



Highways England Company Limited

Smart Motorways Alliance

Scheme Scope

M3 J9-14 Final Construction v1.0

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Section A: Scheme Client Requirements

Smart Motorway upgrade on the M3 between junction 9 (Winchester/A34 Interchange) and junction 14 (M27).

The Smart Motorway shall include All Lane Running (ALR) between junction 9 and junction 13 and Controlled Motorway (CM) between junction 13 and junction 14.

The Scheme will be provided in accordance with Interim Advice Note 161/15 (Smart Motorways) and revised by Major Projects Instruction 66MPI-66-052018 version 2 (issued 05/04/2019). Please note that this scheme is not classified as a “Tranche 5 or beyond scheme” as stated in section 2 of MPI-66 and therefore this scheme is exempt from providing the following requirements of MPI66:

Stopped Vehicle Detection

Revised Frequency of Emergency Areas.

The M3 9-14 is considered as a scheme which is “not yet operational” as stated in section 2 of MPI-66, therefore the revised emergency area signing and surfacing requirements must be included. The detail of these requirements can be found in the following sections:

- Section 2.5.90-93 - Emergency area surfacing
- Section 2.5.94-2.5.104 - Emergency area signing
- Section 2.5.94-2.5.104 - Emergency area road markings

Section B: Scheme Scope Requirements

The Scheme Scope is to be delivered in conjunction with Volume 2.2 of the Alliance Contract, the Alliance Scope. The sections of the Alliance Scope are detailed below, the requirements of these sections are set out within Volume 2.2 of the Alliance Contract.

Scope Section	Description
S100	Description of the Works
S200	General Constraints
S300	Alliance’s design
S400	Scheme handover
S500	Programme
S600	Quality Management
S700	Tests and inspections
S800	Management of the works
S900	Working with Others
S1000	Services and other things to be provided
S1100	Health and safety
S1200	Subcontracting
S1300	Title
S1400	Accounts and records

S1500	Commercial management
S1600	Transfer of rights
S1700	Information management
S2000	Project Bank Account (Y(UK)1)
S2100	Client's work specification

Below identifies the additional description of the works included in the Scheme Scope.

S100 Description of the Works

The M3 Smart Motorway upgrades are between Junction 9 and Junction 14, linking the Smart Motorway with scheme M27 at Junction 14. The M3 J9-14 scheme also includes slip road improvements on Junction 10 and 11 near Winchester, and improvements to capacity at Junctions 12 and 14, and these are within the M3 J9-14 Smart Motorway footprint (in terms of infrastructure and schedule). The slip improvements involve widening the northbound carriageway to 4-lanes between the junctions which will improve the movements between the M27 and M3 in the northbound direction. By providing an unconstrained link, vehicles will not be required to maneuver through congestion to be in the correct lane for continuation of their journey, this will improve journey time reliability both on the M3, M27 and local road network.

The scheme scope includes the necessary tie in works at the terminal Junctions 9 and 14, including;

- Junction 9
Works associated with the smart motorway which ties in to the existing motorway at Junction 9 of the M3. The works are contained between chainages 102125 and 102925 and include the replacement of the central reserve barrier and associated works, mill and inlay to Lane 2, replacement of steel barrier within the verges and the modification of existing structures.
- Junction 14
Works associated with the smart motorway which ties in to the existing motorway at Junction 14 which is the interchange between the M3 and M27. The works include the replacement of steel barrier within the verges, new lighting columns in the verge, environmental barrier where required, upgrade of communications ducting and cabling, new gateway gantries and the modification of existing structures.

The scheme shall be designed to permit 60mph running through the roadworks where safe to do so.

S200 General Constraints

The M3 between Southampton and Winchester has steep gradients that slow heavy vehicles when going uphill. This together with the high traffic loads contribute to causing delays. In this context, the scheme aims to reduce congestion and improve reliability along this key corridor by the provision of an additional running lane.

Programme challenges arise at either end of the M3 J9-14 scheme with the implementation of the M27 J4-11 Smart Motorway at its southern end, and the future RIP J9 improvements planned during the same timeframe at the northern end of the scheme which will need to be considered when developing the Alliances delivery strategy.

Consideration and co-ordination are also required with Hampshire County Council regarding localised road improvement schemes and traffic management using diversion routes during construction.

