

SILVERTOWN TUNNEL

Volume 3: Project Agreement – Schedules 2 to 31

Schedule 18 – Operation and Maintenance Requirements

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SCHEDULE 18

OPERATION AND MAINTENANCE REQUIREMENTS

Part 1 - Operation and Maintenance Services

1. General Requirements

- 1.1 Project Co shall provide operation and maintenance services in accordance with the requirements of this Schedule 18 (*Operation and Maintenance Requirements*) and the other provisions of this Agreement.
- 1.2 Except where stated otherwise in this Schedule 18 (*Operation and Maintenance Requirements*), from the Permit to Use Date, Project Co shall operate and maintain in accordance with clause 19 (*Operation and Maintenance*), this Schedule 18 (*Operation and Maintenance Requirements*) and the other provisions of this Agreement all of the assets:
- 1.2.1 designed and constructed pursuant to the D&C Requirements; and
 - 1.2.2 located within the O&M Area,
- plus:
- 1.2.3 anything TfL agrees can be built outside the Project Land pursuant to clause 7.13 (*Works outside the Project Land*);
 - 1.2.4 any drainage infrastructure associated with the drainage of the Project Facilities, outside the O&M Area, designed, constructed or retained by Project Co pursuant to the D&C Requirements up to the point of connection with the public drainage network; and
 - 1.2.5 any other assets, facilities and supporting infrastructure designed and constructed by Project Co required to keep the Project Roads open for public use,
- but excluding:
- 1.2.6 the Traffic Signalling and any assets which Schedule 11 (*TfL Technology Requirements*) expressly states that Project Co is not required to maintain; and
 - 1.2.7 any part of the Blackwall Tunnel Southern Approach Southbound overbridge above (but not including) waterproofing.
- 1.3 Prior to the Permit to Use Date, Project Co shall:
- 1.3.1 prepare and submit to TfL under the Review Procedure an Operation and Maintenance Strategy which shall be based on and developed from the draft operation and maintenance strategy set out in Annex 1 (*Operation and Maintenance Strategy*) of Part 5 (*Project Co O&M Proposals*); and
 - 1.3.2 ensure that TfL has endorsed such strategy as "received" or "received with comments" in accordance with the Review Procedure.
- 1.4 Project Co may propose updates to the Operation and Maintenance Strategy at any time (and shall, in any event, review the Operation and Maintenance Strategy not less than

Part 1 – Operation and Maintenance Services

- once every [REDACTED] years during the Availability Period, including any updates required to reflect the then current Durability Report (as defined in Schedule 10 (*Design and Construction Requirements*))) and shall submit any proposed updates to the Operation and Maintenance Strategy to TfL under the Review Procedure.
- 1.5 Project Co shall comply with the Operation and Maintenance Strategy which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 1.4) and perform its obligations under this Agreement in accordance with such Operation and Maintenance Strategy.
- 1.6 Project Co shall comply with the:
- 1.6.1 governance and management requirements as described in paragraph 2 (*Governance and Management*);
 - 1.6.2 operational requirements as described in Part 2 (*Operation Requirements*); and
 - 1.6.3 asset management requirements as described in Part 3 (*Asset Management*),
- in accordance with the O&M Standards as set out in Part 4 (*Operation and Maintenance Standards*).
- 1.7 Without prejudice to its other obligations in this Agreement, Project Co shall deliver the Services in compliance with ALARP to ensure the safe management and operation of the Project Facilities.
- 1.8 Without prejudice to its other obligations in this Agreement, Project Co shall adopt and comply with the following principles in performing the Services:
- 1.8.1 act responsibly to reflect the dependency TfL is placing on Project Co to provide the Services and support the business interests and needs of TfL;
 - 1.8.2 capture and adopt best practice and innovation emanating from personnel involved in the delivery of the Services;
 - 1.8.3 identify and recommend synergies between services which give rise to seamless end to end delivery with no duplication of effort;
 - 1.8.4 empower operational staff to facilitate flexibility and responsiveness to deliver the Services in accordance with this Agreement;
 - 1.8.5 ensure staff are capable and highly motivated and the skills and attitudes reflect the requirements of the Services; and
 - 1.8.6 plan for and achieve continuous improvements in the Services.
- 1.9 Project Co shall perform the Services in accordance with the cyber security requirements set out in Annex 2 (*Information Security*) of Part 5 (*Information Management*) of Schedule 8 (*Management Systems*).

