

**National Asset Delivery
Technical Surveys and Testing**

**Works Information for:
569549 M5 J11 Capacity Improvements
Drainage Surveys and Assessments**

CONTENTS AMENDMENT SHEET

Amend. No.	Revision No.	Amendments	Initials	Date
0	1	Original version issued with tender	ET	14/2/20

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LIST OF ANNEXES

Appendix 1 Supplementary Constraints

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1 DESCRIPTION OF THE WORKS

1.1 Project objectives

1.1.1 The principle objective of this project is to undertake a series of drainage surveys, assessments and analysis to determine the drainage design requirements to support the proposed highway improvement scheme at M5 J11 as detailed below. Works to be undertaken at M5 northbound and southbound mainlines, northbound and southbound exit and entry slips, including the connections to the A40 eastbound and westbound, including the junction circulatory and adjacent natural watercourses.

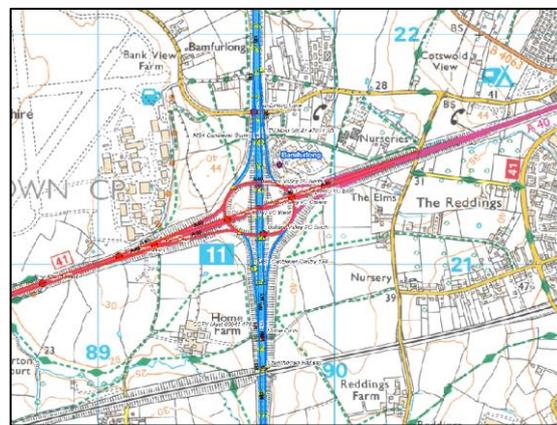
1.1.2 The specification that applies to the *works* is included in Section 6

1.2 Scope of works

1.2.1 The *works* to be provided under this contract are:

The works comprise of a series of drainage surveys, assessments and analysis to determine the drainage design requirements to support the proposed highway improvement scheme at M5 J11 as detailed below.

The site extents are: M5 MP 81.700 – 83.400km
A40 MP 160.900 – 162.300km



1.3 Deliverables

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

- HEWRAT Assessment conducted to LA113 – Road Drainage and the Water Environment.
- Connectivity Survey conducted to CD535 – Drainage Asset Data and Risk Management and CS 551 – Drainage Surveys
- Gully Spacing Check
- Flow Path Analysis
- Filter Drain GPR Survey
- Hydraulic Model and Model Report

2 EXISTING INFORMATION

2.1.1 Existing Structures

Structure	Type	Location Ref	Str key	OSGR
Rail Overbridge at 83.200km	Overbridge	M5 MP 83/2	1669	389700E 220540N
Home Farm Overbridge at 83.050km	Overbridge	M5 MP 83/05	1668	389700E 220680N
Bamfurlong Lane Overbridge at 82.100km	Overbridge	M5 MP 82/1	1664	389660E 221660N
Golden Valley Interchange North Overbridge 82.400km	Overbridge	M5 MP 82/4	1665	389680E 221330N
Golden Valley Interchange Centre Overbridge 82.500km	Overbridge	M5 MP 82/5	1666	389682E 221239N
Golden Valley Interchange South Overbridge 82.600km	Overbridge	M5 MP 82/6	1667	389700E 221130N
Golden Valley Interchange West Overbridge 161.750km	Overbridge	A40 MP 161/75	6688	389548E 221193N
Golden Valley Interchange East Overbridge 161.450km	Overbridge	A40 MP 161/45	6687	389820E 221288N
Airport East Underbridge 162.100km	Underbridge	A40 MP 162/1	6689	389240E 221080N
A40 West Services Culvert 162.200km	Culvert	A40 MP 162/2	6690	389090E 221032N

Statutory Undertakers Information

Drawing Number:	Title	Valid Until
TOPO1250_M5_196_3613	M5 C2 Stats Service Locations	16-10-19
TOPO1250_M5_196_5581	M5 C2 Stats Service Locations	16-10-19
TOPO1250_M5_196_5582	M5 C2 Stats Service Locations	16-10-19
TOPO1250_M5_196_5583	M5 C2 Stats Service Locations	16-10-19
TOPO1250_M5_197_3615	M5 C2 Stats Service Locations	16-10-19
TOPO1250_M5_197_3616	M5 C2 Stats Service Locations	16-10-19
TOPO1250_M5_197_3617	M5 C2 Stats Service Locations	16-10-19
TOPO1250_M5_197_4392	M5 C2 Stats Service Locations	16-10-19
TOPO1250_A40_42_4388	A40 C2 Stats Service Locations	16-10-19
TOPO1250_A40_42_4389	A40 C2 Stats Service Locations	16-10-19
TOPO1250_A40_42_4390	A40 C2 Stats Service Locations	16-10-19
TOPO1250_A40_42_4391	A40 C2 Stats Service Locations	16-10-19
TOPO1250_A40_43_3614	A40 C2 Stats Service Locations	16-10-19
TOPO1250_A40_43_3837	A40 C2 Stats Service Locations	16-10-19
TOPO1250_A40_43_4376	A40 C2 Stats Service Locations	16-10-19
TOPO1250_A40_43_4377	A40 C2 Stats Service Locations	16-10-19
Jacobs Option 7A-201	A40 EB to M5 NB Existing Services	1-05-19
Jacobs Option 7A-202	M5 SB to A40 EB Existing Services	1-05-19
Jacobs Option 7A-203	M5 NB to A40 WB Existing Services	1-05-19

Note: Although now out of date, Jacobs Stats drawings have been included (for reference) as the drawings include Jacobs Design overlay for the current preferred option. But – these will need to be verified against the most recent Stats drawings.

- 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 / Date
Option 7A(GA)-004	Jacobs Option 7A General Arrangement	P00
Option 7A-001	Jacobs Option 7A A40 Eastbound to M5 Northbound Layout	P01
Option 7A-002	Jacobs Option 7A M5 Southbound to A40 Eastbound Layout	P01
Option 7A-003	Jacobs Option 7A M5 Northbound to A40 Westbound Layout	P01

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 will be daytime 0800 – 1600. Note: some of the surveys will need to take place in the motorway central reservation at night, full details to be confirmed during mobilisation.
- 3.2.2 The road network throughout this stretch is 3-lane motorway and dual carriageway status and subject to the national speed limit of 70mph. Employer to provide suitable Traffic Management and road space booking.

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.
- 3.3.3 For details of the CDM duty holders, refer to the pre-construction information supplied as part of these TST documents.
- 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:
- (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) TM details to be confirmed, however it is anticipated that hard shoulder and lane 1 closures will be required for survey work on the hard shoulder and verge. It is also anticipated that lane 3 closures will be required for central reservation survey work. Dates, extents, timings and duration to be confirmed between employer and contractor.

5.1.2 Welfare facilities will be provided by the principle contractor.

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6 SPECIFICATION FOR THE WORKS

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

6.1.2 Drainage surveys to be undertaken in accordance with:

DMRB, Volume 11, Section 3, Part 10, LA113 – Road Drainage and the Water Environment

DMRB, Volume 4, Section 2, Part 3, CD526 – Spacing of Road Gullies

DMRB, Volume 4, Section 2, Part 10, CS 551 – Drainage Surveys

MCHW, Volume 1, Series 500 - Drainage and Service Ducts

MCHW, Volume 5, Section 9, Part 2, Series 9000 – Specification

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