



A66 Northern Trans-Pennine Project TR010062

2.7 Environmental Management Plan Annex C3 Scheduled Monuments Method Statement (Rev 43) (Tracked)~~(Clean)~~

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A66 Northern Trans-Pennine Project
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**2.7 ENVIRONMENTAL MANAGEMENT PLAN
ANNEX C3 SCHEDULED MONUMENTS METHOD
STATEMENT**

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C3 Scheduled Monuments Method

C3.1 Introduction

Purpose

C3.1.1 This document forms Annex C3 of the Environmental Management Plan (EMP) (Application Document 2.7). Within the First Iteration EMP, Annex C3 is an extended essay plan for a Method Statement for all works within or adjacent to Scheduled Monuments for the A66 Northern Trans-Pennine project (the Project). ~~The detailed Method Statement~~ ~~It will be completed on an iterative basis~~ ~~be produced~~ by the Principal Contractor (PC) as the Project progresses through the detailed design and construction planning stage based on this essay plan, resulting in a final method statement for consultation and approval (as set out in the EMP) prior to construction commencing. The final method statement shall be produced and approved (as set out in the EMP) in accordance with the action required set out in the Detailed Heritage Mitigation Strategy (Annex B3 of the EMP) and the EMP Register of Environmental Actions and Commitments commitment reference MW-CH-03. It shall be substantially in accordance with this essay plan.

C3.1.2 The Project is located in a very important and sensitive heritage landscape and involves direct interaction with a number of Scheduled Monuments. Specific working practices will be required when working within or immediately adjacent to Scheduled Monuments in order to ensure any impact is minimised. This Method Statement is intended to set out the detail of the methods to be employed during any works within or adjacent to Scheduled Monuments for the Project and describe how the key environmental controls will be implemented.

C3.1.3 This Method Statement should be read alongside, and will ensure implementation of key mitigation described within, the Detailed Heritage Mitigation Strategy (Annex B3 of the EMP, Application Document Number 2.7) including, but not limited to, the relevant Site Specific Written Scheme of Investigation(s) (SSWSI).

C3.1.4 The Method Statement will include:

- Location of works in relation to Scheduled Monuments
- Details of the sensitive receptors and their locations
- A brief description of works to be undertaken
- Equipment to be used
- Protective measures, including drawings showing the extent and location of fencing
- Step by step description of the construction method to be implemented
- Key environmental control measures to be applied.

Overview of the Project

C3.1.5 The Project includes upgrading the existing single lane sections of the A66 to dual two-lane all-purpose roads with a speed limit of 70 miles per hour (mph), with the exception of a section of the A66 from the M6 junction

40 through Kemplay Bank which will have a speed limit of 50mph. The Project also includes amendments to existing junctions and accesses within these sections.

C3.1.6 The A66 lies within three local planning authority administrative areas: ~~Eden District~~ [Westmoreland and Furness Council](#), Durham County Council and ~~Richmondshire District~~ [North Yorkshire Council](#) as illustrated in ES Figure 1.1: A66 Location and Overview Plan¹, in ES Chapter 1: Introduction (Application Document 3.2).

C3.1.7 The Project will be delivered as a number of schemes:

- M6 Junction 40 to Kemplay Bank ([schemes 0102](#))
- Penrith to Temple Sowerby ([scheme 03](#))
- Temple Sowerby to Appleby ([schemes 0405](#))
- Appleby to Brough ([scheme 06](#))
- Bowes Bypass ([scheme 07](#))
- Cross Lanes to Rokeby ([scheme 08](#))
- Stephen Bank to Carkin Moor ([scheme 09](#))
- A1(M) Junction 53 Scotch Corner ([scheme 11](#)).

C3.1.8 The A66 runs through the North Pennines Area of Outstanding Natural Beauty (AONB) between Brough and Bowes. The Lake District National Park is approximately 2km south-west of Penrith and the Yorkshire Dales National Park is located approximately 3.5km south of the A66.

C3.1.9 The A66 roughly follows the line of a Roman road and as a result is straight in alignment for large sections, but, with notable deviations as it passes around key settlements along the route, including, Penrith, Temple Sowerby, Kirkby Thore, Appleby In-Westmorland, Brough, Bowes, Greta Bridge and Scotch Corner.