2. Governance and Management

- 2.1 Prior to the Permit to Use Date, Project Co shall:
- 2.1.1 prepare and submit to TfL under the Review Procedure the Governance and Management Plan, which shall:

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- a. be based on and developed from the draft governance and management plan set out in Annex 2 (*Governance and Management Plan*) of Part 5 (*Project Co O&M Proposals*); and
 - b. include all of the matters and comply with all of the requirements set out in paragraph 2.4; and
 - 2.1.2 ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.
- 2.2 Project Co may propose updates to the Governance and Management Plan at any time (and shall, in any event, review the Governance and Management Plan not less than once every [REDACTED] during the Availability Period) and shall submit any proposed updates to the Governance and Management Plan to TfL under the Review Procedure.
- 2.3 Project Co shall comply with the Governance and Management Plan which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 2.2) and perform its obligations under this Agreement in accordance with such Governance and Management Plan.
- 2.4 Project Co shall develop the Governance and Management Plan to include:
 - 2.4.1 a structure that identifies all interfaces between TfL, TfL Related Parties and Project Co in relation to the Services;
 - 2.4.2 procedures that describe how Project Co will collaborate with TfL and TfL Related Parties, and rapidly respond to any change in needs or direction in relation to the Services;
 - 2.4.3 procedures which aim to continually improve delivery of the Services; and
 - 2.4.4 procedures that demonstrate that the standard of service delivery is transparent and effectively monitored.
- 3. Services Mobilisation**
 - 3.1 No later than [REDACTED] prior to the Permit to Use Date, Project Co shall:
 - 3.1.1 prepare and submit to TfL under the Review Procedure the Services Mobilisation Plan, which shall:
 - a. set out arrangements for mobilisation of the Services;
 - b. set out all the activities to be completed by Project Co prior to opening of the Project Facilities to Users which shall include:
 - i. familiarisation with the Project Facilities and training for all persons involved in the Services including Project Co staff, TfL staff, Emergency Services staff and all other members of the TDSCG;
 - ii. trialling, testing and verification of all strategies and plans that will be used during the Availability Period including:
 - A. all plans and strategies referred to in this Schedule 18 (*Operation and Maintenance Requirements*);

B. all management systems referred to in Schedule 8 (*Management Systems*); and

C. the Asset Management System;

to ensure that they are capable of being immediately implemented following the Permit to Use Date;

- iii. emergency exercises in accordance with BD53/95 (Inspection and Records for Road Tunnels), BA72/03 (Maintenance of Road Tunnels) and "PIARC Best Practice" for road tunnel emergency exercises;
- iv. population and testing of the Asset Management System and training all relevant staff in its use;
- v. the proposed activities set out in the Services Mobilisation Plan been presented at a TDSCG meeting and agreed by all members of the TDSCG;
- vi. testing of the Project Co TCS and secondary tunnel control system and training of all relevant staff in their use; and
- vii. testing of the interface between the Project Co TCS and TfL TCS in accordance with the Project Co Test Plan and training of TfL staff in relation to the Project Co TCS; and

3.1.2 ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.

3.2 Project Co shall comply with the Service Mobilisation Plan which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure and perform its obligations under this Agreement in accordance with such Services Mobilisation Plan.

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OPERATION AND MAINTENANCE REQUIREMENTS

Part 2 - Operation Requirements

1. Roles and Responsibilities

- 1.1 Without limiting any other provision of this Agreement, the Parties acknowledge and agree that:
- 1.1.1 the Project Roads, together with the Blackwall Tunnel and connecting highway network, form part of a combined and integrated road crossing of the River Thames;
 - 1.1.2 the Project Roads are part of the TLRN and the SRN;
 - 1.1.3 TfL is the Highway Authority and Street Authority for the TLRN;
 - 1.1.4 TfL is the Traffic Authority for the SRN and has a network management duty under the Traffic Management Act (2004);
 - 1.1.5 certain functions of TfL, including as Highway Authority and Street Authority, are contracted out to Project Co pursuant to Part 2 (*Road Tunnel Safety Regulations*) of Schedule 5 (*Allocation of DCO and Other Requirements*); and
 - 1.1.6 Project Co shall be the Tunnel Manager in accordance with Part 2 (*Road Tunnel Safety Regulations*) of Schedule 5 (*Allocation of DCO and Other Requirements*).
- 1.2 Without prejudice to its other obligations in this Agreement, Project Co shall operate the Project Facilities to ensure at all times that:
- 1.2.1 the Project Facilities are safe, functional and available to Users and enable TfL to fulfil its obligations as Highway Authority for the TLRN and Traffic Authority for the SRN; and
 - 1.2.2 Project Co does not put TfL in breach of the duties described in paragraph 1.1.3 and paragraph 1.1.4.
- 1.3 Without prejudice to its other obligations in this Agreement, Project Co acknowledges and agrees that TfL may at any time, in undertaking the duties described in paragraph 1.1.3 and paragraph 1.1.4, without limitation:
- 1.3.1 restrict User access to the Project Roads;
 - 1.3.2 divert or otherwise manage traffic on the SRN;
 - 1.3.3 reverse the direction of traffic on the Project Roads; and
 - 1.3.4 prohibit certain Users from accessing the Project Roads,
- and Project Co shall at all times comply with any reasonable request of TfL and provide all reasonable assistance to support TfL in exercising such duties.
- 1.4 Project Co shall ensure that TfL is at all times capable of controlling all equipment and systems required to safely exercise its duties and obligations described in this paragraph

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1 (*Roles and Responsibilities*) through the Project Co TCS and the interface with the TfL TCS, as described in Schedule 11 (*TfL Technology Requirements*).

