16th January 2019: Update note from Runnymede Borough Council confirming progress with joint working with Highways England

This note seeks to update interested parties on ongoing engagement with Highways England since the publication of the Arcadis Scoping Note (originally dated 20th December 2018 and revised on 2nd January) and the related correspondence between Arcadis and Highways England between 21st December 2018 and 7th January 2019 as published in chronological order in RBCLP_18.

On 8th January 2019, a progress meeting was arranged with Arcadis, Highways England, Runnymede Borough Council and Surrey County Council (via conference call). At this meeting, Arcadis and Highways England discussed in detail the scope of works proposed by Arcadis and on the basis of these discussions, amendments to the scoping note have been made by Arcadis. The final version of this scoping note can be found at appendix 1 of this note. This scope of works has since been agreed with Highways England, and Arcadis has commenced the work streams set out under ‘step 1’ of their note.

The remainder of the timetable that Arcadis and the Council believe is realistic for completing the remainder of the step 1 activities is as follows:

- Progress meeting with Highways England to be arranged for w/c 21st January – a key output that Arcadis are looking to achieve from this meeting is to agree the traffic flow diagram with Highways England.

- Issue of draft technical note to Highways England for their review: 1st February. This technical note will report on outputs from the step 1 work streams. The note will confirm either whether no impact on the SRN has been identified; whether there will be an impact but it can be mitigated; or whether there is an impact which cannot be mitigated. The report will contain a recommendation which will seek to quantify the impacts (if there are any).

- Progress meeting with Highways England to be arranged for w/c 4th February to discuss the draft report (assuming that Arcadis has identified no ‘showstoppers’). The technical feedback from Highways England will be sought and Arcadis hope to be able to agree with Highways England the level of impact on the SRN from a technical point of view, where on the network the impact is and what style of mitigation might be appropriate.

- Issue of final step 1 report to be issued to all parties during the w/c 11th Feb - publication anticipated by 15th February. This will conclude Step 1.

On (or around) 11th February, it is envisaged that Arcadis will commence the step 2 works as detailed within their final scoping note.

The Step 2 work regarding the proposed mitigation measures is likely to be developed in three typical stages:

Stage 2a - The identification of potential measures:
- List of potential measures
Selection with Highways England of the measures consistent with the Smart Motorway scheme

Mitigation testing methodology agreement

This coordination and solution sifting would be expected to take two to three weeks*, but would depend on Highways England’s ability to support this process.

Stage 2b – Concept design of selected measures:

- Traffic analysis of the proposed measures
- Highway concept layout of the proposed measures
- Assessment reporting (including traffic modelling and high-level costing)

This stage duration could vary greatly based on the complexity of the proposed mitigation measures. However, considering the mitigation measures will require both, coordinating with the Smart Motorway scheme, and demonstrating the effectiveness of complex signalised mitigation measures, three to four months* could be required.

Stage 3b – Detailed design

The Council is of the opinion that detailed design is unlikely to be required by Highways England for them to withdraw their objection.

Based on the recent conference call of 8th January 2019, Highways England expressed the view that a technical assessment of the mitigation measures would need to be presented. A likely interpretation would be that at least a draft submission of the traffic modelling during stage 2b showing the successful operation of the mitigation measures, as well as a high-level assessment of the highway design feasibility, could be required. It is, therefore, possible that two and a half months* of stage 2 (stage 2a plus ½ of stage 2b) will be required.

*all dates taken from 11th February 2019
A320 Corridor Study - M25 Further Traffic Modelling Methodology

1. Background

In late 2017, early 2018, Arcadis undertook a traffic study of the A320 corridor. This study was related to the preparation of the Runnymede 2030 Local Plan and included the proposal for additional land use development along the A320 corridor.

The traffic modelling undertaken was composed of:
- A Traffic Demand Forecast extracted from SINTRAM 72 model, which included the proposed developments; and
- A series of junction assessments along the corridor as well as for M25 Junction 11.

In the statement of common ground between Runnymede Borough Council and Highways England (HE), dated 28 November 2018, HE highlights the following concerns:
- The strategic model version used for the assessment does not fully comply with the latest modelling requirements, in particular in relation to trip rates; and
- Traffic conditions on the M25 mainline have not been considered while the corridor is experiencing regular congestion.

Further traffic modelling needs to be undertaken in order to identify a way forward. A successful outcome would be to demonstrate that there would be no severe impact on the SRN, or, that any severe impact can be mitigated to one that is less than severe.

The purpose of this document is to set out the proposed methodology of the further traffic modelling required to successfully address Highways England comments.

2. M25 Existing Traffic Conditions

Considering the short timeline to undertake the study, Arcadis will need to focus on already available data, including:
- WebTris Traffic Count Data http://webtris.highwaysengland.co.uk/;
- Google Traffic Typical Traffic Conditions; and
- Road Geometry based on aerial pictures.
Figure 1 shows the Google Traffic Typical Conditions for AM Peak of a typical Tuesday.

