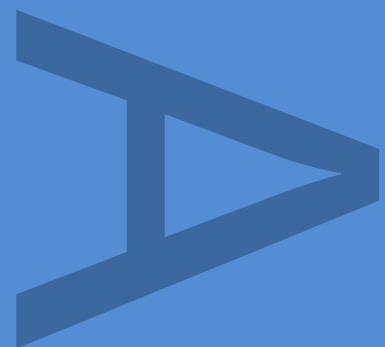


**AN ARCHAEOLOGICAL WATCHING BRIEF
ON STAGSHAW ROUNDABOUT
(B6318/A68 JUNCTION)
SIGNING IMPROVEMENTS, CORBRIDGE,
NORTHUMBERLAND**

JANUARY 2011



PRE-CONSTRUCT ARCHAEOLOGY

**An Archaeological Watching Brief on Stagshaw Roundabout
(B6318/A68 Junction) Signing Improvements, Corbridge, Northumberland**

National Grid Reference: NZ 9841 6875 – NZ 9905 6860

Site Code: SSR 10

Commissioning Client:

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January 2011**

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1. NON-TECHNICAL SUMMARY

- 1.1 An archaeological monitoring and recording exercise was conducted in association with groundworks undertaken for signing improvements at Stagshaw Roundabout, the junction of the B6318 (the Military Road) and the A68, near Corbridge, Northumberland. The works were located between National Grid References NZ 9841 6875 and NZ 9905 6860.
- 1.2 The archaeological investigation was commissioned by Highways and Transport, Northumberland County Council and was undertaken 22-23 November 2010 by Pre-Construct Archaeology.
- 1.3 The archaeological work was undertaken as a condition of Scheduled Monument Consent for the signing improvement scheme, as elements of the work lie within or immediately adjacent to a Scheduled Ancient Monument, part of the Hadrian's Wall frontier. The importance of the archaeological resource at the site is reinforced by the fact that the entire Hadrian's Wall Corridor forms part of the UNESCO transnational World Heritage Site, 'Frontiers of the Roman Empire'.
- 1.4 The archaeological work monitored the excavation of 28 foundation pits for new traffic signs. The pits were excavated upon the Stagshaw Roundabout and along the highway verges of the B6318 to the west and east of the road junction.
- 1.5 No archaeological deposits were encountered during the investigation. The groundworks disturbed topsoil and an underlying sub-soil, as well as 'made ground' most likely attributed to the construction of the existing roundabout.

2. INTRODUCTION

2.1 General Background

2.1.1 This report details the results of an archaeological monitoring and recording exercise, (hereafter 'watching brief'), undertaken in association with groundworks for a traffic signing improvement scheme at Stagshaw Roundabout, the junction of the A68 and the B6318 (the Military Road), Northumberland (Figures 1 and 2). Highways and Transport, Northumberland County Council (NCC) commissioned the work, which was undertaken by Pre-Construct Archaeology (PCA) on 22-23 November 2010.

2.1.2 The archaeological watching brief was required as a condition of Scheduled Monument Consent (SMC) granted by the Department for Culture, Media and Sport (DCMS) advised by English Heritage. The B6318 closely follows the line of Hadrian's Wall at Stagshaw Roundabout and elements of the scheme were undertaken in sections of the road that have statutory protection as a Scheduled Ancient Monument (SAM). Accordingly, a programme of archaeological work was required by DCMS, a written scheme of investigation (WSI) for which had to be approved by English Heritage in advance of the work. PCA prepared the required WSI.¹

2.1.3 The groundworks involved hand excavation of 28 foundation pits for new traffic signs. The main aim of the archaeological element of the project was to mitigate the impact of the works on the archaeological deposits or evidence of the SAM through archaeological supervision and recording.

2.1.4 The completed Site Archive, comprising written, drawn and photographic records, will be deposited at the Great North Museum, under the site code SSR 10. The Online 'Access to the Index of Archaeological Investigations' (OASIS) reference number for the project is: preconst1-87533.

2.2 Site Location and Description

2.2.1 The site was located between National Grid References NZ 9841 6875 and NZ 9905 6860, comprising a stretch of the B6318 (the Military Road) either side of Stagshaw Roundabout, the junction with the A68, near Corbridge, Northumberland (Figure 1).

2.2.2 The groundworks for the signing improvement scheme were undertaken on the grassed highway verges of the carriageway of the B6318 and on the grassed verges of the roundabout itself (Figure 2).

2.3 Geology and Topography

2.3.1 Stagshaw Roundabout lies at the northern edge of the Tyne Gap, a distinctive lowland corridor that separates the North Pennines from the Border Moors and Forest.

¹PCA 2010. This is included as Appendix C to this report.

- 2.3.2 The broader area is underlain by sedimentary rocks of Carboniferous age, comprising a repetitive sequence of limestones, sandstones and shales, with thin coals and a small number of mineral veins. The area is characterised by Millstone Grit of Namurian age, *i.e.* the middle part of the Carboniferous Period.
- 2.3.3 The landscape of the Tyne Gap has been greatly influenced by the passage of ice sheets moving across it from southern Scotland and the Lake District during the last glacial period, with boulder clay or till deposited over much of the area. The river valley landscape owes much to the legacy of Pleistocene glaciation and thick glacial, periglacial and glaciofluvial deposits mantle hill slopes and infill valley floors.² Modern river channels are inset within the Pleistocene deposits, Holocene alluvium and bedrock.
- 2.3.4 In the central part of the area, the underlying rock sequence is comprised of Lower Carboniferous (Dinantian) sediments intruded by the quartz-dolerite of the Great Whin Sill. On higher ground, the hard, black rock outcrops as east-west orientated escarpments. Over higher ground the bedrock is well exposed and is known to have been utilised as the foundations of Hadrian's Wall.³ The B6318 runs through land on the north side of the Tyne Valley, where the escarpments and east-west orientated valleys have created an undulating landscape of largely unimproved and unenclosed moorland.