2. Road Closures

- 2.1 Where Project Co is required pursuant to this Agreement, or otherwise proposes, to restrict User access to the Project Roads, Project Co shall inform TfL (in order to, amongst other things, allow TfL to exercise its network management duty as described in paragraph 1.1.4). Such notification shall be made through the Project Co TCS and the interface with the TfL TCS as described in Schedule 11 (*TfL Technology Requirements*).
- 2.2 Notwithstanding any action or inaction of TfL to exercise its network management duty as described in paragraph 1.1.4, where Project Co is required pursuant to this Agreement or otherwise proposes to restrict User access to the Project Roads, Project Co shall take all necessary action to restrict User access to and protect the Project Facilities and User safety, including by directly restricting User access to the Project Roads.
- 2.3 Project Co acknowledges and agrees that the provisions of Schedule 13 (*Network Occupancy*) and Schedule 20 (*Payment Mechanism*) shall apply at all times in relation to all road and lane closures.

3. Prohibited Users

- 3.1 Project Co shall develop, implement and continuously improve access, monitoring and control measures to ensure that Prohibited Users do not enter the Project Facilities, unless otherwise requested by TfL.
- 3.2 Where requested by TfL, Project Co shall take all reasonable measures to facilitate and enable the safe passage of Prohibited Users via the Project Roads, including the provision of Temporary Traffic Management Measures and vehicle escorts.

4. Operation Interfaces

- 4.1 Project Co shall identify all required interfaces in relation to the operation of the Project Facilities, including with TfL, TfL Related Parties, Interested Parties and Emergency Services, and Project Co shall ensure the protocols referred to in paragraph 5.1.1g cover all such interfaces.
- 4.2 Project Co shall ensure the plans, procedures and protocols for all interfaces identified under paragraph 4.1 are as far as possible based on automated actions built into the Project Co TCS and the interface with the TfL TCS as described in Schedule 11 (*TfL Technology Requirements*).
- 4.3 Other than as set out in the Operation Strategy, Project Co acknowledges and agrees that it does not require the control of any TfL equipment or systems to fulfil its obligations under this Agreement and Project Co shall not be permitted to access or monitor any TfL systems.
- 4.4 Project Co shall ensure TfL is at all times capable of monitoring and controlling the Project Co TCS as described in paragraph 2.2.5 of Part 1 (*TfL Technology Requirements*) of Schedule 11 (*TfL Technology Requirements*).
- 4.5 As between Project Co and TfL, Project Co shall have primacy of control for all devices forming part of the Project Facilities unless otherwise required by the Operation Strategy.

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- 4.6 Without prejudice to TfL's ability to monitor the Project Facilities pursuant to paragraph 4.4, Project Co shall continuously update and maintain a record and log in a format acceptable to TfL of the status of the Project Facilities and any actions taken by Project Co in relation to the Project Facilities, including:
- 4.6.1 all actions taken by operators through the Project Co TCS;
 - 4.6.2 all voice commands and communications;
 - 4.6.3 CCTV recordings and images;
 - 4.6.4 tunnel status and Level of Safety Score and Mitigated Level of Safety Score for all Safety Sub-Functions in accordance with the Tunnel Safety Management System as described in paragraph 7 (*Tunnel Safety Management System*);
 - 4.6.5 any incidents described in paragraph 6.6 or paragraph 6.7;
 - 4.6.6 any access to the Project Facilities by Prohibited Users;
 - 4.6.7 the type and volume of traffic using the Project Roads; and
 - 4.6.8 tunnel air quality information from Project Co's air quality sensors,
- which shall be made available by Project Co at the request of TfL or the Emergency Services or other third parties identified by TfL for use in investigating incidents.
- 4.7 To the extent Project Co has access to such information, Project Co shall provide TfL with any air quality monitoring data as may be reasonably requested by TfL.
- 4.8 All communications, monitoring, requests, and other actions described in this paragraph 4 (*Operation Interfaces*) shall, unless otherwise agreed with TfL, take place through the Project Co TCS and the interface with the TfL TCS as described in Schedule 11 (*TfL Technology Requirements*).

5. Operation Strategy

- 5.1 Prior to the Permit to Use Date, Project Co shall:
- 5.1.1 prepare and submit to TfL under the Review Procedure an Operation Strategy which shall:
 - a. align with the latest version of the Operation and Maintenance Strategy which has been endorsed as "received" or "received with comments" by TfL in accordance with the Review Procedure;
 - b. be based on and developed from the draft set out in Annex 3 (*Operation Strategy*) of Part 5 (*Project Co's O&M Proposals*);
 - c. include all of the matters and comply with all of the requirements set out in this Part 2 (*Operation Requirements*);
 - d. set out Project Co's approach to planning, managing, and continuously improving the operational services;

