

**LAND AT FULWELL FIRE STATION
STATION ROAD
SUNDERLAND
TYNE AND WEAR**

**ARCHAEOLOGICAL
EVALUATION REPORT**

MAY 2020

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PRE-CONSTRUCT ARCHAEOLOGY

Land at Fullwell Fire Station, Station Road, Sunderland, Tyne and Wear

Site Code: FFS20

Commissioning Client:

Cancara Property Ltd

Contractor:

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LAND AT FULWELL FIRE STATION, STATION ROAD, SUNDERLAND

EVALUATION REPORT

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1. NON-TECHNICAL SUMMARY

- 1.1 Pre-Construct Archaeology were commissioned by Cancara Property Ltd to undertake an archaeological evaluation of land at Fulwell Fire Station, Station Road, Fulwell, Sunderland, Tyne and Wear, centred at National Grid Reference NZ 3958 5953 (Figure 1). This work was undertaken in association with a Planning Application (18/01276/FUL) for the demolition of the former fire station and the construction of a block of flats with associated car parking and landscaping.
- 1.2 At the time of writing the site was occupied by the extant buildings of the former Fulwell Fire Station with areas of hard standing, covering an area of 2656m², and was accessed from Station Road by two residential roads located to the east and west of the former fire station building (Figure 1 & 2).
- 1.3 In 2018 an archaeological desk-based assessment was undertaken that identified the site as having potential for prehistoric remains as well as medieval archaeology associated with Fulwell village (HER 48) (AD Archaeology 2018). The site was located on Station Road, which was the main thoroughfare through Fulwell medieval village, which dates from 1204. Prehistoric sites have previously been identified within the surrounding area including a cist burial (HER 371). Roman coins have also been found in Fulwell (HER 22). The desk-based assessment recommended that further evaluation of the site by archaeological trial trenching be carried out in order to determine the potential for the survival of archaeological features.
- 1.4 Planning permission for the development was granted on 20th December 2019 with an archaeological condition attached for a trial trenching evaluation (conditions 13, 14 and 15). The aim was to identify if heritage assets were present and to establish the significance of any such assets. Archaeological features of national significance may warrant preservation in situ, features of regional or local significance may require further mitigation prior to development.
- 1.5 The trial trenching evaluation, undertaken according to a Specification produced by Tyne and Wear Archaeology Service (T&WAS 2020), comprised five trenches (Trenches 1-5). Trenches 1 to 3 were planned to be c. 10m x 1.5m with Trenches 4 and 5 measuring 20m x 1.5m (Figure 2). Trench 1 was sited to the north of the Fire Station building; Trench 2 was sited to the west of the Fire Station Building and Trench 3 was site to the south of the Fire Station building. Trenches 1-3 were located to assess areas to be impacted by the demolition of the extant Fire Station and the subsequent construction of the block of flats. Trenches 4 and 5 were sited at the central and southern parts of the site, respectively, to access areas of to be impacted on by groundworks associated with proposed drainage that involves the installation of an attenuation tank, swale and rain garden planters.
- 1.6 Trench 2 located within the access road to the west of the Fire Station building had to be abandoned to allow for the continued vehicle access. Trenches 1, 3 and 4 were shortened

due to the extensive depths of modern made ground deposits and the limited area available for spoil storage.

- 1.7 Three phases of activity were encountered: Phase 1: superficial geology; Phase 2: undated subsoil and Phase 3: modern. No features or deposits of archaeological significance were identified during the evaluation.

2. INTRODUCTION

2.1 Project Background

- 2.1.1 This report details the results of an archaeological evaluation undertaken on land at Fulwell Fire Station, Station Road, Fulwell, Sunderland (NGR NZ 3958 5953). This phase of archaeological work was undertaken in April 2020 in association with a planning application (18/01276/FUL) for a residential development.
- 2.1.2 At the time of writing the site was occupied by the extant buildings of the former Fulwell Fire Station and areas of hard standing, totalling an area of 2656m², and was accessed from Station Road by two residential roads located to the east and west of the former fire station building (Figure 1 & 2). The archaeological investigation was commissioned by Cancara Property Limited and undertaken by Pre-Construct Archaeology Limited (PCA).
- 2.1.3 The scope of works for the archaeological evaluation was set out in a specification compiled by the Tyne and Wear Archaeological Services (Ref. MON16027). The aim of the evaluation was to clarify the presence, nature, date, extent and significance of any archaeological remains that might be present in the areas of proposed impact. Four trenches (Trenches 1 & 3-5) were mechanically excavated during this phase of archaeological work. Trench 2 was located within the access road to the west of the Fire Station building and was not excavated due to the necessity to allow for vehicle access to the car parking area.
- 2.1.4 The Online Access to the Index of Archaeological Investigation (OASIS) reference number of the project is preconst1-392991.