2.4 Planning Background

- 2.4.1 The importance of the archaeological resource at the site herein described is underlined by the fact that the Hadrian's Wall Corridor forms part of the UNESCO transnational World Heritage Site 'Frontiers of the Roman Empire'.
- 2.4.2 Statutory protection for archaeological remains is principally enshrined in *The Ancient Monuments and Archaeological Areas Act 1979*, as amended by *The National Heritage Act 1983* and *2002*. Nationally important sites are listed in a schedule of monuments maintained by the DCMS and are accorded statutory protection as SAMs.
- 2.4.3 Substantial lengths of the Hadrian's Wall Corridor in Northumberland have SAM status, including the route of the B6318 at Stagshaw Roundabout. English Heritage advises DCMS on all development proposals in the vicinity of scheduled portions of the Hadrian's Wall Corridor and all intrusive groundworks in scheduled areas require SMC from DCMS prior to their undertaking. Thus some elements of the groundworks at Stagshaw Roundabout required SMC, for which Highways and Transport, NCC duly applied.
- 2.4.4 The signing improvement works undertaken on the highway verges of the B6318 to the west and east of the road junction actually lay within a scheduled section of the B6318, 'Hadrian's Wall and Vallum between Fence Burn and the track to Portgate Cottage in Wall Miles 21 and 22' (SAM No. 26047) (Figure 2). In this section, all buildings, telegraph poles, field boundaries, road surfaces and road signs are excluded from the scheduling, but the ground beneath these features is included. All works undertaken on Stagshaw Roundabout itself lay immediately adjacent to the scheduled area.

² Passmore and Macklin 1997

³ Johnson 1997.

- 2.4.5 In accordance with the 1979 Act, the Secretary of State for Culture, Media and Sport consulted with English Heritage before deciding whether or not to grant SMC. English Heritage considers the effect of the proposed works upon the monument to be works that would not significantly diminish the visual amenity of the monument but would cause significant damage to the monument's archaeological deposits or evidence. However, English Heritage considered that this could be acceptably mitigated by conditions or safeguards to ensure archaeological supervision and recording.
- 2.4.6 Accordingly, SMC was granted (letter from English Heritage North East Region for and on behalf of the Secretary of State for Culture, Media and Sport, dated 24 August 2010) subject to a condition requiring a programme of archaeological work to be commissioned, and then undertaken in accordance with a written scheme of investigation (WSI) submitted to and approved by the Secretary of State, advised by English Heritage, in advance of the proposed works. The scheme was to cover an archaeological 'watching brief' on all excavations associated with the proposed works at Stagshaw Roundabout. PCA compiled the required WSI prior to the commencement of work, on behalf of Highways and Transport, NCC.
- 2.4.7 In advance of the work, Highways and Transport, NCC discussed the intended scope of works with PCA in order that an appropriate programme of archaeological monitoring could be agreed and implemented. Failure to ensure an adequate level of archaeological supervision and recording during the works would have constituted a breach of SMC.

2.5 Archaeological and Historical Background

Hadrian's Wall: General

- 2.5.1 The main archaeological potential for the junction of the B6318 and the A68 at Stagshaw Roundabout relates to the Roman period due to its proximity to Hadrian's Wall. The course of the wall spanned the Tyne-Solway isthmus, running along higher ground to the north of the Stanegate Road which itself is thought to have formed part of a frontier system pre-dating Hadrian's Wall.
- 2.5.2 The significance of the Hadrian's Wall Corridor in archaeological terms lies both in its complexity and the degree of survival of Roman military and civilian remains. This was recognised by UNESCO through the designation of the Hadrian's Wall Military Zone as a 'World Heritage Site' in 1987. The management plan produced by English Heritage in 1996⁴ identified the 'archaeological core' of Hadrian's Wall and Vallum (the World Heritage Site itself), the surrounding 'buffer zone' and the outer 'visual envelope' as the main distinct areas. A second management plan was produced in 2002.⁵ In 2005 UNESCO amalgamated the Hadrian's Wall and the German Limes World Heritage Sites into the transnational World Heritage Site, 'Frontiers of the Roman Empire'.
- 2.5.3 Although Hadrian's Wall and its associated vicinity were subject to many phases of construction and changes in design and plan, the general character of the frontier can be summarised as:

⁴ English Heritage 1996.

⁵ English Heritage 2002.

- Hadrian orders construction of a wall between Newcastle and the River Irthing in AD 122. The foundations consistently measure 3m in width, however the wall itself varies between 1.8m and 3m in width. The wall face was constructed from courses of neatly cut and shaped stone with a core of coarse rubble set in puddled clay or capped with mortar. An associated ditch was located c. 6m to the north.
- After initial construction, a series of walled fortlets were built against the southern wall face at mile intervals (milecastle). Between each pair of milecastles, two equally spaced towers (turrets) were constructed approximately a third of a Roman mile apart.
- After the forts were under construction, a defensive earthwork was added. The earthwork, known as the Vallum, comprised a broad flat-bottomed ditch flanked by a pair of linear banks. It was located to the south of Hadrian's Wall and whilst sometimes following the same course, in other places it was located up to 1km to the south. The Roman road known as 'Military Way' ran along the corridor between Hadrian's Wall and the Vallum, providing a link between the many turrets, milecastles and forts.

Hadrian's Wall: the vicinity of Stagshaw Roundabout

2.5.4 The Roman fort of *Onnum* (Haltonchesters) lay on the line of the Wall c. 1km to the east of Stagshaw Roundabout. The fort site and associated settlement along with the portion of Hadrian's Wall and Vallum in its vicinity is SAM No. 26046. 'Volume I, Resource Assessment' of *Frontiers of Knowledge*,⁶ the research framework for Hadrian's Wall, states that the fort appears to have been constructed to maintain a regular spacing of forts, lying between *Vindobala* (Rudchester) and *Cilurnum* (Chesters). The fort projected north of the wall, the latter having been obliterated when the fort was built. Partial archaeological investigation of the interior has revealed commandants house, a granary, a hospital building, double barrack blocks, a stable and a store. Externally civilian buildings have been noted lining the Military Way, including typical strip-buildings and others set within their own enclosures.