- e. without limitation to Schedule 20 (*Payment Mechanism*) and Schedule 16 (*Records and Reporting*), detail how Project Co will monitor performance of the operational services and report to TfL in accordance with this Agreement;
- f. identify the key risks to operational services and how Project Co will mitigate such risks;
- g. propose the operational protocols between Project Co and any other relevant parties in relation to the operation of the Project Facilities, Project Roads and SRN, including:
 - i. lines of communication between all parties;
 - ii. the protocols for making operational decisions; and
 - iii. arrangements for mutual aid;
- h. include contact details for one or more operational contact of Project Co, at least one of which shall at all times be contactable by TfL in relation to the Services;
- i. set out Project Co's organisational structure for the operation of Services, including contractual arrangements, details of key personnel and the specific knowledge, experience, skills and competencies, and the specific responsibilities and accountabilities of, all staff members;
- j. set out the working arrangements of operational staff including location, shift details and cover arrangements;
- k. include details of the equipment, systems and other infrastructure used by Project Co in performing the Services;
- l. set out priority and primacy of controls and all operating protocols for all equipment and systems used in operating the Project Facilities and managing traffic on the Project Roads;
- m. where Project Co is required to monitor, control or request action by any person, system, equipment, device or other thing not forming part of the Project Facilities, set out the procedures for doing so, along with the procedures for obtaining the express written permission of the relevant party involved in using such procedures;
- n. detail how actions, plans, procedures and protocols in relation to the Operation Strategy are built into the Project Co TCS or otherwise managed and controlled;
- o. include a business continuity and recovery plan to address major risks which may detrimentally affect Project Co's ability to perform the Services in accordance with this Agreement;
- p. include details of the training arrangements for Project Co and Project Co Related Party staff, TfL, the Emergency Services and any other relevant person to cover familiarisation with the Project Facilities and the operating procedures developed by Project Co;

- q. include arrangements for succession planning should members of staff be involved in operation change, including those not contracted to Project Co;
 - r. include documented evidence that all relevant stakeholders have been consulted in production of the Operation Strategy, including a revised TDSCG Consultation Document signed by all relevant stakeholders;
 - s. detail how Project Co will continuously monitor and operate the Project Facilities to respond to changing traffic and environmental conditions;
 - t. include detailed procedures for restricting User access to the Project Facilities in accordance with paragraph 2 (*Road Closures*);
 - u. include measures for preventing access to the Project Facilities by Prohibited Users;
 - v. include arrangements for special events and other abnormal operating scenarios;
 - w. include arrangements for incident response in accordance with paragraph 6 (*Incident Response*);
 - x. include any and all traffic management arrangements to be used in operation of the Project Roads, including traffic management plans, layouts and documented evidence of relevant permits and traffic orders or other permissions required in relation to the same; and
 - y. detail how Project Co will review and refine the Operation Strategy to capture lessons learnt and incorporate best practice, including how Project Co will involve TfL and other relevant parties in review of the Operation Strategy prior to submission to the Review Procedure; and
- 5.1.2 ensure that TfL has endorsed such strategy as "received" or "received with comments" in accordance with the Review Procedure.
- 5.2 Project Co may propose updates to the Operation Strategy at any time (and shall, in any event, review the Operation Strategy not less than once every [REDACTED] during the Availability Period) and shall submit any proposed updates to the Operation Strategy to TfL under the Review Procedure.
- 5.3 Project Co shall comply with the Operation Strategy which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 5.2) and perform its obligations under this Agreement in accordance with such Operation Strategy.
- 5.4 Project Co shall not be entitled to any costs or any relief from its obligations in this Agreement as a result of any non-compliance by TfL or any other party with any role or protocol contained in the Operation Strategy and such non-compliance shall not constitute a breach by TfL of this Agreement.
- 6. Incident Response**
- 6.1 The Parties acknowledge and agree that although multiple parties, including Project Co, TfL, TfL Related Parties and the Emergency Services, may be involved in the response to any incident that may occur in relation to the Project Facilities, Project Co shall develop,

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own and manage all procedures, processes and plans to enable a full and comprehensive response to be provided to any and all such incidents by all such parties.

6.2 Prior to the Permit to Use Date, Project Co shall:

6.2.1 prepare and submit to TfL under the Review Procedure an Incident Response Strategy to cover any and all incidents that may occur in relation to the Project Facilities which shall:

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

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6.3 Project Co shall review the relevant Incident Response Plan after every incident described in paragraph 6.6 or paragraph 6.7 and shall submit to TfL for review under the Review Procedure any proposed changes to the relevant Incident Response Plan.

6.4 Project Co may propose updates to the Incident Response Strategy at any time (and shall, in any event, review the Incident Response Strategy not less than once every [REDACTED]) and shall submit any proposed updates to the Incident Response Strategy to TfL under the Review Procedure.

6.5 Project Co shall comply with the Incident Response Strategy which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 6.4) and perform its obligations under this Agreement in accordance with such Incident Response Strategy.

