 4



Trench 1, section 1, north-west facing 1:25



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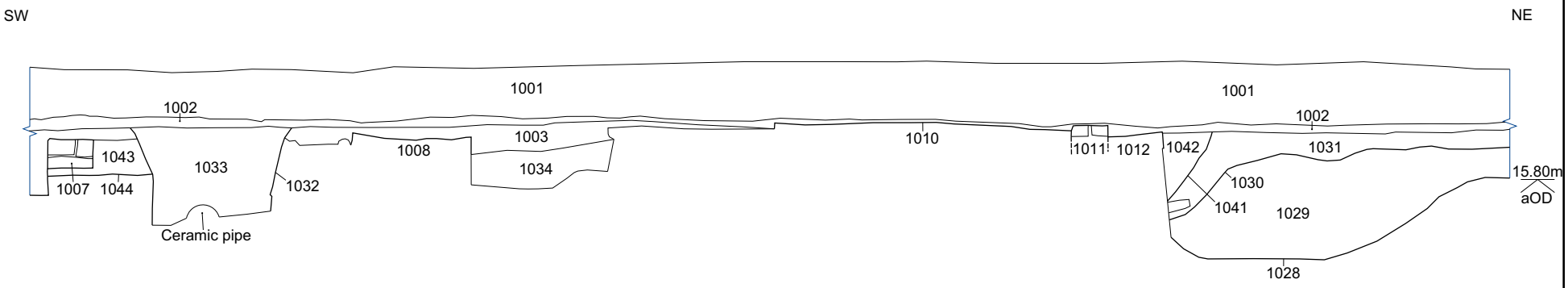
Trench 1, sections 1 and 2

Figure 5



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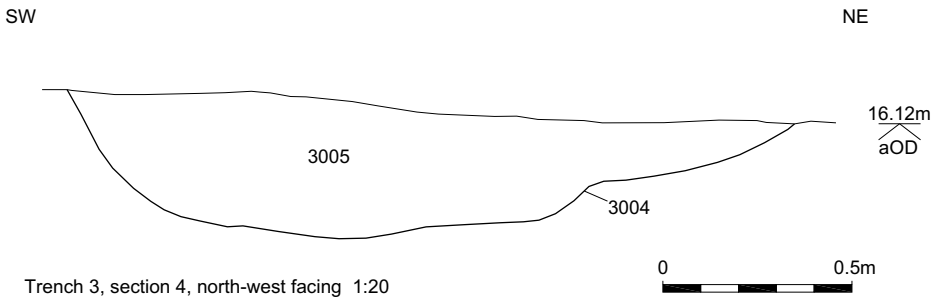
Trench 1, section 3

Figure 6



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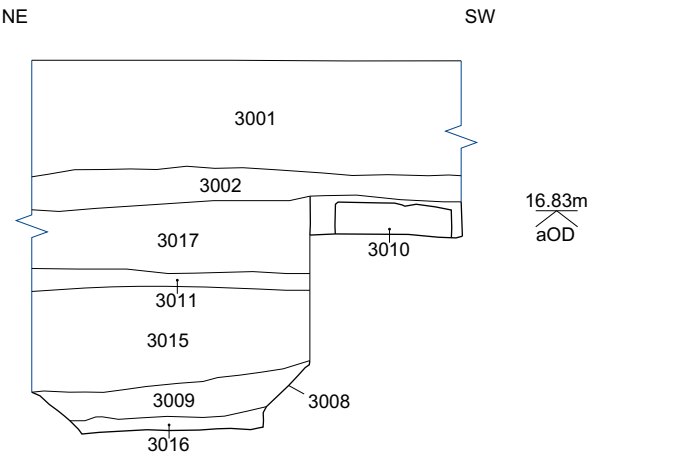
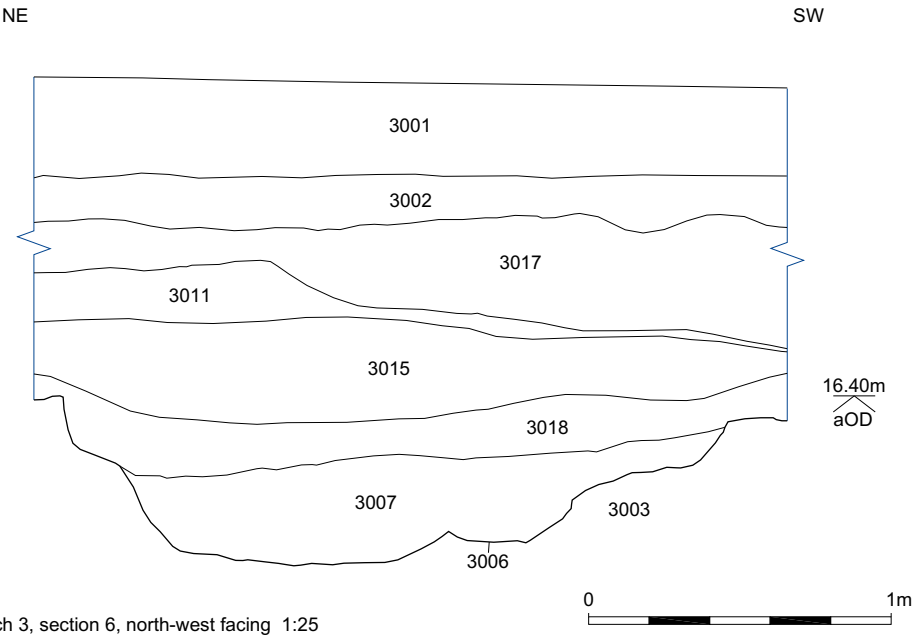