2.2 Site Location and Description

- 2.2.1 The proposed development area was located at the former Fulwell Fire Station on land south of Station Road, Sunderland at NGR NZ 3958 5953 (Figure 1 and 2). The site is comprised of the extant buildings of the former Fulwell Fire Station and areas of hard standing, totalling an area of 2656m². The proposed development area was accessed from Station Road by two residential roads located to the east and west of the former Fire Station building.

2.3 Geology and Topography

- 2.3.1 The bedrock geology of the site consists of Roker Formation Dolostone. Sedimentary bedrock formed approximately 252 to 272 million years ago in the Permian Period when the local environment was dominated by shallow carbonate seas. This is overlain by superficial geology comprising Pelaw Member Clay formed up to two million years ago in the Quaternary Period when the local environment was dominated by ice age conditions (British Geological Survey website).
- 2.3.2 The site was flat and level with Station Road at its northern frontage rising slightly towards the south.

2.4 Planning Background

- 2.4.1 The requirement to undertake the archaeological investigation is in line with planning policy at a national level, as set out in the *National Planning Policy Framework* (NPPF) (Department for Communities and Local Government 2019). Chapter 16 of the NPPF ‘Conserving and enhancing the historic environment’ describes, in paragraph 185, how LPAs should ‘...set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment’ and details, in paragraph 189, that ‘*In determining applications, LPAs should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum, the relevant [Historic Environment Record] HER should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed included or has the potential to include heritage assets with archaeological interest, LPAs should require developers to submit an appropriate desk-based assessment and where necessary [the results of] a field evaluation’.*
- 2.4.2 Paragraph 199 of the NPPF also states that: ‘*Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted’.*
- 2.4.3 In accordance with paragraph 199 of the National Planning Policy Framework and archaeological evaluation was required. This was secured by conditions 13, 14 and 15 as part of the planning permission granted for application 18/01276/FUL. These conditions stated that:
- 13. No groundworks or other development shall commence until a programme of archaeological fieldwork (to include evaluation and where appropriate mitigation excavation) has been completed. This shall be carried out in accordance with a specification provided by the Local Planning Authority. Reason: The site is located within an area identified as being of potential archaeological interest. The investigation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded, in accordance with policies B11, B13 and B14 of the Unitary Development Plan and policy BH9 of the emerging Core Strategy Development Plan.*
- 14. The building shall not be occupied until the final report of the results of observations of the result of the archaeological fieldwork undertaken in pursuance of condition (13) has been submitted to and approved in writing by the Local Planning Authority. Reason: The*

site is located within an area identified as being of potential archaeological interest. The investigation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded, in accordance with policies B11, B13 and B14 of the Unitary Development Plan and Policy BH9 of the emerging Core Strategy Development Plan.

15. The buildings shall not be occupied until a report detailing the results of the archaeological fieldwork undertaken has been produced in a form suitable for publication in a suitable and agreed journal has been submitted to and approved in writing by the Local Planning Authority prior to submission to the editor of the journal. Reason: The site is located within an area identified as being of potential archaeological interest. The investigation is required to ensure that any archaeological remains on the site can be preserved wherever possible and recorded, in accordance with policies B11, B13 and B14 of the Unitary Development Plan and policy BH9 of the emerging Core Strategy Development Plan.

- 2.4.4 Tyne and Wear Archaeology Service has responsibility for archaeological development control in relation to the historic environment. The scope of works for the archaeological evaluation were set out in a detailed specification compiled by the Tyne and Wear Archaeology Officer (Ref. MON16027).