6.6 Project Co shall identify all incidents that may occur in relation to the Project Facilities and Project Co shall produce an appropriate Incident Response Plan as referred to in paragraph 6.2.1k in relation to each such incident, including:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- [REDACTED]
- [REDACTED]
 - [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

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7. Tunnel Safety Management System

7.1 Project Co shall ensure that the Tunnel Safety Management System is at all times continuously updated and maintained to be:

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8. Project Co TCS

8.1 Project Co shall ensure that the Project Co TCS is at all times continuously operated and maintained to be:

[Redacted text block]

Annex 1 of Part 2 – Tunnel Safety Management System¹

Excluded commercially sensitive information

¹ Note to Tenderers: populated version of the form of annex set out in the Data Room to be included by TfL based on the Preferred Bidder's Tender Submission.

SCHEDULE 18

OPERATION AND MAINTENANCE REQUIREMENTS

Part 3 - Asset Management

1. Asset Management Strategy and Planning

1.1 Asset Management Strategy

1.1.1 Prior to the Permit to Use Date, Project Co shall:

- a. prepare and submit to TfL under the Review Procedure an Asset Management Strategy for the Availability Period which shall:
 - i. align with the latest version of the Operation and Maintenance Strategy, which has been endorsed as "received" or "received with comments" by TfL in accordance with the Review Procedure;
 - ii. be based on and developed from the draft asset management strategy set out in Annex 5 (*Asset Management Strategy*) of Part 5 (*Project Co O&M Proposals*); and
 - iii. include, as a minimum in relation to the Project Facilities:
 - A. the key objectives for asset management;
 - B. the organisation structure and key roles;
 - C. how the Asset Management Strategy will seek to minimise Deductions;
 - D. the approach to planning and managing the key activities required by this Agreement, including meeting the Handback requirements specified in Schedule 19 (*Handback Requirements*);
 - E. how the Asset Management Strategy will be influenced by the results from inspections;
 - F. proposals for spares and consumables;
 - G. the types of maintenance activities and lifecycle works that may cause disruption to traffic and how Project Co will minimise the impact;
 - H. how the competency and skill level of management and operational staff will be determined and the steps to be taken to maintain and improve competency and skill levels;
 - I. details of any staff training programme specific to the Services;

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- J. details of data and management information that Project Co will obtain and maintain, to enable effective management of the Services;
 - K. details of the systems required to host the required asset data and management information, and linkage with the Project Co TCS and TfL TCS; and
 - L. a description of how the performance of the Services will be self-monitored and reported; and
- b. ensure that TfL has endorsed such strategy as "received" or "received with comments" in accordance with the Review Procedure.
- 1.1.2 Project Co may propose updates to the Asset Management Strategy at any time (and shall, in any event, review the Asset Management Strategy, not less than once every [REDACTED] during the Availability Period) and shall submit any proposed updates to the Asset Management Strategy to TfL under the Review Procedure.
- 1.1.3 Project Co shall comply with the Asset Management Strategy which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 1.1.2) and perform its obligations under this Agreement in accordance with such Asset Management Strategy.
- 1.2 Inspections Strategy
- 1.2.1 Prior to the Permit to Use Date, Project Co shall:
- a. prepare and submit to TfL under the Review Procedure an Inspections Strategy for the Availability Period which shall:
 - i. be based on and developed from the draft inspections strategy set out in Annex 6 (*Inspections Strategy*) of Part 5 (*Project Co O&M Proposals*);
 - ii. detail how Project Co shall carry out all of the matters set out in paragraph 2.1 (*Inspection Requirements*);
 - iii. align with the latest version of the Asset Management Strategy which has been endorsed as "received" or "received with comments" by TfL in accordance with the Review Procedure; and
 - iv. include, as a minimum, in relation to the Project:
 - A. description of key objectives for testing and inspections;
 - B. the organisation structure and key roles;
 - C. the approach to planning and managing the key activities required and criteria for success, including meeting the required standards;

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- D. the methodologies to be adopted for undertaking inspections;
 - E. a description of when testing and inspections may cause disruption to traffic and how Project Co will minimise the impact;
 - F. a description of how the competency and skill level of management and operational staff will be determined and the steps to be taken to maintain and improve competency and skill levels;
 - G. details of any staff training programme specific to the Services;
 - H. details of data and management information that Project Co will obtain and maintain, to enable effective management of the Services;
 - I. details of the systems required to host the required data and management information;
 - J. a description of how the performance of the Services will be self-monitored and reported; and
 - K. a description of how the delivery of the Services will be reviewed and audited over time and how new, better practices will be adopted; and
- b. ensure that TfL has endorsed such strategy as "received" or "received with comments" in accordance with the Review Procedure.
- 1.2.2 Project Co may propose updates to the Inspection Strategy at any time (and shall, in any event, review the Inspections Strategy not less than once every [REDACTED] during the Availability Period) and shall submit any proposed updates to the Inspections Strategy to TfL under the Review Procedure.
- 1.2.3 Project Co shall comply with the Inspections Strategy which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 1.2.2) and perform its obligations under this Agreement in accordance with such Inspections Strategy.
- 1.3 RTS Regulations
- 1.3.1 Project Co shall:
- a. ensure that it, in its role as the Inspection Entity, carries out all inspections and compiles with all reports required pursuant to regulation 13 (*Duties of inspection entity*) of the RTS Regulations;
 - b. draw up such additional safety requirements as it considers appropriate for TfL's consideration, following the carrying out of the inspections referred to in paragraph 1.3.1a;
 - c. ensure that operational and organisational schemes are in place in accordance with the requirements of regulation 5 (*Duties of Administrative Authority*) of the RTS Regulations;