Trench 3, section 5, south-east facing 1:25

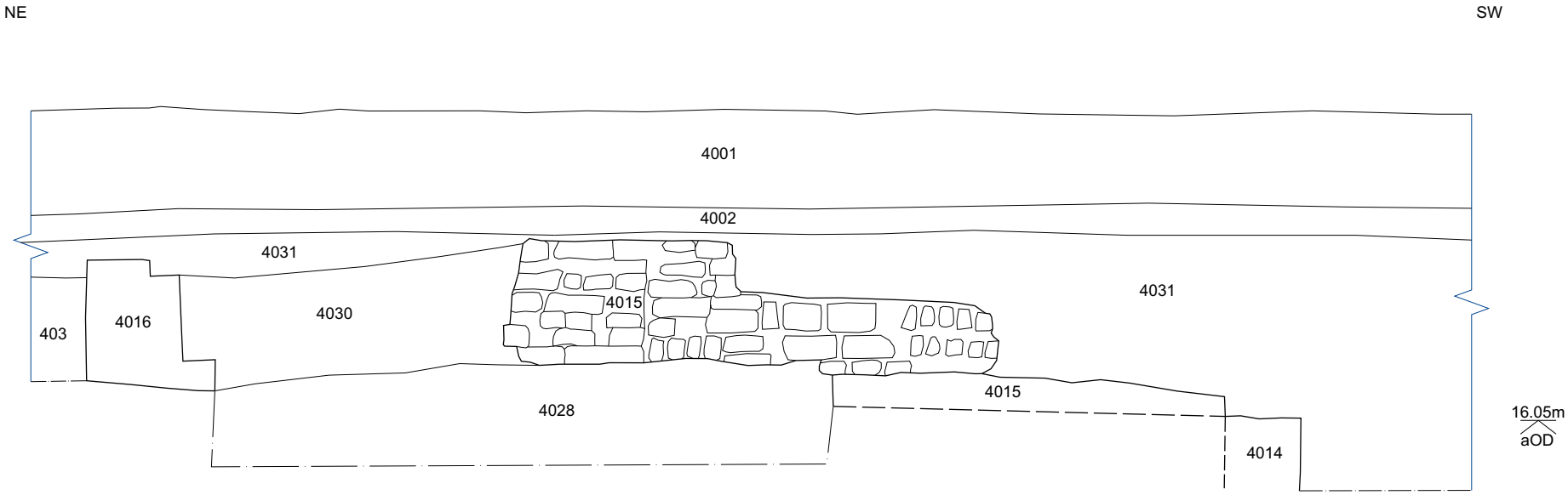


Trench 3, section 6, north-west facing 1:25

Date:	30/05/2013	Revision Number:	1.0
Scale:	As described @ A4	Illustrator:	CB
Path:	Y:\Projects\88920 (Castleford Bus Station)\Drawing Office\Report Figs\Eval\2013-04-10		

