16 Appendix G – Health and Safety

The *Consultant* fully supports Transport for London's (TfL) commitment to 'Vision Zero' and eliminating all deaths and serious injuries on London's transport network by 2041. TfL's *Project Manager*'s strategy for delivering this is to implement effective health and safety management systems and behaviours such that "Everyone Home Safe and Healthy Everyday".

16.1 General Requirements

16.1.1 Legislation and Standards

The *Consultant* complies as a minimum with all current health, safety and welfare statutory legislation.

TfL health, safety and welfare requirements additional to the statutory legislation are included within this Works Information document.

The *Consultant* is conversant with and always complies with the applicable TfL mode specific Health and Safety related standards and the requirements.

Where there is an interface with Network Rail then the *Consultant* complies with applicable Network Rail standards.

16.1.2 Management System

The *Consultant* operates a Health and Safety Management System that, as a minimum, meets the requirements contained in ISO 45001, HSG65 or can demonstrate competence in managing health and safety using other means.

16.1.3 Construction (Design and Management) Regulations 2015

16.1.3.1 Client

Transport for London is the *Client* for the purposes of the CDM Regulations 2015.

16.1.3.2 Principal Designer and Designer:

The *Consultant* is appointed as Principal Designer, and complies with its duties, as required by the Construction (Design and Management) Regulations 2015 from the contract start date.

16.1.3.3 Handover of CDM duty holder roles

The *Consultant* supports the *Project Manager* throughout the concept design process. The Consultant answers queries and provides clarification regarding the health, safety and environment aspects of the design and the information provided as part of this contract as requested by the *Project Manager*. Except for any extraordinary request, the *Consultant* responds to CDM queries within 10 working

16.1.3.4 Acceptance of appointments

The *Consultant* accepts any such appointment made under clause 15.1.3.2 and agrees to carry out all associated obligations as stated in the CDM Regulations by signing the contract.

The *Consultant* confirms to the *Project Manager* that they are:

- (a) Competent to perform the duties appointed to them.
- (b) Able to allocate adequate resources to enable them to comply with their obligations under the CDM Regulations.

16.1.3.5 Consultant's selection of subcontractors

The *Consultant* ensures that any subcontracted company they appoint as Designer, Contractor or Principal Contractor has the organisational capability and the skills, knowledge and experience to deliver those roles. The *Consultant* provides evidence to the *Project Manager* of the organisational capability, and skills, knowledge and experience of the Designer, Contractor / Principal Contractor.

The *Consultant* shall ensure that its procurement management system evaluates and selects subcontractors not solely based on cost, but also for their ability to meet their CDM duty holder responsibilities, other HSE statutory requirements as well as TfL's contract requirements. The *Consultant* provides with their tender details the basis for the selection of all proposed subcontractors and how they are selected.

The *Consultant*, as Principal Designer, ensures that each Designer or Contractor working under the Principal *Contractor's* control in terms of CDM follows the arrangements set out by the *Consultant* in the Design Management Plan as accepted by the *Project Manager*, or any other relevant plans, for each stage of the contract.

The Contractor cascades the *Client's* health and safety requirements to the Subcontractor and ensures the subcontractors deliver to these requirements.

16.1.3.6 Coordination and Cooperation

The *Consultant* describes their arrangements for coordination and cooperation, taking into consideration the information provided by the Project Manager in their Design Management Plan.

16.1.3.7 Design Management Arrangements

The *Consultant* describes their arrangements for preparing designs and managing the preconstruction phase as per the contract scope in a Design Management Plan (DMP) (or equivalent). The *Consultant* submits the DMP to the Project Manager within two weeks of the contract start date.

The DMP shall include details of how the health, safety, environment, sustainability and CDM requirements of the design and preparatory work for construction will be met and

managed.

The *Consultant* specifies in the Design Management Plan (DMP) which design organisation / team will be responsible for delivering the Principal Designer / Designer duties and outline how those duties will be delivered by that that organisation / team.

The *Consultant* can use their own DMP (or equivalent) template, however the topics set out in the TfL Pathway DMP template (provided in Health & Safety Appendix D) shall be included and addressed.

16.1.3.8 Design Risks

Through the design, the *Consultant*, identifies documents and manages all risks associated with the construction, operation, use, maintenance and decommissioning of all new or modified assets using the principles of prevention. Such considerations cover health, safety and environmental risks, and are to be documented in a Designer's Risk Assessment(s) clearly showing how the principles of prevention have been used to design out and minimise any residual risks.

The *Consultant* passes on any residual risks as agreed with the Project Manager, i.e. inclusion in the Project Risk Register, part of the HSE Pre-Construction Information; and/or as Health and Safety File Information.

16.1.3.9 Health and Safety Pre-Construction Information

The *Consultant* supports the Project Manager in the development of the Health and Safety Pre-Construction Information by producing, providing and bringing together the required information. The *Consultant* describes the arrangements for bringing together and sharing the HSE Pre-Construction Information in the DMP (or equivalent).

The *Consultant* agrees the content and format for the pre-construction information with the Project Manager.

The Project Manager may decide to manage the sharing of information with other Principal Designers, Designers, Principal Contractors and Contractors involved in the project. If so, the Project Manager confirms the arrangements for sharing of information with the contractor at start of the contract.

The *Consultant* reviews the HSE pre-construction information provided by the *Project Manager* to identify where there are gaps in the existing information that need filling to support the elimination and minimisation of health and safety risks associated with the design, for example by undertaking surveys or investigations. The Contractor provides a list of information gathering activities required with a proposal on how to fill the gaps with the *Project Manager* following the contract start date. The *Consultant* agrees with the *Project Manager* how the information gathering activities and surveys will be arranged and managed.

During the design development the *Consultant* notifies the *Project Manager* of any further gaps and any additional information gathering activities and surveys required as soon as they are identified.

Recommendations for any future information gathering activities such as survey works that is required to de-risking elements of the next stage of the design or support the construction strategy should be made within the Concept Design Report / Design Risk Register / HSE Pre-Construction Information.

16.1.3.10 Appointing Principal Contractor / Contractor for surveys

Where surveys are required and the scope of the surveys falls under the definition of 'construction' in the Construction (Design and management) (CDM) Regulations 2015 the *Consultant* shall employ a contractor, or if more than one contractor will be required to undertake the surveys, ensure a Principal Contractor is appointed, to coordinate health, safety and environment matters on site.

Where the *Consultant* employs contractors for undertaking surveys, the *Consultant* provides the contractors with the relevant HSE Pre-Construction Information for those surveys. The *Consultant* liaises with the *Project Manager* to get any additional pre-construction information from the *Project Manager*.

The *Consultant* ensures that the subcontracted company complies with their duties as Contractor/Principal Contractor under the CDM Regulations. The *Consultant* also ensures the subcontracted company complies with the CDM Regulations requirements.

16.1.3.11 **F10**

Where an F10 Notification is required, the *Client* provides it within the HSE Pre-Construction Information and will be provided on the *starting date*. The *Consultant* displays the F10 Notification on site or in its site office in accordance with Regulation 6(3)(b) of the CDM Regulations 2015.

16.1.3.12 Health and Safety File Information

Health and Safety File Information shall be produced and provided for all projects.

The *Consultant* is responsible for ensuring the Health and Safety File Information is prepared, adequately reviewed, updated and revised. The *Consultant* provides the Health and Safety File information to the *Project Manager* in a format specified by the *Project Manager*. The content and format of the Health and Safety File will be agreed with the *Project Manager*.

Where the *Consultant* should/can directly access the information:

The *Client* provides access to and user rights to enable the *Consultant* to use and amend all information required for the *Client's* Health and Safety File Management System.

The *Consultant* describes the contents and their arrangements for managing the health and safety file information in the DMP.

The *Consultant* produces a programme for the development and provision of health and safety file information in line with the scope and sequencing of the works. The programme is agreed with the *Project Manager* at the start of the contract.

The *Consultant* provides information relevant to the Health and Safety File as requested by the *Project Manager*, at any time from the starting date until the end of the project.

The *Consultant* provides information relevant to the Health and Safety File at appropriate intervals as specified in the Project Manager's programme and upon request by the *Project*

Manager

The *Consultant* provides the Health and Safety File to the *Project Manager* prior to completion of the contract. The *Consultant* responds accordingly to comments raised by the *Project Manager* until the Health and Safety File is accepted by the *Project Manager*.