2.5 Archaeological and Historical Background

- 2.5.1 Information in this section is largely extracted from the desk-based assessment produced by AD Archaeology (AD Archaeology 2018) and the research and writing of those responsible is acknowledged. Sites within the Tyne and Wear Historic Environment Record are followed by the HER number.
- 2.5.2 Recent archaeological work in the North-East has led to a rapid increase in the known density of prehistoric sites. The closest known settlement site is a prehistoric ditched enclosure (HER 484) at Carley Hill 2.5km west of the site. Radiocarbon dating from the ditch provided a date of 1840BC +/- 80. Pollen analysis suggests that when the enclosure was constructed much of the surrounding area was covered with alder forest, and this was later cleared for cereal cultivation. A Neolithic polished stone axe (HER 4) was located in 1992 to the west of the site close to a path leading to Fulwell Quarry. Moreover, a prehistoric stone cist was uncovered 300m to the east of the site (HER 1). This consisted of an inhumation burial with two prehistoric urns. The inhumation was located at a depth of 3ft and was covered by a large slab, 7-8ft long by 2.5ft wide and 6" thick. A second inhumation was found in a cist (HER 371) with fragments of a cinerary urn to the south-west of the site. The settlement at Carley Hill and the funerary activity show the area to have been a focus of activity in the prehistoric period.
- 2.5.3 There are no known Romano-British sites within the vicinity of the site. A Roman bronze figurine was located in Fulwell Quarry in 1820 (Dodds 2001). The figure was claimed to be a representation of Jupiter Dolichenus, the god of smiths and dated to the 2nd-3rd century. A small collection of bronze Roman coins (HER 22) dated to the 3rd century AD were located 250m north-east of the site.
- 2.5.4 There are no known early medieval sites within the vicinity of the site. However, the site lies within Fulwell (meaning foul or dirty spring) medieval village. The earliest reference to the medieval village (HER 48) appears in 1204, the date of King John's confirmation of the possessions of Durham. Documentary records dating to Henry II in the mid-12th century confirm the continued ownership of settlements at Monkwearmouth, Fulwell and Southwick by the monastery of Wearmouth (Meikle and Newman 2007, 45). The village is described as containing seven tofts and two cottages in a rental of 1345-6. In 1539 there were five tenants and there is mention of a great barn. Records indicate that Fulwell was affected by the Black Death, Lomas suggesting a death rate of 56% for the settlement (Dodds 2001, 34).
- 2.5.5 Although Roberts and Austin put it in their call 4 ("one row plan, normally regular"), the map evidence suggests it had been two rows with a green, though perhaps having reduced in size by the late 18th century. The village was orientated with its long-axis east-west with structures either side of a road (Station Road). Station Road now runs between the present Sunderland-Cleadon road to the west and Fulwell Road/ Dene Lane to the east.

- 2.5.6 Documentary evidence refers to Fulwell manor (HER 47) which was given to the priory of Durham by Bishop William of St. Carileph. Buildings recorded there in the manorial and bursar's accounts of 14th-16th century consist of a hall, a chamber, a cow house, a stable, a grange and a dovecot. The location of the site of the manor is unknown.
- 2.5.7 Through the post-medieval period Fulwell developed from a semi-rural agricultural community to become a suburb of the rapidly expanding town of Sunderland. This process can be traced through cartographic evidence. Early maps show the village as a two-row settlement to the west of a north-south road between Monkwearmouth and South Shields (Cary 1801, Lambert 1807, Blakett 1831, Hobson 1840). This is depicted on Dawson's map of 1832, which shows the village's relationship to Sunderland and other nearby villages and settlements.
- 2.5.8 A more detailed enclosure map of 1779 shows the setting of the village on the western side of a crossroads, with the north-south road running between Monkwearmouth and South Shields. This plan shows the pattern of enclosed fields with their field names indicated. A number of structures are indicated either side of the main east-west road (later to be named Station Road). The majority of properties on the northern side of the village are set back from the road indicating the presence of a narrow east-west strip of open land forming a green. At the eastern end of this strip of land a building is shown (which is known to have been a smithy) as having been built on this green. The depiction of the buildings on this map are quite stylised but it is probable that many form components of farms, with some of the buildings being labelled as cottages. Whilst there are problems with scaling on this map, it is most probable that the area of the site falls within a plot of land labelled as "Wood Close".
- 2.5.9 Rob Atkinson's map of 1790 is a more stylised representation but includes some information on land ownership. The first edition map of 1855 is the first plan to show the village in detail. This shows the essential form of the village with complexes of buildings either side of station road. The Blue Bell Pub and a smithy are labelled. A number of the buildings have the character of agricultural buildings with wings set around courtyards and gin-gangs being evident. At the time of the first edition OS map the area of the site appears to be occupied by an orchard with open fields to the south.
- 2.5.10 The gradual development of the area is evident on the second edition OS map of 1895 with buildings being constructed to the east of Station Road in areas that had hitherto been agricultural fields. The area of the site is depicted as open ground at this time, but a new small structure has been built immediately to the south. The third and fourth edition OS maps show the rapid growth and development of the area including the construction of estates of Sunderland Cottages (HER 13789).
- 2.5.11 The fire station on Station Road in Fulwell was built in 1942 closing in 2015, when operations were transferred to a new community fire station at Marley Park. Originally the fire station was opened on April 7th, 1942 with eight associated houses. A month later the fire station received a direct hit from a high explosive bomb but there were no fatalities and