Trench 3, sections 4 to 6

Figure 7



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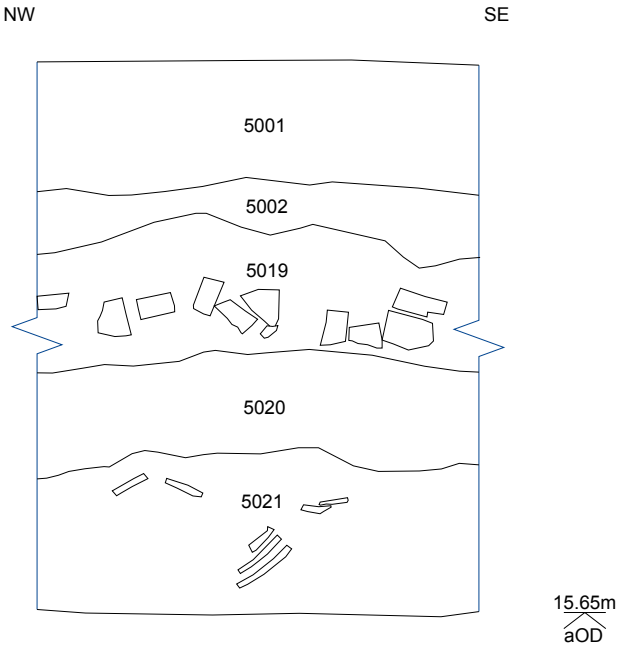
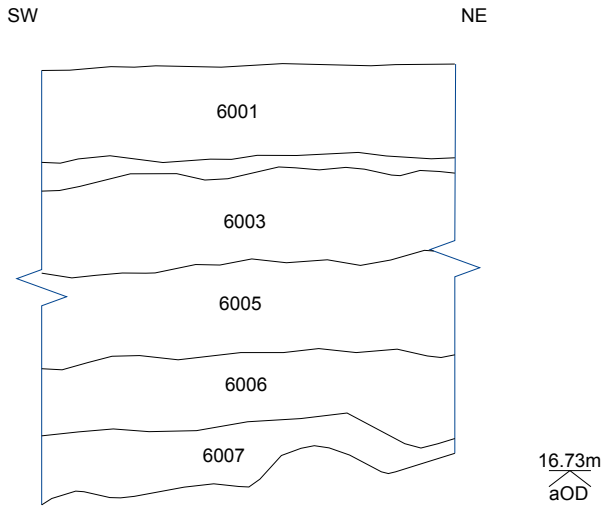
Trench 4, section 7