C3.1.10 There are a number of historic features along the route including conservation areas, Scheduled Monuments and a large number of Grade I, II* and II listed buildings, many of which lie directly adjacent to the A66. These are presented on ES Figures 8.1: Designated Assets within 1km to ES Figure 8.3: Historic Landscape Character Areas (Application Document Number 3.3). in ES Chapter 8: Cultural Heritage (Application Document 3.2).

C3.2 Baseline Conditions

Routewide

C3.2.1 Two cultural heritage resources are encountered consistently across the route - the Roman road running between Scotch Corner and Penrith (Brougham) via Bowes identified by Margary as RR82 (00-0001) (Margary, 1957) and its Post Medieval turnpiked successor (00-0002). See ES Chapter 8: Cultural Heritage section 8.6 (Application Document 3.2) for more information.

¹ Note that the names of the Local Authorities changed after the completion of the ES following the formation of unitary authorities in two of the local authority areas in April 2023.

M6 Junction 40 to Kemplay Bank

~~C3.2.2~~ C3.2.2 No scheduled monuments are located within or immediately adjacent to the Order Limits.

- ~~• The following scheduled monuments are located within or immediately adjacent to the Order Limits:~~
- ~~• Brougham Roman fort (Brovacum) and civil settlement and Brougham Castle (02-0002).~~

Penrith to Temple Sowerby

~~C3.2.2~~ C3.2.3 The following scheduled monuments are located within or immediately adjacent to the Order Limits:

- Countess's Pillar (03-0006)
- ~~• Brougham Roman fort (Brovacum) and civil settlement and Brougham Castle (02-0002).~~
- Settlement 1/3 mile (540m) ENE of Brougham Castle OR Brougham Vicus, Brougham (03-0004)
- Roman marching camp 450yds (410m) NE of Brovacum (03-0001).

Temple Sowerby to Appleby

~~C3.2.3~~ C3.2.4 The following scheduled monuments are located within or immediately adjacent to the Order Limits:

- Farmstead 700 yards NNW of Redlands Bank (0405-0001)
- Roman Milestone 180m north west of Spitals (0405-0002)
- Kirkby Thore Roman Fort and Associated Vicus (0405-0003)
- Roman Camp, 350m east of Redlands Bank (0405-0004).

Appleby to Brough

~~C3.2.4~~ C3.2.5 The following scheduled monuments are located within or immediately adjacent to the Order Limits:

- Warcop Roman Camp And Length Of Roman Road, 285m South West Of Moor House (06-0003)

Bowes Bypass

~~C3.2.5~~ C3.2.6 No scheduled monuments are located within or immediately adjacent to the Order Limits.

Cross Lanes to Rokeby

~~C3.2.6~~ C3.2.7 The following scheduled monuments are located within or immediately adjacent to the Order Limits:

- Greta Bridge (08-0001)
- Greta Bridge Roman Fort, Vicus and section of Roman Road (08-0002)

Stephen Bank to Carkin Moor

~~C3.2.7~~ C3.2.8 The following scheduled monuments are located within or immediately adjacent to the Order Limits:

- Roman Fort and Prehistoric enclosed settlement 400m west of Carkin Moor Farm (09-0001)

A1(M) Junction 53 Scotch Corner

~~C3.2.8~~C3.2.9 No Scheduled monuments are located within or directly adjacent to the Order Limits.

C3.3 Key risks

C3.3.1 The assets stated in the above sections C3.1 to C3.2 potentially face the following risks:

- Damage from excavation
- Tracking of vehicles over buried archaeology
- Vibration damage
- Compaction of archaeological deposits by construction traffic and structures
- Partial or total removal of heritage resources, including archaeological remains, within the project footprint

C3.3.2 This section of the Method Statement will describe the works required within or adjacent to each of the scheduled monuments listed in sections C.3 to C3.9, detailing the specific risks associated with the planned works within/adjacent to each monument.

C3.4 Construction Methodology

Overview

C3.4.1 This section provides a high-level overview of the potential construction required at each scheduled monument.

C3.4.2 Once detailed design and construction planning is complete, this section will be updated as part of preparing a detailed method statement (as described at paragraph C3.1.1) to include detail of exact works at each location, a step-by-step description of the methods to be implemented and any location specific control measures.

C3.4.3 This section will describe how specific mitigation measures relating to construction methodology, as set out in the Detailed Heritage Mitigation Strategy (Annex B3 of the EMP, Application Document 2.7) and the SSWSI relevant to that location will be implemented during construction at each scheduled monument.

