

(ITT2B) D4 - Highway Engineering

Scenario

1 Background

- 1.1 Highway Engineering services are required to enable the safe and cost efficient construction, operation and maintenance of the TfL road network.
- 1.2 This service is provided throughout the whole life cycle of a project from inception to close.

2 Key Requirements

- 2.1 TfL is seeking specialist highway engineering services to support TfL maintenance, renewals and investment programmes to ensure the business needs and priorities are met.
- 2.2 Support is required for specific engineering skills to complement/supplement existing internal resources and capabilities and to manage workload fluctuations. This involves investigation, specification, design at all stages, inspection, and assurance as necessary for the delivery of engineering activities throughout all stages of asset life cycle.

3 Key Accountabilities

- 3.1 Liaising with the client to understand the service required, including outlining of benefits, costs and risks.
- 3.2 Establishing and maintaining good working relationships with all relevant external stakeholders.
- 3.3 The development of financially viable interventions through extensive knowledge and experience of highway engineering.
- 3.4 The preparation and delivery of services to agreed time, quality, and cost parameters of services and to ensure milestone risks and issues are actively managed.
- 3.5 To provide engineering technical input and advice on the correct application of relevant legislation standards and guidance.

4 Scenario Question

- 4.2 Due to the reduction of the Central Government grant, Transport for London needs to achieve year-on-year cost reductions. Controls are already in place on the operational budget to reduce maintenance spending to the level of safety critical works while term maintenance is deferred.
- 4.3 More efficient and collaborative working practices are expected to contribute a large part of the required cost saving. This will mean changing the methods,

processes and materials around how the individual engineering projects are delivered through the design, construction and management stages.

- 4.4 With this in mind, please describe how your organisation would introduce cost efficiencies into the highway engineering activities associated to a major urban junction(s) upgrade. The example should detail proposals through the project lifecycle – investigation, design, specification, assurance, construction monitoring, and operation. How would you ensure that any achieved cost savings do not impose unreasonable risk to the Highway Authority?

5 Response Content

- 5.2 In no more than 1500 words contained in a maximum of 4 sides of A4 (pictures, diagrams etc. may be included in the sides of A4 limit) demonstrate your understanding of the process, actions and outputs required to deliver Highways Engineering service.
- 5.3 Your response should consider, but not be limited to, the following:
- An overview of your proposed methodology.
 - Identify and describe the processes, tools, methods and practices that will be employed.
 - Apply a detailed knowledge of relevant Highway Engineering specifications, standards and best practice, including how these can be adapted to meet and overcome challenges encountered.
 - Apply understanding of value engineering initiatives that could be utilised throughout design and delivery.
 - A summary of your experience in delivering similar projects in a major urban environment.