The works are not considered Complete unless the Project Manager is in possession of all

health, safety and environmental information required to meet the *Project Manager's* Health and Safety File Information requirements. and the information has been reviewed and accepted by the *Project Manager*.

16.1.3.13 Site Hazards

The *Consultant* considers the site hazards identified by the *Project Manager*, in association with the works, contained in the HSE Pre-Construction Information. The *Consultant* considers the site hazards that are normally associated with working on TfL infrastructure.

The *Consultant* undertakes a 'site hazard survey' prior to starting works to verify and identify any other site hazards and risks that may affect the works. The *Consultant* shares the site hazard survey results with the *Project Manager* for information on completion of the survey.

16.1.3.14 Emergency Preparedness Procedures (EPP)

The *Consultant*, as required by the CDM Regulations 2015 prepares a suitable and sufficient EPP for dealing with any foreseeable emergency, including those specified by the *Project Manager* before commencing any construction activities forming part of the design works including site set up and the EPP is accepted by the *Project Manager*.

The *Consultant* submits the EPP to the Project Manager for review 10 working days before start of construction. The *Consultant* responds accordingly to comments raised by the *Project Manager* until the EPP is accepted by the *Project Manager*.

Any existing site specific EPPs will be provided as part of the HSE pre-construction information and should be incorporated in the *Consultant* 's EPP as appropriate.

The *Consultant* maintains the EPP as required by the CDM Regulations. Following the *Project Manager's* acceptance of the initial EPP, the *Consultant* submits subsequent updates to the *Project Manager* for review, comment, and acceptance. The *Consultant* responds accordingly to comments raised by the *Project Manager* until the revised EPP is accepted by the *Project Manager*.

The EPP shall always be available on site while work is in progress.

The Consultant ensures that all personnel are aware of the arrangements in the EPP.

In addition to describing the emergency arrangements for the works on site, the EPP shall consider potential impacts beyond the site boundary, especially where there are interfaces with neighbours, operational assets etc.

The EPP shall:

- i. Clearly state the procedures to be adopted for each emergency
- ii. List the duties and responsibilities of personnel on site
- iii. Identify a senior site official with responsibility for liaison with the emergency

services and

iv. Include the names and telephone numbers of the *Consultant's* staff (including mobile telephones if applicable) who can organise or assist with emergency action (including safety, fire or environment) in the event of an emergency occurring on the site outside normal working hours or when the *Consultant* is absent from the site.

Immediately following an emergency, or following a simulated emergency exercise, the *Consultant* reviews the actions taken against the requirements set out in the EPP and revises it accordingly. In addition, the *Consultant* regularly reviews and revises the EPP in line with changes on the work site or in the work activities. The output of these reviews shall be shared with the *Project Manager* for acceptance.

16.1.3.15 Safe Systems of Work

The *Consultant* is responsible for producing and approving all Safe Systems of Work (also known as Risk Assessments and Method Statements and Work Package Plans) for all intended activities to be carried out, including surveys and inspection work.

The *Consultant* submits an initial schedule of Safe Systems of Work to the *Project Manager* for acceptance at contract start date. The *Project Manager* determines which Safe Systems of Work they will review for acceptance and notifies the *Consultant*.

The *Project Manager* will notify the *Consultant* of any safe systems of work that need to be provided to any 3rd party on this contract e.g. Kier, tunnel maintenance contractor.

The *Contractor* submits Safe Systems of Work to the *Project Manager* for acceptance no later than 10 working days prior to the commencement of the relevant element of works.

The *Project Manager* responds to a Safe System of Work submitted for acceptance within 10 working days. The *Project Manager* will not accept a Safe System of Work that does not enable the *Consultant* to provide the Works in accordance with the requirements of the contract.

If the *Project Manager* has commented on a proposed Safe System of Work that requires a response and/or corrective action, the *Consultant* must respond accordingly allowing 5 days to obtain the *Project Manager's* acceptance prior to commencing the element of the works.

No element of the work shall commence without a Safe System of Work being produced and approved by the *Consultant* and provided to the *Project Manager* and accepted by the *Project Manager*.

Within Safe System of Work the *Consultant* includes a risk assessment that demonstrates how risks identified in the HSE Pre-Construction Information, and associated documents, and potential HSE risks resulting from the works have been mitigated to ALARP status.

Where subcontractors are used, the *Consultant* ensures that they have reviewed and approved all Safe Systems of Work produced by the sub-contractor before they are submitted to the *Project Manager*.

The arrangements for managing changes to Safe Systems of Work (e.g. addressing changes in methodology or associated risks using a short change notice or addendum process) are agreed with the *Project Manager* and included in the Construction Phase Plan.

Safe Systems of Work for work activities will always be available on site while those works are in progress.

16.1.4 HSE Meetings

The *Consultant* attends health and safety meetings with the Project Manager to discuss health and safety performance. The types of health and safety meetings include but are not limited to Pre-start Meetings, Progress Meetings, Zero Harm Forums, Leadership Meetings, Supplier Forums or equivalent.

The *Consultant* responds immediately if the *Project Manager* requests a meeting with a senior representative from the *Consultant* (typically a senior responsible person, identified as responsible for the works) to discuss any reportable event, adverse trends or other evidence of a serious non-conformity with the legislation or health and safety requirements stated in this part of the Specification of Services.

16.1.5 Occupational Health

The Consultant:

- i. Ensures that long-term health issues are risk assessed;
- ii. Documents who has been in involved in setting up the occupational health process (employees, specialist advice, Unions or representatives);
- iii. Details how the potential Occupational Health hazards are identified;
- iv. Manages fatigue of its employees & contractors under its control, and keep records;
- v. Has a process for understanding the medical condition of all employees before they start working for the Organisation;
- vi. Has a process in place for when personnel change roles for reviewing their occupational health requirements assessed prior to starting;
- vii. Undertakes a programme of routine health surveillance;
- viii. Has a process in place to ensure that control measures remain appropriate to individual's condition/requirements;
- ix. Has access to occupational health surveillance/ advice, undertaken in-house or by a specialist provider;
- x. Details as to how often the occupational health process is reviewed and record evidence of this review;
- xi. Details whether they manage their subcontractors in this area, if applicable;
- xii. Securely stores its occupational health information on employees;
- xiii. Retains records for the minimum period applicable to the type of record.

16.1.6 Drugs & Alcohol

The *Consultant* shall operate a drugs and alcohol policy at least as stringent as the policy of the specific TfL business area for which they are contracted.

The *Consultant* shall implement suitable arrangements to verify compliance with its policy including undertaking the necessary alcohol and drug testing. In addition, the

Consultant shall co-operate with the *Project Manager* who may require the execution of random and/or for cause alcohol and drug tests. The *Consultant* shall provide records of testing if requested by the *Project Manager*.

The *Consultant's* drug and alcohol testing arrangements are not applied to TfL employees and non-permanent labour. If the *Consultant* has reason to believe, that TfL permanent or temporary staff member, is not presenting themselves as fit for duty, and free of drugs and alcohol, he should contact the *Project Manager* immediately. The *Project Manager* arranges for the individual to be tested, in accordance with the relevant TfL standards.

In the event of an incident, where "for cause" testing is required for a TfL employee or temporary staff member, the *Consultant* informs the *Project Manager* immediately.

16.1.7 Welfare

The *Consultant* ensures statutory welfare requirements are applied to all sites, fixed and transient, irrespective of project duration.

Welfare facilities are established and in working order before the works commence. All toilet, washing, changing, personal storage and rest areas are easily accessible and have adequate heating, lighting and ventilation. Facilities may need to be provided at more than one location on a large site to ensure workers have easy access.

The *Consultant* ensures good hygiene standards are provided and maintained throughout the welfare facilities.