~~C3.4.3~~C3.4.4-This section will include details of fencing protection measures as required in Annex B3 of the EMP (B3.3.20-22) to ensure that scheduled monuments will be protected.

Scheduled Monuments

~~C3.4.4~~C3.4.5The following section will outline the construction methods and key controls that will be implemented for each Scheduled Monument.

Brougham Roman fort (Brocaum) and civil settlement and Brougham Castle (02-0002)

Construction Methods

~~C3.4.5~~C3.4.6 A new Walking, Cycling and Horseriding (WCH) route is to be constructed running to the south of the B6262 along the edge (and within) the section of the monument to the south east of the B6262. This route is then carried on an embankment before crossing over the new A66 on an overbridge, and east through the corner of the "Settlement 1/3 mile (540m) ENE of Brougham Castle (03-0004)" to the north of the A66.

~~C3.4.6~~C3.4.7 All footpath works ~~at this location~~ within or immediately adjacent to the Scheduled Monument will involve as minimal excavation as practicable (remaining within 300 mm bgl for temporary footpaths, and a depth to be agreed with Historic England for permanent works) in order to install the footpath. Where works are within the scheduled monument along the edge, machinery should work from outside the scheduled monument ~~where practicable~~ at all times unless set out otherwise in the detailed method statement and the SSWSI.

~~C3.4.7~~C3.4.8 Where excavation is required, once archaeology present is recorded, if being retained in situ it should be protected with suitable cover to prevent tracking machinery damaging the archaeology.

Key controls

~~C3.4.8~~C3.4.9 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Settlement 1/3 mile (540m) ENE of Brougham Castle ~~OR Brougham Vicus, Brougham~~ (03-0004)

Construction Methods

~~C3.4.9~~C3.4.10 The existing A66 crosses a corner of "Settlement 1/3 mile (540m) ENE of Brougham Castle (03-0004)". The existing road will be widened on the approach to the site and works associated with tying in to the existing dual carriageway section are required.

~~C3.4.10~~C3.4.11 A new Walking, Cycling and Horseriding (WCH) route is to be constructed running to the south of the B6262. This route then passes over the new A66 on an overbridge, and then east through the "Settlement 1/3 mile (540m) ENE of Brougham Castle (03-0004)" to the north of the A66.

~~C3.4.11~~C3.4.12 All footpath works within or immediately adjacent to the Scheduled Monument ~~at this location~~ will involve as minimal excavation as practicable (remaining within 300 mm bgl for temporary footpaths, and a depth to be agreed with Historic England for permanent works) in order to install the footpath. Where works are within the scheduled monument along the edge, machinery should work from outside the scheduled monument at all times unless set out otherwise in the detailed method statement and the SSWSI ~~where practicable~~.

~~C3.4.12~~C3.4.13 Where excavation is required, once archaeology present is recorded, if being retained in situ it should be protected with suitable cover to prevent tracking machinery damaging the archaeology as required by the SSWSI for this scheduled monument.

Key controls

~~C3.4.13~~C3.4.14 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Countess's Pillar (03-0006)

Construction Methods

~~C3.4.14~~C3.4.15 Countess's Pillar and Arms Table is located within the Order Limits. The site is protected by a surrounding fence.

~~C3.4.15~~C3.4.16 No works are to take place within the fence surrounding the Pillar and Arms Table, and additional construction fencing and signage should be placed around the mapped boundary of the monument site (as per the scheduling mapping or otherwise agreed with Historic England) in accordance with the measures set out in Section C3.5 to ensure no accidental damage occurs.

~~C3.4.16~~C3.4.17 A new WCH route from the nearby parking area to the Countess's Pillar is to be constructed as part of the Project. This will necessitate work within the mapped boundary of the scheduled monument, but not within the existing fenced area protecting the site. When this work is being undertaken the protective fencing shall be adjusted to allow the work to be undertaken. This section of the method statement will set out details of how that work will be undertaken and the archaeological supervision to be implemented as per the SSWSI.

Key controls

~~C3.4.17~~C3.4.18 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Roman Milestone 180m north west of Spitals (0405-0002)

Construction Methods

~~C3.4.18~~C3.4.19 No works are proposed within the scheduled monument. The Order Limits extend along Templars' Court to the west of the monument, to allow for minor WCH works and planting of hedgerows.