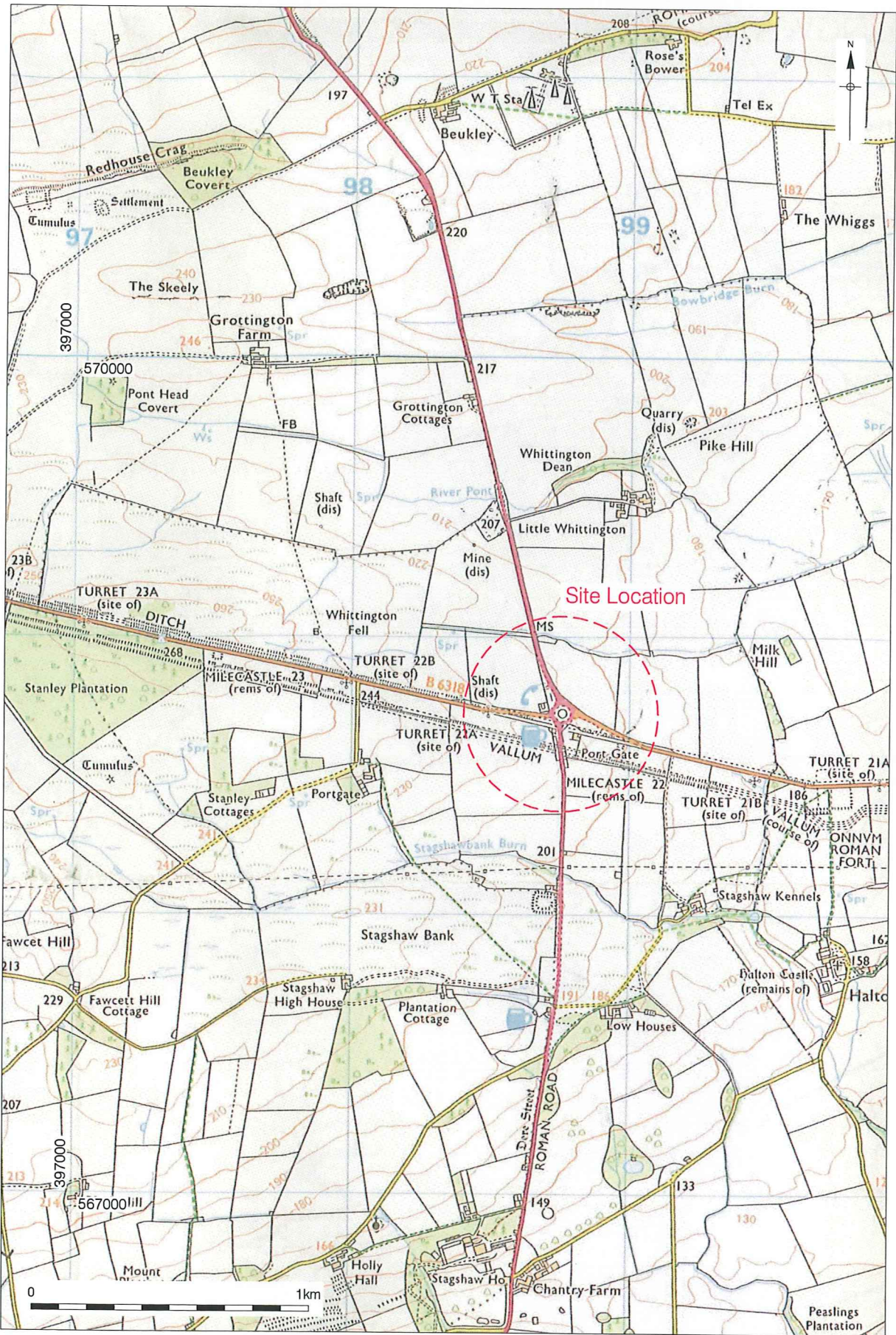
2.5.5 In 1745, General Wade constructed a new lateral road, the Military Road, linking Newcastle and Carlisle to improve the efficiency of troop movements in response to the Jacobite rebellion. This road utilised the levelled foundations and lower courses of Hadrian's Wall for the first 30 miles out of Newcastle, including the section at Stagshaw Roundabout. The B6318 is thus often known as 'the Military Road'.

Hadrian's Wall: Scheduled Ancient Monuments 26040 & 26041

2.5.6 Stagshaw Roundabout lies immediately adjacent to SAM No. 26047 'Hadrian's Wall and Vallum between the Fence Burn and the track to Portgate Cottage in Wall Miles 21 and 22'. The Wall most likely survives as a buried feature below the B6318 in this section, with the Port Gate (see below) and Milecastle 22 also known to survive. The Wall milecastles normally had two gates. Prior to the decision to construct forts along the Wall, the milecastles were planned to have held the bulk of the forces stationed at the Wall. The 'fort decision' created a change in the function of the milecastles, with several providing evidence for changes to the gate system along the frontier in the 180's.

⁶Symonds and Mason (eds.) 2009.

- 2.5.7 Milecastle 22 is an example of one which was entirely blocked. Others were replaced by narrower postern gates. Milecastle 22 is located c. 220m east of the junction of the B6318 and the A68 on an east-facing slope. It survives as a square turf covered platform, 0.5m high on its east side. The milecastle was partly excavated in 1930, when its internal width was shown to be c. 17.5m, while the walls were 2.45m thick. The north gateway had been blocked early on, probably because the Port Gate – the gateway carrying Dere Street Roman road through the line of the Wall - was near enough to serve all purposes for which a milecastle gateway could be used. Turret 21b occupies a prominent point 230m west of the Roman fort at Haltonchesters. There are no visible remains above ground, but it is expected to survive as a buried feature. Turret 22a is situated about 200m west of the roundabout. It was located and partly excavated in 1930. There are no upstanding remains.
- 2.5.8 The course of the Roman road known as the Military Way, which ran along the corridor between the Wall and the Vallum linking the turrets, milecastles and forts, survives intermittently throughout this section. East of Milecastle 22 there is a 170m stretch of the road which survives as an upstanding ridge, in a field which also has extensive ridge and furrow earthworks. The road here survives to a maximum height of 0.3m. Further west its remains were traced as parchmarks in the soil during dry conditions. Elsewhere in this section its course has not yet been confirmed.
- 2.5.9 The Vallum survives intermittently as an upstanding earthwork throughout this section. Where it is best preserved, between the Fence Burn and the A68, the ditch reaches a maximum depth of 0.90m, the north mound a height of 0.70m and the south mound a height of 0.30m. Elsewhere the mounds have been damaged and spread by ridge and furrow cultivation and the ditch has silted up to varying degrees.
- 2.5.10 As mentioned above, the Roman road known as Dere Street (which ran from York into Scotland) crossed the line of the Wall in this section. The course of the A68 follows that of Dere Street along this part of its course. Immediately south of the Vallum, for 150m, there is an overgrown mound beside the west verge of the A68, representing part of the Roman road which was not built directly over. An excavation in 1966 revealed that where Dere Street crossed the Wall, a gatehouse – the Port Gate - formed of massive masonry blocks which projected northwards from the Wall by 3.6m had been constructed. The site of this gatehouse - built to control traffic along Dere Street as it passed through the Wall - lies within SAM No. 26047. It was probably a square or rectangular structure.
- 2.5.11 The Errington Arms and the buildings and forecourt of the petrol station on the south side of Stagshaw Roundabout are totally excluded from the scheduling.