As a minimum the *Consultant* ensures that all the following are provided before the works commence:

- i. Toilet facilities, including provision for female workers and accessible toilets;
- ii. Washing facilities with warm running water and showers (including provision of barrier and after care skin treatments etc.), including provision for female workers;
- iii. Facilities for storage and drying of work wear, including lockers;
- iv. Rest facilities;
- v. Designated smoking areas;
- vi. Designated mobile phone use areas;
- vii. Drinking water;
- viii. Facilities for making hot drinks;
- ix. General maintenance and cleaning;
- x. Welfare vehicles/temporary facilities; and
- xi. Site Specific COVID-19 Risk Assessments
- 16.1.7.1 The *Client* provides details of TfL owned facilities that are available for use in the Pre-Construction Information/ DMP.

The *Consultant* demonstrates that they have suitable and sufficient arrangements in place to monitor the competence and fitness of those carrying out safety critical tasks.

16.1.9 Behavioural Safety

The *Consultant* implements a behavioural based safety programme to address the human behaviour element of risk management and be able to provide feedback on behaviour trends and causes such that lessons may be shared and learned. Including (but not limited to):

- i. Lead by example;
- ii. Increase awareness of HSE behaviours;
- iii. Develop a no blame / no name culture with the workforce;
- iv. Recognise and reward safe behaviour;
- v. Challenge and manage unsafe behaviour;
- vi. Risk reduction through identification and removal hazards;
- vii. Risk reduction through behaviours.

16.1.10 Implementing Health and Safety Best Practice

During the lifecycle of the contract, it is anticipated that a number of health and safety best practices will be developed by industry. The *Consultant* reviews, evaluates and where applicable, implements these best practices to reduce risk as low as is reasonably practicable and improve health and safety performance.

16.1.11 HSE Competence and Training

16.1.11.1 HSE Advice

The *Consultant* always has access to competent health and safety resource, respective to the scope of the work and the risk derived from it. This resource ensures a presence on site at regular periods for high risk activities, inspections, advice and instruction.

The *Consultant* meets all training, assessment and associated costs and develops a training matrix for all those that will be working on the contract. This record is made available to the *Project Manager* on request.

The *Consultant* outlines how they will provide their staff with the relevant training. The *Consultant* maintains evidence of employee's successful attendance at training courses.

16.1.11.2 HSE Initiatives

The *Consultant*, their employees and subcontractors participate in health and safety initiatives that the *Consultant* and / or the *Project Manager* may use to review and improve health and safety performance.

16.1.11.3 Construction Skills Certification Scheme (CSCS)

Where the *Consultant* implements a CSCS scheme or similar, special dispensation against this requirement is given by the *Consultant* to allow the *Project Manager* and their visitors, site access when on an accompanied site visit.

16.1.11.4 Licences, Permits and Accreditation

- 16.1.11.4.1It is the *Consultant's* responsibility to ensure that they have the appropriate licences, permits and accreditation for the TfL mode and scope of where the work is being undertaken.
- 16.1.11.4.2The Consultant maintains evidence of licences, permits and accreditation.

16.1.11.5 Safety Briefings and Communications

- 16.1.11.5.1The *Consultant* attends any HSE briefings specified by the *Project Manager* and includes all relevant information from these in their own briefings. The *Consultant* takes a proactive stance on promoting health and safety awareness on the site and participates in any *Project Manager* led HSE forums and campaigns.
- 16.1.11.5.2The Consultant outlines how they will provide their staff with the relevant information, instruction and what arrangements they have to communicate to non-fluent English language speakers. The Consultant produces, cascades, communicates and circulates health, safety and environment alerts and communications to all levels of the workforce. The Consultant retains records of these being briefed.
- 16.1.11.5.3Health and Safety Alerts or Bulletins produced by the *Project Manager* are provided to the *Consultant*. The *Consultant* ensures that they are briefed to their staff and subcontractors if relevant to their scope of work. Any Health and Safety Alerts and Bulletins produced by the *Consultant* are also shared with the *Project Manager* for information and possible wider distribution to other TfL modes.

16.1.12 PPE

High visibility clothing carries the *Consultant 's* company name. The *Consultant 's* staff do not wear TfL or TfL mode branded high visibility clothing, unless working under a 'labour only' contract and requested to by the *Project Manager*.

Consultant do not wear any garment or article that impedes their vision or hearing unless required as part of a Safe System of Work e.g. hearing protection.

The wearing of hats, clothing with hoods and any other headwear is prohibited except for:

i. Hoods or headwear required as PPE in response to a risk assessment.

ii. Headwear specifically designed to be compatible with PPE and as not to impede

vision or hearing.

the *Consultant* includes details of PPE to be issued within the Safe System of Work.

16.1.13 Hazardous materials

The *Project Manager* confirms if there are hazardous materials within the tunnel and their location(s) as part of the HSE Pre-Construction Information prior to the commencement of works.

16.1.13.1 Control of Substances Hazardous to Health (COSHH)

- 16.1.13.1.1 The *Consultant* provides written notification to the *Project Manager* 5 working days prior to the use of any equipment, materials or substances that are, or may be classified as hazardous and / or has an impact on the environment, safety, health or welfare of persons or property in the vicinity of where the works are taking place.
- 16.1.13.1.2 The *Consultant* identifies the hazards and provides full details of any precautions to be taken on the use of such equipment, materials or substances.

16.1.13.2 Asbestos

All information regarding the presence of asbestos containing materials within the site / structure will be included in the Pre-Construction Information.

Based on this information the *Consultant* liaises with the *Project Manager* to determine where additional surveys may be required and the type of survey to be undertaking prior to the commencement of works.

Where the *Consultant* believes that asbestos has been disturbed because of their works, they stop the works immediately and inform the *Project Manager*. The *Consultant reports* the incident immediately through the defined reporting process. The *Consultant* prepares a report of the incident, including names of those potentially exposed and provides it to the *Project Manager* in accordance with the agreed reporting requirements. The work will not restart until proposals to minimise any further risks have been agreed with the *Project Manager* and implemented.

16.1.14 Site Rules

The *Consultant* ensures adequate site rules are developed for this contract including the requirements for working in and around the tunnel prior to commencing work on site.

$16.1.14.1\,\textbf{Smoking}$

Smoking (including e-cigarettes) within the working areas is prohibited. The *Consultant provides* suitably signed designated smoking areas close to welfare facilities but away from work areas, site access routes and sensitive neighbouring properties. The *Consultant* takes all reasonable measures to prevent personnel under their control from smoking on the streets adjacent to worksites.

16.1.15 **Fire**

The *Consultant* provides fire prevention and fire precautions training to all employees, particularly fire wardens/marshals and training for key emergency management personnel as required for the effective implementation of the procedures. The Contractor ensures that all works are compliant with the relevant legislation, standards and guidance on fire safety.

16.1.15.1 General requirements

- 16.1.15.1.1The *Consultant* removes all unnecessary flammable/ hazardous materials from site daily.
- 16.1.15.1.2The *Consultant* obtains consent in writing from the *Project Manager* before storing or using plant, equipment or materials which may present a fire risk to any persons or property.
- 16.1.15.1.3The *Consultant* provides any additional fire extinguishers or suppression devices on site as may be required to deal with the *Consultant 's* method of working and / or any materials, packaging and equipment brought or stored on site by the *Consultant*.
- 16.1.15.1.4The *Consultant* ensures that regular site inspections include the *Consultant*'s fire safety arrangements. These shall be recorded, and the completed forms are maintained on site in the appropriate site files and shall be available for inspection by the *Project Manager*.
- 16.1.15.1.5The Consultant complies with the requirements of the London Fire Brigade (LFB) or other relevant fire authority for the provision of site access points. Where appropriate the access points are designed to the requirements of LFB publication fire safety guidance note number 29 'access for fire appliances. The access points must also be suitable for ambulances.

16.1.15.2 Isolations and suppression

- 16.1.15.2.1The *Consultant* agrees the proposed isolation plan to suit the method of working and arrangements for these isolations with the *Project Manager*.
- 16.1.15.2.2The *Consultant* remains a presence on site and undertakes an hourly fire inspection of the isolated area until the fire protection / detection system is reinstated.

16.1.15.3 Hot works

The *Consultant* liaises with the Project Manager regarding hot works and the obtaining of any necessary permits associated with these works.