For the purposes of planning and programming of traffic management the Alliance will need to comply with embargo dates and the published event calendar for this area. When an embargo or event is in place, the Alliance should be looking to either complete works prior to the embargo or to lift them for the duration of the embargo period.

Environmental constraints include, but not limited to the following:

- Water:
 - Principal aquifer (the Chalk) and Secondary A aquifers
 - Source Protection Zone (SPZ) 1 and 2 for strategic Southern Water groundwater abstraction (3.34km of scheme)
 - Flood Risk – Flood Zone 3
 - River Itchen SAC and SSSI and associated tributaries
- Biodiversity:
 - Ancient woodland (14 parcels)
 - Dormouse habitat connectivity
- Landscape & Heritage:
 - South Downs National Park and Twyford Down
 - Opening up of views due to vegetation clearance
 - Scheduled Monument
 - Registered Park and Gardens
- Noise:
 - Noise Important Areas

S225 Protection of Existing Structures and Services

The following table presents a summary of the number of Highways England SMIS entries for structures between M3 Junctions 9 and 14. Due to the history of the M3, whereby existing road bridges were extended during its construction, some structures have multiple SMIS entries to accommodate these modifications.

Structure Category	Number
Overbridges	14
Underbridges	28
Culverts	6
Gantries	30
Retaining Walls/Cuttings	26
CCTV Masts	4
Service crossings and other structures	2

VRS protection where required at structures, but not limited to the following:

- Parkwood Footbridge;
- St Catherine's Hill Bridge;
- Pitmore Copse Bridge;
- Hocombe Road New Bridge; and
- Cranbury Park New Bridge

No Statutory Undertakers apparatus will be affected by the current design at Design Fix 4

S305 Design responsibilities

The Alliance undertakes all design activities in accordance with the Alliance Scope and the Scheme Scope.

The Alliance undertakes all design activities from PCF Stages 3 to 7. Outline design activities undertaken prior to the Alliance Scope are not to be relied upon. Should the Alliance Partners choose to utilise outline design undertaken in prior PCF Stages by Others, to inform the detailed design, they will be considered to have verified the adequacy of the proposed outline design and taken responsibility for the outline design.

Where any changes are made by the Alliance Partners after outline design, the Alliance Partners need to ensure these changes are reflected in previous PCF stage assessments, or the Alliance Partners will need to undertake any necessary re-assessments where required.

S320 Design submission procedures and acceptance criteria

The Alliance develops the design in accordance with standards and associated amendments as detailed in the Implementation Report for New Standards HE549338-MMSJV-GEN-000-RP-ZX-30010. These agreements shall prevail over the requirements of S2100. The Alliance will undertake an impact assessment to assess the implications of full compliance with the S2100 and make a recommendation to the Alliance Board detailing which changes should / should not be adopted.

S502 Scheme Programme Requirements

The following summarises the Milestone Key Dates for inclusion in the programme and the performance table as detailed in the Implementation plan.

Milestone Key Date	Date
Stage Gate Assessment Review 5 (SGAR5)	30/09/2021
Start of Works (SOW)	30/09/2021
Road Open for Traffic (OfT)	31/03/2024
Stage Gate Assessment Review 6 (SGAR6)	30/06/2024
Completion excluding landscaping and ecology	30/06/2024
Stage Gate Assessment Review 7 (SGAR7)	30/06/2025
Independent Assurance Review 5a	<i>[To be proposed by the Alliance]</i>

The programme will need to include and detail sufficiently the interface points with those schemes listed in S100 description of the works.

S665 Risk Management

The following matters will be included in the Early Warning Register.