Figure 8



Trench 5, section 8, south-east facing 1:20



Trench 6, section 9, south-east facing 1:20

Date:	30/05/2013	Revision Number:	1.0
Scale:	As described @ A4	Illustrator:	CB
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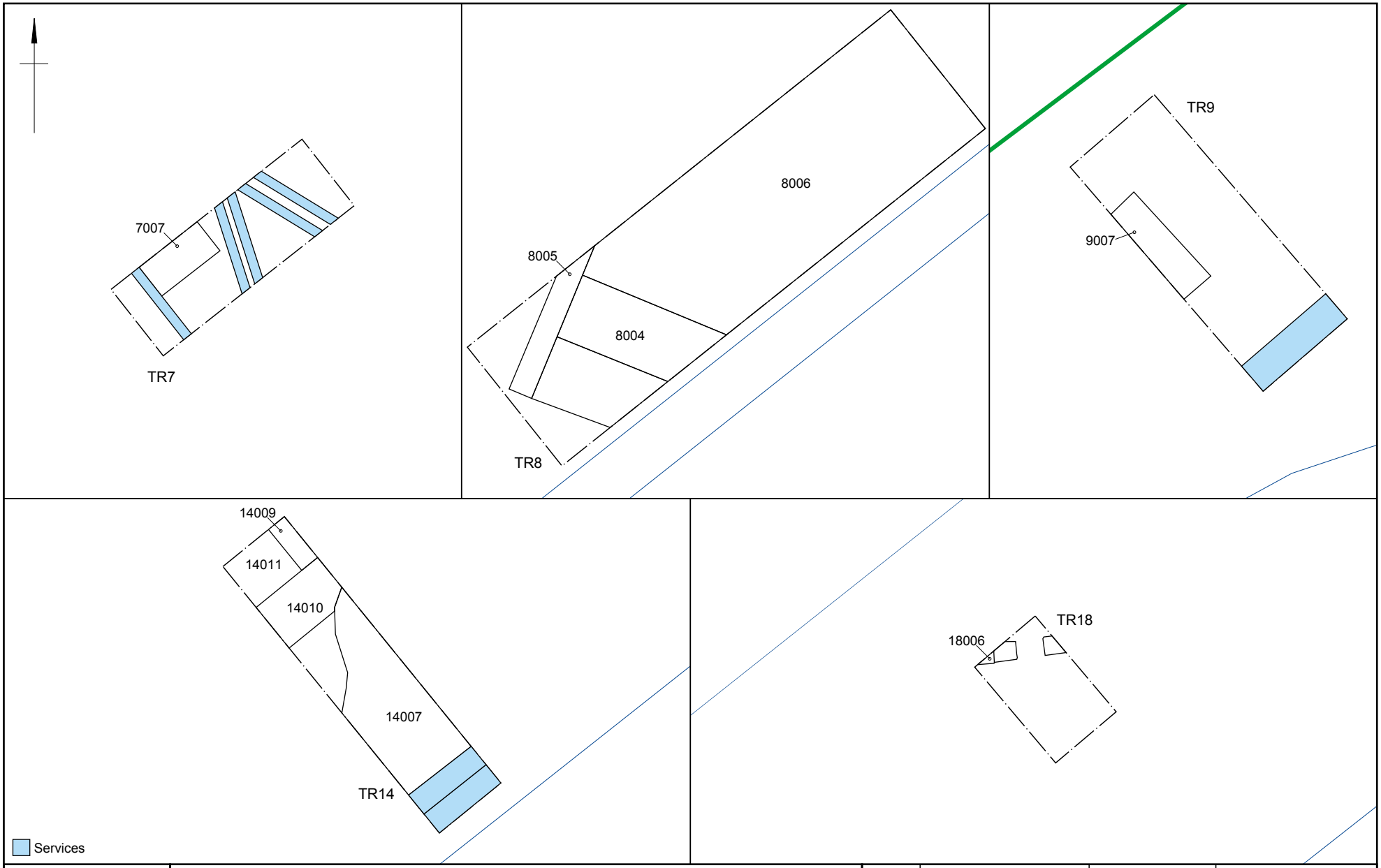
Trenches 5 and 6, sections 8 and 9