16.2 Performance and Reporting

16.2.1 Performance monitoring

- 16.2.1.1 The *Consultant's* health and safety performance is monitored by the *Project Manager* using the TfL HSE Supplier Assessment Tool (SAT). The frequency for assessment is quarterly as standard, however the *Project Manager* may amend the frequency considering the *Consultant's* level of activity or performance. The *Consultant* participates in the assessment through the provision of information and evidence requested by the Project Manager in respect of the criteria.
- 16.2.1.2 The results of the assessment are discussed with the *Consultant* upon completion of each assessment. If required, the *Consultant* prepares an Action Plan within SAT in response; progress against which is monitored as part of health and safety progress meetings and subsequent assessments.
- 16.2.1.3 The *Consultant* should for assessment progress from the previous SAT overall score to a better SAT score, i.e. a "red" supplier should be "amber" the next quarter. Or a "green" supplier should remain "green".
- 16.2.1.4 The full assessment criteria will be shared with the *Consultant* at the time of tendering / start of the contract, see Appendix B for the SAT criteria headings.

16.2.2 Audit

- 16.2.2.1 The *Consultant* provides a risk-based health and safety audit Schedule within 10 working days of appointment. The scope and frequency of the audits are developed to ensure compliance with all legal and contractual requirements. The *Consultant* ensures that the audits are undertaken by appropriately trained and qualified personnel.
- 16.2.2.2 The *Consultant* notifies the *Project Manager* 2 weeks in advance of the forthcoming audits giving the *Project Manager* an opportunity to attend the audit. Audit reports are forwarded to the *Project Manager* for information, within 10 business days of the audit being completed. The report includes details of any identified issues and any proposed corrective actions. The report is reviewed at the respective *Consultant / Project Manager* HSE meeting. The *Consultant* is responsible for ensuring that all corrective actions are fully implemented within the assigned timescales and the *Project Manager* appraised of progress.

16.2.3 Inspection

16.2.3.1 The *Consultant* undertakes regular inspections of the site, to monitor health and safety performance. The *Consultant* allows the *Project Manager* to observe or participate in

these inspections; a schedule of inspections is to be provided to the *Project Manager* before the start of work on site so that joint inspections can be co-ordinated.

- 16.2.3.2 To provide assurance that the works are being carried out in accordance with the contract requirements the *Project Manager* is permitted to conduct additional independent inspections, as they consider appropriate.
- 16.2.3.3 Completed inspection reports are submitted to the Project Manager for information no later than 5 business days of the inspection being completed. The *Consultant* ensures that there is a robust system for tracking and closing out any non-compliance issues, or areas for improvement, that are identified during inspections.
- 16.2.4 Incident Reporting, Investigation, Performance Monitoring
- 16.2.4.1 In the event of the *Project Manager* or any delegated officer identifies a safety hazard or witnesses unsafe working practices, they have the authority to stop the associated works until this incident has been suitably resolved / mitigated.
- 16.2.4.2 The *Consultant* reports all health, safety and environment incidents, accidents and near miss events which occur during the contract immediately via the agreed electronic reporting mechanism Info Exchange.
- 16.2.4.3 The *Consultant,* within fourteen (14) days submit an initial written report and after twentyeight (28) days a full report detailing as a minimum the following:
 - i. Description of the incident;
 - ii. Immediate actions taken;
 - iii. Immediate causes;
 - iv. Root causes;
 - v. Actions taken to prevent a recurrence;
 - vi. Skills, knowledge and experience of those involved supervisors and operatives; and
 - vii. Details of plant/equipment used to include calibration and maintenance.
- 16.2.4.4 With the agreement of the *Project Manager* a longer timescale to complete the final report may be agreed.
- 16.2.4.5 All investigation reports will be completed to establish root causes and to a level of detail acceptable at the time to the *Project Manager*. Any comments provided by the *Project Manager* are addressed by the *Consultant* and an updated report submitted if required.
- 16.2.4.6 Where serious accidents occur Major injuries and Dangerous Occurrence (as defined in RIDDOR) these are reported by the *Consultant* to the *Project Manager* immediately (by

phone) and are subject to a thorough formal investigation. This shall also be reported to the HSE and evident this to the Authority

- 16.2.4.7 Nothing in this document supersedes the *Consultant's* responsibility for statutory reporting of incidents/accidents.
- 16.2.4.8 To support the analysis of health and safety performance, the *Consultant* provides the Project Manager with the details of the number of hours worked by the *Consultant* and his subcontractors on the works during the last reporting period and a corresponding list of personnel working during the period. This data is to be submitted within the periodic report required for all the *Consultant's* staff and personnel employed to Provide the Works since the last report. The *Consultant* also reports the cumulative number of hours worked on the contract since the starting date, categorised into management, site level supervision and operatives.

16.2.5 Confined Space

- 16.2.5.1 The *Consultant* evaluates the workplace to determine which spaces are confined spaces and develops a written risk assessment and method statement identifying the controls required for the safe operation of a safe system of work in accordance with the Confined Space Regulations and INDG258: Safe Work in Confined Spaces. The risk assessment and method statement include the confined space entry permit and the control systems required for working in confined spaces including communication, evacuation and rescue.
- 16.2.5.2 The *Consultant* eliminates the need to enter confined spaces wherever possible. Where entry to a confined space is necessary the *Consultant* ensures that a safe system of work is identified that documents all hazards, safety precautions and safe working practices associated with all confined space activities performed by employees.
- 16.2.5.3 The *Consultant* ensures his safe system of work includes:
 - i. Checks that employees have the necessary skills, knowledge and experience to enter a confined space, are appropriately healthy e.g. lung function for breathing apparatus use and have received adequate training;
 - ii. An adequate communication system to enable clear communication between those inside and outside of the confined space;
 - iii. Testing and monitoring of the atmosphere within a confined space for hazardous gas, fume or vapour and checks on the concentration of oxygen prior to entry; and
 - iv. A requirement for emergency arrangements to be in place before any person enters or works in a confined space and contingency plans appropriate to the nature of the confined space, the risks identified and consequently the likely nature of an emergency rescue.

Transport for London 16.2.6 Working at Height

- 16.2.6.1 The *Consultant* complies with the Working at Height Regulations and eliminates the need to work at height wherever possible. Where working at height is necessary the *Consultant ensures* that a safe system of work is identified that documents all hazards, safety precautions and safe working practices associated with all working at height activities performed by employees.
- 16.2.6.2 The *Consultant* ensures that the work is properly planned, appropriately supervised and that employees have the skills, knowledge and experience to work at height. The *Consultant ensures* that collective measures take precedence over personal protective measures i.e. fall prevention equipment.
- 16.2.6.3 The *Consultant* implements an inspection and testing regime for all equipment identified as assisting in any working at height operation to ensure that is compliant with statutory regulations, maintaining records of all inspections and test.

16.2.7 Lifting Operations

- 16.2.7.1 The *Consultant* complies with the Lifting Operations and Lifting Equipment Regulations, producing a risk assessment and lifting plan identifying the nature and level of risks associated with a proposed lifting operation. The *Consultant* briefs the content of the risk assessment and lifting plan to all employees involved in lifting operations.
- 16.2.7.2 The *Consultant* ensures that all employees involved in lifting operations have the required skills, knowledge and experience and hold an appropriate valid construction plant competence scheme card.
- 16.2.7.3 The *Consultant* implements or sources adequate training for employees who operate or test/examine lifting equipment. Training records are kept and where lifting operations are planned, copies of these records are submitted to the *Project Manager*.
- 16.2.7.4 The *Consultant* ensures that any persons who operate lifting equipment or conduct inspections, examinations or tests have the required skills, knowledge and experience and hold an appropriate valid construction plant competence scheme card to ensure that the safe system of work is compliant with statutory regulations and the approved code of practice for safe use of lifting equipment published by the Health and Safety Executive.
- 16.2.7.5 The *Consultant ensures* that there are adequate competent persons to approve all lift plans on the worksite in accordance with The Lifting Operations and Lifting Equipment Regulations. No lifts are carried out without this prior acceptance.

