

National Asset Delivery
Technical Surveys and Testing

Scope for A21 Powdermill Lane
Topographical survey

CONTENTS AMENDMENT SHEET

Amend. No.	Revision No.	Amendments	Initials	Date
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LIST OF ANNEXES

Appendix 1 Supplementary Constraints

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1 PURPOSE OF THE SERVICES

1.1 Project objectives

- 1.1.1 The principle objective of this project is to undertake a topographical survey at location stated in the Site Investigation drawing, number HE606471-AONE-VGT-A21PWDRMILL-DR-CH-0002 and provide subsequent report in accordance with the requirements detailed in the specification.
- 1.1.2 The specification that applies to the *services* is included in Section 6

1.2 Scope of services

- 1.2.1 The *services* to be provided under this contract are:

- (1) Carry out a topographical survey in accordance with standards and specifications. Area to be surveyed extends from the highways boundary fence, at the bottom of the earthwork slope, to the central reservation. The length of the survey is approximately 35m along the A21.

1.3 Deliverables

- 1.3.1 The *Consultant* is required to produce the following deliverables:

- (1) The Contractor is to produce topographical drawings in accordance with specifications outlined in Section 6. Drawings should be in AutoCAD and PDF formats. All outputs shall be submitted to the Client within four weeks finishing onsite.

2 EXISTING INFORMATION

- 2.1.1 The area requiring a topographical survey is an embankment approximately 4.7m high with a slope angle of 28°. The embankment was constructed to raise the level of the A21 for the approach to the A21 Medway Viaduct.
- 2.1.2 The failed section of embankment has a large backscar on the slope and slope bulge. Subsidence has also been identified in lane one, which also affects the channel drain and vehicle restraint system (VRS). The VRS is lower than the required height and drainage is not flowing into the gully at the end of the channel due to the differentiation in height.
- 2.1.3 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 / Date
HE606471-AONE-VGT-A21	Site Investigation	P3/October 2020
PWDRMILL-DR-CH-0002	Plan	

3 CONSTRAINTS ON HOW THE CONSULTANT PROVIDES THE SERVICES

3.1 General

- 3.1.1 The *Consultant* Provides the Services in such manner as to minimise the risk of damage or disturbance to or destruction of third party property.
- 3.1.2 The *Consultant* complies with the constraints and meets with the requirements outlined in Appendix 1.
- 3.1.3 The *Consultant* submits information detailing how the *Consultant* will provide the Services to the *Client* prior to the *services* commencing. This information will include any lifting plans, risk assessments, method statements, the *Consultant'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 time 21:00 to 04:00 hrs. Day time off-network working hours 09:00 to 16:00. Off-network access can be gained from Powder Mill Lane.

3.3 Health, Safety and Environment & Risk Management

Health and Safety requirements

- 3.3.1 In Providing the Services the *Consultant* meets the requirements of Annex 2 of the supplementary constraints relation to health and safety duties.
- 3.3.2 When implemented, the *Consultant* 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 can be found here:
<http://share/Share/llisapi.dll?func=ll&objaction=overview&objid=92947089>
- 3.3.4 Before commencing the construction phase of the *services*, the *Consultant* confirms to the *Client* that adequate welfare facilities are in place. Where the facilities detailed in section 5 are not deemed adequate, the *Consultant* provides all necessary facilities to Provide the Services and to comply with the minimum requirements set out in HSE guidance document L153.

Environmental requirements

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

Risk Management

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

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4 REQUIREMENTS FOR THE PROGRAMME

- 4.1.1 The *Consultant* submits programme to the *Client* with his tender.
- 4.1.2 The *Consultant* Provides the Services 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 *Client* (see Section 5)
 - (iii) Reports/drawings should be completed within four weeks of completing onsite.
- 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* & *Consultant'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 *Consultant* 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 *Consultant* updates the programme every week. The *Consultant* submits an updated programme to the *Client* upon request.

5 SERVICES AND OTHER THINGS PROVIDED BY THE CLIENT

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

- (1) Traffic management shall consist of a lane one closure for the duration of the works, as shown in the traffic management drawing HE606471-AONE-TTM-PWDRMILL-SK-CH-0106 Lane 1 Northbound Closure.
- (2) Off-network access traffic management shall consist of west bound closure of Powder Mill Lane with vehicle using the east bound lane using traffic light control.
- (3) Traffic management shall be provided by the Area 4 M&R contractor, Kier.

5.1.2 Not used.

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6 SPECIFICATION FOR THE SERVICES

6.1.1 The *Consultant* shall Provide the Services in accordance with:

- (1) Survey is to include the verge and top of the embankment, with spot heights over the slope and points along the bottom of the embankment.
- (2) Other general points to be surveyed include the boundary fence and carriageway features (inc. road markings, signs, safety barriers, kerbs, gullies) are to be recorded. The full width of the carriageway is to be surveyed remotely (i.e. reflectorless techniques) from the verge or lane 1 closure.

Scale	1:50		1:100		1:200	x
Plan control grid	Local grid		Site grid plan		Based on national grid	x
Level datum	GPS	x	Benchmark		Site datum	
Survey detail	Boundaries		Outline		Full detail	x
Trees	Foliage lines	x	Trunk over 0.3m dia	x	All trees	
Height information	Spot heights	x	Contour interval	x	Road section spacing	
Underground services	Cover position	x	Cover level	x	Invert/pipe size	
Sections	Cross sections every 2m along the line of the A21					