Description	Potential Impact
The current design may result in contamination or pollution affecting Southern Water abstractions.	Southern Water has indicated concerns relating to works in the area of Source Protection Zone 1 (SPZ1), and sink holes in or close to the Otterbourne Stream Valley (the stream passes beneath the M3 at approximate ch 110900 to 110950). Southern Water has strongly advised that no piling should be undertaken within the Otterbourne SPZ1 due to the risk of turbidity generation.
Insufficient development of design in relation to groundwater/surface water impacts.	Scheme may be found to have significant ground water/surface water impacts (such as on the river Itchen SAC/SSSI and its tributaries (flow and quality), increased risk of groundwater flooding, etc.) that give rise to concern from the Environment Agency, Natural England, abstractors or other stakeholders, even if no permit is required.
Non-approved diversion route between M3 J9 & J11	There is currently no approved diversion route for traffic between J9 and J11. It is likely that closures of the carriageway will be required for gantry installation and resurfacing.
Emerging need to provide a dormouse bridge for habitat connectivity	DF4 assumes that habitat connectivity can be maintained or replanted along the scheme. An emergency area (EA) located on the southbound mainline at chainage 110+339 has the potential to completely sever a 100m section of dormouse habitat. Other constructions within the verge may also sever the habitat.
Conflicts between projects over road space	Inability to gain possession of the roadspace for scheme works, due to other schemes and / or area 3 maintenance needing possession for works in the same roadspace

S1010 Services and other things to be provided by the Client as a member of the Alliance

None Identified.

Section C: Allocation of Scheme Scope between Alliance Partners

S120 Core Responsibilities of the members of the Alliance

S120A Production Management Partner

1. The Production Management Partner is responsible for
 - a. leading the integration of the members of the Alliance in the Production Hub to deliver the outcomes of the Production Hub including
 - integration of the Partners' resources in the Alliance,
 - programme management office,
 - supply chain management,
 - technology and information management,
 - scheduling,
 - people strategy,
 - commercial management,
 - governance and risk management,
 - quality management and assurance, and
 - business change, and
 - b. investing in the capability and competence development of the *Client*.

S120B Digitally Enabled Design Partner

2. The Digitally Enabled Design Partner is responsible for
 - a. the outline and detailed civil engineering design of the *works* in accordance with S2100*Client's* work specification,
 - b. the principal designer role for the Schemes for which they are instructed in accordance with CDM Regulations,
 - c. maximising the use of the *Client's* Rapid Engineering Model (REM), digital design solutions including Building Information Modelling (BIM) and running digital rehearsals,

- d. design knowledge management and promoting industry practice,
- e. providing capability and capacity to the Production Hub, and
- f. providing contingency in circumstances where a Digitally Enabled Design Partner is terminated.

S120C On-site Assembly Partner

- 3. The On-site Assembly Partner is responsible for
 - a. the management and delivery of the construction of the *works* in accordance with S2100*Client's* work specification,
 - b. the principal contractor role for the Schemes for which they are instructed in accordance with CDM Regulations,
 - c. site level mobilisation, engineering and performance control,
 - d. on-site assembly of assets,
 - e. the installation, testing and commissioning of any infrastructure as part of handover to the *Client*,
 - f. providing capability and capacity to the Production Hub, and
 - g. providing contingency in circumstances where an On-site Assembly Partner is terminated.

S120D The *Client* as a member of the Alliance

- 4. The *Client* as a member of the Alliance is responsible for
 - a. playing an active role in the delivery of the SMP from within the Alliance in an integrated manner,
 - b. providing capability and capacity to the Production Hub, the delivery hubs and improve its own capability over the duration of the contract,
 - c. providing the services outlined in S1010 Services and other things to be provided by the *Client*, and
 - d. providing contingency in circumstances where the Production Management Partner is terminated.

KEY:

- **Responsible** – The Lot Partner(s) responsible for delivering the activities as defined in the Alliance Scope
- **Support** – The Lot Partner(s) support the delivery of the requirements as defined in the Alliance Scope

The Alliance as a whole remains responsible for delivering the Scheme.

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
SECTION A: LOT SCOPE				
S100 Description of the works				
S105 Introduction to Highways England				
S110 Introduction to the Smart Motorways Programme				
S115 The structure of the Alliance	R	R	R	R
S116 Alliance Objectives	R	R	R	R
S120 Core responsibilities of the members of the Alliance	S	R	R	R
S120A Production Management Partner		R		
S120B Digitally Enabled Design Partner			R	
S120C On-site Assembly Partner				R
S120D The <i>Client</i> as a member of the Alliance	R			
S130 Agile responsibilities of the members of Alliance				
Scoping of surveys				
Asbestos	S	S	R	S
Communications	S	S	R	S