- 16.2.8.1 The *Consultant* ensures that all excavations are planned before construction works commence taking reasonable steps to obtain and review survey drawings, utility records and ground penetrating radar and other appropriate survey information when planning the works in compliance with PAS 128.
- 16.2.8.2 In conjunction with suitable detection methods to be agreed with the *Project Manager*, sufficient trial holes are undertaken by the *Consultant to* confirm the location of all buried utilities. The *Consultant* employs a permit to dig process and ensure that all employees undertaking excavations have the necessary skills, knowledge and experience.
- 16.2.8.3 The *Consultant* ensures that reference is made to the Health and Safety Executives Guidance Note HSG 47 Avoiding Danger from Underground Services and other Safe Digging Practices.
- 16.2.9 Traffic Management and Pedestrian Segregation
- 16.2.9.1 The *Consultant* ensures that adequate provision is made for traffic management to either the Safety at Street Works and Road Works Code of Practice or Chapter 8 of the Traffic Signs Manual, whichever is the most appropriate for the risks and type of works. All Traffic Management are only installed and maintained by employees with the necessary skills, knowledge and experience and hold an appropriate valid competence scheme card.
- 16.2.9.2 The *Consultant* provides all traffic management plans to the Authority for agreement prior to the start of the works as part of the Traffic Management Act Notification.
- 16.2.9.3 The *Consultant* ensures that adequate pedestrian management/segregation is included within traffic management arrangements and consults with the *Project Manager* before implementation.
- 16.2.9.4 Subject to the degree of risk and location, the *Consultant* implements such arrangements as are necessary up to and including permanent Traffic Management employees to inspect and maintain traffic management and pedestrian segregation arrangements. As a minimum, inspections of traffic management are undertaken at the start and end of the working day, and once every two (2) hours with records maintained for the *Project Manager's* review.

16.3.1 Work Related Road Risk (WRRR)

Work related road risk definitions are in Appendix C.

16.3.1.1 Fleet Operator Recognition Scheme Accreditation

Where the *Consultant* operates Delivery and Servicing Vehicles to provide the Services, it shall within 90 days of the Contract Commencement Date:

- 16.3.1.1.1 (Unless already registered) register for FORS or a scheme, which in the reasonable opinion of the Authority, is an acceptable substitute to FORS (the "Alternative Scheme"); and
- 16.3.1.1.2 (Unless already accredited) have attained the standard of Silver Accreditation (or higher) or the equivalent within the Alternative Scheme and shall maintain the standard of Silver Accreditation (or equivalent standard within the Alternative Scheme) by way of an annual independent audit in accordance with the FORS Standard or take such steps as may be required to maintain the equivalent standard within the Alternative Scheme. Alternatively, where the Contractor has attained Gold Accreditation, the maintenance requirements shall be undertaken in accordance with the periods set out in the FORS Standard.

16.3.1.2 Safety Features on HGVs

The *Consultant* shall ensure that every HGV, which it uses to provide the Services, shall be fitted with safety features consistent with the FORS Silver Accreditation.

16.3.1.3 Construction Logistics and Community Safety (CLOCS)

Where applicable, [for works contracts exceeding a value of £1m]:

- 16.3.1.3.1 The Consultant shall comply with the CLOCS Standard;
- 16.3.1.3.2 The *Consultant* shall ensure that the conditions at all sites and locations where:
- 16.3.1.3.2.1 The Services are being delivered; or
- 16.3.1.3.2.2 In connection with the performance of the Services, any waste is being disposed of or supplies are being delivered to or from, are appropriate for each Category N3 HGV being used in the provision of the Services.

Where applicable, [for contracts exceeding a value of £1m where the duration will exceed 12 months and a significant amount of the work will be conducted within the GLA boundaries:

- 16.3.1.4.1 The *Consultant* shall comply with the DVS Schedule attached to this Contract.
- 16.3.1.4.2 The *Consultant* shall ensure that:
- 16.3.1.4.3 from and including 26 October 2019, all Category N3 HGVs used in the provision of the Services achieve a minimum of a one (1) star Direct Vision Standard rating;
- 16.3.1.4.4 from and including 26 October 2023 all Category N3 HGVs used in the provision of the Services achieve a minimum of three (3) star Direct Vision Standard rating.

16.3.1.5 Driver Training

Where the *Consultant* operates Delivery and Servicing Vehicles to provide the Services, the *Consultant* shall ensure that each of its Drivers attend the Approved Progressive Training throughout the Term of the Contract.

16.3.1.6 Collision Reporting

Where the *Consultant* operates Delivery and Servicing Vehicles to deliver the contract, the *Consultant* shall:

16.3.1.6.1 Within 15 days of the Commencement Date, provide to the Authority a Collision Report.The Consultant shall provide to the Authority an updated Collision Report within five working days of a written request from the Authority at any time.

16.3.1.7 Self-Certification of Compliance

Where the *Consultant* operates Delivery and Servicing Vehicles to provide the Services, within 90 days of the Commencement Date, the *Consultant* shall make a written report to the Authority detailing its compliance with Clauses 15.3.1.1, 15.3.1.2, 15.3.1.3, 15.3.1.4, 15.3.1.5, 15.3.1.6 (as applicable) of this Contract (the "WRRR Self-Certification Report"). The *Consultant* shall provide updates of the WRRR Self-Certification Report to the Authority on each six-month anniversary of its submission of the initial WRRR Self-Certification Report.

The *Consultant* shall ensure that those of its sub-contractors who operate Category N2 HGVs, Category N3 HGVs, Vans and/or Car-derived Vans to provide the Services shall comply with the corresponding provisions of this Contract:

- 16.3.1.8.1 Clauses 15.3.1.1, 15.3.1.5, 15.3.1.7; and
- 16.3.1.8.2 for Category N2 HGVs Clauses 15.3.1.2; and
- 16.3.1.8.3 for Category N3 HGVs Clauses 15.3.1.2, and, where applicable 15.3.1.3, 15.3.1.4; as if those sub-contractors were a party to this Contract.

16.3.1.9 Failure to Comply

Without limiting the effect of any other clause of this Contract relating to termination, if the *Consultant* fails to comply with Clauses 15.3.1.1, 15.3.1.2(where applicable), 15.3.1.3(where applicable), 15.3.1.4(where applicable), 15.3.1.5, 15.3.1.6, 15.3.1.7, 15.3.1.8;

- 16.3.1.9.1 The *Consultant* has committed a material breach of this Contract; and
- 16.3.1.9.2 The Authority may refuse the *Consultant*, its employees, agents and Delivery and Servicing Vehicles entry onto any property that is owned, occupied or managed by the Authority for any purpose (including but not limited to deliveries).

16.4 Appendices

16.4.1 Appendix A - TfL Standards

See section 5.6.7 for the standards relating to this project.

TfL Management System

P133 A7 TfL Safety, Health and Environment Policy

Ourcommitment

Our customers, users, employees and suppliers have an expectation that when using or delivering our services or assets they will remain harm free. Our vision is "Everyone home safe and healthy every day". We are committed to meeting our vision and these expectations.

We want to ensure that:

- every journey is a safe journey for our customers and users
- the security of our customers and employees is assured
- our employees, agency staff and contractors go home safe and healthy every day
- we maintain our assets and deliver projects safely
- we fulfil our commitments to prevent pollution and nuisance; protect biodiversity; improve air quality; and reduce waste and carbon emissions
- we are inclusive and accessible to all customers and users, including those with disabilities.

How we go about this

We have put in place health, safety and environment rules and procedures, including emergency procedures that are regularly updated. These are for you to use. If you do not know where to find them ask your line manager or your Safety, Health and Environment (SHE) manager.

We assess risks and introduce SHE measures to ensure risks remain as low as reasonably practicable. We tell you the risks and the measures we have taken to control risks. We will comply with legislation.

There is regular review of safety, health and environment statistics to identify positive and adverse trends and their root causes, so necessary action can be taken. We also assure ourselves that our suppliers maintain a good safety, health and environment record.

Each year we develop detailed SHE improvement plans to enhance what we do. These plans are regularly reviewed by the Directors in your part of the business. When working for TfL or one of its companies you will receive the necessary training and equipment to ensure that you can undertake your job safely, ensure the safety of customers and protection of the environment.

As an employee, your physical and mental health and wellbeing is also important and we provide occupational health services to help you stay healthy and in work and provide suitable welfare facilities at your work place.

We want to maintain a fair culture and employees or their representatives are consulted on health and safety matters as they arise, in a meaningful way through scheduled health and safety meetings or more regularly where needed.

What we can all do

We all need to look out for each other and speak up if anything is unsafe or damaging to health or the environment.