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Figure 1
 Site Location
 1:20,000 at A4

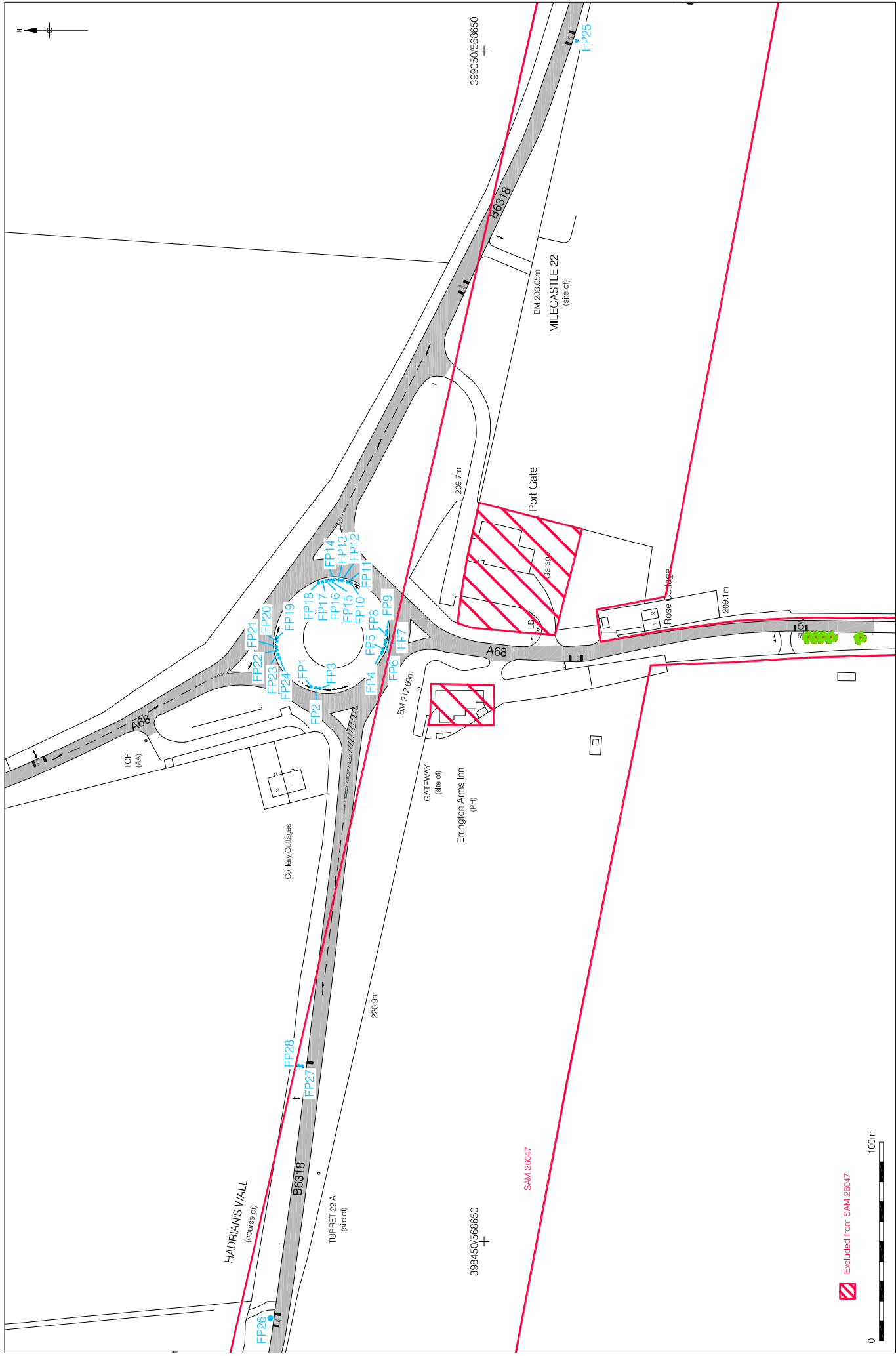


Figure 2
Foundation Pit Locations
1:2,500 at A4

3. PROJECT AIMS AND RESEARCH OBJECTIVES

3.1 Project Aims

- 3.1.1 The main aim of the archaeological project was to mitigate the impact of the signing scheme ground works on the archaeological deposits or evidence of the SAM through archaeological supervision and recording.

3.2 Research Objectives

- 3.2.1 'Volume II, Research Agenda and Strategy' of the aforementioned *Frontiers of Knowledge* identifies and prioritises key themes for future research for the Wall. The following Research Agenda item is of relevance to this project:

- **A3. The Wall.** Sub-section 3.5.5 states that uncertainties remain over the structural composition of the original barracks and whether towers were present over each gate. It also suggests that understanding the narrowing of the milecastle gates and elimination of the ditch causeways is of importance to our interpretation of the frontier and such needs to be more securely dated.

- 3.2.2 In addition, the following Research Strategy objective is of relevance to this project:

- **S.4. The Wall.** Sub-section '4.1 *Understanding the Wall*', describes the importance of establishing the course and survival of the Wall and sub-section '4.4 *Examining the context of the smaller structures*' underlines the importance for developing knowledge of the extramural activity related to milecastles and turrets.

- 3.2.3 Specific research objectives for the project also arise with reference to *Shared Visions: The North-East Regional Research Framework for the Historic Environment* (NERRF).⁷ The following NERRF research priorities for the Roman period are of direct relevance to the project:

- Rii. Roads and communication.
- Riii. The Roman military presence.
- Rvi – Trade and industry.

⁷Petts and Gerrard 2006.

4. ARCHAEOLOGICAL METHODOLOGY Fieldwork

- 4.1.1 The watching brief was undertaken 22-23 November 2010. The fieldwork was undertaken in accordance with the relevant standard and guidance document of the Institute for Archaeologists (IfA).⁸ PCA is an IfA-Registered Organisation. The WSI compiled by PCA in advance of the work should be consulted for full details of methodologies employed regarding archaeological recording and sampling.
- 4.1.2 The groundworks comprised excavation of 28 foundation pits (FPs 1-28) in advance of the installation of new traffic signs (Figure 2). Each sign was to be mounted on a 76mm and 90mm diameter tubular steel post housed within an approximately 600mm square concrete foundation. Other new signs were to be mounted on existing posts or on existing post extensions thereby obviating the need for intrusive foundation excavations. All intrusive groundwork was subject to continuous monitoring by the attendant archaeologist.
- 4.1.3 FPs 1-26 were hand excavated and generally measured 0.50m by 0.50m in plan and were 0.50m deep. FP 25 differed in size due to the limit of excavation being only 0.40m below ground level; it was therefore enlarged to measure 0.50m x 0.60m in plan. FPs 27 and 28 were machine excavated and had dimensions of 1.0m by 0.60m in plan and up to 1.0m deep. Machine excavation was undertaken using a wheeled back-acting excavator.
- 4.1.4 'Test Pit Recording Sheets' were used to record the stratigraphy within each foundation pit. Archaeological deposits and features were recorded on *pro forma* 'Context Recording Sheets'. A photographic record was compiled during the watching brief.