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- d. adopt, implement and comply with any measures or conditions to increase tunnel safety notified by TfL pursuant to regulation 5(4) (*Duties of Administrative Authority*) of the RTS Regulations and the Parties acknowledge and accept that compliance with this paragraph 1.3.1d shall not constitute a TfL Change and Project Co shall not be entitled to any additional compensation, relief or remedy in respect thereof; and
- e. compile an accident and fire report every [REDACTED] in accordance with the requirements of regulation 6 (*Administrative Authority – duty to compile accident and fire reports*) of the RTS Regulations for TfL's consideration.

1.4 Lifecycle Renewals Plan

1.4.1 Prior to the Permit to Use Date, Project Co shall:

- a. prepare and submit to TfL under the Review Procedure a Lifecycle Renewals Plan, which shall be based on and developed from the draft set out in Annex 7 (*Lifecycle Renewals Plan*) of Part 5 (*Project Co O&M Proposals*); and
- b. ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.

1.4.2 Project Co may propose updates to the Lifecycle Renewals Plan at any time (and shall, in any event, review the Lifecycle Renewals Plan not less than once every [REDACTED] during the Availability Period, in order to incorporate intelligence gained from inspections and to adopt improving practice for whole life asset management) and shall submit any proposed updates to the Lifecycle Renewals Plan to TfL under the Review Procedure.

1.4.3 Project Co shall comply with the Lifecycle Renewals Plan which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 1.4.2) and perform its obligations under this Agreement in accordance with such Lifecycle Renewals Plan.

1.4.4 As part of undertaking any lifecycle works, Project Co shall submit any proposed change to the Project Facilities to TfL under the Review Procedure, and shall not implement or incorporate any items adopting such proposed design into the Project Facilities until endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure. Without prejudice to TfL's rights pursuant to the Review Procedure, TfL shall be entitled to reject any such proposed change in its absolute discretion.

1.5 [REDACTED] Programme

1.5.1 No later than [REDACTED] prior to the end of the first Agreement Year that is [REDACTED] in duration, Project Co shall:

- a. prepare and submit to TfL under the Review Procedure a [REDACTED] Year Programme which shall:
 - i. be consistent with the latest Asset Management Strategy, Inspections Strategy and Lifecycle Renewals Plan which have been endorsed as

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"received" or "received with comments" by TfL in accordance with the Review Procedure;

- ii. align start and end dates of the [REDACTED] Programme with the start and end dates for an Agreement Year;
- iii. describe in outline the most significant inspection, testing, maintenance and renewal activities for the subsequent [REDACTED] period; and
- iv. include all of the matters and comply with all of the requirements set out in paragraph 1.1 (*Asset Management Strategy*), paragraph 1.2 (*Inspections Strategy*) and paragraph 1.4 (*Lifecycle Renewals Plan*) of this Part 3 (*Asset Management*); and

b. ensure that TfL has endorsed such programme as "received" or "received with comments" in accordance with the Review Procedure.

1.5.2 Project Co may propose updates to the [REDACTED] at any time (and shall, in any event, review the [REDACTED] Programme not less than once every [REDACTED] during the Availability Period) and shall submit any proposed updates to the [REDACTED] Programme to TfL under the Review Procedure no less than [REDACTED] prior to the start of the following Agreement Year.

1.6 Annual Programme

1.6.1 Prior to the Permit to Use Date, Project Co shall:

- a. prepare and submit to TfL under the Review Procedure an Annual Programme for the first Agreement Year of the Availability Period; and
- b. ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.

1.6.2 No less than [REDACTED] prior to the start of each Agreement Year (other than the First Agreement Year in the Availability Period), Project Co shall prepare and submit to TfL under the Review Procedure an Annual Programme for the relevant Agreement Year and shall ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.

