

**National Asset Delivery  
Technical Surveys and Testing**

**Works Information for 603636 – M5  
Bathpool Canal MP 205/5 - Deck  
Refurbishment Scheme – Asbestos  
Testing**

**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 complete a desktop review of the existing asbestos information available and to conduct further site investigation at location shown on drawing HE603636-KIER-VGN-M5\_BR\_1852-SK-CB-0101, and any additional potential areas identified as part of the desktop review in order to establish if there are any ACMs present that may be affected by the proposed deck refurbishment scheme. **Note, any addition testing identified during the desktop study should be agreed with the Highways England project manager prior to the works commencing.**

(1) The survey works should include:

- i. Inspection/sampling of the polysulphide sealant within the parapet edge beams and concrete verges
- ii. Any existing joint material exposed at the deck ends during trial holes including sealant, caulking or filler board material.
- iii. Inspection/sampling of the bridge deck waterproofing in the Northbound and Southbound carriageways and central reservation – Note, a 2001 Maintenance scheme suggests that the existing waterproofing was replaced with a Stirling Lloyd product on the Northbound carriageway only
- iv. Inspection/sampling of ducts exposed in the central reserve
- v. Inspection/sampling of the longitudinal bridge joint in the central reservation.
- vi. Any other areas identified during the desktop study that have not been tested or identified in the list above.

- 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) Complete a desktop study of the existing asbestos information to identify any additional areas that may require testing other than those highlighted on drawing HE603636-KIER-VGN-M5\_BR\_1852-SK-CB-0101 and in paragraph 1.1.1 (1) i. to v.. **The Asbestos survey Contractor shall seek approval from Highways England Project Manager regarding the cost of these additional testing in advance of the works.**
- (2) Complete a targeted asbestos survey on site. Testing to include detailed areas on drawing HE603636-KIER-VGN-M5\_BR\_1852-SK-CB-0101 and

any additional areas highlighted from the desktop study and **as agreed with HE PM.**

- (3) When excavating from carriageway level, the contractor is also to record:
  - i. The depth of surfacing material
  - ii. The depth/thickness of waterproofing material (if present)
- (4) There are a number of services in the area including:
  - i. Motorway communication cables located in the southbound carriageway verge.

Note, the successful survey contractor should consult with the Principal Contractor of the M5 Queue Detection Scheme during mobilisation to determine if any new services have been installed or existing STATS slewed/relocated as part of the works but not yet noted on the STATS returns.

For details of current services refer to drawing HE603636-KIER-SBR-M5\_BR\_1852-DR-CB-010003

- (5) Any excavations with the carriageway to complete the asbestos testing should be reinstated with suitable material before the TM is removed. Excavations should be infilled with Hot HRA material brought to site in a hot box as the reinstated areas will be trafficked. The trial holes in the Central reservation shall be reinstated with cold lay material or concrete on completion.

### 1.3 Deliverables

1.3.1 The *Contractor* is required to produce the following deliverables:

- (1) A copy of the completed desktop study report
- (2) A copy of the targeted asbestos survey report including the locations of where samples were taken from and test results.

## 2 EXISTING INFORMATION

### 2.1.1 Expected depths of excavation

- (1) There are no existing trial hole logs for this structure. However, as-builts show that carriageway surfacing is approximately 100 - 120mm depth. The concrete infill in the central reservation is approximately 195mm depth with approximately 95mm of cover over the duct

### 2.1.2 Anticipated existing services

- (1) Motorway Communication cables located in the Southbound carriageway verge

Note, the successful survey contractor should consult with the Principal Contractor of the M5 Queue Detection scheme during mobilisation to determine if any new services have been installed as part of the works but not noted on the STATS returns yet.

See drawing HE603636-KIER-SBR-M5\_BR\_1852-DR-CB-010003 for more information on the existing STATS

The STATS return for the central reservation duct does not show the presence of any cable. However, care should be taken during excavation and the contractor should still operate a permit to dig.

### 2.1.3 Asbestos

The initial AAP was then compiled on 6<sup>th</sup> June 2010 with reviews of the AAP being completed in 2012, 2013, 2015 and 2017.

Elements not covered by current AAPs and testing.