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
Condition	S	S	R	S
Drainage and ducting	S	S	R	S
Environmental and ecology (e.g. protected species)	S	S	R	S
Lighting	S	S	R	S
Noise	S	S	R	S
Pavement	S	S	R	S
Structures and geotechnical	S	S	R	S
Topographical	S	S	R	S
Carrying out of surveys				
Asbestos	S	S	S	R
Communications	S	S	S	R
Condition	S	S	S	R
Drainage and ducting	S	S	S	R
Environmental and ecology (e.g. protected species)	S	S	S	R
Lighting	S	S	S	R
Noise	S	S	S	R
Pavement	S	S	S	R
Structures and geotechnical	S	S	S	R
Topographical	S	S	S	R
Preliminary design				
Gantries, structures and bridges	S	S	R	S
Noises and environmental barriers	S	S	R	S
Piling and foundations	S	S	R	S

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
Power and lighting	S	S	R	S
Retaining walls	S	S	R	S
Technology and communications	S	S	R	S
Detailed design				
Gantries, structures and bridges	S	S	R	S
Noises and environmental barriers	S	S	R	S
Piling and foundations	S	S	S	R
Power and lighting	S	S	R	S
Retaining walls	S	S	S	R
Technology and communications	S	S	R	S
Traffic management	S	S	S	R
Development of as-built records	S	S	S	R
Purchase and provision of				
Technology	R	S	S	R
Traffic management	R	S	S	R
Any other products and services called off from CCS and other <i>Client</i> framework contracts	R	S	S	R
Consent and administrative activities				
Statutory and consent management (e.g. Statutory instruments, Statutory Undertakers, Distribution Network Operators (DNOs))	S	S	R	S

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
Environmental assessment	S	S	R	S
Customer service and external stakeholder management	S	S	S	R
Setting up and administering of PBAs	S	R	S	S
Supporting SMP delivery (e.g. Red-X campaign)	S	R	S	S
Production activities				
Logistics	S	S	S	R
Promoting use of off-site manufacture and standardisation	S	S	S	R
Continuous improvement and innovation	S	R	R	R
SECTION B: GENERAL REQUIREMENTS				
S200 General constraints				
S201 Alliance behaviours	R	R	R	R
S202 Parent Company Guarantee	S	R	R	R
S203 Conflict of interest	S	R	R	R
S204 Anti Bribery and Anti-Fraud	S	R	R	R
S205 Data Protection	S	R	R	R
S208 Official Secrets Acts	S	R	R	R
S210 Confidentiality	S	R	R	R
S211 Insurance	S	R	R	R

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
S215 Security and protection of the Site	S	S	S	R
S220 Security and identification of people	S	R	R	R
S225 Protection of existing structures and services	S	S	S	R
S230 Cleanliness of roads	S	S	S	R
S240 Network occupancy	S	S	S	R
S241 Recovery services	S	S	S	R
S245 Condition survey	S	S	R	S
S250 Considerate Constructor Scheme	S	S	S	R
S251 Customer service	S	R	R	R
S256 Project Control Framework	S	R	R	R
S266 Energy Efficiency Directive	S	R	R	R
S267 Environmental requirements	S	S	S	R
S268 Aftercare / Management of landscape works	S	S	S	R
S269 Site Waste Management plan	S	S	S	R
S270 Sustainable development requirements	S	S	S	R
S272 Air Quality Strategy	S	S	S	R
S274 Discrimination, bullying and harassment	S	R	R	R
S275 Equality, diversity and inclusion	S	R	R	R

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
S276 Employment and skills	S	R	R	R
S300 Design	S	S	R	S
S305 Design responsibilities	S	S	R	S
S310 Design criteria	S	S	R	S
S320 Design submission procedures and acceptance criteria	S	S	R	S
S325 Design approval from Others	S	S	R	S
S400 Scheme handover				
S405 Scheme Open for Traffic	S	S	S	R
S410 Scheme handover	S	S	S	R
S415 Scheme Completion	S	S	S	R
S445 Documents	S	S	S	R
S450 Access to information following Completion	S	S	S	R
S500 Programme				
S501 Alliance programme requirements	S	R	R	R
S502 Scheme programme requirements	S	R	R	R
S515 Scheme programme quality	S	R	R	R
S520 Methodology statement	S	R	R	R
S525 Revised Alliance programme	S	R	R	R