4.2 Post-excavation

- 4.2.1 The stratigraphic data for the project comprises written, drawn and photographic records. A total of five archaeological contexts were defined during the watching brief (Appendix B). Post-excavation work involved checking and collating site records, grouping contexts and phasing the stratigraphic data (Appendix A). A written summary of the archaeological sequence was then compiled, as described below in Section 5.
- 4.2.2 No artefactual or organic material was recovered during the fieldwork and no suitable archaeological deposits were encountered to warrant the recovery of bulk environmental samples.

⁸ IfA (then IFA) 2001.

4.2.3 The complete Site Archive will be packaged for long-term curation. The Site Archive has been prepared using relevant documents referenced in the 'Archaeological Archives Forum Guidelines',⁹ in particular the 'United Kingdom Institute for Conservation' document¹⁰ and a recent IfA publication.¹¹ No material was recovered that required specialist stabilisation or an assessment of potential for conservation research. The depositional requirements of the receiving body, in this case the Great North Museum, Newcastle, will be met in full.

⁹ Brown 2007.

¹⁰ Walker 1990.

¹¹ IfA 2008b.

5. ARCHAEOLOGICAL RESULTS

5.1 Phase 1: Natural Sub-stratum?

5.1.1 A compact layer, [3], comprising dark grey fragmented shale was exposed as the basal deposit in FPs 4-6, 9, 11, 13-15, 19-21 – all sited on the roundabout - and FP 26 – sited on the northern highway verge of the B6318 to the west of the roundabout junction. This material was potentially of natural origin.

5.2 Phase 2: Undated

5.2.1 In FPs 27 and 28 - these sited on the northern highway verge of the B6318 to the west of the roundabout junction - a relatively sterile sub-soil, [5], comprising mid to dark greyish brown silty clay with occasional fine and medium stones, was recorded as the basal deposit. It was at least 0.60m thick, continuing below the basal limit of excavation in each foundation pit. This deposit has been interpreted as a sub-soil or uncertain period of origin.

5.3 Phase 3: Modern

5.3.1 Phase 3 represents modern deposits, consisting of a former tarmac road surface, 'made ground' related to construction of the roundabout and 'topsoil' which formed the current ground surface at all locations.

5.3.2 A former tarmac road surface, layer [4], was recorded in FP 25 – this sited on the southern highway verge of the B6318 to the east of the roundabout junction - at 0.40m below ground level. This was left *in situ* and therefore its thickness was not revealed.

5.3.3 Within the majority of the foundation pits located on the roundabout, a layer, [2], of firm to compact mid brownish orange silty clay was recorded. Generally at least 0.30m thick, the deposit contained moderate small fragments of sandstone and has been interpreted as 'made ground', a dumped formation layer for the roundabout itself.

5.3.4 Overlaying 'made ground', [2], the former road surface, [4], and sub-soil, [5], was topsoil with turf line, [1], forming the current ground surface at all locations. Topsoil generally comprised loose mid brown clayey silt with average thickness of 0.25m, although in FP 1 it continued below the basal limit of excavation, 0.50m below existing ground level and was thus the only deposit to be recorded at that location.



Figure 3. Foundation Pit 15, looking east (scale 0.5m)



Figure 4. Overview of FPs18-10, looking south.



Figure 5. Foundation Pit 25, tarmac surface [4], looking north-east (scale 0.5m)



Figure 6. Foundation Pit 28, looking west (scale 0.5m)

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

- 6.1.1 Fragmented shale, probably of natural origin, formed the basal deposit in 11 of the foundation pits.
- 6.1.2 A relatively sterile sub-soil horizon comprised the basal deposit in FPs 17 and 28. The date of the deposit is unknown, but it is potentially of medieval or earlier origin.
- 6.1.3 Modern 'made-ground' material was recorded in 18 of the foundation pits, forming the basal deposit recorded on 12 occasions and likely related to the roundabout's construction. A former tarmac road surface formed the basal deposit in FP 25. The uppermost layer in all foundation pits was topsoil, with turf line, this representing the existing ground surface at the time of the investigation.
- 6.1.4 In sum, the work recorded no evidence for any Roman activity and no archaeological remains of significance were recorded during the watching brief.

6.2 Recommendations

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

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- Archaeology Data Service* website: <http://ads.ahds.ac.uk/catalogue/terms.cfm>
- Keys to the Past*, the online Sites and Monuments Record of County Durham and Northumberland: www.keystothepast.info/

8. ACKNOWLEDGEMENTS AND CREDITS

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The curatorial role of Mike Collins, Historic Environment Advisor Archaeology (Hadrian's Wall), English Heritage is acknowledged.

PCA Credits

Fieldwork: Amy Roberts

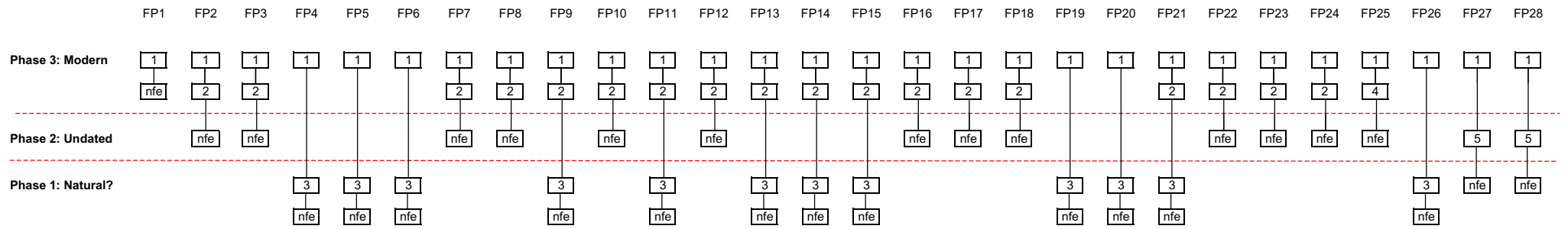
Report: Amy Roberts and Robin Taylor Wilson

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CAD: Jennifer Simonson

APPENDIX A
STRATIGRAPHIC MATRIX

SSR 10: STRATIGRAPHIC MATRIX



APPENDIX B
CONTEXT INDEX

SSR 10: CONTEXT INDEX

| Context | FP | Phase | Type 1 | Type 2 | Interpretation |
|----------------|-------------------------|--------------|---------------|---------------|----------------------------|
| 1 | 1-28 | 3 | Deposit | Layer | Topsoil |
| 2 | 2-3,7-18,21-24 | 3 | Deposit | Layer | Made ground |
| 3 | 4-6,9,11,13-15,19-21,26 | 1 | Deposit | Layer | Natural? |
| 4 | 25 | 3 | Deposit | Layer | Former tarmac road surface |
| 5 | 27-28 | 2 | Deposit | Layer | Developed soil |