- Bridge deck waterproofing material – although a 2001 maintenance scheme as built drawing suggests that the original waterproofing material was replaced in 2001 on the Northbound carriageway only.
- Sealant located within the edge beams
- sealant located within the concrete verges
- longitudinal bridge joint
- exposed transverse bridge joint material at end of deck
- exposed ducts

- Bearing shelves cannot be inspected during this survey because of access constraint. The as-built drawings make reference to 'Asbestos Damp course' between the top the abutment and the underside of the prestressed beams used to construct the deck. The presence of this ACM is acknowledged however it should not be affected by the proposed works.

The purpose of the survey is to further investigate those areas listed above and any other areas identified during the desktop study.

#### 2.1.4 **Tar**

No PAK testing has been completed previously on the structure. Whilst the presence of Coal Tar is not anticipated the contractor should have suitable measures in place (PPE) to protect operatives undertaking survey works.

- 2.1.5 The Drawings 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.

Existing As-builts:

Drawing Number	Title
2001 MAINTENANCE SCHEME	
<b>BW5024/TED/1669/802</b>	BATHPOOL CANAL BRIDGE – GENERAL ARRANGEMENT – 2001 MAINTENANCE SCHEME
ORIGINAL AS-BUILT DRAWINGS	
405/203/B12/3/C	DETAILS OF ABUTMENTS AND FOUNDATIONS
405/203/B12/7/C	LAYOUT OF DECK BEAMS AND TRANSVERSE REINFORCEMENT
405/203/B12/5/C	DECK REINFORCEMENT
405/203/B12/C/0	GENERAL ARRANGEMENT
405/203/B12/4/B	PILE CAP AND ABUTMENT REINFORCEMENT
405/203/B12/6/B	PRESTRESSED BEAM DETAILS

Scheme Drawings

Drawing Number	Title	Revision
HE603636-KIER-SBR-M5_BR_1852-DR-CB-010001	Location Plan	C1
HE603636-KIER-SBR-M5_BR_1852-DR-CB-010003	STATS PLAN	C1
HE603636-KIER-VGN-M5_BR_1852-SK-CB-0101	TRIAL HOLE LOCATIONS AND ASBESTOS TESTING	C1

### **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 are anticipated to be 21:00-05:00, working under a series of lane closures with a temporary speed limit of 50mph. The anticipated working hours are dependent on the carriageway traffic counts.

##### **3.2.2 Work Constraints**

- (1) Care should be taken whilst excavations are carried out to ensure the structure concrete under the surfacing and on the verges is not damaged. All excavations should be dug by hand using mechanical hand tools (i.e. a breaker). At no point should a machine with a pecker be used to excavate on the bridge deck.
- (2) No holes should be completed in the concrete verges as this is actually constructed using structural concrete and makes up part of the structures edge beam/deck.

#### **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 which is included as part of the TST package.
- 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.
- (1) Vegetation within the footprint of the surveys has the potential to support dormice and nesting birds (depending on the time of year the survey works are carried out). Highways England to consult with Kier Ecologist on possible restrictions/constraints once a date is confirmed and clearance levels have been specified.
  - (2) The area beneath the bridge is likely to be used as a foraging area and commuting route by bat species. Any task lighting used for night working should be focused on the works area only and not allowed to spill onto the surrounding habitat, in particular the canal corridor beneath the bridge.

#### 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. The contractor should refer to the Pre-construction Information and Design Hazard Checklist and Risk Reduction Schedule provided as part of the TST package.

#### 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)
- 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:
- Adjacent site activities
  - When information will be provided back to the *Employer*
- (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) activities associated with delivering the project
- 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) A series of lane closures with a temporary speed limit of 50mph If works are being completed in the Hard shoulder/Lane 1 then Lane 2 should also be closed with Lane 3 open to traffic. If works are being completed in Lane 3 and the Central Reservation then Lane 2 should also be closed with traffic running in lane 1. A lane 3 closure should also be provided on the opposite carriageway when works are being completed in the Centre reservation.
- (2) Traffic management requirements will be finalised during mobilisation with the successful contractor.

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

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

## **6 SPECIFICATION FOR THE WORKS**

- 6.1.1 The *Contractor* shall undertake the works in accordance with the guidance set out by the HSE within HSG264, CAR 2012 Regulation 8, GG 105 and all other relevant standards.
- 6.1.2 All reports including photos and survey findings should be provided in a PDF format on completion of the works. Sampling and lab testing reports should also be provided.

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