1.6.3 Project Co shall ensure each Annual Programme shall:

- a. be based on and developed from the draft set out in Annex 8 (*Annual Programme*) of Part 5 (*Project Co O&M Proposals*);
- b. be consistent with the latest Asset Management Strategy, Inspection Strategy, Lifecycle Renewals Plan and [REDACTED] Programme which have been endorsed as "received" or "received with comments" by TfL in accordance with the Review Procedure;
- c. detail the types and programme of planned inspections and surveys to be performed in the relevant Agreement Year;

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- d. detail all planned, preventative, routine, periodic and cyclical maintenance to be performed in the relevant Agreement Year;
 - e. include all minor or major renewal or replacement works as may be required to be performed in the relevant Agreement Year; and
 - f. include all operation and maintenance activities required in the relevant Agreement Year to comply with Project Co's obligations in this Schedule 18 (*Operation and Maintenance Requirements*) and this Agreement.
 - 1.6.4 Project Co shall ensure that the level of detail and description across activities and tasks included in the Annual Programme shall be of consistent granularity.
 - 1.6.5 Project Co may propose updates to the Annual Programme at any time (and shall, in any event, review the Annual Programme not less than once every Agreement Year during the Availability Period in accordance with paragraph 1.6.1) and shall submit any proposed updates to the Annual Programme to TfL under the Review Procedure.
 - 1.6.6 Project Co shall comply with the each Annual Programme which has been endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 1.6.5) and perform its obligations under this Agreement in accordance with such Annual Programme.
- 1.7 Asset Management System
 - 1.7.1 Project Co shall ensure that information and data:
 - a. relating to the planning and implementation of inspections and maintenance activities;
 - b. relating to the ongoing condition of the assets, facilities, systems and supporting infrastructure within the Project Facilities;
 - c. described in paragraph 2 (*Electronic Database*) of Annex 8 (*Asset Management System*) of Part 1 (*Design and Construction Requirements*) of Schedule 10 (*Design and Construction Requirements*); and
 - d. relating to the Residual Life of each Element,
 is maintained up to date at all times in the Asset Management System.
 - 1.7.2 Project Co shall maintain records of all inspections, assessments, surveys, repairs, replacements, renewals of all assets in accordance with the requirements of Schedule 16 (*Records and Reports*).

2. Asset Management

2.1 Inspection Requirements

- 2.1.1 Project Co shall inspect and test the Project Facilities in accordance with the Inspections Strategy and shall carry out inspections and tests of individual assets in accordance with:

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- a. the relevant manufacturer's instructions;
 - b. relevant requirements of the O&M Standards;
 - c. obligations under the RTS Regulations pursuant to the provisions of Part 2 (*Road Tunnel Safety Regulations*) of Schedule 5 (*Allocation of DCO and other requirements*); and
 - d. all Applicable Requirements.
- 2.1.2 Project Co shall plan the frequency of inspections to identify, record and report the condition, availability, serviceability and functionality of the Project Facilities, including identification of Failures and Service Failures, in a timely manner and shall carry out inspections of the Project Facilities at frequencies:
- a. necessary to verify and record the availability and functionality of all elements of the Project Facilities;
 - b. necessary to enable identification, detection, recording and reporting of faults (including notifications of faults identified by TfL or other third parties); and
 - c. as may be required to improve the inspections regime based on Good Industry Practice.
- 2.1.3 Without prejudice to paragraph 2.1.1 and paragraph 2.1.2, Project Co shall:
- a. identify and indicate the type of inspections in the Inspections Strategy, including the following types of inspections, each as described in the O&M Standards:
 - i. safety inspections;
 - ii. service inspections;
 - iii. general inspections;
 - iv. principal inspections;
 - v. special inspections; and
 - vi. detailed inspections; and
 - b. without prejudice to the remainder of this Schedule 18 (*Operations and Maintenance Requirements*) or the provisions of this Agreement, carry out the following additional inspections:
 - i. inspections of the ME&P Systems at least once every year to validate and verify the outputs displayed by the Project Co TCS;
 - ii. daily visual inspections of the Project Facilities, where the timing of each inspection shall not be less than [REDACTED] after the previous inspection;

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- iii. carriageway inspections using the following three (3) types of survey in accordance with the relevant timing specified to assess the structural condition of carriageways of the Project Roads:
 - A. high speed surveys to assess carriageway surface condition at least once a [REDACTED];
 - B. skidding resistance surveys (category 1 equivalent) at least once a [REDACTED]; and
 - C. deflectograph surveys to assess pavement condition at least once every [REDACTED],
 - iv. all in accordance with SQA - 2136 (*Skid Resistance Policy*), HD29 (*Data for Pavement Assessment*) and HD 30 (*Maintenance Assessment Procedure*) as described in the O&M Standards;
 - v. minimum inspection frequencies prescribed under the Applicable Requirements for inspections of all electrical equipment installed or used within the Project Facilities;
 - vi. inspections of the vehicle restraint systems at least once [REDACTED];
 - vii. CCTV surveys of the drainage infrastructure within the O&M Area at least once [REDACTED];
 - viii. a photometric check on the tunnel lighting for a representative area of each of the lighting zones (threshold, transitional and core and exit zones) to verify that performance continues to meet the Agreed Specification;
 - ix. the speech transfer index intelligibility tests for a sample area in each fire zone to verify that performance of the voice alarm and public address system continues to meet the Agreed Specification; and
 - x. inspections of an asset following notification by a TfL or a member of the public of a fault or problem with such asset.
- 2.1.4 Project Co shall, as soon as reasonably practicable following each inspection relating to the Project Facilities carried out pursuant to this Part 3 (*Asset Management*) or otherwise, input the detailed data arising from such inspections into the Asset Management System to allow the Asset Management System to determine and indicate whether a Failure or Service Failure has occurred.
- 2.2 Maintenance Requirements
- 2.2.1 Project Co shall undertake planned, preventative, routine, periodic and cyclical maintenance of the Project Facilities in accordance with the Asset Management Strategy.

