

GUARD ARCHAEOLOGY



**Wellington Bridge, Carzield Roman Fort,
Kirkton, Dumfries
Data Structure Report
Project 3410**

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Wellington Bridge, Carzield Roman Fort, Kirkton, Dumfries

Data Structure Report

On behalf of: Scottish Water

NGR: NX 970820

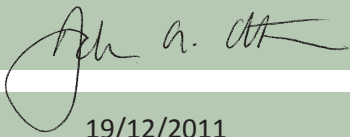
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*This document has been prepared in accordance
with GUARD Archaeology Limited standard operating procedures.*

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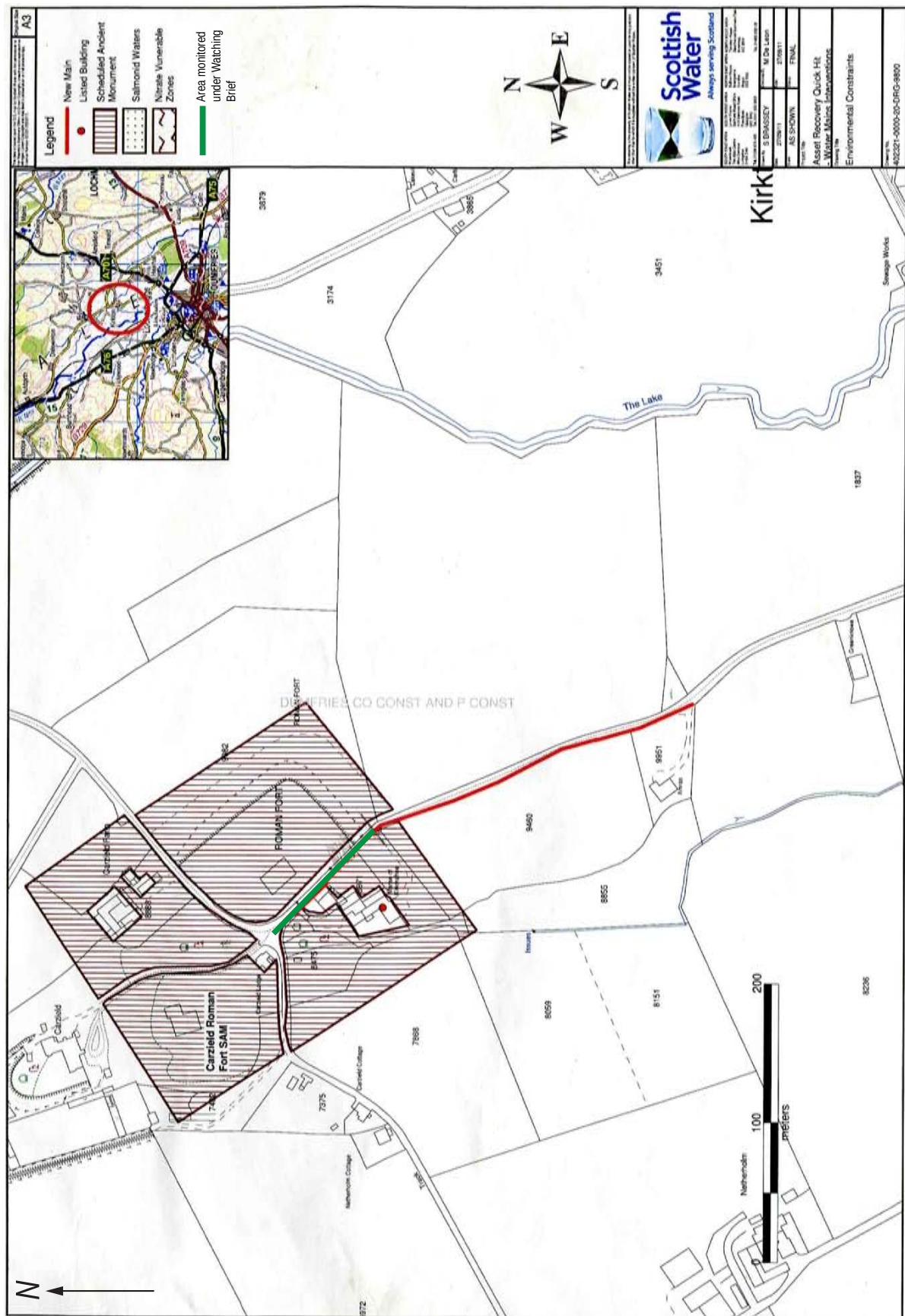


Figure 1: Site location & layout.

Executive Summary

- 1.1 The watching brief of a 90 m section of water pipe trench excavated along the road leading through Carzield Roman Fort was carried out by GUARD Archaeology Limited on behalf of Scottish Water. The excavation of the trench for the new water pipe was aimed at improving the water supply for the immediate area. The watching brief and any subsequent hand-excavation and recording was carried out in accordance with a previously agreed method statement (see Appendix H).
- 1.2 A series of archaeological features were uncovered during the work, which appear to correlate with the projected layout of Carzield Roman Fort as witnessed during previous investigations and are therefore potentially Roman in date. These features included the remains of four separate areas of cobbled surface, three of which coincide with the position of a projected barrack block on the south-west edge of what would have been the main Roman road through the fort. The most north-westerly of the surfaces lay within what would have been the central area of the fort and appeared to be more refined in its construction. Below the surfaces there were two ditch features extending north-west and south-east, and between the surfaces there were three cut features and a spread. A number of finds have been recovered for further analysis, these include numerous metal fragments, two possible pieces of tile, one large cast metal object and several pieces of burnt clay. All remains were recorded on plan, in section, by photograph and by context description. All relevant contexts were sampled and finds were retained from each layer for further analysis. The watching brief and excavations were undertaken from 25th October to 04th November 2011 by Warren Bailie.

Introduction

- 2.1 This report sets out the results of the watching brief and any hand excavations and recording undertaken by GUARD Archaeology Limited on behalf of Scottish Water in the proposed water pipe trench. This trench lay along the south-western edge of the main road leading north-west through the Scheduled Ancient Monument, Carzield Roman Fort (NX 98 SE 8.00) (Figure 1).

Site Location, Topography and Geology

- 3.1 The site of the proposed development is located 5.5 km north of Dumfries and 750 m east of a fordable point on the River Nith and is centred on NGR: NX 968 818. The site is identified as the bounds of the Scheduled Ancient Monument (SAM), which covers the remains of a Roman Cavalry Fort - approximately 2.6 hectares in size. This site of the fort lies at between 20 m and 25 m AOD with the land immediately around the fort location lying at between 14 m and 18 m AOD.
- 3.2 The site is criss-crossed by a number of minor roads, which meet in a central cross-roads within the middle of the fort. It is bounded by agricultural fields on all sides and the interior of the scheduled area is sparsely covered by trees and shrubs with occasional dense areas present.
- 3.3 The proposed location of the water-pipe trench lies along the south-western edge of the current north-west to south-east orientated road leading through Carzield Roman Fort.
- 3.4 There are three existing and occupied groups of buildings within the scheduled area. In the northern quadrant Carzield Farm steading is present, while the southern quadrant is occupied by Glebe House and its outbuildings. Carzield Lodge occupies the eastern side of the central area immediately adjacent to the cross-roads.
- 3.5 The underlying drift geology consists of glacial drift material consisting of sands and gravels and the solid geology consists of Ordovician and Silurian shallow sea-bed sedimentary rocks (www.scottishgeology.com, accessed November 2011).

Archaeological Background

- 4.1 Excavations in 1939 revealed that Carzield Roman Fort was a cavalry fort built and occupied during the Antonine campaign (c. AD 139-143). The excavations also revealed the form of the fort, in particular the existence of a stone-built barracks and timber stable in the south-eastern quadrant of the fort and the presence of a rampart and ditch system around the fort with internal road system present within the fort dividing it into six defined areas of use. The excavators noted that the central administrative blocks were likely to have been damaged by a later tower site and farmstead location (Birley & Richmond 1942).
- 4.2 Subsequent investigations revealed the position of the bath house at Carzield and a possible civilian settlement annex in the mid-1950s (Truckell 1955; 1956). A small annex is clearly visible along the eastern side of the site in aerial photographs. This was followed by further investigations into rubbish pits at the site in the late 1960s (Williams 1977).
- 4.3 On the basis of the previous investigations it was possible that the proposed phases of hand excavation and watching brief could reveal traces of the internal Roman road network and could also reveal elements of the northern barracks and potentially the western rampart and ditch system.
- 4.4 There have been extensive changes in terms of development within the limits of the fort since its occupation in the Antonine period. This is likely to affect the potential for survival of Roman remains in certain areas of the fort. The first of these documented changes was the establishment of a medieval farmstead and tower in the central area of the fort. Little detail is known on the tower, its scale, its function or how long it may have been in use, but remains were noted by Birley & Richmond on their 1939 map of the fort (Figure 2). This was followed by the development of a the small settlement of 'Careel' shown on Roy's Map of 1755. In the nineteenth century (OS 1st Edition 1855) a settlement still existed here either side of the main road through the fort with the main houses of 'The Manse' to the south-west and what was to later become 'Carzield House' dominating the north-west part of the settlement. By the end of the nineteenth century (OS 2nd Edition, Sheet 9, 1897) most of the settlement has disappeared leaving the Manse (later to become Glebe House) and Carzield House with a building in the location of what was to become Carzield Farm and Carzield Lodge at the entrance to Carzield House. All of which exist to the present day, albeit in modified forms.

Aims and Objectives

- 5.1 The aims and objectives of the archaeological watching brief were as follows:
- establish the presence or absence of any archaeological remains during ground breaking works;
 - determine the character, extent and significance of any archaeological deposits encountered;
 - excavate and salvage any information possible from any significant features/sites encountered.

Methodology

- 6.1 The strategy to be employed during the watching brief consisted of the following:
- 6.2 All ground disturbances are to be monitored by an archaeologist assisted, where necessary, by further archaeologists under the overall guidance of an archaeological project manager.
- 6.3 The number of archaeologists required during the works will be dependent on the number of areas being trenched simultaneously and the number of mechanical excavators being deployed.