APPENDIX C
WRITTEN SCHEME OF INVESTIGATION

**AN ARCHAEOLOGICAL WATCHING BRIEF ON STAGSHAW ROUNDABOUT
(B6318/A68 JUNCTION) SIGNING IMPROVEMENTS, CORBRIDGE,
NORTHUMBERLAND**

WRITTEN SCHEME OF INVESTIGATION

***Prepared on behalf of
Highways and Transport, Northumberland County Council by
Pre-Construct Archaeology Limited***

19 October 2010

Reference: PCA/ISSR10/WSI DOC 1

1. INTRODUCTION

- 1.1 New and replacement traffic signs are to be erected along the B6318, the Military Road, at its junction with the A68, Stagshaw Roundabout, near Corbridge, Northumberland. The work will be undertaken in sections of the road that have statutory protection as a Scheduled Ancient Monument (SAM) and on the roundabout itself.
- 1.2 Previous interventions on the B6318 in Northumberland have demonstrated that structural remains of Hadrian's Wall and associated features survive immediately below the existing road surface. Scheduled Monument Consent (SMC) has been granted for the work, subject to conditions and safeguards to ensure archaeological supervision and recording during intrusive groundworks.
- 1.3 Pre-Construct Archaeology Limited (PCA) has been contracted by Highways and Transport, Northumberland County Council to undertake archaeological supervision and recording in association with the work at Stagshaw Roundabout. The first stage of this involves the compilation of this Written Scheme of Investigation (WSI), the purpose of which is to set out the aims and methodologies for the required archaeological investigation.

2. SITE LOCATION AND DESCRIPTION

- 2.1 The site is a stretch of the B6318, the Military Road, at its junction with the A68, Stagshaw Roundabout, near Corbridge, within the county of Northumberland. The works are to be undertaken between National Grid References NZ 9841 6875 and NZ 9905 6860.
- 2.2 The grassed highways verges of the B6318 and the grassed area of the roundabout itself comprise the area of investigation.

3. PLANNING BACKGROUND

- 3.1 Much of the Military Road in Northumberland has SAM status and thus has statutory protection under *The Ancient Monuments and Archaeological Areas Act 1979*. Accordingly, any intrusive groundworks in the road corridor require SMC from the Department of Culture, Media and Sport (DCMS) prior to their undertaking.
- 3.2 The proposed works at Stagshaw Roundabout will comprise erection of a small number of new traffic signs in the highway verge, with each sign to be mounted on a 76mm and 90mm diameter tubular steel post housed within an approximately 600mm square concrete foundation. SMC is required due to the intrusive nature of the groundworks for these foundations; therefore the Highways and Transport, NCC made an application to DCMS for the proposed works. Other new signs are to be mounted on existing posts or on existing post extensions thereby obviating the need for intrusive foundation excavations.
- 3.3 The proposed works affect the scheduled area 'Hadrian's Wall and Vallum between Fence Burn and the track to Portgate Cottage in Wall miles 21 and 22' (SAM No 26047). In this section, all buildings, telegraph poles, field boundaries, road surfaces and road signs are excluded from the scheduling, but the ground beneath these features is included.
- 3.4 In accordance with the 1979 Act, the Secretary of State for Culture, Media and Sport consulted with English Heritage before deciding whether or not to grant SMC. English Heritage considers the effect of the proposed works upon the monument to be works that would not significantly diminish the visual amenity of the monument but would cause significant damage to the monument's archaeological deposits or evidence. However, English Heritage considered that this could be acceptably mitigated by conditions or safeguards to ensure archaeological supervision and recording.
- 3.5 Accordingly, SMC was granted (letter from English Heritage North East Region for and on behalf of the Secretary of State for Culture, Media and Sport, dated 24 August 2010) subject to a condition requiring a programme of archaeological work to be commissioned, and then undertaken in accordance with a written scheme of investigation (WSI) submitted to and approved by the Secretary of State, advised by English Heritage, in advance of the proposed works. The scheme will cover an archaeological 'watching brief' on all excavations associated with the proposed works at Stagshaw Roundabout. PCA has compiled this document prior to the commencement of work on behalf of Highways and Transport, NCC to represent the required WSI.
- 3.6 Highways and Transport, NCC has discussed the intended scope of works with PCA in order that an appropriate programme of archaeological monitoring can be agreed and implemented. Failure to ensure an adequate level of archaeological supervision and recording during the works would constitute a breach of SMC.

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 4.1 No archaeological desk-based assessment has been undertaken ahead of the proposed works.
- 4.2 The work is to be undertaken at Stagshaw Roundabout along the B6318, the Military Road, in Northumberland and, therefore, within the Hadrian's Wall Corridor. Hadrian's Wall is part of the defensive system of the northern frontier of the Roman Empire in Britain. The Wall and its associated features represent the best-preserved frontier of the Roman world and consequently the Hadrian's Wall Corridor has been designated a UNESCO World Heritage Site. Substantial lengths of the Hadrian's Wall Corridor in Northumberland have SAM status, including the section at the junction of the B6318 / A68 at Stagshaw Roundabout.
- 4.3 Although the Wall and its associated features were subject to many phases of construction and changes in design and plan, the general character of the frontier can be summarised thus. The Wall was constructed between Newcastle and the River Irthing on the orders of the Roman Emperor Hadrian from AD 122. Although foundations 3m wide were laid, the Wall itself was not always completed to this width and in many places a narrower gauge wall stands on this broad initial foundation. In places it does measure the full 3m, in others it is nearer 2.5m, and at its narrowest it measures 1.8m. The facing stones of the Wall were carefully cut and shaped, allowing them to be set in neat courses. They were bedded into a coursed rubble core set in puddled clay or capped with mortar. To the north of the Wall, at a distance of around 6m, was a deep ditch.
- 4.4 The decision to add a series of forts along the line of the Wall was made some time after parts of the 'Broad Wall' had been laid out and constructed. A small walled fortlet was constructed every mile (milecastle), attached to the southern side of the Wall. Between each pair of milecastles there was planned to be two equally spaced towers (turrets), approximately a third of a Roman mile apart.
- 4.5 After the forts were under construction, a further defensive element was added. This earthwork, known as the Vallum, comprised a broad flat-bottomed ditch flanked by a pair of linear banks. It was located to the south of the Wall, sometimes following the course of the Wall, in other places up to 1km to its south. The Roman road known as the Military Way ran along the corridor between the Wall and the Vallum linking turrets, milecastles and forts.
- 4.6 In 1745, General Wade constructed a new lateral road (the Military Road) to link Newcastle and Carlisle to improve the efficiency of troop movements in response to the Jacobite rebellion. This road is believed to have utilised the levelled foundations and lower courses of Hadrian's Wall for most of the first 30 miles out of Newcastle, including the section at Stagshaw Roundabout.

