

**National Asset Delivery  
Technical Surveys and Testing**

**Works Information for  
570127 M5 J11-J10 NB MP81/7 CCTV  
Drainage Survey**

**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 CCTV drainage survey and to provide information to allow design of repairs to an earthwork / soil slip.
- 1.1.2 A pre start meeting may be held in Brunel House, 930 Hempton Court, Aztec West, Almondsbury, BS32 4SR at least 2 weeks prior to mobilisation to site.
- 1.1.3 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 a CCTV drainage survey to:
  - (1) To confirm the current asset condition and provide type and connection details at the crest and toe of the earthwork.
  - (2) Drainage structural condition and serviceability condition scores shall be assigned in accordance with the scheme used in HADDMS.
  - (3) The survey shall extend laterally from the rumble strip to the Highways England boundary fence and longitudinally 50m either side of the earthworks defect as shown on the drawings.

### **1.3 Deliverables**

- 1.3.1 The *Contractor* is required to produce the following deliverables:
  - (1) CCTV drainage reports are to be provided in PDF copy and an electronic copy within 10 days.
  - (2) CCTV surveys are to be in a format viewable with WinCan® software.
  - (3) Any manually recorded Survey Inspection Sheets shall also be provided.
  - (4) A single plan view drawing of the survey area shall be produced.
  - (5) Interim survey data is not required during the course of the survey.
  - (6) The Survey Contractor shall upload the findings directly on to the HADDMS system. It is recognised that uploads to HADDMS may be subject to delays outside the contractors' control, so this phase of reporting is not covered by the 10 day requirement.
  - (7) If encountered within the drainage pipes, the following shall be recorded, photographed, and included within the CCTV Drainage Report:

- (1) The level of water and deposits / limescale as a percentage of the cross-sectional area and whether this is following jetting of the pipe;
- (2) The start and end points of any cracking and the location recorded in clock reference i.e. 9 O'clock;
- (3) Locations of misaligned joints, joint defects, and intrusions in to the pipe, and an estimate of the reduction of pipe capacity made;
- (4) Details of any blockages or problems detrimental to the operation of the drainage system.

## 2 EXISTING INFORMATION

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

Drawing Reference	Rev	Title
HE 570127K-KIER-HGT-M5 J11-10 NB MP81.7-DR-CE-0600_01	C1	Vegetation clearance
HE 570127K-KIER-HGT-M5 J11-10 NB MP81.7-DR-CE-0600_03	C1	CCTV drainage survey extents

2.1.2 Information about buried services is provided in the C2 returns listed in the Pre-Construction Information and summarised in the site information.

### **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 as described in the Pre-Construction Information.
- 3.2.2 Details of the traffic management shall be as described in the Pre-Construction Information.
- 3.2.3 All vegetation clearance will be done by others.
- 3.2.4 The nearest depot to the site is Bamfurlong Depot, off the M5 J11/A40 GL51 6SU.
- 3.2.5 No welfare facilities are available on the site and the Survey Providers should not assume these will be provided. If these are required it is recommended the Survey Providers make their own arrangements.
- 3.2.6 Access is via the M5 northbound carriageway and as detailed in the site information.
- 3.2.7 Environmental constraints are given in the Pre-Construction Information.
- 3.2.8 The site is classified as Zone 2 for the use of electrical equipment in potentially explosive atmospheres, in accordance with DSEAR S.I. No. 2776.
- 3.2.9 All vehicles used on site shall comply with Chapter 8 marking requirements, which as a minimum comprises high visibility chevrons on the rear, high visibility side stripes and double amber flashing beacons..

### 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 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. Details on the scheme can be found here:  
<http://www.highwaysafetyhub.com/safety-passport.html>
- 3.3.3 For details of the CDM duty holders, refer to the pre-construction information, Pre-Construction Information and Designer's Hazard Checklist and Risk Reduction Schedule.
- 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.

## 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 site works shall be completed within the timeframe of the traffic management.
- 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) activities associated with delivering the project.
- 4.1.5 The *Contractor* should provide details of the proposed resources (plant, labour, subcontractors etc.) expected to deliver each activity. This information can either be shown on the programme itself or provided in an associated resource statement included in the Proposal for Providing the Services.
- 4.1.6 The *Contractor* updates the programme every 2 weeks. The *Contractor* submits an updated programme to the *Employer* upon request.

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

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

5.1.1 The Employer's Traffic Management Provider will arrange for Traffic Management to be provided. Details of the proposed TM can be found in the Pre-Construction Information. The requirements and instructions of the Traffic Safety Control Officer (TSCO) shall be complied with at all times.

5.1.2 Other Services Provided by the Employer.

- (1) The TM provider will undertake (temporary) removal of the VRS barriers for access if required.
- (2) All vegetation clearance will be done by others.

## 6 SPECIFICATION FOR THE WORKS

- 6.1.1 The *Contractor* shall undertake the works in accordance with:
- 6.1.2 The Drainage Survey Specification is that described in chapter 7 of Highways Standard CS 551 entitled Drainage Surveys and the following Schedule of Requirements thereto.
- 6.1.3 The survey type is a Pipework and Chambers Defect Survey by CCTV.
- 6.1.4 The location of the survey is shown in the drawings listed in section 2 of this document.
- 6.1.5 The survey shall be undertaken as follows:
- (1) Pre-cleansing is required.
  - (2) Using a pan and tilt CCTV camera.
  - (3) Forced ventilation will not be required.
  - (4) Blockages shall be cleared by surveying the pipework run from the other direction, then proceed to remove the blockage by cleansing.
  - (5) Root cutting is required.
- 6.1.6 The full survey shall include:
- (1) The GPS position of the drainage system relative to one another (taken from the topographic survey).
  - (2) How various drainage systems connect with one another.
  - (3) The condition of the drainage system encountered where the water discharges.
  - (4) Cover and invert levels.
- 6.1.7 Reporting and drawings

See section 1.3 (Deliverables).