the station continued to operate through the war. Through the second half of the 20th century a number of retail outlets and units were constructed on either side of Station Road.

3. PROJECT AIMS AND RESEARCH OBJECTIVES

3.1 Project Aims

- 3.1.1 The primary aim of the programme of works was to determine the absence/presence of archaeological remains. The archaeological work will identify, investigate and record any archaeological remains observed during the evaluation. The results will be used to inform decisions regarding further archaeological mitigation measures that may be required at the site prior to determination and commencement of development.
- 3.1.2 The objective of trial trench evaluation as defined by the Chartered Institute for Archaeologists (CIfA) is to 'determine, as far as is reasonably possible, the nature of the archaeological resource within a specified area using appropriate methods and practices' (CIfA 2014a).

3.2 Research Objectives

- 3.2.1 Archaeological work provides potential opportunities to address key research objectives as set out in *shared Visions: The North East Regional Research Framework for the Historic Environment (NERRF) (Petts & Gerrard 2006)*. The NERRF highlights the importance of research as a vital element of development-led archaeological work. It sets out key research priorities for all periods of the past so that all elements of commercial archaeological work can be related to wider regional and national priorities for the study of archaeology and the historic environment.
- 3.2.2 The site is considered to have potential to provide a contribution to several 'Key Research Themes' in the NERRF '*Research Agenda and Strategy*' for the Prehistoric and Medieval periods:

Prehistoric

- NBi. Early settlement in an upland/lowland context;
- NBii. Settlement chronology;
- NBv. Material culture: general.

Medieval

- MDi. Settlement;
- MDii. Landscape;
- MDiii. Urbanism;
- MDvii. Medieval ceramics and other artefacts;
- MDxi. The medieval to post-medieval transition.

- 3.2.3 An appropriate level of reporting on the work was required, including, if necessary, full analysis and publication of any notable archaeological findings upon completion of the evaluation. Thus, the results of the work constitute the preservation by record of any archaeological remains encountered and subsequently removed during the course of works. The full scheme of archaeological work is described in the following section.

4. ARCHAEOLOGICAL METHODOLOGY

4.1 Fieldwork

- 4.1.1 The fieldwork was undertaken in compliance with the codes and practice of the Chartered Institute for Archaeologists and the relevant ClfA standard and guidance document (ClfA 2014 a & b). PCA is a CIFA 'Registered Organisation'. All fieldwork and post-excavation was carried out in accordance with the Yorkshire, the Humber & The North East: Regional Statement of Good Practice (SYAS 2011).
- 4.1.2 The project was managed in line with principles set out in Historic England's *'Management of Research Projects in the Historic Environment'* (MoRPHE) published in 2006.
- 4.1.3 All archaeological staff involved in the project were suitably qualified and experienced for their project roles. The project was overseen for PCA by Aaron Goode, Project Manager at PCA's Durham Office. All relevant Health and Safety legislation, regulations and codes of practice were respected. PCA's Health and Safety (H&S) Policy is the starting point for managing H&S at all locations where PCA carries out its operations.
- 4.1.4 The scope of the works for the archaeological evaluation was set out in a Specification compiled by the Tyne and Wear Archaeology Officer (Ref. MON16027). The archaeological evaluation comprised the mechanical excavation of four trenches (Figure 2). Trench 2 was abandoned due to access constraints and Trenches 1, 3 and 4 were shortened due to the depth of made ground material on the site and the limited space for spoil storage. The table below summarises the dimensions of each trench:

Trench No.	Original dimension	Excavated dimensions	Maximum Depth
1	10m x 1.5m	4.4m E/W x 1.8m wide at western end of trench	1.68m
2	10m x 1.5m	Not excavated	N/A
3	10m x 1.5m	3.5m E/W x 1.8m wide at eastern end of trench	1.9m
4	20m x 1.5m	3.3m N/S x 1.8m at northern end of trench and 5.77m x 1.8m at southern end.	1.8m
5	20m x 1.5m	16m E/W (shortened to avoid service) x 1.8m	1.5m

- 4.1.5 The archaeological evaluation was carried out between the 27th-29th April 2020. The trial trenches were positioned to avoid any obvious obstructions and to provide good coverage of the site. Trenches were set-out using a Leica Viva Smart Rover Global Navigation Satellite System (GNSS), with pre-programmed co-ordinate data determined by an office-based CAD operative.

- 4.1.6 Ground level in the trenches was reduced using a JCB backhoe excavator utilising a toothless ditching bucket. Successive spits of no more than 100mm depth were removed until either the top of the first archaeological horizon or the top of superficial geological deposits was reached. All ground reduction was carried out under archaeological supervision.
- 4.1.7 The investigation of archaeological levels was by hand, with cleaning, examination and recording both in plan and in section, where appropriate. Investigations within the trenches followed the normal principles of stratigraphic excavation and were conducted in accordance with the methodology set out in the field manual of PCA (PCA 2009) and the Museum of London Site Manual (Museum of London 1994).
- 4.1.8 Deposits and cut features were individually recorded on the *pro-forma* 'Trench Recording Sheet' and 'Context Recording Sheet'. All site records were marked with the unique-number FFS20 (site code).
- 4.1.9 The height of all principal strata and features was calculated in metres above Ordnance Datum (m AOD). A detailed photographic record of the evaluation was prepared using SLR digital photography. All detailed photographs included a legible graduated metric scale. The photographic record illustrated both in detail and general context archaeological exposures and specific features in all trenches.

4.2 Post-excavation

- 4.2.1 The stratigraphic data for the project comprises written and photographic records. A total of 23 archaeological contexts were defined within the four trenches (Appendix 2). Post-excavation work involved checking and collating site records, grouping contexts and phasing the stratigraphic data. A written summary of the archaeological sequence was then compiled, as described in Section 5.
- 4.2.2 During the evaluation, no artefactual material was retained from the deposits encountered, as no archaeological deposits or features were noted.
- 4.2.3 The complete Site Archive, in this case comprising only the written, drawn and photographic records (including all material generated electronically during post-excavation) will be packaged for long term curation. In preparing the Site Archive for deposition, all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document (Brown 2007) will be adhered to, in particular a well-established United Kingdom Institute for Conservation (UKIC) document (Walker, UKIC 1990) and the most recent ClfA publication relating to archiving (ClfA 2014c).
- 4.2.4 At the time of writing the Site Archive was housed at the Durham Office of PCA, The Rope Works, Broadwood View, Chester-le-Street, County Durham, DH3 3AF. When complete, the site Archive will be deposited at an appropriate repository, under the site code FFS20.

5. RESULTS: THE ARCHAEOLOGICAL SEQUENCE

During the archaeological investigation, separate stratigraphic entities were assigned unique and individual context numbers, which are indicated in the following text as, for example [123]. The context numbers have been assigned per trench therefore contexts from Trench 1 are in the 100s and contexts from Trench 2 in the 200s etc. The archaeological sequence is described by placing stratigraphic sequences within broad phases, assigned on a site-wide basis in this case. An attempt has been made to add interpretation to the data and correlate these phases with recognised historical and geological periods. The figures can be found in Appendix 1 with the context index and stratigraphic matrix located in Appendix 2 and 3 respectively. A selection of plates can be found within Appendix 4.

5.1 Phase 1: Superficial Geology

5.1.1 Phase 1 represents superficial geological deposits that were observed within all four trenches. The geological material comprised firm dark reddish-brown sandy clay in Trenches 1, 3 and 4 (Plate 1 to 3) and loose light brownish yellow clayey sand in Trench 5 (Plate 4). This represents the Pelaw Clay member deposits noted within the area. These sedimentary deposits are glaciogenic in origin created by the action of ice and meltwater associated with glacial and inter-glacial periods during the Quaternary (British Geological Survey website).

