

**National Asset Delivery  
Technical Surveys and Testing**

**Works Information for 605475 M5 J11a  
Roman Villa MP86.8 – Trial Holes**

**CONTENTS AMENDMENT SHEET**

<b>Amend. No.</b>	<b>Revision No.</b>	<b>Amendments</b>	<b>Initials</b>	<b>Date</b>
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## LIST OF ANNEXES

### Appendix 1 Supplementary Constraints

## 1 DESCRIPTION OF THE WORKS

### 1.1 Project objectives

- 1.1.1 The principle objective of this project is to undertake trial holes on the structure at the locations shown on drawings HE605475-KIER-SBR-M5\_BR\_21298-DR-CB-010003. The purpose of the trial holes is to expose the bridge deck concrete within the carriageway to determine its condition and provide results in the format as detailed in the specification.
- 1.1.2 The specification that applies to the *works* is included in Section 6.

### 1.2 Scope of works

- 1.2.1 The *works* to be provided under this contract are:
- (1) Trial holes at locations shown on drawing HE605475-KIER-SBR-M5\_BR\_21298-DR-CB-010003. Initially, the surfacing material and waterproofing material should be removed so that the condition of concrete can be examined, and testing can be undertaken. See more details in Section 1.3
  - (2) Depth measurements should be taken in each of the trial holes and measurements to a fixed point (kerb, parapet edge beam, etc.) should be taken so the trial hole locations can be accurately mapped on scheme drawings transversally and longitudinally.
  - (3) All reinstatement of trial pits in the carriageways must be completed using Hot HRA material brought to site in a hot box. Prior to reinstatement the base and sides of the trial pit should be clean of debris and a bitumen-based sealant should be applied to all sides/surfaces. Contractor to ensure that all trial holes are infilled and compacted properly before the TM is removed.
  - (4) Prior to reinstatement of trial holes in the carriageway exposed concrete surfaces should be painted with two coats of bitumen paint.
  - (5) Trial holes in concrete verges to be reinstated by using ST4 concrete.

### 1.3 Deliverables

- 1.3.1 The *Contractor* is required to produce the following deliverables:
- (1) The contractor is to provide detailed description and geometrical dimensions of the trial pits and the location to a suitable hard reference point (barrier, parapet edge beam, etc.) with photos to support findings as detailed in Section 6 – specification.
  - (2) The contractor should also measure dimensions of surfacing depth, abutment ballast walls and deck ends in each of the trial pits (trial pits 1 to 4 and 9 to 12) as detailed on drawing HE605475-KIER-SBR-M5\_BR\_21298-DR-CB-010003.

## 2 EXISTING INFORMATION

- 2.1.1 The M5 J11a Roman Villa bridge carries the M5 northbound off-slip over the Brockworth Bypass adjacent to the village of Hucclecote in Gloucestershire joining either the A417 or the B4641. The carriageway at this location comprises a two-lane carriageway.

OSGR: 387865E, 217540N

- 2.1.2 An Asbestos Action Plan exists dated November 2007 following a Type 3 Survey though the AAP only covers the wing wall expansion joint. One sample was tested in which no asbestos containing materials were located. Presumed ACMs are the parapet plinth joint/filler mastics. The existing waterproofing on the structure which was installed in 1995 is Servi-Dek with 3mm Servi-Pak. Waterproofing manufacturer has confirmed that it does not contain asbestos or tar.

- 2.1.3 The Drawings and Documents listed below apply to this contract. Refer to the site information for details of existing site conditions including ground conditions, limitation on access, position of existing structures etc.

Drawing Number	Title	Revision / Date
HE605475-KIER-SBR-M5_BR_21298-DR-CB-010001	Location Plan	P01
HE605475-KIER-SBR-M5_BR_21298-DR-CB-010002	Statutory Undertakers Information	P01
HE605475-KIER-SBR-M5_BR_21298-DR-CB-010003	Trial Pitting Location Plan	C02
21298 - AAP	Asbestos Action Plan	P1

### **3 CONSTRAINTS ON HOW THE CONTRACTOR PROVIDES THE WORKS**

#### **3.1 General**

- 3.1.1 The *Contractor* Provides the Works in such manner as to minimise the risk of damage or disturbance to or destruction of third party property.
- 3.1.2 The *Contractor* complies with the constraints and meets with the requirements outlined in Appendix 1.
- 3.1.3 The *Contractor* submits information detailing how the *Contractor* will provide the Works to the *Employer* prior to the *works* commencing. This information will include any lifting plans, risk assessments, method statements, the *Contractor's* staff training information and any other relevant Health and Safety requirements.

#### **3.2 Working hours & site specific constraints**

- 3.2.1 The *Contractor's* working hours for site works shall be night working between 2100 – 0500
- 3.2.2 Works to be undertaken under full closure of the slip road.