We all have a duty to follow our SHE rules and procedures. Do not take shortcuts. If you think rules or procedures are unhelpful let your manager know. Where necessary rules and procedures can be changed.

We can learn from the past, so always report and investigate accidents, incidents and near misses/close calls.

Demonstrate the TfL behaviours in everything we do.

In this way we can work together so that our vision for a safe and healthy environment is achieved.

Andy Byford Commissioner

Gareth Powell Managing Director Surface Transport

Andy Lord Managing Director London Underground and TfL Engineering

Graeme Craig Director of Commercial Development

Stuart Harvey Director of Major Projects Dated 13 July 2(

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MAYOR OF LONDON

Transport for London



- i. HSE Leadership & Culture: The *Consultant* actively promotes a positive HSE culture and displays excellent HSE leadership.
- ii. Communication, Cooperation, Coordination & Information: The Consultant effectively communicates with all affected parties to ensure that everyone receives the HSE information relevant to them and that all stakeholders are engaged in a timely manner. The Consultant cooperates with all affected parties and coordinates works in such a way that ensures the safety of people, infrastructure and environment.
- iii. Competence: The *Consultant*'s project team and site personnel are fully competent to carry out their work safely and in compliance with HSE legislation.
- iv. Managing HSE Risk Assessments, Documentation and Surveys: All works are planned in compliance with applicable legislation and TfL standards and all HSE risks are adequately identified and managed.
- v. HSE Site Management: All work sites are managed in compliance with applicable legislation, agreed plans and TfL standards.
- vi. Managing Incidents: All accidents, incidents and near misses are reported, investigated and managed in compliance with TfL standards and legislation.
- vii. HSE Performance Review and Continuous Improvement: The *Consultant* sets appropriate HSE targets and objectives and reliably monitors their performance against these. Performance data is used by the *Consultant* to inform improvement plans with the aim of continuously improving their HSE performance.

16.4.3 Appendix C - Work Related Road Risk Definitions

Approved Progressive Driver Training

An ongoing programme of Drivers' training to ensure they have the appropriate knowledge, skills and attitude to operate safely on urban roads. This includes the training specific for the urban environment (including on-road experience from a cyclist's perspective), which is required to be completed at least once every 5 years

Category N2 HGV

A vehicle designed and constructed for the carriage of goods having a MAM exceeding 3,500 kilograms but not exceeding 12,000 kilograms

Category NS HGV

A vehicle designed and constructed for the carriage of goods and having a MAM exceeding 12,000 kilograms

Car-Derived Van

A vehicle based on a car, but with an interior that has been altered for the purpose of carrying larger amounts of goods and/or equipment

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The Construction Logistics and Community Safety standard, which aims to eliminate risk of a collision between heavy goods vehicles servicing the construction sector and vulnerable road users by ensuring effective practice in the management of operations, vehicles, drivers and construction sites; further information can be found at: <u>www.clocs.org.uk</u>

Collision Report

A report detailing all collisions during the previous 12 months involving injuries to persons or fatalities

Delivery and Servicing Vehicle

An HGV, a Van or a Car-derived Van

Driver

Any employee of the *Consultant* (including an agency or contracted driver), who operates Delivery and Servicing Vehicles on behalf of the *Consultant* while delivering the Services

DVLA

Driver and Vehicle Licensing Agency

Direct Vision Standard (DVS)

A performance-based assessment and rating tool, as updated from time to time that measures how much direct vision a Driver has from a Category N3 HGV cab in relation to other road users. Further information can be found at: <u>www.tfl.gov.uk</u>

Fleet Operator Recognition Scheme (FORS)

An accreditation scheme for businesses operating commercial vehicles including vans, HGV, coaches and P2W. It offers impartial, independent advice and guidance to motivate companies to improve their compliance with relevant laws and their environmental, social and economic performance

FORS Standard

The standard setting out the accreditation requirements for the Fleet Operator Recognition Scheme, a copy of which can be found at: <u>www.fors-online.org.uk</u>

Gold Accreditation

The highest level of accreditation within the FORS Standard, the requirements of which are more particularly described at: <u>www.fors-online.org.uk</u>

HGV

A vehicle with a MAM exceeding 3,500 kilograms

The maximum authorised mass of a vehicle or trailer including the maximum load that can be carried safely while used on the road

Silver Accreditation

The minimum level of accreditation within the FORS Standard acceptable for the contract schedule, the requirements of which are more particularly described at: <u>www.fors-online.org.uk</u>

Van

A vehicle with a MAM not exceeding 3,500 kilograms

16.4.4 Appendix D - TfL Pathway DMP Template Topics

The below headings are those found within the DMP:

- i. Design Deliverables
- ii. Organisational Structure
 - a. Register of designers
 - b. Project organisation regarding design management
- iii. Interfaces
- iv. Key constraints and assumptions
- v. Design Process
 - a. Coordination and cooperation arrangements
 - b. Sharing of information
 - c. Assurance / consultation process
 - d. Systems integration
 - e. Design Review process
 - f. HSE Pre-Construction Information Review
- vi. Design Risk / Engineering Safety Hazard Management Procedure
 - a. Health and Safety Management
 - b. Environmental Management 1
 - c. Flood Risk Management
 - d. Sustainability Assessments
 - e. CEEQUAL
- vii. Value Engineering and Risk Management
- viii. Design Approvals Process
- ix. Document Control/Management

- x. Building Information Modelling (BIM)
- xi. Change Control
- xii. Engineering Controls
 - a. Concessions and Derogations
 - b. Space Allocation
 - c. S1088 Managing Changes to Stations Fire Precautions
 - d. Load Applications
 - e. Engineering controls register
 - f. Key performance indicators
 - g. Designer Quality Check record
- xiii. Assurance and Monitoring Arrangements
- xiv. Verification Activities
- xv. Management of sub-contractors
- xvi. Health & Safety File Information

17 Appendix H – Sustainability and Environment

17.1 TfL Environmental Management Requirements

- 17.1.1 The *Consultant* shall operate a suitably scaled Environmental Management System (EMS) during the lifetime of the contract.
- 17.1.2 The EMS shall be documented within an Environmental Management Plan (EMP). Alternatively, with the agreement of the Project Manager, the EMS may be documented within a Design Management Plan or other project document.
- 17.1.3 The EMS shall clearly set out how the design management process will be used to identify potential environmental risk and opportunities, and to address these so that adverse environmental impacts (threats) are mitigated and beneficial environmental impacts (opportunities) are maximised.
- 17.1.4 The *Consultant* shall submit each EMP (or other agreed documentation) to the Project Manager for acceptance within 28 days of the *starting date*.
- 17.1.5 The *Consultant* makes any changes to the EMP (or other agreed documentation) reasonably requested by the *Project Manager* within 7 days of the Project Manager requesting the change.
- 17.1.6 The *Consultant* shall comply with the accepted EMP (or other agreed documentation) at all times.

17.2 Environmental Report

- 17.2.1 Prior to the conclusion of the contract, the *Consultant* submits an Environmental Report to the *Client* for their acceptance. The Environmental Report shall outline each of the identified environmental risks and opportunities and set out the measures that have been incorporated into the design proposals to mitigate the threats and maximise the opportunities.
- 17.2.2 Where actions need to be carried forward into subsequent stages of the Project's lifecycle, these shall be clearly highlighted so that they can be effectively communicated to subsequent delivery partners.
- 17.2.3 Other deliverables set out in the remaining section of the Schedule (such as the Resource and Waste Management Plan) may be appended to the Environmental Report.
- 17.2.4 The *Consultant* makes any changes to the Environmental Report reasonably requested by the Project Manager within 7 days of the Project Manager requesting the change.