5.1.2 The table below summarises the depth below ground level and metres above Ordnance Datum (AOD) height of geological deposits within the trenches. The highest level at which natural substratum was encountered was 30.75m in Trench 5 at the southernmost extent of site. The lowest level was 29.74m AOD in Trench 1 at the northernmost extent.

No.	Context	Depth (below ground level)	m AOD	
			Highest	Lowest
Trench 1	(104)	1.68m	29.74m	-
Trench 3	(306)	1.9m	29.76m	-
Trench 4	(405)	1.8m	29.86m (S)	29.81m (N)
Trench 5	(504)	1.12m	30.75m (W)	30.70m (E)

Summary of superficial geology depths and levels

5.2 Phase 2: Subsoil

5.2.1 Phase 2 represents subsoil that was encountered within all trenches that generally comprised mid greyish brown silty sand. No datable cultural material was observed within the deposit to date the subsoil; however, a few fragments of ceramic building material was noted suggesting a post-medieval origin, reflecting the agricultural nature of the area prior to urban development.

5.2.2 The table below summarises the thickness and Ordnance Datum height of the subsoil deposits encountered during the evaluation:

No.	Context	Thickness	m AOD	
			Highest	Lowest
Trench 1	(103)	0.3m	30.04m	-
Trench 3	(305)	0.22m	29.98m	-
Trench 4	(404)	0.73m	30.59m	30.54m
Trench 5	(503)	0.52m	31.52m	31.51m

Summary of subsoil deposits

5.3 Phase 3: Modern

5.3.1 Phase 3 represents modern made ground deposits and surfaces that date from after the original fire station was bombed during WW2.

5.3.2 Within Trench 1, two layers of made ground material were recorded that comprised light yellowish-brown coarse sand and gravel (102) and dark brownish grey silty sand (101). The current ground surface comprised c. 0.20m thick indurated light grey concrete (100). The table below summarises the thickness and metres above Ordnance Datum height for made ground deposits in Trench 1:

Context	Thickness	m AOD	
		Highest	Lowest
(100)	0.20m	32.12m	-
(101)	0.40m	31.92m	-
(102)	0.78m	31.14m	-

Summary of modern deposits within Trench 1

5.3.3 In Trench 3, three layers of made ground were recorded and comprised compact dark brownish grey coarse sand and gravel (304), loose light yellowish-brown coarse sand and gravel (303) and compact dark brownish grey silty sand (302). The uppermost made ground deposit (302) was overlain by c. 0.10m thick indurated light grey concrete (301) that in turn was overlain by c. 0.20m thick asphalt (300) that formed the current surface. The table below summarises the thickness and metres above Ordnance Datum height for made ground deposits in Trench 3:

Context	Thickness	m AOD	
		Highest	Lowest
(300)	0.20m	31.66m	-
(301)	0.10m	31.46m	-
(302)	0.34m	31.36m	-
(303)	0.46m	31.02m	-
(304)	0.58m	30.56m	-

Summary of modern deposits within Trench 2

5.3.4 Two layers of made ground were recorded in Trench 4 comprising loose light yellowish-brown coarse sand and gravel (403) and compact dark brownish grey silty sand (402). The uppermost made ground deposit (403) was overlain by c. 0.10m thick indurated light grey concrete (401) that in turn was directly overlain by c. 0.10m thick asphalt (400) that formed the current surface. The table below summarises the thickness and metres above Ordnance Datum height for made ground deposits in Trench 4:

Context	Thickness	m AOD	
		Highest	Lowest
(400)	0.10m	31.65m	-
(401)	0.10m	31.55m	-
(402)	0.42m	31.45m	-
(403)	0.45m	31.03m	-

Summary of modern deposits within Trench 4

5.3.5 A single made ground layer of friable dark greyish brown silty sand (502) was recorded in Trench 5. This was overlain by c. 0.10m thick indurated concrete (501) that in turn was overlain by c. 0.10m thick asphalt (500) that formed the current surface. The table below summarises the thickness and metres above Ordnance Datum height for made ground deposits in Trench 5:

Context	Thickness	m AOD	
		Highest	Lowest
(500)	0.10m	32.11m	-
(501)	0.10m	32.01m	-
(502)	0.40m	31.91m	-

Summary of modern deposits within Trench 5

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 The archaeological investigations undertaken on land at Fulwell Fire Station, Sunderland, Tyne and Wear, comprised the excavation of four trenches. Geological deposits, post-medieval subsoil and modern made ground and concrete/asphalt surfaces were encountered. This activity was assigned to three phases of activity:

- Phase 1: Superficial geological deposits comprising glaciofluvial deposits of clays and sands that were encountered within all trenches;
- Phase 2: Subsoil deposits likely dating from the post-medieval period when the area was used for agricultural practices.
- Phase 3: Modern made ground deposits and surfaces associated with Fulwell Fire Station.

6.1.2 No features of archaeological significance were recorded within any of the evaluation trenches.

6.2 Recommendations

6.2.1 No further work is required on the information recovered during the evaluation, with the Site Archive (including this report), forming the permanent record of the strata encountered.

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7.2 Online Sources

The **British Geological Survey** website: www.bgs.ac.uk. This was consulted for information regarding the geology of the study area.

8. ACKNOWLEDGEMENTS AND CREDITS

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PCA Credits

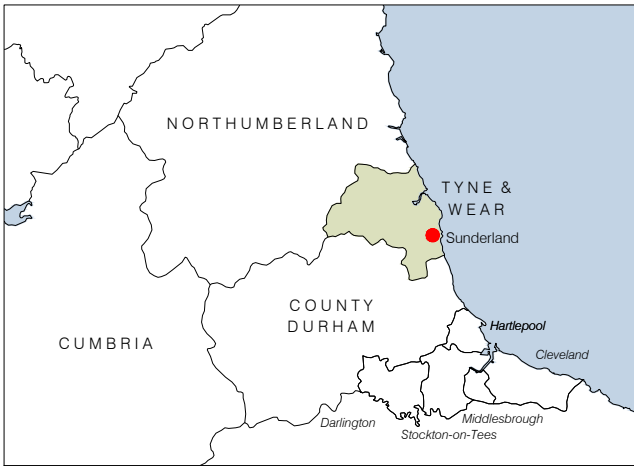
Fieldwork: Aaron Goode (Project Manager) and Scott Vance (Supervisor)