- 4.7 The Roman fort of *Onnum* (Haltonchesters) lay on the line of the Wall c. 1km to the east of Stagshaw Roundabout. The fort site and associated settlement along with the portion of Hadrian's Wall and Vallum in its vicinity is SAM No. 26046. 'Volume I, Resource Assessment' of *Frontiers of Knowledge* (Symonds and Mason, eds., 2009), the recently published research framework for Hadrian's Wall, states that the fort appears to have been constructed to maintain a regular spacing of forts, lying between *Vindobala* (Rudchester) and *Cilumum* (Chesters). The fort projected north of the wall, the latter having been obliterated when the fort was built. Partial archaeological investigation of the interior has revealed commandants house, a granary, a hospital building, double barrack blocks, a stable and a store. Externally civilian buildings have been noted lining the Military Way, including typical strip-buildings and others set within their own enclosures.
- 4.8 Stagshaw Roundabout lies within SAM No. 26047, 'Hadrian's Wall and Vallum between the Fence Burn and the track to Portgate Cottage in Wall miles 21 and 22'. The Wall most likely survives as a buried feature below the B6318 in this section, with the Port Gate (see below) and Milecastle 22 also known to survive. The Hadrian's Wall milecastles were evenly spaced fortlets, physically anchored to the frontier curtain, normally containing two gates. Prior to the decision to construct forts along the Wall, the milecastles were planned to have held the bulk of the forces stationed at the Wall. The 'fort decision' created a change in the function of the milecastles, with several providing evidence for changes to the gate system along the frontier in the 180's.
- 4.9 Milecastle 22 is an example of one which was entirely blocked. Others were replaced by narrower postern gates. Milecastle 22 is located about 220m east of the junction of the B6318 and the A68 on an east facing slope. It survives as a square turf covered platform, 0.5m high on its east side. The milecastle was partly excavated in 1930, when its internal width was shown to be about 17.5m, while the walls were 2.45m thick. The north gateway had been blocked early on, probably because the Port Gate – the gateway carrying Dere Street Roman road through the line of the Wall - was near enough to serve all purposes for which a milecastle gateway could be used. Turret 21b occupies a prominent point 230m west of the Roman fort at Haltonchesters. There are no visible remains above ground, but it is expected to survive as a buried feature. Turret 22a is situated about 200m west of the roundabout. It was located and partly excavated in 1930. There are no upstanding remains.
- 4.10 The course of the Roman road known as the Military Way, which ran along the corridor between the Wall and the Vallum linking the turrets, milecastles and forts, survives intermittently throughout this section. East of milecastle 22 there is a 170m stretch of the road which survives as an upstanding ridge, in a field which also has extensive ridge and furrow earthworks. The road here survives to a maximum height of 0.3m. Further west its remains were traced as parchmarks in the soil during dry conditions. Elsewhere in this section its course has not yet been confirmed.

- 4.11 The Vallum survives intermittently as an upstanding earthwork throughout this section. Where it is best preserved, between the Fence Burn and the A68, the ditch reaches a maximum depth of 0.9m, the north mound a height of 0.7m and the south mound a height of 0.3m. Elsewhere the mounds have been damaged and spread by ridge and furrow cultivation and the ditch has silted up to varying degrees.
- 4.12 As mentioned above, the Roman road known as Dere Street (which ran from York into Scotland) crossed the line of the Wall in this section. The course of the A68 follows that of Dere Street along this part of its course. Immediately south of the Vallum, for 150m, there is an overgrown mound beside the west verge of the A68, representing part of the Roman road which was not built directly over. An excavation in 1966 revealed that where Dere Street crossed the Wall, a gatehouse – the Port Gate - formed of massive masonry blocks which projected northwards from the Wall by 3.6m had been constructed. The site of this gatehouse - built to control traffic along Dere Street as it passed through the Wall - lies within SAM No. 26047. It was probably a square or rectangular structure.
- 4.13 The Errington Arms and the buildings and forecourt of the petrol station on the south side of Stagshaw Roundabout are totally excluded from the scheduling.
- 4.14 'Volume II, Research Agenda and Strategy' of *Frontiers of Knowledge* identifies and prioritises key themes for future research for the Wall. Research Strategy 'S.4. The Wall' includes sub-section '4.1 Understanding the Wall', which describes the importance of establishing the course and survival of the Wall. Sub-section 4.4 reiterates the importance for developing knowledge of the extramural activity related to milecastles and turrets. Research Agenda 'A3' sub-section 3.5.5 states that uncertainties remain over the structural composition of the original barracks and whether towers were present over each gate. It also suggests that understanding the narrowing of the milecastle gates and elimination of the ditch causeways is of importance to our interpretation of the frontier and such needs to be more securely dated.

5. PROPOSED SCHEME OF WORKS

5.1 Project Specific Aims and Objectives

5.1.1 The main aim of the archaeological element of the project is to mitigate the impact of the works on the archaeological deposits or evidence of the SAM through archaeological supervision and recording.

5.1.2 While English Heritage considers that the proposed works will not significantly diminish the visual amenity of the monument, it is considered that they could cause significant damage to its archaeological deposits or evidence. However, it has been decided that this impact can be acceptably mitigated by archaeological supervision and recording ('watching brief') as set out as a condition of SMC.

5.1.3 The watching brief will cover groundworks described in the following documentation relating to the excavation of holes to house approximately 600mm square concrete foundations for a series of new traffic signs:

- Traffic Sign Post Foundation Details – S/D/12/1.
- Plan HF106511/01
- Plan HF106511/01/A68/03.

5.1.4 English Heritage have stipulated that if intact archaeological remains are encountered during intrusive groundworks then Highways and Transport, NCC must *either*:

- limit the level of excavation to preserve the archaeological remains, for instance by using a more extensive, but no deeper than the level of surviving archaeological remains, concrete pad

or:

- move the sign location (within the parameters allowable for such important safety signage) to a different location until a location is found which would not have such an impact on surviving archaeological remains

5.1.5 It was on this basis that English Heritage determined the application for SMC.

5.2 Fieldwork: General Standards

5.2.1 All archaeological work at the site will be carried out in compliance with the codes and practice of the Institute for Archaeologists (IfA) and will follow the *IfA Standard and guidance: for archaeological watching brief* (IfA, 2008).