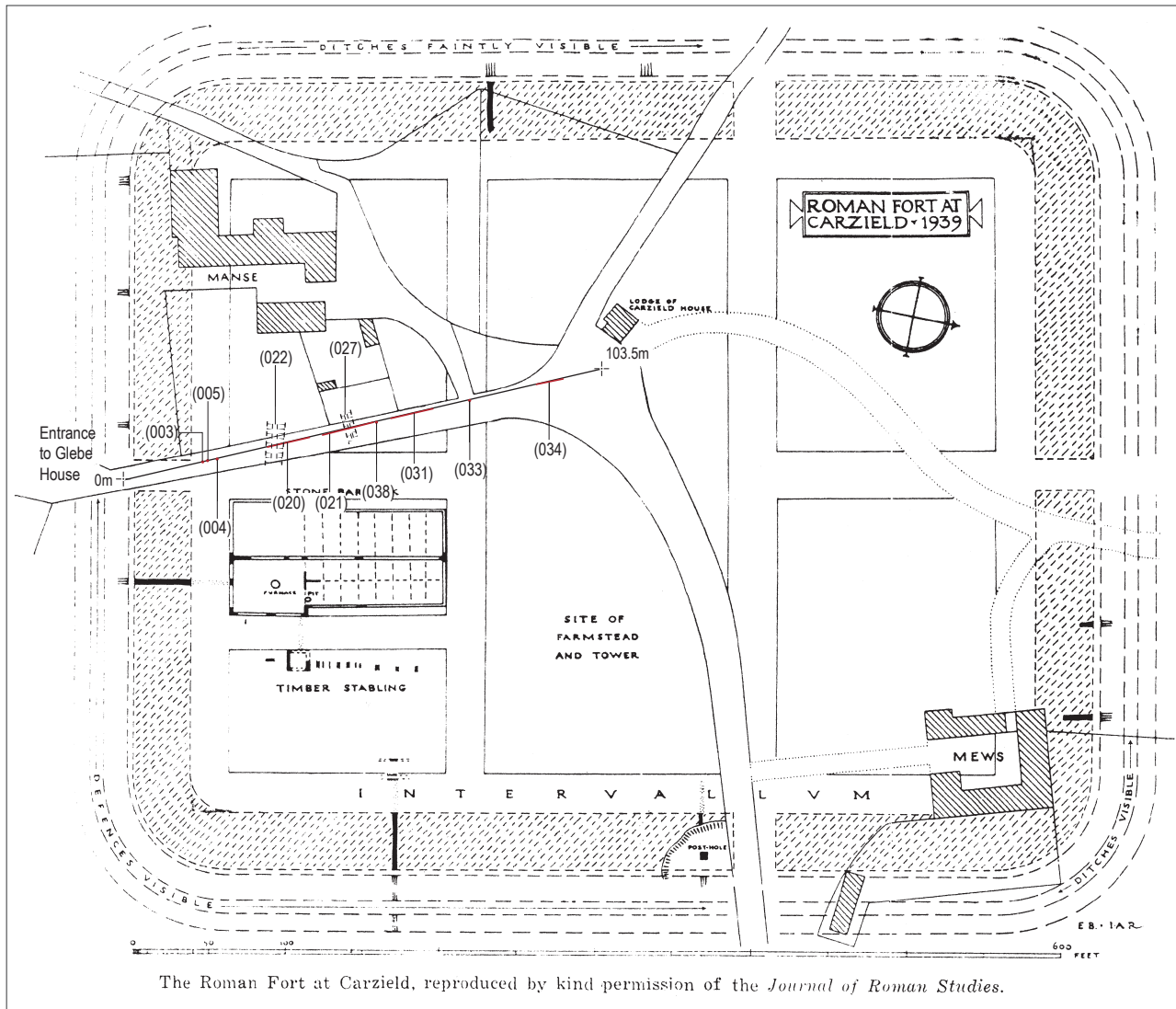


Figure 2: Overall plan of fort, by Birley & Richmond 1939.
Shows water-pipe trench and archaeological deposits.

- 6.4 All plant will be fitted with a toothless ditching bucket for removal of any previously undisturbed overburden layers to ensure the subsoil interface is not disturbed and any archaeological features can be clearly identified. A toothed bucket may be used for previously disturbed layers.
- 6.5 Overburden will be removed in spits to the first archaeological horizon or, where none is found, to the natural subsoil. Any archaeological features encountered will be cleaned by hand to determine the date of the deposits, their character and extent. Such features will be recorded by written description on pro forma recording sheets, by photograph and by measured drawing.
- 6.6 Any significant archaeological features encountered will be dealt with by the on-site archaeologist(s). Should negative-cut features be encountered they will be 50% excavated in order to determine their significance, date and function. In the event that they are deemed to be important discoveries, they will be fully excavated. Recording will include pro forma sheets, drawings and photographs.
- 6.7 Suitable down time, up to a maximum of two hours per significant small feature, will be provided to the on-site archaeologists in order to fully recover any archaeological evidence encountered.
- 6.8 Should more substantial remains be encountered, downtime may be required in excess of two hours per feature. This will be agreed in advance with Scottish Water and the Dumfries and Galloway Council archaeological adviser prior to proceeding.

- 6.9 In the event that particularly significant features, special finds or complex groups of features are encountered Scottish Water and the Dumfries and Galloway Council archaeological adviser will be alerted, so that a mitigation strategy can be agreed to deal with them.
- 6.10 All archaeological finds will be dealt with by the on-site archaeological team. The general practice will be to bulk recover all artefacts by context which are recovered from the overburden or from nineteenth century or later layers or deposits. Should finds be encountered that are securely stratified from earlier occupation phases they will be three-dimensionally recorded prior to up-lifting.
- 6.11 All excavated feature fills and horizons will be sampled for palaeo-environmental evidence. This may also include micromorphological sampling in order to address key issues on soil development.
- 6.12 A representative section will be recorded for each section of trench denoting depth of overburden, any stratigraphy present and the nature of the soil. This information will be logged in the day book together with a sketch drawn to scale and a photographic record of deposits.
- 6.13 On completion of the watching brief phase of work, a report suitable for submission to the Planning Authority and the National Monuments Record for Scotland (NMRS) will be produced. This report will be accompanied by the post-excavation research design and costing in order to bring the results forward for analysis and publication should this be required.

Products

- 7.1 The products of a programme of work will be:
- 7.2 a preliminary data structure report, after completion of all fieldwork suitable for submission to the client, Planning Authority, the NMRS and the local Sites and Monuments Record;
- 7.3 a brief summary of results of the fieldwork will be submitted to *Discovery and Excavation in Scotland* ;
- 7.4 a brief summary of results of the fieldwork will also be added to the OASIS online database;
- 7.5 Post-excavation and publication of the results of the watching brief within an academic journal, should this be necessary;
- 7.6 Preparation and disposal of the site archive and finds.

Archive Arrangements

- 8.1 Once all fieldwork is completed, all materials from the programme of work will be prepared to the appropriate archive standard. GUARD Archaeology will undertake to deposit the resultant archive to the NMRS on completion of the report for publication.
- 8.2 All finds will be reported to the Treasure Trove Advisory Panel, and GUARD Archaeology will undertake to ensure their safe deposition within the designated museum at the appropriate time.

Results

Watching Brief

- 9.1 There were a number of archaeological features/deposits uncovered during the monitoring of the 90 m long, 0.3 m wide and 1 m deep (27 m²) section of water-pipe trench along the road leading into the south-east side of the scheduled area. These features included the remains

of four separate areas of cobbled surface. Below the surfaces there were two ditch features extending north-west and south-east, there were also three cut features and one spread. A number of finds have been recovered for further analysis, these include numerous metal fragments, two possible pieces of tile, one large cast metal object and several pieces of burnt clay. The details of the findings from hand-excavations and recording will be discussed in detail below.

Hand Excavation and Recording

9.2 The 90 m long machine excavated trench (Figure 1) revealed a total of 39 contexts which were recorded during the investigations. The following text should be read in conjunction with the context descriptions in Appendix B. The baseline for the recording of the trench extended for 103.5 m (Figure 2). The watching brief was required from 13.5m along the baseline from the start point (0m), at the main entrance of Glebe House, to the cross-roads at the centre of Carzield Roman Fort (103.5m). The baseline was drawn from a fixed point, Glebe House entrance, for ease of reference to any potential future work and in particular any further archaeological investigations associated with the deposits found. Measurement along the baseline will be used to show the position of any given feature along the trench length.

9.3 The trench was excavated in spits till the agreed depth of 1.0 m was reached. Any archaeology encountered before reaching this level was recorded in plan, by photograph and pro-forma context sheet before being removed by machine, where appropriate, and recorded in section.

9.4 The archaeological deposits included four areas of cobbled surface, two underlying ditches, with three other cut features and a spread between the surfaces. These will be described in stratigraphic order below.



Plate 1- general view of excavated trench from north-west end.

Natural layers

9.5 The earliest layer encountered consisted of loosely compacted dark reddish orange gritty sand (011) with very occasional small rounded gravel inclusions. This natural deposit was encountered at between 0.9 m and 0.95 m below surface and extended throughout the 90 m length of the trench. This was overlain by another ubiquitous naturally deposited layer (010). This consisted of loosely compacted gravel with occasional pockets of sandy silt with the gravel getting progressively larger as the trench extends north-west. The next natural layer above this consisted of firm mid-grey gravel (009) with occasional pockets of fine loose silt borne from root intrusion. This layer extended for 7 m along the trench and measured between 50 mm and 0.4 m thick. An additional layer consisted of orange brown gravelly clay (019), which is likely to be a variation of (009), this measured up to 0.4 m thick and 0.43 m along the trench. Above (009) and (019) was a layer of firm brownish grey gravel (008) with occasional pockets of silty sand borne from prevalent root intrusion; this was only present towards the south-east end of the trench and was between 40 mm and 0.25 m thick. The last natural deposit to be observed in the trench was an isolated layer, at the south-east end of the trench, of loosely compacted silty gravel (012). This measured 0.9 m along the trench and up to 0.11 m thick.

Cut features and cobbled surfaces

9.6 The first of these was a ditch cut (022) (Figure 3) which extended north-east and south-west beyond the trench edges. This was found at approximately 30 m from the south-east end of the trench. The ditch measured 1.7 m wide at the base (within the limits of the trench) and 3.3 m wide at the top break of slope with a depth of 0.6 m. The profile of the ditch was quite wide

and shallow with gently sloping sides. There were a total of four fills observed, the first of which consisted of compact fine sediment mid-grey brown silty sand (023) with very occasional small gravel and occasional light grey mottling. This deposit measured 0.2 m thick within the limits of the trench, up to 2 m north-west to south-east, and extending >0.3 m beyond the trench edges. There were in excess of 40 possible hobnails (SFs 001 and 006 to 012) and one possible tile fragment (SF 002) recovered from this layer within the ditch. Above this layer lay a 0.24 m thick, firm grey yellowish brown silty sand (024) with light grey mottling and occasional gravel. This measured 3.3 m north-west to south-east and extended >0.3 m beyond the trench edges. The next layer stratigraphically was firm dark orange sandy gravel (025) which measured 20 mm to 80 mm thick. The upper most fill of the ditch (026) measured up to 0.4 m thick and consisted of mid-grey brown silty gravel, with moderate amounts of rounded stones measuring 0.1 m by 0.2 m by 0.2 m to 0.1 m by 0.25 m by 0.3 m in dimension. This layer immediately underlay a cobbled surface (020) which measured 9 m north-west to south-east and extended beyond to the north-east and south-west. This was made up of rounded cobbles bedded into a mid-grey coloured clay matrix with small rounded stone chippings and gravel between the stones. The cobbles varied in dimension from 80 mm by 0.12 m by 0.25 m to 0.1 m by 0.14 m by 0.3 m. There were also occasional small angular fragments of sandstone across the surface.



Plate 5- SFs 001 and 002 in situ in (023) from above.

