

**National Asset Delivery
Technical Surveys and Testing**

**Works Information for
601947 - M5 J20 SB Entry Slip MP155/7
Geotech
Technical Survey
(Full Drainage Asset Survey)**

CONTENTS AMENDMENT SHEET

Amend. No.	Revision No.	Amendments	Initials	Date
0	C1	Original version issued with tender	JM	05/06/20
1	C2	Amended Specification	PB	08/07/20

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LIST OF ANNEXES

Appendix 1 Supplementary Constraints

1 DESCRIPTION OF THE WORKS

1.1 Project objectives

The principle objective of this project is to offer a practicable method to shore up the foundations and carriageway to prevent further subsidence.

1.1.1 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 pipework and chambers defect survey shall be carried out to determine the inventory, condition and detailed defects of pipework and the associated chambers and gullies, including the use of a closed-circuit television (CCTV) camera.

1.3 Deliverables

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

1. Coded survey data in the digital format(s) defined by the Overseeing Organisations in the NAAs to CD 535 [Ref 1.N],
2. Video recordings referenced in the coded survey data
3. Photographs referenced in the coded survey data
4. CAD drawings in DWG and PDF formats shall be produced and include the following:
5. The extent of the completed survey;
6. The location and unique reference number of each drainage asset surveyed;
7. The overall service and structural condition grade of each asset;
8. Any errors in any provided drawings or layout data noted during the survey;
9. Overlaid on available base mapping showing the highway, highway boundary, structures and other reference features of the surveyed corridor and the national grid.

2 EXISTING INFORMATION

2.1.1 The following existing information is provided:

Statutory Undertakers Apparatus Information (STATS)

2.1.2 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.

Drawing Number	Title	Revision / Valid Until
HE601497-KIER-HGN-M5_J20_M-DE-CH-0000_01	M5 J20 Southbound Entry Slip Location Plan	C1
HE601497-KIER-HDG-M5_J20_M-DR-CH-0500_01	Full Drainage Asset Survey Extents	P1
TOPO1250_M5-062-01287 TOPO1250_M5-062-01290 TOPO1250_M5-062-01292	Statutory Undertakers Apparatus Information	06-07-2020

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 confirmed by the Employer. Night shifts are anticipated.

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.highwayssafetyhub.com/safety-passport.html>
- 3.3.3 For details of the CDM duty holders, refer to the pre-construction information which can be found here M5 J20 SB Entry Slip MP155/7 Geotech – Pre-Construction Information Pack and Design Hazards Checklist and Risk Reduction Schedule. Scheme is not CDM Notifiable.
- 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)
- 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:
- 1. The *starting date*, *completion date* & *Contractor's* planned completion
 - 2. Review periods for any reporting requirements
 - 3. Key dates for the *Employer* to provide 'services and other things'
 - 4. Key dates for co-ordination with Others
- (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 1 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 is anticipated being provided by the *Employer* to allow the *Contractor* to Provide the Works:

1. M5 J20 Southbound on slip Closure and a Mainline Southbound Lane 1 closure to at least the end of the slip road.

5.1.2 Not Used

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6 SPECIFICATION FOR THE WORKS

- 6.1.1 The *Contractor* shall undertake the works in accordance with: the requirements of CD 535 (formerly HD 43/04, IAN 147/12) and CS 551 (formerly SD 15/03). CS 551 Revision 0 – Drainage Inspection & Assessment
- 6.1.2 The Contractor must provide the works under a quality management system which:
1. is certified to ISO 9001,
 2. incorporates an environmental management system which works to the principles of ISO 14001,
 3. includes requirements for adopting the principles of BS 11000 and
 4. Complies with good industry practice and encourages innovation during the contract duration.
- 6.1.3 Testing is to be undertaken in accordance with CS 551 Revision 0 – Drainage Inspection & Assessment Chapter 7. Pipework and chambers defect survey by CCTV. – Also any drainage to be reinstated will be completed in line with Series 500 of MCHW.
- 6.1.4 You should also specify any requirements relating to the output of the survey eg format of the report and ICT standards –

A summary report in PDF format shall be produced and include the following:

1. A description of the survey carried out, its location, and the equipment and methods used;
2. details of the quality control procedures;
3. A schematic drawing of each section of pipework or culvert surveyed showing the reference number, diameter and material of the pipe, the location and nature of each structural and service defect, the position of any adjoining connections, the reference numbers of the chamber/node at each end, the flow direction and the overall structural and service grade of the pipe;
4. A schematic drawing of each chamber in plan and section showing the position, references and invert levels of all incoming and outgoing pipes, the level of any water and/or silt, the position and nature of any defects and the overall structural and service grade of the chamber;

5. Details of the coded defects for each asset surveyed in tabular format;
 6. A summary table of all pipework/culverts surveyed (including abandoned surveys) detailing the pipe asset reference, the asset references of the upstream and downstream chambers, the upstream and downstream invert levels, the survey direction, date, the pipe shape, size and material, the total length of the pipe, the length of the pipe surveyed, the overall structural and service grade;
 7. A summary table of abandoned pipework/culvert surveys detailing the pipe asset reference, the asset references of the upstream and downstream chambers, total length of the pipe, surveyed length at abandonment, reason for abandonment;
 8. A summary table of pipe jetting and root cutting detailing the pipe asset reference, the asset references of the upstream and downstream chambers, the cleansing direction, date, start of blockage (m), end of blockage (m), length jetted (m), duration of root cutting, equipment used, maximum pressure used, nature of blockage and outcome;
 9. A summary table of all chambers and gullies surveyed detailing the asset reference, asset type, cover level, invert level, the overall structural and service grade.
- 6.1.5 CAD drawings in DWG and PDF formats shall be produced and include the following:
1. The extent of the completed survey;
 2. The location and unique reference number of each drainage asset surveyed;
 3. The overall service and structural condition grade of each asset;
 4. Any errors in any provided drawings or layout data noted during the survey;
 5. Overlaid on available base mapping showing the highway, highway boundary, structures and other reference features of the surveyed corridor and the national grid.