#### **3.3 Health, Safety and Environment & Risk Management**

##### Health and Safety requirements

- 3.3.1 In Providing the Works the *Contractor* meets the requirements of Annex 2 of the supplementary constraints in relation to health and safety duties.
- 3.3.2 When implemented, the *Contractor* shall comply with the requirements of Highways England's safety passport scheme and ensure that all of his employees, and any of his subcontractor's, are registered in accordance with the implementation of the scheme.
- 3.3.3 For details of the CDM duty holders, refer to the pre-construction information provided as part of the TST Pack.
- 3.3.4 Before commencing the construction phase of the *works*, the *Contractor* confirms to the *Employer* that adequate welfare facilities are in place. Where the facilities detailed in section 5 are not deemed adequate, the *Contractor* provides all necessary facilities to Provide the Works and to comply with the minimum requirements set out in HSE guidance document L153.

##### Environmental requirements

- 3.3.5 In Providing the Works the *Contractor* meets the requirements of Annex 2 of the supplementary constraints in relation to environmental duties.

Risk Management

- 3.3.6 The *Contractor* identifies, manages and mitigates risks in accordance with the principles of ISO31000.
- 3.3.7 The *Contractor* submits a risk register, which captures all risks associated with the delivery of the *works* including those identified by the *Employer*, with his tender and maintains it for the contract period.

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#### 4 REQUIREMENTS FOR THE PROGRAMME

- 4.1.1 The *Contractor* submits programme to the *Employer* with his tender.
- 4.1.2 The *Contractor* Provides the Works taking into account the following programme constraints:
- (i) the *starting date* and *completion date* and any post site works, reporting and review period
  - (ii) The services and other things provided by *Employer* (see Section 5)
  - (iii) The timing of the works will be subject to the availability of road space, traffic management and any site-specific environmental constraints.
  - (iv) The survey report should be available within two weeks of the completion of the fieldwork.
- 4.1.3 The programme should be in the form of an activity and time related bar chart, produced as a result of a critical path analysis.
- 4.1.4 The programme should preferably be provided in either a PDF or MS Excel format and cover the full contract period including post site activities. Activities should be clearly defined and named, and the programme should detail the following:
- (i) Dates and times associated with the project, including the *starting date*, *completion date* & *Contractor's* planned completion, and any other dates or times that will specifically impact the delivery of the project
  - (ii) For each activity, the proposed resources (plant & labour) expected to deliver each activity should be shown on the programme.
  - (iii) Review periods for any reporting requirements.
  - (iv) Key dates for the Client to provide 'services and other things.
  - (v) Key dates for co-ordination with Others.
- 4.1.5 The *Contractor* updates the programme every week. The *Contractor* submits an updated programme to the *Employer* upon request.



## **5 SERVICES AND OTHER THINGS PROVIDED BY THE *EMPLOYER***

5.1.1 The following temporary traffic management will be provided by the *Employer* to allow the *Contractor* to Provide the Works:

- (1) Works to be undertaken under full closure of the slip road at nights.  
Working window will be between 2100 - 0500.
- (2) Traffic management will be finalised during mobilisation.

5.1.2 The other things that will be provided by the *Employer* are as follows:

- (1) Welfare facilities will be provided by the principal contractor.

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## 6 SPECIFICATION FOR THE WORKS

6.1.1 The *Contractor* shall undertake the works in accordance with:

- a) Indicative locations of trial holes are shown on Drawing HE605475-KIER-SBR-M5\_BR\_21298-DR-CB-010003. Locations are to be agreed prior to works and will again be agreed and confirmed on site.
- b) A CAT scan shall be carried out to detect below ground services prior to trial pitting.
- c) All trial holes must be excavated by suitably trained and competent persons (Category B) in accordance with the Control of Asbestos Regulations (CAR) 2012.
- d) Where Services are found, they must be exposed to allow material, size, depths and spacing to be accurately measured in line PAS128.
- e) Care must be taken not cause damage to the structure. Any accidental damage shall be notified to the relevant highway authority. Repairs of any accidental damage shall be the responsibility of the Contractor and shall be agreed with Highways England.
- f) Contractor to produce a survey report to clarify the findings of the trial holes, including suitable cross section drawings to reference for the design and works of the M5 J11a Roman Villa Scheme. Photographs and comments on weather condition should be included.
- g) All reinstatement of trial pits in the carriageways must be completed using HRA material. Reinstatement in the west verge must be completed using ST4 concrete. Prior to reinstatement the base and sides of the trial pit should be clean of debris and a bitumen-based sealant should be applied to all sides/surfaces.
- h) Prior to reinstatement of trial holes top surface of concrete deck to be coated with 2 coats of bitumen paint.
- i) Contractor to feedback any concerns for clashes between proposed works and any STATS or existing highways furniture.
- j) Trial pits to be dug in west verge to determine location and depth of cover to service ducts in west verge.
- k) Trial pits to be dug in east verge to determine whether there are any service ducts present within east verge.