- 9.7 The next cut feature was a possible ditch cut (027) (Figure 3) which lay at approximately 50 m along the length of the trench baseline. This ditch measured 1 m wide at its base, 2.15 m wide at the top break of slope and up to 0.54 m deep; the cut was particularly steep on the south-east edge and more gently sloped on the north-west edge. This ditch extended beyond the trench edges to the north-east and south-west for an unknown distance. This ditch cut was filled by three deposits (030, 028 and 029). The first of these consisted of loosely compacted dark greyish brown sandy gravel (030) with occasional rounded stones of between 50 mm and 0.1 m across. The other deposits (028 and 029) were contained within this fill. They both consisted of loose dumps of squared sandstone blocks and are likely to be the same deposit, only being numbered differently as they were observed in opposing section faces of the trench. Overlying this ditch feature was a cobbled surface (021) which measured 11.8 m north-west to south-east and between 0.1 m and 0.25 m thick. The cobbles varied widely in size and shape, from almost spherical stones to elongated and sub-angular shapes with some notable concentrations of larger sub-angular cobbles in certain locations. One particular location where these larger cobbles were observed was above the position of the ditch (027) at approximately 50 m along the trench (Figure 4). One spread of loose dark brown silty clay (038) with frequent cobbles of between 0.1 m and 0.18 m across, overlay this surface. A large fragmentary orange fabric ceramic tile (SFs 019 to 024) was recovered from this spread.
- 9.8 Two additional areas of cobbled surface were recorded within the trench further to the north-west. The first of these consisted of cobbles and angular sandstone blocks (031) (Figures 3 & 5) making up a robust surface set in a matrix of sandy clay (036). This surface measured 8 m north-west to south-west, up to 0.12 m thick and extended beyond the trench edges to the north-east and south-west. The final surface observed (034) (Figures 6 & 7), consisted of cobbles and

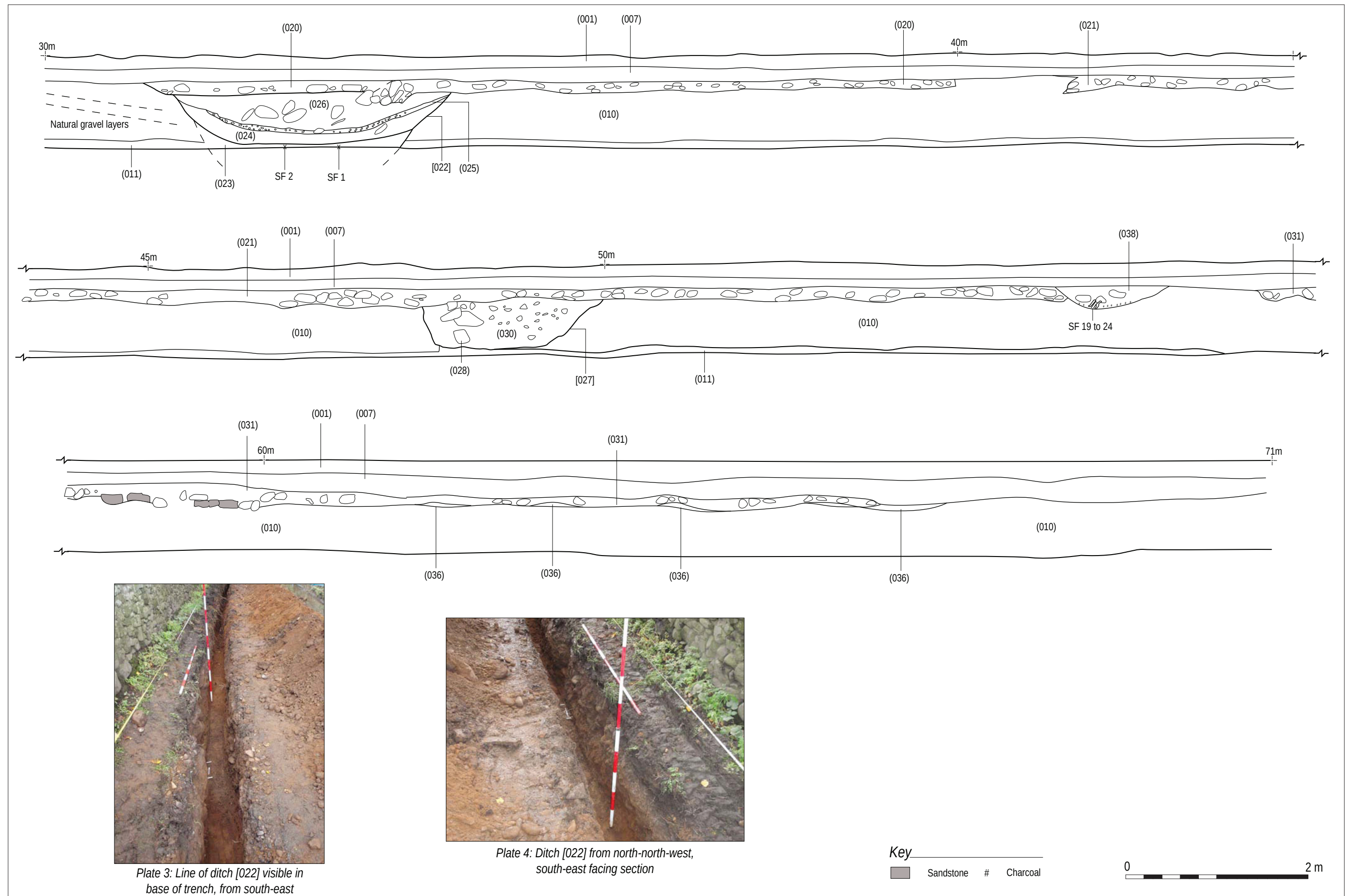


Figure 3: North-East facing section of water-pipe trench - shows surfaces 020 and 021, ditches [022] and [027] and spread 038.

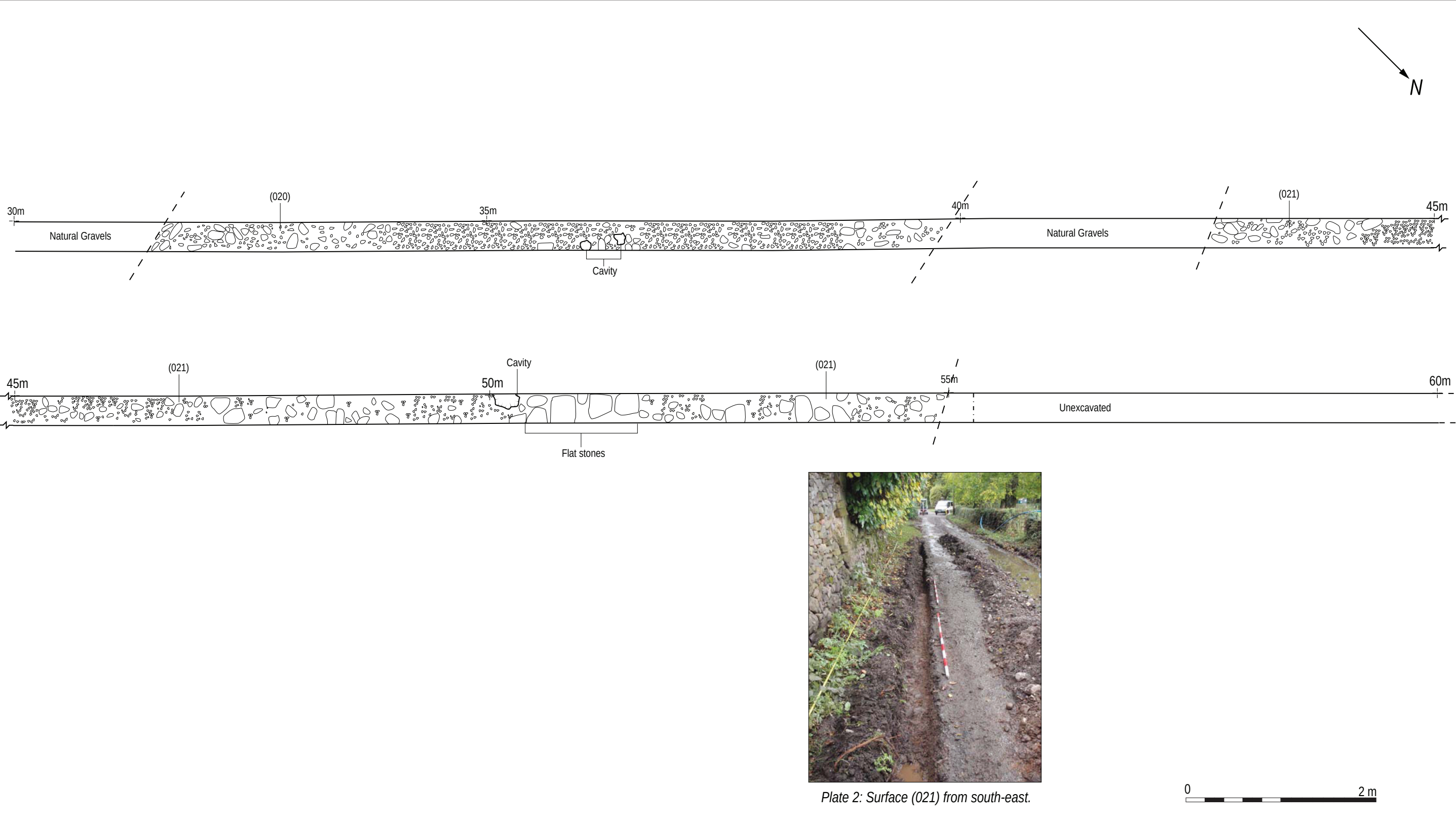


Figure 4: Plan of water-pipe trench showing surfaces 020 & 021.

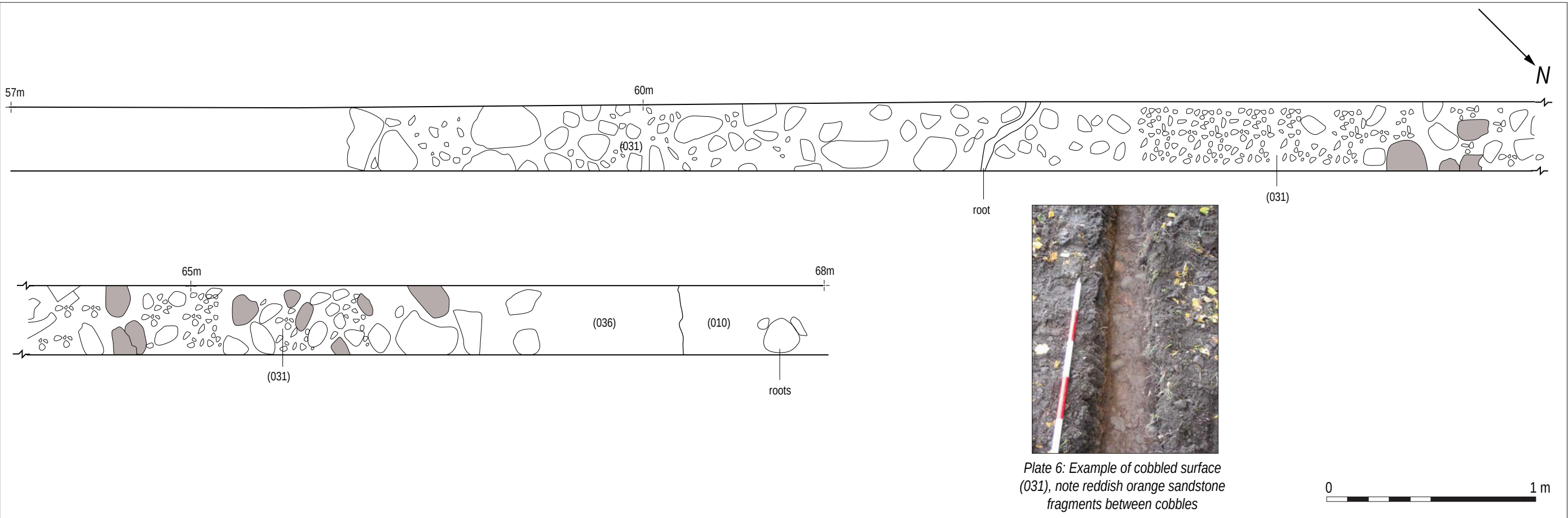


Figure 5: Plan of water-pipe trench showing surface (031)