Report: Scott Vance

Project Manager: Aaron Goode

CAD: Mark Roughley

APPENDIX 1: FIGURES



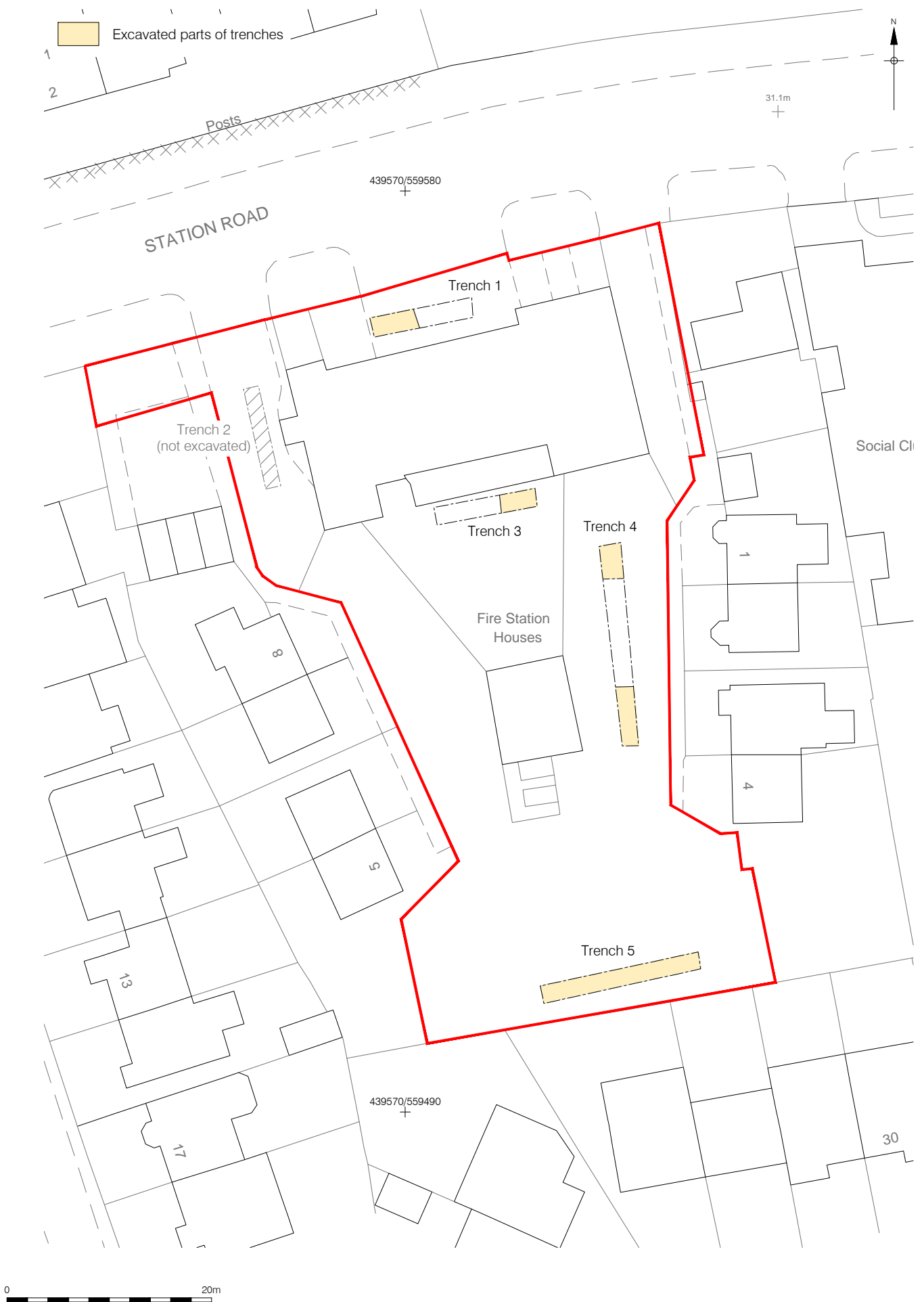


Figure 2
 Detailed Site Location
 1:500 at A4

APPENDIX 2: CONTEXT INDEX

Context	Phase	Type 1	Type 2	Fill of	Interpretation
Trench 1					
100	3	Deposit	Surface		Concrete surface
101	3	Deposit	Layer		Made ground
102	3	Deposit	Layer		Made ground
103	2	Deposit	Layer		Subsoil
104	1	Deposit	Layer		Superficial geology
Trench 3					
300	3	Deposit	Surface		Asphalt surface
301	3	Deposit	Surface		Concrete surface
302	3	Deposit	Layer		Made ground
303	3	Deposit	Layer		Made ground
304	3	Deposit	Layer		Made ground
305	2	Deposit	Layer		Subsoil
306	1	Deposit	Layer		Superficial geology
Trench 4					
400	3	Deposit	Surface		Asphalt surface
401	3	Deposit	Surface		Concrete surface
402	3	Deposit	Layer		Made ground
403	3	Deposit	Layer		Made ground
404	2	Deposit	Layer		Subsoil
405	1	Deposit	Layer		Superficial geology
Trench 5					
500	3	Deposit	Surface		Asphalt surface
501	3	Deposit	Surface		Concrete surface
502	3	Deposit	Layer		Made ground
503	2	Deposit	Layer		Subsoil
504	1	Deposit	Layer		Superficial geology

APPENDIX 3: STRATIGRAPHIC MATRIX

	Trench 1	Trench 3	Trench 4	Trench 5
Phase 3: Modern	(100)	(300)	(400)	(500)
	(101)	(301)	(401)	(501)
	(102)	(302)	(402)	(502)
		(303)	(403)	
		(304)		
<hr/>				
Phase 2: Subsoil	(103)	(305)	(404)	(503)
<hr/>				
Phase 1: Superficial geology	(104)	(306)	(405)	(504)

APPENDIX 4: PHOTOGRAPHIC PLATES

Plate 1: Trench 1 overview: view south-west, scale: 2m



Plate 2: Trench 3: view north-east, scale: 2m



Plate 3: Trench 4 (northern end): view north-west, scale: 2m



Plate 4: Trench 5: view north-west, scale: 1m



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