~~C3.4.19~~C3.4.20 No works are expected to affect the scheduled monument itself.

Key controls

~~C3.4.20~~C3.4.21 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Kirkby Thore Roman Fort and Associated Vicus (0405-0003)

Construction Methods

~~C3.4.21~~C3.4.22 The Order Limits include the existing A66 as it passes between two sections of the Kirkby Thore Roman Fort and Associated Vicus. A new WCH route is to be constructed adjacent to the existing A66, immediately adjacent to the boundary of the Roman Fort and Vicus.

~~C3.4.22~~C3.4.23 All works to the WCH route referred to above should be undertaken from outside of the scheduled monument. Excavation should be kept to the minimal amount practicable especially where immediately adjacent to the scheduled monument boundary. The detailed method statement to be included in the Second Iteration EMP shall define the level of excavation required, based on the detailed design and appropriate archaeological controls to be implemented as set out in the SSWSI.

Key controls

~~C3.4.23~~C3.4.24 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Roman Camp, 350m east of Redlands Bank (0405-0004)

Construction Methods

~~C3.4.24~~C3.4.25 The Order Limits include the existing A66 as it passes between two sections of the Roman Camp, 350m east of Redlands Bank. A new WCH route is to be constructed adjacent to the existing A66, immediately adjacent to and partially within the boundary of the Roman Camp.

C3.4.26 All works to the WCH route within or immediately adjacent to the Scheduled Monument will involve as minimal excavation as reasonably practicable in order to install the WCH route. ~~should be undertaken from outside of the scheduled monument. Excavation should be kept to the minimal amount practicable especially where immediately adjacent to/within the scheduled monument boundary.~~ The detailed method statement to be included in the Second Iteration EMP shall define the level of excavation required, based on the detailed design and appropriate archaeological controls set out in the SSWSI to be implemented.

C3.4.27 Where works are within the scheduled monument along the edge, machinery should work from outside the scheduled monument at all times unless set out otherwise in the detailed method statement and the SSWSI.

C3.4.28 Where excavation is required, once archaeology present is recorded, if being retained in situ it should be protected with suitable cover to prevent tracking machinery damaging the archaeology as required by the SSWSI for this scheduled monument.

Key controls

~~C3.4.25~~C3.4.29 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Roman Fortlet 200m SSE of Castrigg (0405-0005)

Construction Methods

~~C3.4.26~~C3.4.30 The Order Limits pass to the south of the Roman Fortlet 200m SSE of Castrigg. A line of trees is proposed to be planted at this location to retain the important heritage landscape feature of the Roman Road.

~~C3.4.27~~C3.4.31 Trees will be planted sufficiently far from the scheduled monument so as to ensure no root damage will occur (at least 20m, in accordance with the UK Forestry Standard²). All works are to be undertaken from the south, away from the scheduled monument.

Key controls

~~C3.4.28~~C3.4.32 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Warcop Roman Camp And Length Of Roman Road, 285m South West Of Moor House (06-0003)

Construction Methods

~~C3.4.29~~C3.4.33 The Project crosses the south west corner of the Warcop Roman Camp and Length of Roman Road, 285m South West of Moor House. It also crosses a length of roman road extending to the west which is not part of the marked area of scheduled monument, but is associated with it and of equal importance.

~~C3.4.30~~C3.4.34 The detailed design will aim to minimise the effect on the scheduled monument at this location, however construction will be required within the monument.

~~C3.4.31~~C3.4.35 The road is to be constructed on embankment at this location, therefore construction methods should ensure as little excavation as practicable occurs, and that the building up of the embankment utilises compaction methods that are least likely to damage any archaeology retained within the construction area. The detailed method statement to be included in the Second Iteration EMP shall define the level of excavation required, based on the detailed design and appropriate archaeological controls, as set out in the SSWSI to be implemented.

~~C3.4.32~~C3.4.36 The drainage design shall seek to avoid the Scheduled Monument and associated areas of archaeology where reasonably practicable, but it is likely at this location it will not be completely avoidable. ~~–~~The installation of drainage will require excavation, but methods must be developed and set out here that minimise the extent of excavation.

² The UK Forestry Standard, 2017; Forestry Commission

~~C3.4.33~~C3.4.37 All works must take place from the south west of the site, working towards the scheduled monument in order to prevent accidental damage.