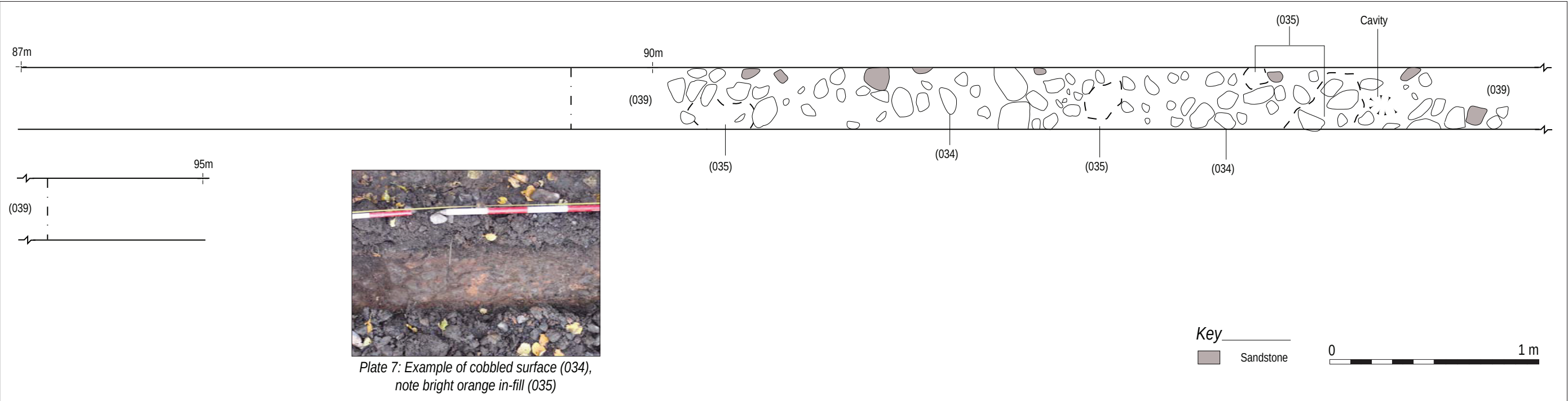


Figure 6: Plan of water-pipe trench showing surface (034)

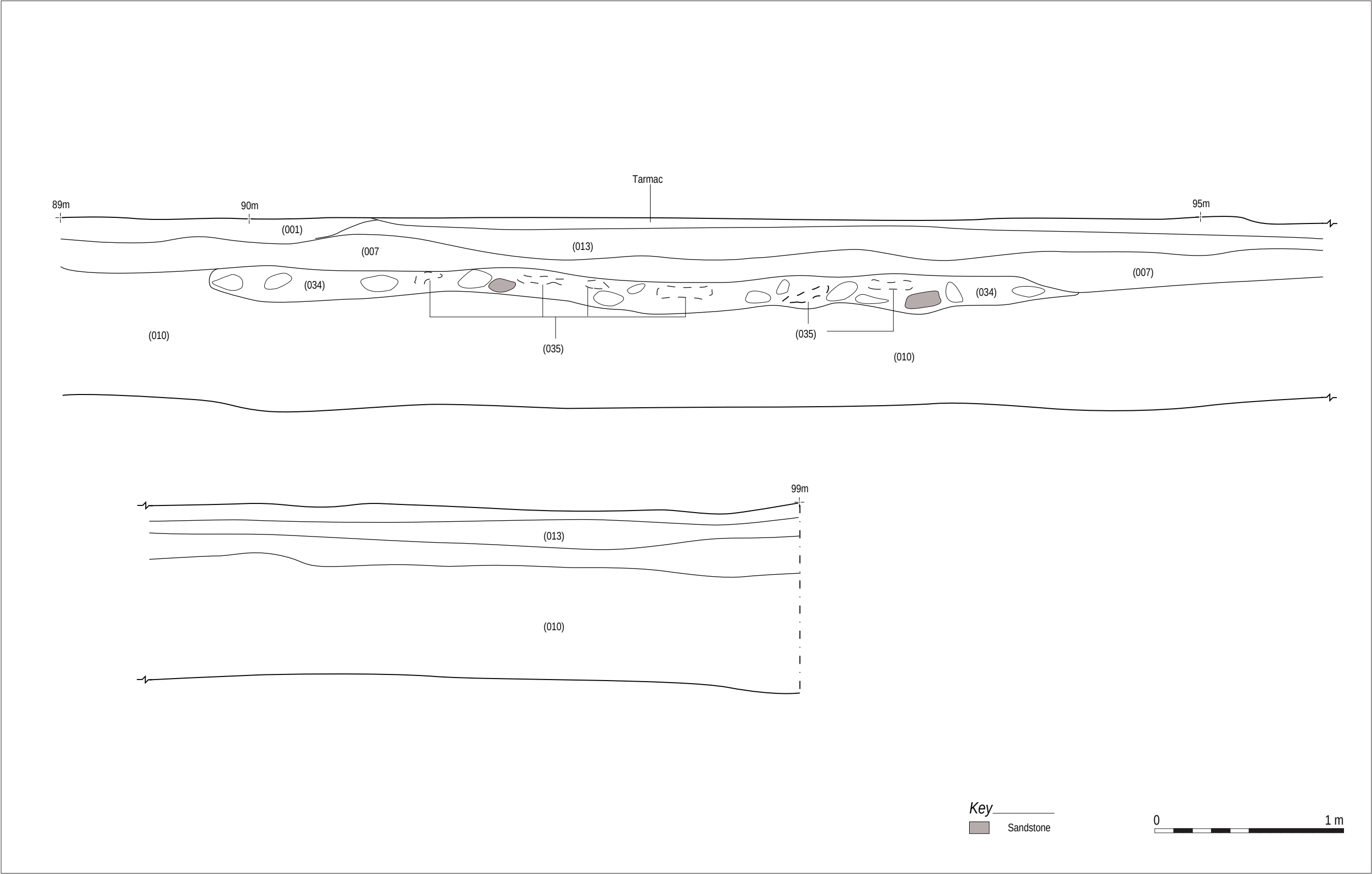


Figure 7: North-East facing section of water-pipe trench showing surface 034.

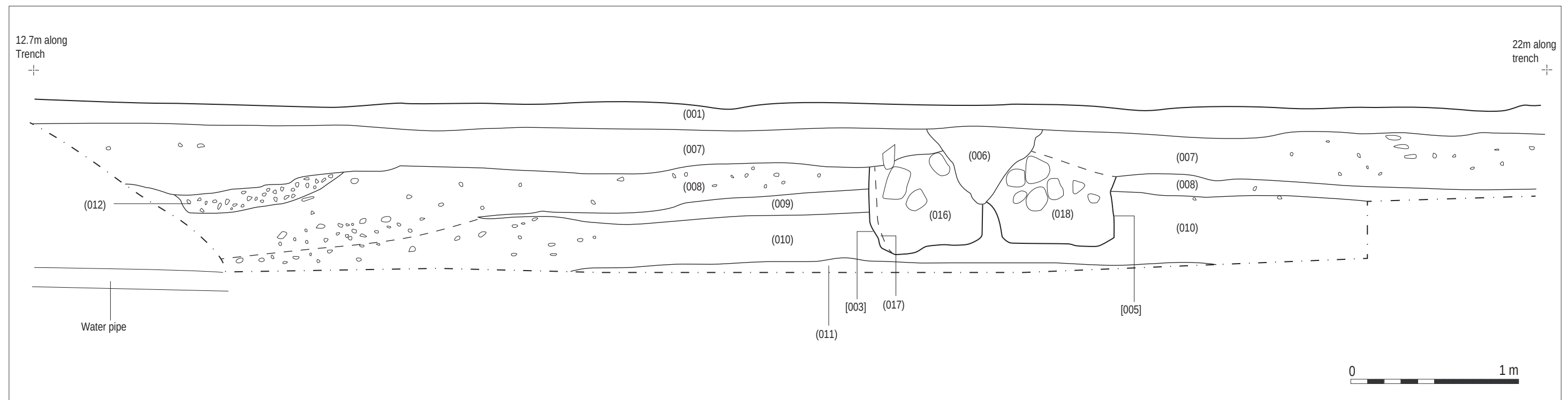


Figure 8: North-East facing section of water-pipe trench showing feature [003] & [005].

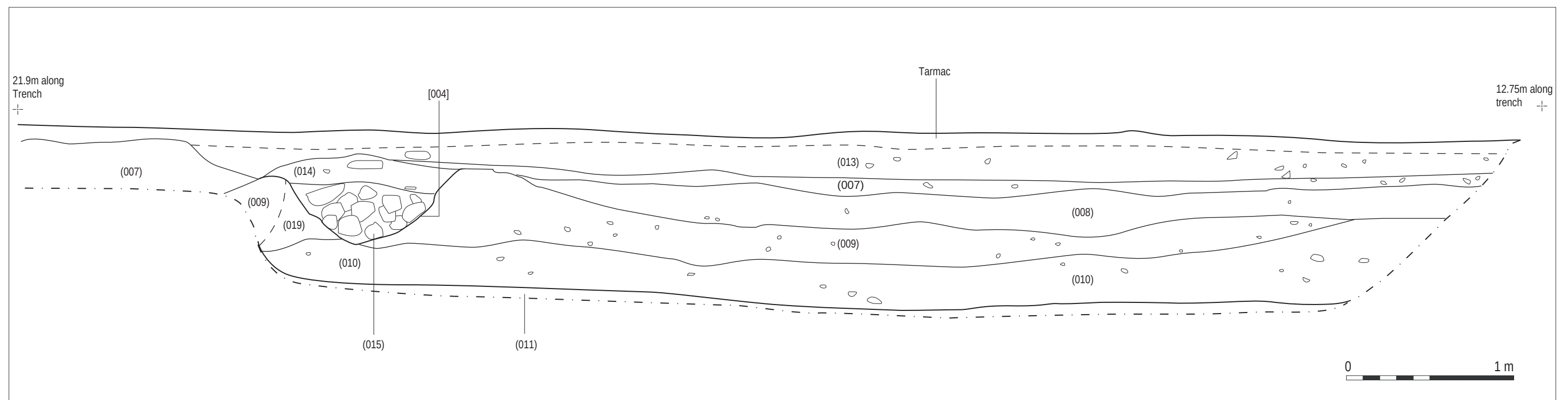


Figure 9: South-West facing section of water pipe trench showing feature [004].

sandstone pieces set in mid-brown silty clay (039). The surface measured 4 m north-west to south-east, up to 0.1 m thick and extended north-east and south-west beyond the trench edges. There were pockets of very compacted bright yellowish orange silty sand (035) with occasional light yellowish brown mottling and very occasional very small gravel, between the cobbles. This material may be burnt / fired clay which has been ground for in-fill between the stones.

- 9.9 The remaining cut features observed within the trench lay towards the south-east end and lay in the vicinity of the projected bottom break of slope of the inner ramparts of the Roman Fort (Figure 2). The first of these (004) (Figure 8) was possibly rounded but due to the limitations of the trench this is not certain. This measured 1.16 m north-west to south-east and 0.52 m deep with 45° sloping sides and an undulating base. The basal fill consisted of 90% rounded stones with loose dark grey silt in-fill between the stones. Above this lay a firm fine yellow greyish brown silty sand (014) with one isolated charcoal concentration. Approximately 1 m south-east of this feature lay the remaining two cut features (003 and 005) (Figure 9). Feature 003 was possibly sub-angular in plan with almost vertical sides and a flat base. Feature 005 was also possibly sub-angular in plan with almost vertical sides and a flat base which was level with that of cut 003. Combined, the two cuts would measure approximately 1.4 m north-west to south-east with a depth of 0.6 m; this may have been a construction cut for a wall. These two features were separated towards the surface by a possible intrusion (006) which may represent the robbing out of the features. The fills within each of the cuts consisted of loose very dark brown gravelly silt (017), firm dark grey gravelly silt (016) in feature 003; and firm greyish brown gravelly silt (018) in feature 005.
- 9.10 In the vicinity of the Glebe House rear entrance there was a singular sandstone block (033) set in a very compact mid-brown sandy clay (037) with occasional small gravel. This is likely to be a central gate fixing for the rear entrance for Glebe House.
- 9.11 All of the above features and surfaces were at least partially sealed by a firm light greyish brown gravelly silt (007) which was present almost entirely throughout the trench length. This deposit varied between 80 mm and 0.12 m thick. Overlying this layer was either topsoil (001) or tarmac and hardcore (013).