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
S535 Earned value management and reporting	S	R	R	R
S600 Quality Management	S	R	R	R
S605 Alliance aligned/integrated management system	S	R	R	R
S610 Lean	S	R	R	R
S615 Quality planning	S	R	R	R
S620 Authorised persons with adequate skills, knowledge and experience and training	S	R	R	R
S625 Quality reviews	S	R	R	R
S626 Audits	S	R	R	R
S630 Registers	S	R	R	R
S640 Non-conformity corrective action reports	S	R	R	R
S645 Quality indicators	S	R	R	R
S650 Deliverables	S	R	R	R
S655 Alliance management review	S	R	R	R
S660 Quality management points	S	R	R	R
S665 Risk management	S	R	R	R
S700 Tests and inspections	S	S	S	R
S800 Management of the works				
S810 Communications	S	S	S	R
S820 Disclosure requests	S	R	R	R
S825 Information security	S	R	R	R

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
S835 Business Continuity	S	R	R	R
S900 Working with Others	S			
S905 Requirements of Others	S	R	R	R
S920 Utilities providers	S	R	R	R
S1000 Services and other things provided				
S1010 Services and other things to be provided by the <i>Client</i> as a member of the Alliance	R	S	S	S
S1100 Health and Safety				
S1105 Supply chain health and safety maturity matrix	S	R	R	R
S1107 Alliance's health and safety management system	S	R	R	R
S1108 Subcontractor's health and safety management systems	S	R	R	R
S1111 Action to rectify breaches	S	R	R	R
S1112 Health and safety culture	S	R	R	R
S1113 Health and safety – exchange of information	S	R	R	R
S1114 Asbestos	S	S	S	R
S1115 Health and safety advice	S	R	R	R
S1116 Health and safety inspections	S	R	R	R

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
S1117 Health and safety in construction	S	S	S	R
S1118 Incident investigation, reporting and follow-up	S	R	R	R
S1119 Incident statistics	S	R	R	R
S1121 Health and safety management audit	S	R	R	R
S1122 CDM compliance	S	S	R	R
S1123 Health and safety – charity-based incentive Schemes	S	R	R	R
S1125 Management of road risk	S	S	S	R
S1127 Substance abuse	S	R	R	R
S1128 Security	S	R	R	R
S1129 Employee safety	S	R	R	R
S1130 Fleet Operator Recognition Standard (FORS) Accreditation	S	S	S	R
S1131 Driving for better business	R	R	R	R
S1200 Subcontracting	S	R	R	R
S1205 Restrictions or requirements for subcontracting	S	R	R	R
S1210 Acceptance procedures	S	R	R	R
S1300 Title				
S1305 Marking	S	S	S	R
S1400 Accounts and records	S	R	R	R

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
S1415 Form of documents to be retained	S	R	R	R
S1420 Records and audit access	S	R	R	R
S1425 Retention of records	S	R	R	R
S1500 Commercial Management				
S1505 Provision of cost information	S	R	R	R
S1510 Provision of price information	S	R	R	R
S1515 Cost verification	S	R	R	R
S1520 Invoicing	S	R	S	S
S1525 Forecasting	S	R	S	S
S1530 Earned value for assessment	S	R	S	S
S1600 Transfer of Rights				
S1605 Alliance rights over material prepared for the design of the works	S	R	R	R
S1610 Other rights to be obtained by the Alliance	S	R	R	R
S1700 Information management (Option X10)	S	R	R	R
S1705 Information management requirements	S	R	R	R
1S2000 Project Bank Account (Option Y(UK)1)				
S2010 Project Bank Account tracker	S	R	R	R
S2100 Client's work specification	S	R	R	R

REFERENCE	The Client (as a member of the Alliance)	Lot 1 Fluor	Lot 2 Jacobs	Lot 3 Balfour Beatty
S2110 Drawings	S	R	R	R
Annex A Reference documents				
Annex B Form of Parent Company Guarantee	S	R	R	R
Annex C Insurance Tables	S	R	R	R
Annex D Alliance Inclusion Action Plan	S	R	R	R
Annex E Alliance Employment and Skills Plan	S	R	R	R
Annex F Special activities and requirements	S	S	R	S
Annex G Continuous improvement/lean minimum requirements	S	R	R	R
Annex H Quality improvement process	S	R	R	R
Annex I Subcontractor Warranty	R	R	R	R
Annex j Information management requirements	S	R	R	R