Key controls

~~C3.4.34~~C3.4.38 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Greta Bridge Roman Fort, Vicus and section of Roman Road (08-0002)

Construction Methods

~~C3.4.35~~C3.4.39 The Order Limits extend to within the Greta Bridge Roman Fort, Vicus and section of Roman Road scheduled monument. The area of land within the scheduled monument is associated with the existing A66, and is to allow for the provision of new lane markings beyond the location where the new section of A66 ties-in. All works (including parking, vehicle movements and storage of materials) will be carried out within the highway boundary, and on the existing road.

Key controls

~~C3.4.36~~C3.4.40 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument.

Roman Fort and Prehistoric enclosed settlement 400m west of Carkin Moor Farm (09-0001)

Construction Methods

~~C3.4.37~~C3.4.41 The existing A66 passes through this scheduled monument within a cutting. The proposed widening remains within the existing cutting, and the road is raised within the existing cutting to utilise the width available to the top of the cutting. A new retaining wall is to be installed along the southern edge of the new A66 in order to minimise the amount of excavation required.

~~C3.4.38~~C3.4.42 The Order Limits include an area of the scheduled monument to the south of the A66 and part of an area to the north. All works should avoid these areas where possible, and plant and machinery should work from outside the monument (for the main A66 they should work from the existing A66 carriageway and for the new access road to the south they should work from the south, towards the monument) to minimise accidental damage. This section of the method statement will set out the methodology for the works to be undertaken, including the protection measures to be implemented to protect the archaeology within the Scheduled Monument from harm during development.

Key controls

~~C3.4.39~~C3.4.43 This section will include a description of how the key controls for the construction of the project set out in C3.5 will be implemented at this location, with regards to the scheduled monument, in accordance with the controls set out within the EMP.

C3.5 Control measures

Compaction prevention

C3.5.1 Measures to ensure prevention of compaction within scheduled monuments to be detailed in this section. This may include the laying of matting or compact stone to protect buried archaeology from tracking damage.

Vibration damage prevention

C3.5.2 Prevention of vibration damage on scheduled monuments to be detailed in this section. This will include a vibration risk assessment for all works that could generate vibration close to a protected asset).

Fencing and exclusion zone

C3.5.3 Site access and security with perimeter fencing will be established around work areas. In addition, scheduled areas which will not be subject to physical works and, will be protected from inadvertent harm during the works. Prior to the start of any intrusive works in their vicinity, the scheduled monument and an exclusion zone approved by Historic England will be fenced off and remain fenced throughout the duration of the works. Ideally, the fencing should be freestanding (e.g. heras) to prevent any unnecessary ground disturbance. Should more robust temporary fencing with earth fast posts be required, the installation of the posts should be monitored archaeologically by watching brief. Notices indicating the exclusion zone will be displayed clearly on the fence. The fencing will be erected or demarcated to a height at which it will be clearly visible from the drivers' cabins of construction vehicles.

~~C3.5.4~~ ~~This will include installation of protective fencing and signage around all areas of scheduled monuments within the Order Limits, to prevent accidental damage. Such protective fencing shall be agreed in advance with Historic England and the relevant Local Planning Authority, in accordance with details set out in the Outline Heritage Mitigation Strategy (Annex B3 of the Environmental Management Plan).~~ A permit system will be implemented by the PC Environmental Manager(s) for all works within these protective fencing areas, meaning fencing can only be removed and the area of site accessed under permit. This will ensure that any contractors working within the areas are fully aware of the environmental sensitivity and have their methods of working reviewed and authorised by competent professionals.

C3.5.5 The details of these protective measures, including plans showing the extent and location of fencing, will be included within this Method Statement. All construction and ground works staff working on the scheme will receive a briefing about the approach taken to protect these

heritage resources and the approach included in tool box talks throughout the duration of the works.

~~C3.5.3~~C3.5.6 Fencing and signage will be employed in order to protect retained assets and prevent damage.

Pre-construction surveys and mitigation

~~C3.5.4~~C3.5.7 Prior to the start of any intrusive works (i.e. works that involve excavation) within 50 m of a scheduled monument within the Order Limits, ~~t~~The PC shall conduct all pre-construction surveys as ~~set out in~~ required in Section 3.2, Annex B3 Detailed Heritage Mitigation Strategy to the EMP (Application Document 2.7) that are relevant to that location.