Discussion

Watching Brief

- 10.1 The watching brief revealed the remains of four separate areas of cobbled surface, three of which may coincide with the position of a projected barrack block on the south-west edge of what would have been the main Roman road through the fort. The most north-westerly of the surfaces (034) lay within what would have been the central area of the fort and appeared to be more refined in its construction. Below the surfaces there were two ditch features extending north-west and south-east, a similar orientation to the short axis of the fort. Between the surfaces there were three cut features and a spread overlying surface 021. A number of finds have been recovered for further analysis, these include numerous metal fragments, two possible pieces of tile, one large cast metal object and several pieces of burnt clay.

Hand Excavations and recording

- 10.2 The hand excavations and recording enabled a more detailed observation of the archaeological deposits before their destruction by the new water pipe installation.
- 10.3 The investigations revealed successive robust cobbled surfaces composed of a mix of cobbles, sandstone fragments and sandstone blocks. When the positions of these structural deposits are compared to the projected layout of the fort (Figure 2) according to Birley & Richmond (1942) it becomes apparent that they may correspond to surfaces within one of the buildings within the fort, possibly an additional barrack block. This interpretation is inferred on the basis that the pattern in the south-east corner of the fort, established through previous excavations, was repeated in the south-west corner (Figure 2).

- 10.4 The presence of the sandstone fragments noted during the exposure of the cobbled surfaces is reminiscent of the mention of one of the road surfaces being covered by ‘...burnt rubble.... including much broken sandstone’ (DGNHAS 1948/9). This would suggest that the possible building surfaces were constructed in a similar manner to the main roads through the fort.
- 10.5 The surface towards the north-west end of the trench 034, situated in what would have been the central area of the fort, was notably different to the other surfaces in its appearance and composition. Unlike the other three surfaces which were quite undulating, these cobbles were relatively level with a particularly robust upper surface. The main factor which distinguished this surface from the others visually was the inclusion of a very bright yellowish orange in-fill between the cobbles. This finely ground material is likely to be borne of burnt/ fired clay which has been ground to create a fine consistency, this has then been used to help bind the cobbles creating a visually and physically distinctive surface. The location of this surface within the central area of the fort may be some indication as to why the surface is so distinctive as this is where the principia or main administration block may have been, an area within the fort where those of highest stature would have been accommodated.
- 10.6 The line and dimensions of the most south-easterly surface (020) appeared to correspond to a kink in the roadside hedge-line and field wall on the north-east side of the road. It is uncertain, but this may indicate that this surface extends to the north-east beyond the current road edge. There is no apparent above ground indications of the surface extending any distance into the adjacent field, but the kink in the boundary hedge and wall do match well with the surface’s north-west and south-east edges and dimensions leading from the trench.
- 10.7 In addition to the surfaces uncovered there were a number of cut features. These included two ditches which extended beyond the trench edges to the north-east and south-west, a similar orientation to the short axis of the fort (Figure 2). Both of the ditches underlay cobbled surfaces and their function is uncertain. They may be the remains of ground-works carried out on the fort area before the construction of the surfaces and buildings. Ditch 022 lay below the south-east edge of the surface 020 and in section the cobbled surface was shown to slump over its position. More than 40 metal hobnails (SFs 001 and 006 to 012) and a possible tile fragment (SF 002) were recovered from the base of this ditch suggesting the use of this ditch for refuse prior to the surface construction. There were no indications on the surface of the cobbles (020) that there was an underlying ditch. In contrast, on surface 021, the cobbles immediately overlying the ditch (027) were notably different, being larger, flatter and more square in form. This indicated that the cobbles were deliberately differentiated over the position of the ditch. This may be an indication that the ditch had a function in relation to the surface, perhaps acting as a drain to allow water to escape below and away from the cobbled surface. Without further investigations beyond the limits of the narrow 0.3 m wide trench the possible interpretations for the ditches cannot be substantiated.
- 10.8 The other cut features (004, 003 and 005) lay towards the south-east end of the trench at around 13 m along the baseline. These features are located in the position of what, according to Birley & Richmond (1942), would have been the bottom break of slope of the ramparts along the south-east side of the fort. It is possible that they are the remains of wall or revetment features that may have been located here to shore up the inner edge of the defensive banks.

Conclusions

- 11.1 The watching brief hand excavations have shown that there are both cut features, deposits and cobbled surfaces which may be related to the Roman occupation of Carzield Roman Fort surviving here, however truncated by post- medieval development and the roads. This is significant in that there have been extensive periodic change within this fort since its occupation during the Antonine campaign (AD 139-143), through the medieval period and the eighteenth to twentieth centuries. Of particular note is the fact that these surfaces and features survive at the edge of, and immediately under the surface of the present day tarmac road. The findings, with the aid of further post-excavation analyses and dating can be directly related to the previous excavations conducted on this site. The interpretation of this evidence will enable a greater understanding

of the construction methods, material culture and the period of occupation of this particular Antonine fort. This information can then be used in comparison to other forts of the same period and the dates may allow this fort to be placed into a chronology of use with the Antonine forts used in the Romans' final advance north in Britain.

Recommendations

- 12.1 The hand excavations revealed significant archaeological deposits and artefacts which are potentially contemporary with the use of this fort in the Antonine period. Despite locating these possible Roman remains, the very limited investigations within the trenches, were not conclusive and further work will be required on the recovered archaeological evidence to tease out the true story behind the remains encountered.
- 12.2 It is therefore recommended that further analyses of the artefactual assemblage is conducted to create a full catalogue and typology for each find type and to identify any diagnostic finds which may aid in the interpretation and dating of the deposits uncovered. A Post-excavation Research Design (PERD) will be produced for any proposed further analysis which will be subject to approval of the Dumfries and Galloway County Archaeologist, Jane Brann and Scottish Water.
- 12.3 It is also recommended that specific soil samples from potentially Roman deposits are processed to retrieve any archaeo-botanical remains which may be useful in identifying diagnostic plant micro- and macro-fossils. The analyses of these remains may enable a better understanding of the past vegetation patterns and possibly the diet of those occupying the fort. The identification of the organic remains will also highlight the most suitable samples for possible C¹⁴ dating. The dating of key features and deposits will provide a series of dates that can be used in direct comparison to past and future excavations on Roman forts in this area, in the wider context of Scotland and the greater Roman Empire during the Antonine period. The dates acquired can also be used to refine any interpretations drawn from the artefactual and ecofactual assemblage.
- 12.4 Although the road does not form part of the scheduled monument, this watching brief has shown there are potential Roman remains relating to the scheduled monument underlying the road surface. It is therefore recommended that all future ground-works along the line of or side of the roads through the fort are monitored by an archaeologist. This is also a point that may be worth addressing in the case of other scheduled sites transected by roads.
- 12.5 In the event of further archaeological investigations being conducted within this area of the fort in the future, it is recommended that the locality of the surfaces found here are targeted to determine their full nature and extent. In particular, if geophysical prospection is to be carried out, it is recommended that the road surface which obscured the cobbled surfaces and cut features is included in any such work.
- 12.6 It is recommended that the post-excavation work once complete is published in a suitable format in the Dumfries and Galloway Natural History and Antiquarian Society Journal.
- 12.7 GUARD Archaeology Limited would stress that these recommendations are intended for guidance only. Final decisions on the nature and extent of any future archaeological work rest with the Planning Authority Archaeologist Jane Brann.

Acknowledgements

- 13.1 GUARD Archaeology Limited would like to thank Scottish Water and Border Utilities. We would also like to extend our gratitude to Mr. John Williams, local resident and current secretary of the Dumfriesshire and Galloway Natural History and Antiquarian Society, who was on site each day and provided documentation held by the society to aid in the interpretation of the archaeology found on site. Technical support was from Aileen Maule, John Kiely and Jen Cochrane. The watching brief, hand-excavations and recording were carried out by Warren Bailie. The illustrations were produced by Sarah Bailie and the report was desk top published by Gillian McSwan. The project was managed for GUARD Archaeology by John Atkinson.

**Wellington Bridge, Carzield Roman Fort,
Kirkton, Dumfries
Data Structure Report**

Section 2: Appendices



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Appendices

Appendix A: References

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Appendix B: List of Contexts

Context No.	Description	Interpretation
001	quite firm, dark brown silty clay, freq. Roots, occas. Angular stones of varying size	topsoil on south-west side of tarmac road
002	orange brown sandy clay, occas. Rounded stones of varying size	subsoil
003	Sub-angular cut, 0.64m NW-SE, extends SW for ?m, 0.6m deep. Sharp top and bottom breaks of slope, almost vertical sides, flat base, filled by (016) and (017)	possible trench cut for wall, revetment? = , same as [005]?
004	Cut, 1.16m wide, extends NE below road (013), 0.52m deep. sharp top break of slope, 30-45° slopes, gradual bottom break of slope, filled by (015) and (014)	uncertain function or date, cut at a similar level to features [003] and [005]
005	Cut, 0.73m wide, 0.5m max depth, extends SW towards grounds of Glebe House, sharp top and bottom break of slope, almost vertical sides, flat base, may be orientated SW-NE but uncertain given trench constraints	remains of possible construction cut, coupled with [004] this may have been a revetment or wall along the inside of the ramparts. May have been robbed out by (006)
006	firm light orange brown gravelly clay, occas. Gravel, occas. Angular stones. 0.62m wide, 0.48m thick, extends SW for ?m	May be evidence of the robbing out of the construction cuts of [004] and [005] as this deposit intrudes through (007) and between both cuts
007	firm light greyish brown gravelly silt, occas. Sharp slate fragments, fine angular gravels and small rounded gravel. Varies between 0.08 and 0.12m thick, present throughout trench on south-west side	Above (014), (016), (018), (012), (031), (038), (020), (034) and (033), accumulation layer over archaeology and pre-dating current topsoil (001), road surface (013) and deposit (006)
008	firm brownish grey naturally sorted gravels of varying size, occas. Pockets of silty sand borne from root intrusion. 0.04 to 0.25m thick	natural gravel variation, below (007), cut by [003] and [005]
009	firm mid-grey gravel, occas. Pockets of fine loose silt borne from root intrusion . 7M NW-SE, only visible in DWG# 2 and 3, 0.05 to 0.4m thick	natural gravel variation, cut by [004], below (008)
010	loosely compacted, dark orangey brown gravel, occas. Pockets of sandy silt, made up of successive thin, well-sorted layers of gravel of varying size, gravel components get progressively larger towards the NW	natural gravel layer, below (009), (036), (034) and (037), cut by [027] and [022]
011	loose, dark reddish orange gritty sand, very occas. small rounded gravel, encountered at between 0.9 and 0.95m below surface, greater than 0.1m thick	natural gritty sand layer, underlies (010)
012	loosely compacted dark grey brown silty gravel, 0.85-0.9m NW-SE, extends into NE facing section of trench (DWG# 2) but not visible in SW facing section 0.3m to NE, up to 0.11m thick	isolated layer of silty gravel underlying (007) at SE end of trench, may be variant of (008) and (010)
013	extremely compact grey tarmac and hardcore, 0.25-0.3m thick, occasional deeper sections where it extended to 0.35m below surface, present throughout length of trench in SW facing section	road hardcore and tarmac
014	firm fine yellow greyish brown, with one charcoal concentration, silty sand, occas. Thin rounded gravel. 1.15m NW-SE, 0.16m thick, extends SW but not NE	upper fill of possible pit [004] which cuts layer (009), partially sealed by (007)
015	loose dark grey in-fill of rounded stones (90% stones), stones are of 0.1 to 0.25m across. 0.32m thick, 0.9m NW-SE, extends SW but not NE	stony fill of possible pit [004]
016	firm dark grey gravelly silt, freq. Large sub-angular stones of 0.1 x 0.22 to 0.1 x 0.11m (in section), 0.59m thick, 0.61m NW-SE, extends SW but not NE, truncated by (006)	fill of angular cut feature [003], may be one side of a robbed out trench cut for a wall or revetment inside the ramparts
017	loose very dark brown gravelly silt, 0.5m by 0.02m, extends down SE edge of feature [003], extends SW for ?m but does not extend NE	rotted wood or charcoal accumulated down the inside edge of cut [003], may be remnants of an upright plank or post
018	firm greyish brown gravelly silt, freq. Rounded stones of between 0.1 and 0.22m across. 0.52m thick, 0.7m NW-SE, extends SW into section but does not extend NE, truncated by (006)	fill of possible trench cut [005] for wall or revetment inside the ramparts
019	loose orange brown gravelly clay, 0.4m thick, 0.43m NW-SE, extends SW beyond section face for ?m does not extend NE	pocket of orange brown gravelly clay, may be contemporary with (009), this layer did not follow the same horizontal plane as the other layers, may be due to the angle at which the trench cuts across