Figure 9



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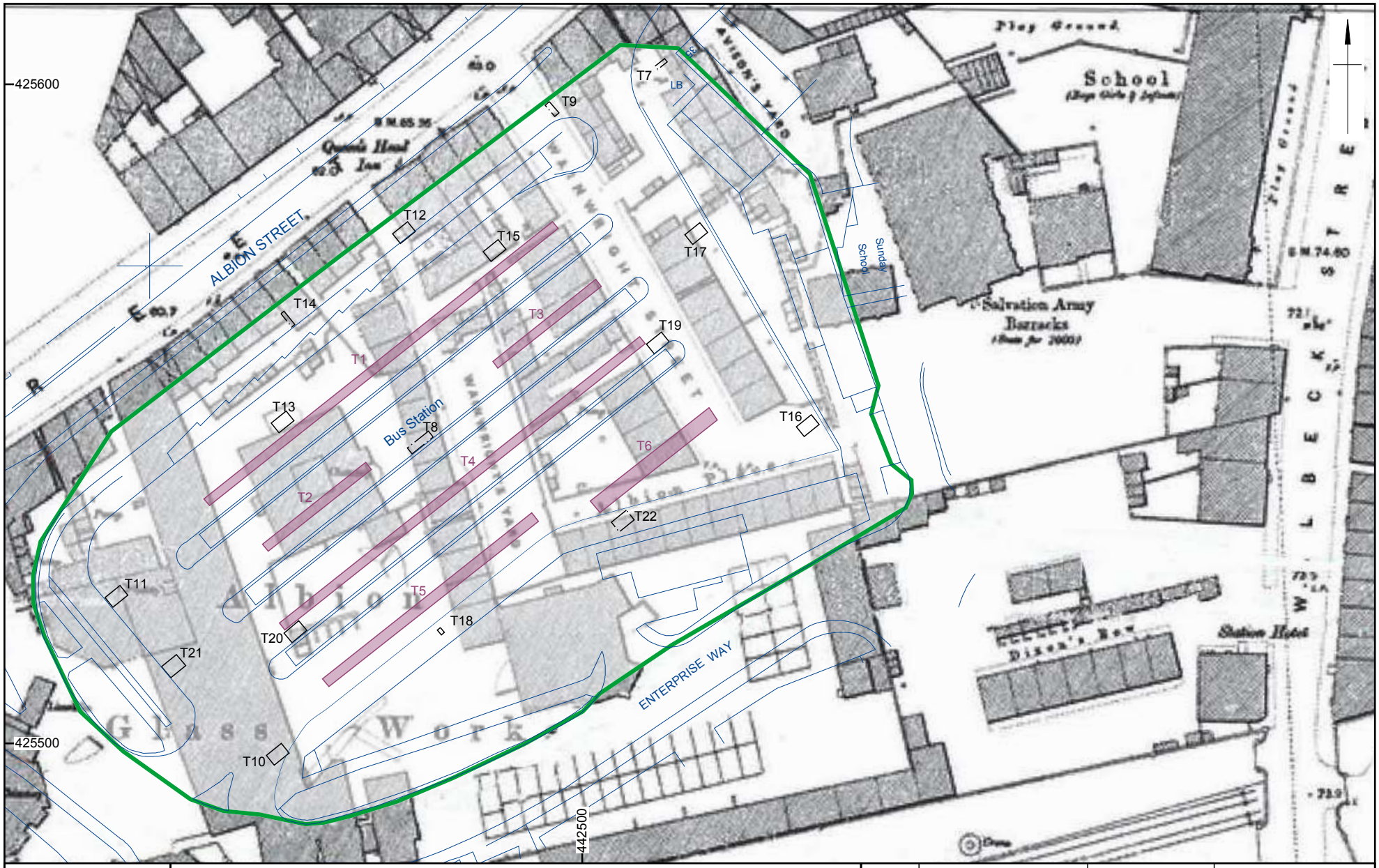
Trenches 7, 8, 9, 14 and 18

Figure 10



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Path:	Y:\Projects\88920 (Castleford Bus Station)\Drawing Office\Report Figs\Eval\2013-04-10		

Trenches overlaid on Ordnance Survey map of 1890

Figure 11

Plate 1: **Trench 1**, demolition layer 1003 truncated by floor **1022**, from southeast

Plate 2: **Trench 1**, walls **1014** and **1015** and possible cellar, from northwest.

Date:	31/05/13	Revision Number:	0
Scale:	NTS	Illustrator:	LJC
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Plate 3: **Trench 1**, structures **1010** and **1011** plus field boundary **1028**, from southwest

Plate 4: **Trench 2**, wall **2011** from east.

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Plate 5: **Trench 2**, structures **2005-2010** forming floor and possible base, from southwest

Plate 6: **Trench 3**, pit **3006** from northwest.

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Plate 7: **Trench 3**, ditch and beamslot **3008** and wall **3010**, from north.

Plate 8: **Trench 3**, ditch **3004** from northwest.

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Plate 9: **Trench 3**, cow inhumation **4032** (ABG1).

Plate 10: **Trench 4**, possible flue **4004**, from east.

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Plate 11: **Trench 4**, wall **4011** and possible cellar, from southwest.

Plate 12: **Trench 4**, firebrick structure **4015**, from southwest.

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Plate 13: **Trench 5**, possible water tank **5005**, from southwest.

Plate 14: **Trench 5**, wall **5008**, from northwest.

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Plate 15: **Trench 5**, northwest facing section of Trench 5 showing rubbish deposit **5021**.

Plate 16: **Trench 6**, general view of Trench 6, from northeast.

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