17.3 Reducing Carbon Emissions and Water Usage

- 17.3.1 The *Consultant* investigates, and where possible include within the design proposals, innovative sustainable design and construction solutions that have the potential to lower whole life carbon and whole life cost.
- 17.3.2 Additionally, the *Consultant*, wherever possible, proposes or specifies products that qualify for the government's Enhanced Capital Allowance scheme by choosing plant and equipment from the Energy Technology List and Water Technology List.
- 17.3.3 Where practicable, the *Consultant*:
 - i. Ensures that when replacing system assets, the *Consultant* proposes / specifies more energy efficient equipment. The *Consultant* notifies the *Project Manager* where this is not technically feasible; and
 - ii. Assesses existing and future carbon emissions and develops proposals to reduce carbon emissions and energy usage that supports TfL in delivering its programme to improve energy efficiency, helping decrease emissions and lower costs.
- 17.3.4 In order to achieve the above the *Consultant* develops designs that enable the implementation of material efficiency principles wherever practicable, for example:
 - i. Using less materials,
 - ii. Adopting low-waste processes,
 - iii. Using recycled materials or by-products from other industries in preference to virgin materials,
 - iv. Using durable materials to extend the asset's serviceable life.
- 17.3.5 The *Consultant* calculates the embodied carbon of the concept design ensuring that it is assessed over the whole life cycle. This process can be carried out using a carbon calculator tool (i.e provided by Highways England or IStructE) or other as agreed upon between TfL and *Consultant*. See also Section 18.10.
- 17.3.6 When proposing / specifying materials, the *Consultant* make reference to available guidance, such as the Building Research Establishment's (BRE) Green Guide to Specification and shall use these resources to aid the selection of better rated products, and materials which have lower environmental impact.

17.4 Environmental Advisor / Environmental Staffing

- 17.4.1 The *Consultant* employs a sufficient number of competent and appropriately qualified and experienced environmental and sustainability professionals to ensure the full implementation of all the environmental and sustainability requirements.
- 17.4.2 As a minimum, the *Consultant* ensures that an Environmental Adviser is appointed to lead on environmental and sustainability matters. If this person is not a full-time member of the team, the *Consultant* ensures that they regularly liaise with the project team to promote and review environmental performance issues. The Environmental Adviser has:
 - i. Appropriate experience of managing environmental and sustainability issues on highway projects;
 - ii. A good knowledge, and practical experience, of developing and implementing environmental management systems compliant with BS EN ISO14001;
 - iii. A good knowledge and practical experience of legal and policy requirements related to environmental and sustainability disciplines;
 - iv. Practical experience of delivering high levels of environmental and sustainability performance;
 - v. Experience of liaison with stakeholders and competent authorities including the Environment Agency, Natural England and Historic England, local authorities and residents; and
 - vi. Experience of obtaining and complying with environmental consents.
- 17.4.3 From commencement of the contract, the Environmental Adviser must be able to demonstrate the attainment of suitable environmental qualifications and experience. They shall be a full member of the Institute of Environmental Management and Assessment (IEMA) (or an equivalent recognised competent body).
- 17.4.4 As necessary, based on the scope and the level of environmental risk associated with the works, the *Consultant* engages suitably qualified and experienced environmental specialists to support the Environmental Advisor and advise on matters such as carbon, noise/vibration, air quality, ecology, contaminated land etc.
- 17.4.5 The *Consultant* obtains the *Client*'s written consent before the proposed personnel take up any environmental or sustainability related positions, and prior to implementing any changes to the personnel undertaking these roles. The *Client* shall have the right to reject personnel on the grounds that they are not suitably qualified.

17.5 Environmental Objectives

17.5.1 Whilst planning and undertaking the Works, the *Consultant* takes account of any applicable policies and proposals in relevant Mayoral documents - including the Mayor's Transport

Strategy, Environment Strategy, Responsible Procurement Strategy, and the Sustainable Design and Construction supplementary planning guidance to the London Plan.

- 17.5.2 The *Consultant* is aware of, and makes a demonstrable contribution towards the following Environmental Objectives
 - i. Reduce Greenhouse Gas emissions (CO2);
 - ii. Reduce pollutant emissions to the air (NOX and PM10);
 - iii. Reduce transport related noise and vibration;
 - iv. Maintain and, where possible, enhance the quality of London's built environment;
 - v. Maintain and, where possible, enhance the quality of London's natural environment;
 - vi. Reduce resource consumption and waste, and implement responsible procurement;
 - vii. Reduce water consumption.

17.6 Environmental Targets

- 17.6.1 As a minimum, the *Consultant* adopts the environmental target listed below and develop designs that will facilitate their achievement.
- 17.6.2 The *Consultant* proposes additional environmental targets to take account of the identified significant environmental aspects or compliance obligations.

Surface Transport

Description	Target	
Environmental enforcement/regulatory notices	0	
Major environmental incidents	0	
Percentage of non-hazardous construction and demolition waste diverted from landfill (i.e. reused, recycled and/or recovered)	Refer to yearly targets in table below	
Percentage of non-hazardous construction and demolition waste recycled	70%	
Percentage of non-hazardous excavated materials put to beneficial reuse (i.e. diverted from landfill)	100%	
Percentage of the total value of materials incorporated into the Works which has content derived from reused or recycled materials	25%	

17.6.3 TfL has a target to divert (i.e. reuse, recycle and/or recover) 99% of non-hazardous waste from landfill by 2031. To assist us meet this target, the following yearly targets have been developed.

Year	2021-25	2026-30	2030
Percentage of non-hazardous construction and demolition waste diverted from landfill	97%	98%	99%

17.7 Competency and Training

- 17.7.1 The *Consultant* supplies staff and Sub-contractors with all appropriate environmental information and training necessary to undertake their role.
- 17.7.2 To achieve this, the *Consultant* determines the environmental competency and training requirements for all staff working on the Contract. Documentation shall be maintained to detail the required competences, the schedule of planned training, and the receipt of the required environmental training.
- 17.7.3 The *Consultant* ensures that all staff receive environmental awareness training on the specific project risks and the contents of the EMP.

17.8 Internal Communication

17.8.1 The *Consultant* takes a pro-active approach to informing their team about environmental issues so that there is a high level of awareness and the opportunities to implement good practice are maximised.

17.9 Environmental Correspondence

17.9.1 The *Consultant* provides the *Client* with a copy of all environmentally related correspondence with third parties (e.g. the Local Authority or Environment Agency) on the date of receipt.

17.10 Sustainable Design and Assessment

- 17.10.1 The *Consultant* demonstrates the development of sustainable solutions whilst maintaining the project requirements. This should be in accordance with the Infrastructure Carbon Reviews four key principles of:
 - i. Build nothing challenge the root cause of the need; explore alternative approaches to achieve the desired outcome.
 - ii. Build less maximise the use of existing assets; optimise asset operation and management to reduce the extent of new construction required.
 - iii. Build clever design in the use of low carbon materials; streamline delivery processes; minimise resource consumption.
 - iv. Build efficiently embrace new construction technologies; eliminate waste.
- 17.10.2 TfL's Carbon Energy Efficiency Plan (CEEP) maybe used to demonstrate achievement of the above. Additional guidance on how to calculate embodied carbon is provided in Section 18.3.5. Alternatively, the *Consultant* proposes an alternative method. However, whatever approach is used, it:
 - Identify and estimate all significant sources of carbon throughout the life cycle of the solution, separating 'CapCarb' (carbon emissions associated with the delivery of a solution) and 'OpCarb' (carbon emissions associated with the operation and maintenance of a solution);
 - ii. Demonstrate how whole life carbon and cost have been reduced throughout the development and delivery of the solution;
 - iii. Estimate the annual energy costs associated with the design solutions; and
 - iv. Calculate the annual reduction in energy use and associated cost savings from the proposed sustainable design and construction solutions.

Transport for London 17.11 Climate Resilience

- 17.11.1 The *Consultant* ensures that any design, installation and/or maintenance plans consider the climate parameters over the whole design life in which assets (including Natural Assets they support, such as trees, vegetation and Green Infrastructure) must perform, to support resilience to extreme weather.
- 17.11.2 The *Consultant* considers the range of extreme weather and climate parameters that may occur during the asset's design life. This includes, but is not limited to:
 - i. Keeping assets within specified temperature tolerances as defined in the *Client's* standards relevant to the building and asset type applicable to this contract.
 - ii. Incorporating measures to assist with keeping assets resilient during their design life, including but not limited to water efficiency, natural ventilation and shading, greening, and sustainable drainage.