Context No.	Description	Interpretation
020	Surface: rounded cobbles, bedded into clay matrix with mid-grey gravel and stone chips in-filling gaps. Cobbles vary in dimension from 0.08 x 0.12 x 0.25 to 0.1 x 0.14 x 0.3m. Most are elongated river cobbles/pebbles, some are sub-angular, with very occasional reddish orange, squared off, sandstone fragments. Deposit was found at 0.2 to 0.25m below surface, measured 0.08 to 0.18m thick, extended for approx. 9m NW-SE and ?m NE-SW. Possibly orientated NE-SW	cobbled surface, quite simply laid with many undulations. General distribution of larger cobbles towards edge of the surface. A 7-8m wide kink in the hedge to the SE may be related to the former continuation of this surface!!! May be contemporary with (021), (031) and (034)- possibly surfaces within the Roman Fort
021	Surface: rounded cobbles bedded in mid-grey clay matrix with gravel. Cobbles vary greatly, more so than (020), also very occasional flat sandstone fragments. There are three notable areas where cobbles are larger and almost square in plan and particularly level (50.3m- 51.6m, 52.1m to 53.8m and 47m to 49m) The area at 50.3 -51.6m lay on the edge of the ditch cut [027]. Surface was found at 0.2 to 0.25m below surface, measured 0.1 to 0.25m thick, 11.8m NW-SE, ?m NE-SW.	Cobbled surface, robust in construction, obvious differentiation of cobbles at certain points along its length, especially on the edge of the ditch [027]. May be contemporary with (020), (031) and (034)- possibly surfaces within the Roman Fort
022	linear cut, possible ditch. Measurements along trench: 2.05m wide at base, 3.85m at top break of slope, Actual (perpendicular) measurements: 1.7m wide at base, 3.3m at top break of slope, extends NE and SW for ?m. Fairly sharp top break of slope, 30° sloping sides, gradual bottom break of slope, not fully bottomed. Filled by (023), (024), (025) and (026)	Cut for ditch underlying cobbled surface (020). Approx. 40 possible hobnails and one floor tile sherd were recovered from the lowest fill (023). Possibly associated with works within the fort prior to building construction. Alternatively may be part of an internal fort division
023	compact fine sediment, mid-grey brown silty sand, very occas. Gravel, occas. Light grey mottling. 0.2m thick (within 1m depth limits of the trench), 2m NW-SE, extends >0.3m SW and NE	lower fill of ditch [022], possible hobnails recovered (approx. 40) and a possible tile sherd.
024	firm grey yellowish brown silty sand with light grey mottling, occas. Gravel. 3.4m NW-SE, 0.24m max. thickness, extends >0.3m NE and SW	Sandy fill of ditch [022], above (023), below (025)
025	firm dark orange sandy gravel, 0.02 – 0.08m thick, 3.65m NW-SE, extends ?0.3m NE and SW	thin gravel layer in ditch [022], above (024) below (026)
026	loosely compacted mid- grey brown silty gravel, moderate amounts of rounded stones: 0.1 by 0.2 by 0.2 to 0.1 by 0.25 by 0.3m, with some smaller rounded stones of 0.05 to 0.1m diameter. Fill measures 0.4m thick, 3.0m NW-SE and > 0.3m NE and SW	uppermost fill of ditch [022], loose compaction may be an indication that this layer was dumped in to level up the ditch before setting the cobbles. The overlying cobbles (020) slump over the ditch area.
027	linear cut, top break of slope 2.15m NW-SE,, bottom break of slope 1.0m, 0.54m deep. Quite sharp on SE edge, more gentle on NW edge, steeper on SE side, more gentle on NW edge. Orientated NE-SW	possible ditch which pre-dates surface (021), notable difference in cobbling over the ditch area, more squared, larger cobbles.
028	Rough sandstone blocks forming a loose dumped column of stone with linear cut [027] fill (030), 0.3-0.4m wide, 0.5m high, extends SW into section, show some evidence of facing for building work.	Loose dump of sandstone blocks in linear cut [027], same as (029) in opposite section. May have been used as part of levelling process before the construction of the surface (021)
029	sandstone blocks, show some evidence of facing from building work. Two pieces in section, 0.3m wide, 0.35m high, extends NE into into section.	loose dump of sandstone blocks, same as (028) in opposite section. May have been used as part of levelling process before the construction of the surface (021)
030	loosely compacted dark greyish brown sandy gravel with occas. Rounded stones of approx. 0.05-0.1m across. Deposit measures between 1.0 and 2.15m NW-SE, 0.54m max. thickness, extends for ?m NE and SW	fill of ditch [027] which pre-dates surface (021), possible pre-construction feature within Roman Fort or internal division.
031	surface: cobbles and varied sized sandstone blocks set into a matrix of sandy clay (036). Wide variation in dimensions of stones. Cobbles: 0.1 to 0.26m long, 0.04- 0.16m wide, 0.01 to 0.12m thick. Sandstone: 0.08 to 0.32m long, 0.06 to 0.2m wide, 0.02 to 0.1m thick. Larger stones are in-filled with small pebbles of 0.02 to 0.05m across and small rounded and sub-angular gravels. 8 m NW-SE within trench, >0.3m NE-SW, up to 0.12m thick.	Cobbled surface, robust in construction, quite undulating. May be contemporary with (020), (021) and (034)- possibly surfaces within the Roman Fort
032	Non-archaeological	Non-archaeological
033	Sandstone block, dressed sandstone set in sandy clay (037). rectangular in shape, 220x300 x80mm, broken at one corner and in filled with small pebbles.	May be former central gate fixing for entrance to rear of Glebe House, no substantial setting, only one stone and situated exactly central to the entrance to the rear of Glebe House.

Context No.	Description	Interpretation
034	Surface: cobbles, sandstone blocks and ground burnt clay (035) set on silty clay (039). Stones vary widely. Cobbles: 0.06 x 0.08 x 0.03 to 0.14 x 0.2 x 0.1m; sandstone: average size- 0.04 x 0.06 x 0.1, gravel <0.01m diameter. Rounded cobbles and sub-angular sandstone fragments. Surface measured approx. 4m NW-SE, extending >0.3m NE and SW. Cobbles in-filled with very bright yellowish orange material which is possibly from fired clay which has been ground to fill between the cobbles and sandstone blocks.	Cobbled surface, slightly more refined than other surfaces observed, the only one with ground burnt clay between cobbles. This surface lies within what would have been the central area of the fort. May be contemporary with (020), (021) and (031)- possibly surfaces within the Roman Fort
035	very compacted bright yellowish orange silty sand with occas. Light yellowish brown mottling, very occas. Very small gravel. Pockets of this material varied in size across the surface: 0.1 x 0.08m to 0.3 x 0.32m in plan and the thickness varied between 0.01 and 0.04m.	This is most likely produced from fired clay by-products that have then been ground and used for in-fill between the cobbles and sandstone on this particular surface in what would have been the centre of the Roman Fort. Is the ground burnt clay an effort to distinguish this area of the fort from the others?
036	very firm mid-brown sandy clay with occas. Gravel. Present at 6-67m along the trench. Surface (031) appears to rest on this material. 0.02 to 0.04m thick.	Thin clay layer below surface (031).
037	very compact mid-brown sandy clay with occas. Small gravel. 1.6m NW-SE, >0.3m NE and SW, 0.02 to 0.1m thick	Thin layer of compacted sandy clay on which sandstone block (033) was set.
038	loose dark brown silty clay with freq. Cobbles of 0.1 to 0.18m across, concentration of charcoal flecking towards the base	shallow deposit underlying (007), overlies (021). Large fragmentary tile recovered.
039	compacted mid-brown silty clay with occas. Small gravel, 4.7m NW-SE, >0.3m NE-SW.	layer of compacted silty clay in/on which cobbled surface (034) is set.

Appendix C: List of Finds

Find No.	Context No.	No. of Pieces	Material	Type	Description
1	(023)	40	Metal	Iron	Possible hobnails from footwear, recovered from ditch [022], 0.9m below surface, close to SF #002
2	(023)	1	Ceramic	Corner of tile or base sherd	angled ceramic, orange fabric, no glaze, possibly floor tile
3	(023)	1	CBM	Mortar	10 x 20 x 25mm
4	(023)	1	CBM	Mortar	5 x 15 x 10mm
5	(023)	1	CBM	Mortar	10 x 15 x 20mm
6	(023)	1	Metal	Iron	lump, uncertain but found in same position as SF # 001
7	(023)	1	Metal	Iron	Possibly part of same composite object as SF # 001 pieces
8	(023)	1	Metal	Iron	lump, found in same position as SF # 001, possible shoe remains
9	(023)	1	Metal	Iron	possibly row of 2/3 hobnails from same area as SF # 001
10	(023)	1	Metal	Iron	lump, from same position as SF # 001
11	(023)	1	Metal	Iron	lump, from same position as SF # 001
12	(023)	1	Metal	Iron	possible two hobnails in a row, corroded together
13	(007)	1	Ceramic	earthenware	possibly a rim sherd of large black glazed vessel (19th C.)
14	(021)	1	CBM	burnt clay	seems to be pinched or shaped on one side
15	(021)	1	CBM	burnt clay	lump, rounded
16	(020)	1	CBM	burnt clay	thin irregular shape, recovered from spoil when (020) was removed by machine
17	Spoil at 40m	1	CBM	burnt clay	lump, from spoil
18	Spoil	1	CBM	fired clay	polished/burnished on one side
19	(038)	1	CBM	Tile	large fragment of tile, 110 x 25 x 80mm, fits to SF # 020