5.2.2 All archaeological staff will be suitably qualified and experienced for their project roles.

5.2.3 All staff will be aware of the work required under the proposed scheme of works, and will understand the aims and methodologies of the project.

5.3 Archaeological Methodology

- 5.3.1 Proposed locations of the works are shown in Highways and Transport, NCC drawing HF106511/01/A68/03 (as provided with the Scheduled Ancient Monument consent application).
- 5.3.2 The attendant archaeologist will observe all invasive groundworks.
- 5.3.3 All non-archaeological groundworks will be the responsibility of NCC. Any mechanical excavation will be undertaken under archaeological supervision, but all plant and associated works, including traffic management and welfare, will be provided or co-ordinated by NCC. NCC will have responsibility for all issues related to traffic management, as well as any issues relating to temporary alterations to pedestrian routes (including appropriate barriers and signage). NCC will have responsibility for any backfilling, surface reinstatement and removal of excess material.
- 5.3.4 As described in 5.1.4, if intact archaeological remains of significance are encountered then NCC must **either** limit the level of excavation to preserve the archaeological remains **or** move the sign location (within the parameters allowable for such important safety signage) to a different location until a location is found which would not have such an impact on surviving archaeological remains. Thus all significant archaeological remains will be preserved *in situ*.
- 5.3.5 All exposures will be recorded on *pro forma* PCA recording sheets. If appropriate, plans will be drawn at 1:20 and sections at 1:10. Photographs on both colour slide and black and white print will be taken, again as appropriate. A 'Harris' matrix will be compiled where non-archaeologically significant stratified deposits are encountered.
- 5.3.6 All artefacts and finds recovered will be retained. Given the mitigation measures to be implemented, as described in 5.1.4, any such items should only be from non-archaeologically significant deposits, although there is the possibility of artefacts being encountered at the depth at which archaeological remains of significance are exposed. Specialist assessment of any such recovered material would be a requirement and this will include a basic quantification of the material, a statement of its potential for further analysis and recommendations for such work. All finds will be treated in a proper manner and will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in *First Aid for Finds* (Watkinson and Neal, 2001, 3rd Edition, Revised) and the United Kingdom Institute for Conservation (UKIC), Archaeology Section's *Conservation Guidelines No.2. Packaging and storage of freshly excavated artefacts from archaeological sites* (1983).
- 5.3.7 Preliminary conservation and stabilisation of all objects would be undertaken as soon as possible during or upon completion of the fieldwork. Vulnerable materials that require immediate specialist archaeological conservation would be transported to appropriate facilities without delay. There would be an assessment of long term conservation and storage needs of all excavated material. All metal objects would be X-rayed and then selected for conservation. All iron objects will be X-rayed, along with a selection of non-ferrous artefacts (including all coins).
- 5.3.8 All gold and silver would be removed to a safe place and reported to the local coroner, according to the procedures relating to *The Treasure Act 1997*.

- 5.3.9 All processing of artefacts will be undertaken away from the site. Assessment of artefactual material will be undertaken by suitably qualified personnel.

5.4 Site Archive

- 5.4.1 The undertaking of the watching brief will, through data collection, as defined in *Management of Research Projects in the Historic Environment* (MoRPHE) (English Heritage, 2006), result the establishment of a Site Archive. In line with *MoRPHE. PPN3: Archaeological Excavation. Appendix 1*, the Site Archive will include all materials recovered (or a comprehensive records of such materials) and all written, drawn, and photographic records generated during data collection. Preparation of the archive will include the indexing, ordering, quantification and checking for consistency of all original context records, object records, bulk find records, sample records, skeleton records (if compiled), photographic records, drawing records, photographs and negatives, drawings, level books, site note-books, spot-dating records and conservation records. It will also contain a site matrix, a site summary and brief written observations on the artefactual and environmental data.
- 5.4.2 In preparing the Site Archive for deposition all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document *Archaeological Archives. A guide to best practice in creation, compilation transfer and curation* (Brown 2007) would be adhered to, in particular *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (IFA forthcoming) and *Guidelines for the preparation of excavation archives for long term storage* (Walker, UKIC 1990).
- 5.4.3 The Site Archive will be ultimately deposited at a location agreed with the Great North Museum, Newcastle. Copyright of the written archive will be vested in that body unless otherwise determined.
- 5.4.4 The 'finds' from all archaeological investigations provide an immensely valuable research archive, but the bulk of the material is of little or no financial worth. The owner of the site (and hence of any finds recovered) is urged to donate all 'finds' to the relevant museum as part of the site archive. Appropriate guidance set out in the Museum and Galleries Commission's '*Standards in the Museum Care of Archaeological Collections*' (1992) and the Society of Museum Archaeologist's draft '*Selection and Retention and Dispersal of Archaeological Collections*' (1992), will be followed in all circumstances.
- 5.4.5 Pursuant to these agreements the Site Archive will be presented to the archive officer or relevant curator within 6 months of the completion of fieldwork, unless alternative arrangements have been agreed in writing with English Heritage.

5.5 Reporting

- 5.5.1 A report on the watching brief will be prepared, whatever the findings, and this will include:
- an introductory section;
 - a section outlining the perceived archaeological background to and potential of the area in which the work was undertaken;

- a section describing the aims and methods adopted in the course of the watching brief;
- a section detailing the nature, extent, date, condition and significance of any archaeological remains exposed during the work.

5.5.2 The report will include a location plan of the site tied into the Ordnance Survey National Grid at an appropriate scale. The report will also include a plan showing the location and layout of areas of investigation at a suitable scale, with illustrations of exposures, at suitable scales, as appropriate.

5.5.3 The report will list the dates when the fieldwork was undertaken and name the individual(s) who undertook the fieldwork and wrote the report.

5.5.4 The report will include a statement regarding the location of the Site Archive at the time of writing, and the intended depository of the finds and archive.

5.5.5 The report will contain full details of any dating analysis that has been undertaken, along with a non-technical summary of these findings.

5.5.6 Copies of the report will be sent to Highways and Transport, NCC, the NCC Conservation Team and English Heritage.

5.6 OASIS

5.6.1 Northumberland County Council supports the Online Access to Index of Archaeological Investigations (OASIS) Project. An online OASIS form will be completed within 3 months of completion of the work.

5.7 Health & Safety

5.7.1 All relevant Health and Safety legislation, regulations and codes of practice will be respected.

5.7.2 PPE will be used by all archaeological personnel, as appropriate.

5.7.3 On-site welfare facilities will be provided by NCC.

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