17.12 Ecology Surveys

- 17.12.1 Where works have the potential to affect ecological receptors, the *Consultant* may be required to engage a suitably competent ecologist. Where required, the *Consultant* in liaison with a suitably qualified ecologist shall undertake the following:
 - i. Complete a background data search, sourced from the Greenspace Information for Greater London CIC (GiGL) (the local environmental records centre for London) using the TfL SLA, in accordance with the GiGL data licensing contract.
 - ii. Unless otherwise agreed with the *Client*, the *Consultant* undertakes the Extended Phase 1 Habitat Survey at an optimum time according to the most recent guidance to facilitate the identification of habitats and species that may be affected by the design proposals (i.e. mid-April to the end of September, at the time of writing).
 - iii. Provide a Preliminary Ecological Appraisal Report which details the findings of the data search, survey and any ecological recommendation and mitigation measures.
 - iv. Provide the survey findings as a GIS data layer in accordance with TfL's requirements.
 - v. Complete the TfL Biodiversity Toolkit to calculate biodiversity units prior to, and post, project delivery, proposing mitigation measures to deliver a net gain in biodiversity.
- 17.12.2 The *Consultant* is responsible for ensuring the recommendations and mitigation measures set out in the Preliminary Ecological Appraisal Report are implemented. The *Consultant* confirms any necessary details to allow TfL and other bodies to update the Green Estate and ecological database.

- 17.13.1 In line with the Mayor's Environmental Strategy, the *Consultant* endeavours to develop designs that minimise waste and promote the re-use and recycling of materials.
- 17.13.2 The *Consultant* develops, implements and maintains a Resource & Waste Management Plan (RWMP) to record the decisions taken to reduce materials use, select sustainable materials, and implement the waste hierarchy. The RWMP documents the opportunities that have been considered and carried forward for:
- 17.13.3 Implementing the waste hierarchy
 - i. Complying with current legislation in relation to the storage, handling, treatment, transfer and disposal of all waste materials produced in the performance of the Services
 - ii. Meeting or exceeding the *Client's* targets for the reuse, recovery and recycling of waste
 - iii. Increasing recycled content of materials used in the design proposals
 - iv. Documenting all decisions taken during the design work to reduce waste, and ensure this information is passed to *Client*.
- 17.13.4 The *Consultant* periodically provides the *Client* with information or data extracted from the RWMP to demonstrate that they are on course to meet the preceding requirements (and any associated targets).
- 17.13.5 At the end of the design phase, the *Consultant* submits the completed RWMP to the *Client* to confirm how the above requirements have been met.

17.14 Timber

- 17.14.1 Where it is necessary to use timber, the *Consultant* develops designs and / or specifies that only timber from recycled, reclaimed or sustainable sources (i.e. timber sourced in accordance with the UK Government's Timber Procurement Policy or accredited to the Forest Stewardship Council (FSC) or and equivalent scheme) is incorporated into the temporary and permanent works.
- 17.14.2 Should the *Consultant* propose to use timber that is not from the aforementioned sources, then written justification must be submitted to the *Client* to outline the reasons why this is necessary, and the *Client*'s written consent must be obtained prior to using such timber.

17.15.1 As part of the design development process, the *Consultant*, as a minimum:

- i. Identifies any water sensitive receptors (such as ponds, watercourses, drains or groundwater) which may potentially be affected by the Works, and assess the risk to them;
- ii. Identifies any mitigation measures which shall be employed to minimise the risk to these water sensitive receptors – including any necessary pollution prevention measures;
- iii. Identifies and, if necessary, obtain and comply with any necessary abstraction, discharge and other water environment consents;
- iv. Undertakes any water quality monitoring programmes agreed with the *Client*.
- 17.15.2 Where works are within 16m of a watercourse or 8m of a main river, the *Consultant* liaises with the Environment Agency to obtain any necessary licences or exemptions to carry out works.

17.16 Effluent discharge consents

17.16.1 When providing maintenance of drains and/or interceptors, the *Consultant* ensures that it maintains effluent discharge within the legal effluent discharge consent limits.

17.17 Water Conservation

17.17.1 The *Consultant* develops designs and working methods that reduce water consumption and improve water efficiency.

17.18 Minimising Noise and Vibration in design

17.18.1 Where the *Consultant* is developing designs proposals that could give rise to noise or vibration impacts from TfL owned operational assets, the *Consultant* ensures that the assets or systems are designed to meet the noise and / or vibration criteria in TfL's Asset Design Guidance (G1323).

17.19 Air Quality

17.19.1 The *Consultant* develops proposals that minimise air quality impacts (including dust) from their delivery and operation and enable the implementation of best practicable means to minimise emissions.

17.20.1 The *Consultant* complies with Industry Good Practice in relation to contaminated land.

- 17.20.2 The *Consultant* identifies any areas of potential contaminated land that may be affected by the Works. Unless the *Consultant* can demonstrate that there is sufficient information available to understand the risks posed by the identified contaminated land, the *Consultant* highlights any site investigations that are necessary to enable the risks to human health and the environment to be quantified, and any necessary mitigation measures or remediation proposals to be developed. Such proposals, which shall comply with statutory guidance and industry best practice, shall be submitted to the *Client* for acceptance. Landfill shall only be used if other remediation options (e.g. on-site treatment, off site treatment) are not reasonably practicable.
- 17.20.3 The *Consultant* develops design proposals that will enable the Works to be undertaken in a manner which minimises the disturbance of any contaminated land and avoids the creation of pollution pathways e.g. excavation and piling techniques which minimise the potential for vertical contamination pathways to be created.

The Contractor's Quality Submission
Transport for London

Mini-Competition Request

TfL Reference Number: tfl_scp_002140

Call Off Contract from the

TfL Surface Transport Infrastructure Construction Framework

Blackwall Tunnel Southbound, Phase 1 Concept Design

Pricing Schedule

TfL Reference Number: tfl_scp_002140 Blackwall Tunnel Southbound, Phase 1, Concept Design Call Off Contract Mini Competition PREAMBLE

Schedule of Rates

The *Consultant* provides a role, name and framework grade for <u>all</u> staff in the *Consultant's* proposed project team.

If it is not possible to provide a name for a project team role, the Consultant enters 'TBC'.

The Consultant adds extra rows as necessary to include project team roles.

The Consultant provides rates for all proposed staff roles.

The Consultant provides rates for each category of working hours.

All *Consultants*' expenses are deemed included within the staff rates. This includes but is not limited to travel, accommodation and food and all software costs associated with providing the scope services.

Travel time is not chargeable.

All rates exclude VAT.

The positions, names and grades of CVs included in the *Consultants* quality submission correspond to the Schedule of Rates.

Staff grades match those detailed in the STIC framework.

Rates for individual staff must not exceed the maximum rates for the framework grades, as stated in the framework agreement.

Resource Schedule

Staff working outside of Core Working hours is approved by the *Service Manager* in writing prior to the work taking place.

The *Consultant* enters sub-activities for each core activity and adds additional rows to the schedule if required, to add further sub-activities.

For each person and each core activity, the *Consultant* enters the number of forecast hours in each band of working hours

<u>Fee %</u>

The fee % submitted cannot be above the maximum fee % within the framework agreement



TfL Reference Number: tfl_scp_002140 Blackwall Tunnel Southbound, Phase 1, Concept Design Call Off Contract Mini Competition

LOOK UP LIST

PLEASE NOTE: This is <u>NOT</u> part of the tender evaluation

Principal Specialist/Expert (including M&E) A Specialist Expert (including M&E) B Senior Professional A Senior Professional B **Engineer** A Engineer B **Incorporated Engineer** Graduate Engineer Senior Technician Technician **CAD** Technician **Technical Administrator** Junior Agent **Assistant Planner** Assistant QS Assistant Project Manager **Commercial Director Commercial Manager Construction Manager Contract Manager Commercial Admin** Craft Operative* Estimator General civil engineering supervisor General Operative* Health & Safety Manager Intermediate QS Junior QS Planner **Procurement Manager Project Director Project Manager** Public Liaison Manager Quality & Systems Manager QS Scaffolder Security Guard Senior Commercial Manager Senior Contracts Manager Senior Health & Safety Manager Senior Planner Senior Procurement Manager Senior Project Manager Senior QS Skilled Operative Rate 1* Skilled Operative Rate 2* Skilled Operative Rate 3* Skilled Operative Rate 4* Stakeholder Liaison Manager Sub Agent Surfacing Equipment operator Traffic management team operative Traffic management team supervisor Traffic safety manager Traffic Safety Co-ordination Manager for the Client