Find No.	Context No.	No. of Pieces	Material	Type	Description
20	(038)	1	CBM	Tile	large tile fragment, 35 x 60 x 25mm, fits to SFs # 19 and 20
21	(038)	1	CBM	Tile	small tile fragment, same as SF # 19-24
22	(038)	1	CBM	Tile	small tile fragment, same as SF # 19-24
23	(038)	1	CBM	Tile	small tile fragment, same as SF # 19-24
24	(038)	1	CBM	Tile	small tile fragment, same as SF # 19-24
25	(031)	1	Metal	Iron?	Large un-identified object
26	spoil near SE of (031)	1	Metal	Cast Iron	probably a cast object
27	(031)	2	CBM	burnt clay	Burnt clay, poorly fired, sub-angular piece, 50mm squared

Appendix D: List of Samples

Sample No.	Context No.	Size	Volume (L)	Reason for Sampling				Application/Comments
				Pot	Bone	Lithics	Botanics	
1	(023) [022]	M	~ 2	yes	no	no	yes	check for additional metal fragments assoc. with SF# 001, possible AMS date for earliest fill of ditch [022]. This material may also have remnants of leather fibres remaining if the metal hobnails represent a shoe
2	(017) [003]	S	~ 0.25	yes	no	no	yes	archaeobotanical analysis and AMS date for possible construction cut for rampart or wall
3	(014) [004]	S	~ 0.25	yes	no	no	yes	archaeobotanical analysis and AMS date for possible construction cut for rampart or wall
4	(023) [022]	L	~ 8	yes	no	no	yes	additional sample fo (023) for more metal retrieval and possible AMS date
5	(024) [022]	L	~ 6	yes	no	no	yes	archaeobotanical analysis and possible AMS date for ditch [022]
6	(030) [027]	L	~ 5	yes	no	no	yes	archaeobotanical analysis and possible AMS date for ditch [027]
7	(038)	S	1	yes	no	no	yes	possible AMS date for deposit containing tile
8	(035)	S	1	yes	no	no	yes	identify material , burnt clay?

Appendix E: List of Drawings

Drawing No.	Area	Subject	Scale
1	ALL	overall plan of water pipe trench and features	1:100
2	13.5-22m	[003] and [005], NE facing section	1:20
3	13.5-22m	[004], SW facing section	1:20
4	30-60m	(020) and (021), plan of cobbled surfaces	1:20
5	29-35m	Plan of top and bottom b.o.s for ditch [022]	1:20
6	46-51m	Plan of top and bottom b.o.s. For ditch [027]	1:20
7	29-35m	SW facing section of ditch [022] below (013)	1:20
8	47-51m	SW facing section of [027], (029) and (030)	1:20
9	30-71m	NE facing section of the pipe trench	1:20
10	57-68m	Plan of surface (031) and deposit (036)	1:20
11	73-77m	Plan of surface (031) and deposit (036)	1:20
12	87-95m	Plan of surface (034) etc.	1:20
13	70-99m	NE facing section of pipe trench from 70 -99m	1:20
14	ALL	overall plan of fort with trench overlain	1:500

Appendix F: List of Photographs

Digital

Frame	Area	Context No.	Subject	Taken from
1	-	-	ID shot	-
2	-	-	water pipe trench adjacent to Glebe House	NW
3	-	-	Feature [003]	NE
4	-	-	Feature [003]	NE
5	-	-	Feature [003] showing wall of Glebe House	NE
6	-	-	looking across ramparts at SE of fort from position of [003]	SW
7	-	-	cobbled feature [004]	SW
8	-	-	cobbled feature [004]	WSW
9	-	-	cobbled feature [004]	WSW
10	13-22m	-	13-22m of trench after clean up	SE
11	13-22m	-	13-22m of trench after clean up	SE
12	13-22m	-	13-22m of trench after clean up	NW
13	13-22m	-	13-22m of trench after clean up	NW
14	-	[003]	vertical cut feature [003]	E
15	17-20m	[003]	vertical cut feature [003]	E
16	17-20m	[003]	vertical cut feature [003]	NE
17	17-20m	[003]	vertical cut feature [003]	NE
18	17-20m	[003]	vertical cut feature [003]	NNW
19	17-20m	[003]	vertical cut feature [003]	NNW
20	19-21m	[004]	stone cobbles, feature [004]	WNW
21	19-21m	[004]	stone cobbles, feature [004]	SW
22	19-21m	[004]	stone cobbles, feature [004]	WNW
23	13-17m	-	stratigraphy of trench from SE end	ESE
24	13-17m	-	stratigraphy of trench from SE end	ESE
25	13-17m	-	stratigraphy of trench from SE end	ESE
26	13-17m	-	stratigraphy of trench from SE end	ESE
27	3361-TR 2	-	NW end of Trench 2 -Job 3261- Pole Dig	SE
28	3361-TR 2	-	NW end of Trench 2 -Job 3261- Pole Dig	SE
29	3361-TR 2	-	NW end of Trench 2 -Job 3261- Pole Dig	SE
30	3361-TR 2	-	NW end of Trench 2 -Job 3261- Pole Dig	SE
31	-	-	along SE ramparts, ranging rod marks highest point of bank	NE
32	-	-	along SE ramparts, ranging rod marks highest point of bank	NE
33	-	-	along SE ramparts, ranging rod marks highest point of bank	NE
34	15m	-	top of bank beyond hedge, 1m above current road surface	SW
35	15m	-	along water pipe trench, [003] in foreground on left	SE
36	15-25m	-	along trench- up to 25m excavated	SE
37	25m	-	NE facing section at 25m	SW
38	25m	-	NE facing section at 25m	SW
39	32-33m	-	Surface (020)- orientated NE-SW?	SE
40	32-33m	-	Surface (020)- orientated NE-SW?	SE
41	32-33m	-	Surface (020)- orientated NE-SW?	NW
42	36m	020	Black-glazed earthenware on upper surface of (020)	NE
43	36m	020	Black-glazed earthenware on upper surface of (020)	NE
44	31.4 - 39.9m	020	Surface (020)	ESE
45	31.4 - 39.9m	020	Surface (020)	SE
46	31.4 - 39.9m	020	Surface (020)	SE

Frame	Area	Context No.	Subject	Taken from
47	31.4 - 39.9m	020	Surface (020)	SE
48	43 - 54m	021	Surface (021)	SE
49	43 - 54m	021	Surface (021)	SE
50	43 - 54m	021	Surface (021)	SE
51	43 - 54m	021	Surface (021)	NW
52	43 - 54m	021	Surface (021)	NW
53	-	020	Surface (020)	NW
54	-	020	Surface (020)	NW
55	-	020	kink in hedge-line and field-wall rebuild	WNW
56	-	020	Surface (020) photos at intervals	SE
57	-	020	Surface (020) photos at intervals	SE
58	-	020	Surface (020) photos at intervals	SE
59	-	020	Surface (020) photos at intervals	SE
60	-	020	Surface (020) photos at intervals	SE
61	-	020	Surface (020) photos at intervals	SE
62	-	020	Surface (020) photos at intervals	SE
63	-	020	Surface (020) photos at intervals	SE
64	-	020	Surface (020)	NW
65	-	020	Surface (020)	NW
66	-	021	Surface (021), photos taken at intervals along its length	SE
67	-	021	Surface (021), photos taken at intervals along its length	SE
68	-	021	Surface (021), photos taken at intervals along its length	SE
69	-	021	Surface (021), photos taken at intervals along its length	SE
70	-	021	Surface (021), photos taken at intervals along its length	SE
71	-	021	Surface (021), photos taken at intervals along its length	SE
72	-	021	Surface (021), photos taken at intervals along its length	SE
73	-	021	Surface (021), photos taken at intervals along its length	SE
74	-	021	Surface (021), photos taken at intervals along its length	SE
75	-	021	Surface (021), photos taken at intervals along its length	SE
76	-	021	Surface (021), photos taken at intervals along its length	SE
77	-	021	Surface (021), photos taken at intervals along its length	SE
78	-	021	Surface (021), photos taken at intervals along its length	SE
79	-	021	Surface (021), photos taken at intervals along its length	SE
80	-	021	Surface (021), photos taken at intervals along its length	SE
81	-	021	Surface (021)	NW
82	-	021	Surface (021)	NW
83	-	020	Direction of (020) if extending NE	SW
84	-	-	Gap between surfaces (020) and (021)	SE
85	-	-	Gap between surfaces (020) and (021)	SE
86	-	-	Ditch [022]	SE
87	-	-	Ditch [022]	SE
88	-	-	General shot looking north across fort to Carzield Farm	SSE
89	-	-	looking ENE from road at SE of fort	WSW
90	-	-	stripping of (021)	SE
91	-	-	stripping of (021)	SE
92	-	-	stones at 48.6m	NE
93	-	-	General of trench	NW
94	-	-	General of trench	NW
95	-	-	possible new surface at 60m?	SE
1	-	-	ID shot	-
2	-	022	Ditch [022]	SE
3	-	022	Ditch [022]	SE
4	-	022	Ditch [022], small finds 001 and 002 in situ	SE
5	-	022	Ditch [022], small finds 001 and 002 in situ	SE

Frame	Area	Context No.	Subject	Taken from
6	-	022	SF # 001 and 002 in situ	-
7	-	022	SF# 001 in situ	-
8	-	022	SF #002 in situ	-
9	-	022	Ditch [022]	NW
10	-	022	SW facing section of [022] etc.	NE
11	-	022	SW facing section of [022] etc.	NE
12	-	022	SW facing section of [022] etc.	NE
13	-	022	SW facing section of [022] etc.	NE
14	-	022	SW facing section of [022] etc.	NE
15	-	022	NE facing section of [022] etc.	SW
16	-	022	NE facing section of [022] etc.	SW
17	-	022	NE facing section of [022] etc.	SW
18	-	022	NE facing section of [022] etc.	SW
19	-	022	NE facing section of [022] etc.	SW
20	-	022	NE facing section of [022] etc.	NW
21	-	022	Ditch [022] etc.	NW
22	-	027	Ditch [027], NE facing section	NE
23	-	027	Ditch [027], NE facing section	NE
24	-	027	Ditch [027], NE facing section	ENE
25	-	027	Ditch [027], NE facing section	ENE
26	-	027	Ditch [027], NE facing section	NNW
27	-	027	Ditch [027], NE facing section	NNW
28	-	027	Ditch [027], SW facing section	SSW
29	-	027	Ditch [027], SW facing section	SSW
30	-	027	Ditch [027], SW facing section	NNW
31	-	027	Ditch [027], SW facing section	NNW
32	-	027	Ditch [027], SW facing section	NNW
33	-	027	examples of sandstone blocks from [027]	n/a
34	-	027	examples of sandstone blocks from [027]	n/a
35	-	031	Surface (031) SE end	SE
36	-	031	Surface (031) SE end	SE
37	-	031	Surface (031) SE end	SSE
38	-	031	Surface (031) SE end	SSE
39	-	031	Surface (031) edge, general	SE
40	-	031	Surface (031) edge, general	SE
41	-	032	Surface (032)- * voided as context 02.11.11*	SE
42	-	031	Surface (034)	NW
43	-	031	Surface (031)	SE
44	-	031	Surface (031)	SE
45	-	031	Surface (031)	SE
46	-	031	Surface (031)	SE
47	-	031	Surface (031)	NW
48	-	031	Surface (031)	NW
49	-	031	Surface (031)	NW
50	-	031	Surface (031)	NW
51	-	031	Surface (031) at 1.0m intervals starting at NW	NW
52	-	031	Surface (031) at 1.0m intervals starting at NW	NW
53	-	031	Surface (031) at 1.0m intervals starting at NW	NW
54	-	031	Surface (031) at 1.0m intervals starting at NW	NW
55	-	031	Surface (031) at 1.0m intervals starting at NW	NW
56	-	031	Surface (031) at 1.0m intervals starting at NW	NW
57	-	031	Surface (031) at 1.0m intervals starting at NW	NW
58	-	031	Surface (031) at 1.0m intervals starting at NW	NW
59	-	031	Surface (031) at 1.0m intervals starting at NW	NW
60	-	031	Surface (031) at 1.0m intervals starting at SE	above