Figure 1: Google Traffic Typical Conditions – Tuesday AM Peak

As seen on Figure 1, anti-clockwise on the M25, a congestion event is taking place at the merge with the M3. On the M25, the congestion is extending between M25 Junction 13 and M25 Junction 11.
Figure 2 shows the Google Traffic Typical Conditions for PM Peak of a typical Tuesday.

**Figure 2: Google Traffic Typical Conditions – Tuesday PM Peak**

As seen on Figure 2, anti-clockwise on the M25, the congestion event is similar to the morning peak, but it does extend much further upstream, passing M25 Junction 13. In the PM peak, there is also congestion on the approach to M25 Junction 11 in the clockwise direction.

Motorway traffic management measures have already been implemented on the corridor. As seen on Figure 3, traffic signals ramp metering is already in place on M25 Junction 11 on slip ramps.
Considering the presence of the ramp metering system as well as the observed traffic congestion pattern, further congestion on the M25 is more likely to result from traffic returning to the A320 corridor in the PM peak than from traffic entering the M25 at Junction 11.

3. Proposed Methodology

Based on the above assessment as well as the very tight timeline, a two-step methodology is proposed.

Step 1: M25 Scoping Assessment – Ultimate Horizon
The initial assessment of the M25 would have for purpose to identify whether or not the proposed development could lead to a significant impact on the M25 corridor. The proposed tasks correspond to:

- Prepare Daily flow profiles on the M25 to identify peak hours for a typical week day;
- Extract Tempro values per road type for the M25 as well as St Peter’s Way (Tempro growth factors will be used to prepare baseline, 2030 Do Minimum, traffic volumes);
- Prepare non-committed developments trip generation and distribution using:
  - Trics trip rates for the developments;
  - Omnitrans previous select link analysis for each development as a distribution/assignment basis;
- The preparation of 2030 flow diagrams (with and without non-consented developments) for AM and PM peak hours between M25 Junction 11 and M25 Junction 13;
- Prepare DMRB calculations, using TD22/06, for merge and diverges for Junction 11 and Junction 13 (2030 flow with and without non-consented developments);
- Prepare a more conservative Junction 11 Linsig model in order to assess the worst-case queue length at the roundabout, in particular for off-slip ramps leading to the roundabout; and
- The preparation of a short technical note.

The technical conclusion of this assessment should lead to:
- A commonly agreed conclusion whether the non-committed developments along the A320 have an impact or not on the M25 traffic conditions; and
- A conclusion regarding moving to step 2, if required.

Step 1 should form the basis of a commonly agreed response to the Planning Inspector regarding. A successful outcome would correspond to: either that Highways England and Runnymede Borough Council agree that there is not significant traffic impact on the M25, or that the impact is limited, and that Highways England agrees to consider mitigation measures.

**Step 2: Developing Mitigations Measures**

Based on the outcome of Step 1, and working in collaboration with Highways England, mitigation measures should be identified at a concept level.

Once a range of measures have been selected for testing, further modelling work will be required to:
- Enable Highways England to provide a concluding statement;
- Support the HIFF bid.

It is recommended to wait for the agreement of the conclusions drawn at Step 1 before specifying any detailed traffic modelling scope for possible mitigation measures.

**4. Project Team**

The proposed team for the undertaking of this assessment is:
- Technical Reviewer: David Carrignon, Technical Director;
- Task Manager: Diego Moreno-Sosa, Senior Consultant; and
- Traffic Modeller: Monika Ruda, Assistant Consultant.

The proposed timeline is:
- Step 1 touch base meeting, during the second week from approval of the methodology by Highways England;
- Step 1 technical note, 3 weeks from approval of the methodology by Highways England; and
- Step 2 timeline will have to be prepared based on Step 1 conclusion and project timelines.

Step 1 deliverables will be composed of:
- A comprehensive technical note;
- All calculation and modelling provided as appendices;
- One interim results presentation;
- Two technical meetings with the team.
5. **Modelling Scope Objectives**

The purpose of this traffic modelling commission is to enable Runnymede Borough Council and Highways England (HE) to establish an agreed way forward. The modelling should:

- Provide a commonly agreed assessment of the technical issue; and
- Establish whether the proposed developments generate any significant impact on the M25 corridor;
- Whether potential impacts can be mitigated with additional interventions consistent with the current M25 Smart Motorway programme.

The conclusion of this scoping assessment should lead to an agreement between Highways England and Runnymede Borough Council on the best way forward and to support the signing of an amended Statement of Common Ground between the two parties which agrees that Highway England's current objections to the Runnymede 2030 Local Plan can be overcome.