

## **(ITT2B) D5 and D6: Traffic Control Engineering**

### **Scenario**

#### **1. Background**

- 1.1. Traffic Control Engineering (TCE) forms part of the TfL Engineering Highways and Traffic Profession. TCE is accountable for discharging engineering technical authority for all TfL owned traffic control Infrastructure including Traffic Signals, Over-height Vehicle Detection (OVD) and Variable Message Signs (VMS).
- 1.2. TCE covers all stages of the asset life cycle commencing with inception, through design, construction, commissioning, handover and maintenance. It is concerned with the creation and maintenance of assets to help maximise reliability, availability, maintainability and serviceability at an affordable whole life cost.

#### **2. Key Requirements**

- 2.1. TfL is seeking specialist support for the design and delivery of TfL TCE 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.

#### **3. Key Accountabilities**

- 3.1. Verification and Validation of project requirements to ensure that it fulfils its intended purpose from a traffic control perspective at all project stages
- 3.2. Carrying-out all necessary desk studies and site visits to assimilate all the necessary information to develop traffic control design solutions
- 3.3. Working collaboratively with TfL Programme/Project Managers, TfL Sponsors, London Boroughs, Developers and the construction supply chain.

- 3.4. Co-ordination with the other interfacing engineering disciplines (Highway Designers / Traffic Modellers / Road Safety Auditors) in the Highways and Traffic Profession
- 3.5. To be accountable for the preparation and delivery to agreed time, quality and cost parameters of services and to ensure milestone risks and issues are actively managed in accordance with TfL procedures
- 3.6. To provide engineering technical input and advice as requested and as per all relevant standards and guidance.

#### **4. Scenario Description**

- 4.1. **Scenario 1 (Lot 1)** TfL is proposing to transform a major one-way gyratory system to two-way working. The project involves major modification to 35 traffic signal assets to meet the desired outcomes. TfL requires the support of a Traffic Control Engineering service to provide subject matter expertise through the project lifecycle including:
  - Technical assurance at feasibility of both layouts proposed and safety timings used in traffic modelling
  - Production of detailed designs of new traffic signal assets including proposed infrastructure and controller specifications.
  - Assurance on buildability through several interim layouts impacting existing traffic control infrastructure.
  - Commissioning and handover of traffic signal assets back into maintenance
- 4.2. **Scenario 2 (Lot 2)** With reference to the project proposed in scenario 2, TfL requires the production of new traffic signal controller configurations for all sites being modified. The sites within scope include a full range of traffic signal controller types encountered in London. All configurations will need to be consistent with the traffic controller specifications delivered as part of Scenario 1. TfL also expects all new configurations to be tested and assured prior to implementation on street.

## **5. Response Content**

- 5.1. To demonstrate your competence for any, or all of the lots please describe the process and activities you would undertake in support of the above project scenario in no more than 1500 words for each lot contained in a maximum of 4 sides of A4 (pictures, diagrams etc. may be included in the sides of A4 limit).
- 5.2. Your response should consider, but not be limited to, the following:
- An overview of your proposed delivery methodology;
  - Identify and describe the processes, tools, methods and practices that will be employed
  - Apply a detailed knowledge of relevant Traffic Control standards and best practice, including how these can be adapted to meet and overcome challenges encountered.
  - Apply understanding of value engineers initiatives that could be utilised throughout design and delivery
  - A summary of your experience in delivering similar projects in London