Frame	Area	Context No.	Subject	Taken from
61	-	031	Surface (031) at 1.0m intervals starting at SE	above
62	-	031	Surface (031) at 1.0m intervals starting at SE	above
63	-	031	Surface (031) at 1.0m intervals starting at SE	above
64	-	031	Surface (031) at 1.0m intervals starting at SE	above
65	-	031	Surface (031) at 1.0m intervals starting at SE	above
66	-	031	Surface (031) at 1.0m intervals starting at SE	above
67	-	031	Surface (031) at 1.0m intervals starting at SE	above
68	-	031	Surface (031) at 1.0m intervals starting at SE	above
69	-	031	Surface (031) at 1.0m intervals starting at SE	above
70	-	031	Surface (031) at 1.0m intervals starting at SE	above
71	-	031	Surface (031) at 1.0m intervals starting at SE	above
72	-	031	Surface (031) at 1.0m intervals starting at SE	above
73	-	034	Surface (034)	SE
74	-	034	Surface (034)	SE
75	-	034	Surface (034)	NW
76	-	034	Surface (034)	NW
77	-	034	Surface (034) at 1m intervals starting at NW	NW
78	-	034	Surface (034) at 1m intervals starting at NW	above
79	-	034	Surface (034) at 1m intervals starting at NW	above
80	-	034	Surface (034) at 1m intervals starting at NW	above
81	-	034	Surface (034) at 1m intervals starting at NW	above
82	-	034	Surface (034) at 1m intervals starting at NW	above
83	-	034	Surface (034) at 1m intervals starting at NW	above
84	-	034	Surface (034) at 1m intervals starting at NW	above
85	-	034	general of trench and surface (034)	ESE
86	-	034	general of trench and surface (034)	ESE
87	-	033	shot of sandstone block (033)	SE
88	-	033	shot of sandstone block (033)	SE
89	-	033	shot of position of (033) looking towards Glebe House rear gate	NE
90	-	033	shot of sandstone block (033)	NW
91	-	033	shot of sandstone block (033)	NW
92	-	033	sandstone block (033) from above	NE
93	-	038	tile in situ in (038) between roots	NE
94	-	038	tile in situ in (038) between roots	NE
95	-	038	tile in situ in (038), close up	NE
96	-	038	tile in situ in (038), close up	NE
97	-	031	Surface (031) being removed	SE
98	-	031	Surface (031) being removed	SE
99	-	031	sandstone concentration at 59-60m	ESE
100	-	031	sandstone concentration at 59-60m	ESE
101	-	031	sandstone concentration close up	ESE
102	-	031	sandstone concentration close up	ESE
103	-	031	sandstone at 59m- with flash	ESE
104	-	031	SW facing section of [022] etc.	WSW
105	-	031	NE facing section of (031)	ESE
106	59-63m	031	NE facing section of (031), sandstone at 59m	ESE
107	-	033	Position of (033), now removed	NNW
108	-	033	Position of (033), now removed	NNW
109	-	034	Surface (034) in section	N
110	-	034	Surface (034) in section	N
111	-	034	Surface (034) in SW facing section	SW
112	-	034	Surface (034) in SW facing section	SW
113	-	034	Surface (034) in SW facing section	SW
114	-	-	branch opened to SW to check stopcock at crossroads	W
115	-	-	branch opened to SW to check stopcock at crossroads	W

Frame	Area	Context No.	Subject	Taken from
116	-	-	branch opened to SW to check stopcock at crossroads	W
117	-	-	branch opened to SW to check stopcock at crossroads	E
118	-	-	branch opened to SW to check stopcock at crossroads	E
119	-	-	General of end of trench	NE
120	-	-	General of end of trench	N
121	-	-	Pipe at 103.5m along trench	above
122	-	-	General looking SE	NW
123	-	-	General looking SE	NW

Appendix G: Discovery And Excavation Scotland Entry

LOCAL AUTHORITY:	Dumfriesshire and Galloway
PROJECT TITLE/SITE NAME:	Wellington Bridge, Carzield Roman Fort, Kirkton, Dumfries
PROJECT CODE:	3410
PARISH:	Kirkmahoe
NAME OF CONTRIBUTOR(S):	Warren Bailie
NAME OF ORGANISATION:	GUARD Archaeology Ltd
TYPE(S) OF PROJECT:	Watching Brief, hand-excavation and recording
NMRS NO(S):	NX98SE 8.00; Canmore ID: 65890
SITE/MONUMENT TYPE(S):	Scheduled Ancient Monument, Carzield Roman Fort (SAM ref: 673)
SIGNIFICANT FINDS:	One tile sherd and numerous as yet unidentified metal objects including multiple hobnails
NGR (2 letters, 6 figures)	NX 968 818
START DATE (this season)	25th October 2011
END DATE (this season)	04th November 2011
PREVIOUS WORK (inc <i>DES</i> ref)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Approximately 90m of the water pipe trench was monitored under this archaeological watching brief; a series of archaeological features were recorded and subsequently removed during the course of this trench excavation. The archaeological features uncovered may correlate with the projected layout of Carzield Roman Fort according to previous investigations, and are therefore potentially Roman in date. These features included the remains of four separate areas of cobbled surface, three of which coincide with the position of a projected barrack block on the south-west edge of the main Roman road through the fort. The most north-westerly of the surfaces lay within what would have been the central area of the fort and appeared to be more refined in its construction. Below the surfaces there were two ditch features extending north-west and south-east, and between the surfaces there were three cut features and a spread. A number of finds have been recovered for further analysis, these include numerous metal fragments (some of which may be hobnails), two possible pieces of tile, one large cast metal object and several pieces of burnt clay.
PROPOSED FUTURE WORK:	None
SPONSOR OR FUNDING BODY:	Scottish water
CAPTION(S) FOR ILLUSTRS:	N/A
ADDRESS OF MAIN CONTRIBUTOR:	52 Elderpark Workspace, 100 Elderpark Street, Glasgow, G51 3TR
EMAIL ADDRESS:	warren.bailie@guard-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	Archive to be deposited in NMRS

Appendix H: Method Statement



GUARD 3410: Wellington Bridge, Kirkton, Dumfries - Watching Brief Method Statement

1.0 Introduction

This document sets out GUARD Archaeology's watching brief methodology. The watching brief strategy includes monitoring of all overburden removal and machine dug trenches undertaken during ground breaking works associated with work at Wellington Bridge, Kirkton, Dumfries and hand excavation and recording of any archaeological remains encountered.

On completion of all excavation works a report to data structures level and an accompanying post-excavation research design (PERD) and costing (if required) will be submitted for agreement with Scottish Water and the Dumfries and Galloway archaeological adviser. The PERD will also outline arrangements for final publication of the project should this prove necessary.

2.0 Aims and Objectives

The aims and objectives of the archaeological watching brief are as follows:

- establish the presence or absence of any archaeological remains during ground breaking works;
- determine the character, extent and significance of any archaeological deposits encountered;
- excavate and salvage any information possible from any significant features/sites encountered.

3.0 Methodology

The strategy to be employed during the watching brief will consist of the following:

- All ground disturbances will be monitored by an archaeologist assisted, where necessary, by further archaeologists under the overall guidance of an archaeological project manager.
- The number of archaeologists required during the works will be dependent on the number of areas being trenched simultaneously and the number of mechanical excavators being deployed.
- All plant will be fitted with a toothless ditching bucket for removal of any previously undisturbed overburden layers to ensure the subsoil interface is not disturbed and any archaeological features can be clearly identified. A toothed bucket may be used for previously disturbed layers.
- Overburden will be removed in spits to the first archaeological horizon or, where none is found, to the natural subsoil. Any archaeological features encountered will be cleaned by hand to determine the date of the deposits, their character and extent. Such features will be recorded by written description on *pro forma* recording sheets, by photograph and by measured drawing.
- Any significant archaeological features encountered will be dealt with by the on-site archaeologist(s). Should negative-cut features be encountered they will be 50% excavated in order to determine their significance, date and function. In the event that they are deemed to be important discoveries, they will be fully excavated. Recording will include *pro forma* sheets, drawings and photographs.
- Suitable down time, up to a maximum of two hours per significant small feature, will be provided to the on-site archaeologists in order to fully recover any archaeological evidence encountered.
- Should more substantial remains be encountered, downtime may be required in excess of two hours per feature. This will be agreed in writing with Scottish Water and the Dumfries and Galloway Council archaeological adviser prior to proceeding.



- In the event that particularly significant features, special finds or complex groups of features are encountered Scottish Water and the Dumfries and Galloway Council archaeological adviser will be alerted, so that a mitigation strategy can be agreed to deal with them.
- All archaeological finds will be dealt with by the on-site archaeological team. The general practice will be to bulk recover all artefacts by context which are recovered from the overburden or from 19th century or later layers or deposits. Should finds be encountered that are securely stratified from earlier occupation phases they will be three-dimensionally recorded prior to up-lifting.
- All excavated feature fills and horizons will be sampled for palaeo-environmental evidence. This may also include micromorphological sampling in order to address key issues on soil development.
- A representative section will be recorded for each section of trench denoting depth of overburden, any stratigraphy present and the nature of the soil. This information will be logged in the day book together with a sketch drawn to scale and a photographic record of deposits.

On completion of the watching brief phase of work, a report suitable for submission to the Planning Authority and the National Monuments Record for Scotland (NMRS) will be produced. This report will be accompanied by the post-excavation research design and costing in order to bring the results forward for analysis and publication should this be required.

4.0 **Products**

The products of a programme of work can be:

- a preliminary data structure report, after completion of all fieldwork suitable for submission to the client, Planning Authority, the NMRS and the local Sites and Monuments Record;
- a brief summary of results of the fieldwork will be submitted to *Discovery and Excavation in Scotland* ;
- a brief summary of results of the fieldwork will also be added to the OASIS online database;
- Post-excavation and publication of the results of the watching brief within an academic journal, should this be necessary;
- Preparation and disposal of the site archive and finds.

5.0 **Archive Arrangements**

Once all fieldwork is completed, all materials from the programme of work will be prepared to the appropriate archive standard. GUARD Archaeology will undertake to deposit the resultant archive to the NMRS on completion of the report for publication.

All finds will be reported to the Treasure Trove Advisory Panel, and GUARD Archaeology will undertake to ensure their safe deposition within the designated museum at the appropriate time.

6.0 **Timetable**

The phase of work is proposed to commence on 31 October 2011 and is estimated to last for five working days.

7.0 **Staffing**

The watching brief will be conducted by one of GUARD Archaeology's experienced Project Officers. A CV for the individual can be provided on request.



8.0 ***Health and Safety and Insurance***

8.1

All archaeological working practices will be subject to a risk assessment prior to commencement of the work where likely health and safety issues associated with the site can be highlighted.

8.2

GUARD adheres to all standard Health and Safety regulations governing fieldwork projects. GUARD also possess appropriate third party/public liability insurance cover, proof of which may be supplied upon request.

9.0 ***Monitoring Procedures***

All work on site will be internally monitored by John Atkinson, GUARD Archaeology's Managing Director.

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