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- 2.2.2 Project Co shall take into account the results of the inspections described in paragraph 2.1 (*Inspection Requirements*) when planning and undertaking the maintenance activities described in paragraph 2.2.1.
- 2.2.3 Project Co shall ensure that the Project Facilities meet the specified Performance Requirements and Service Requirements as specified in:
 - a. Annex 1 (*Tunnel ME&P Systems Performance Requirements*); and
 - b. Annex 2 (*Structures (including Buildings) and Highway assets Performance Requirements*).
- 2.2.4 Project Co shall provide reactive maintenance in response to all Failures and Service Failures in accordance with the Asset Management Strategy in order to ensure the affected assets and structures are repaired or replaced in order to continue to meet the Performance Requirements and Service Requirements.
- 2.2.5 In carrying out its maintenance activities, Project Co shall at all times:
 - a. minimise the effect of such maintenance activities on the Performance Requirements and the Service Requirements;
 - b. minimise disruption to Users; and
 - c. ensure the safety of all Affected Persons.
- 2.2.6 Project Co shall continuously improve its performance with respect to maintenance as result of:
 - a. intelligence gained from inspections;
 - b. lessons learned as a result of repairing Failures and Service Failures and in response to incidents;
 - c. evolving Good Industry Practice; and
 - d. new technology.
- 2.2.7 Project Co shall not undertake maintenance activities which involve operatives working outside of a vehicle unless the relevant Carriageway is closed.
- 2.3 Service Requirements – Landscape Management
 - 2.3.1 Prior to the Permit to Use Date, Project Co shall
 - a. prepare and submit to TfL under the Review Procedure a Landscape Management Plan which shall:
 - i. be based on and developed from the draft set out in Annex 9 (*Landscape Management Plan*) of Part 5 (*Project Co O&M Proposals*);
 - ii. comply with the requirements set out in references SL01 and SL02 in Annex 3 (*Service Requirements*); and

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- iii. describe how Project Co shall meet the requirements set out in references SL01 and SL02 in Annex 3 (*Service Requirements*); and
 - b. ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.
- 2.3.2 Project Co may propose updates to the Landscape Management Plan at any time (and shall in any event, review the Landscape Management Plan not less than once every [REDACTED] during the Availability Period) and shall submit any proposed updates to the Landscape Management Plan to TfL under the Review Procedure.
- 2.3.3 Project Co shall comply with the Landscape Management Plan (which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 2.3.2) and perform its obligations under this Agreement in accordance with such Landscape Management Plan.
- 2.3.4 Project Co shall provide a reactive maintenance service for responding to all breaches of the Landscape Management Plan and the landscape management obligations set out in Annex 3 (*Service Requirements*) and health and safety issues in order to continue to meet the Service Requirements in respect of the landscape areas.
- 2.3.5 Project Co shall maintain:
 - a. the soft landscaped areas within the O&M Area to comply with the Service Requirements (SL01 and SL02) for soft landscaped areas; and
 - b. the hard paved areas within the O&M Area to comply with the Service Requirements (Fw01 to Fw12 inclusive) for footways and paved areas.
- 2.4 Service Requirements – Cleaning, Sweeping and Washing
 - 2.4.1 Prior to the Permit to Use Date, Project Co shall:
 - a. prepare and submit to TfL under the Review Procedure a Cleaning, Sweeping and Washing Plan which shall:
 - i. be based on and developed from the draft set out in Annex 10 (*Cleaning, Sweeping and Washing Plan*) of Part 5 (*Project Co Proposals*);
 - ii. comply with the requirements set out in references CSW01, CSW02 and CSW03 of Annex 3 (*Service Requirements*); and
 - iii. describe how Project Co shall meet the requirements set out in references CSW01, CSW02 and CSW03 of Annex 3 (*Service Requirements*); and
 - b. ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.

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Part 3 – Asset Management

- 2.4.2 Project Co may propose updates to the Cleaning, Sweeping and Washing Plan at any time (and shall in any event, review the Cleaning, Sweeping and Washing Plan not less than once every [REDACTED] during the Availability Period) and submit any proposed updates to the Cleaning, Sweeping and Washing Plan to TfL under the Review Procedure.
 - 2.4.3 Project Co shall comply with the Cleaning, Sweeping and Washing Plan which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 2.4.2) and perform its obligations under this Agreement in accordance with such Cleaning, Sweeping and Washing Plan.
 - 2.4.4 Project Co shall provide a reactive cleaning, sweeping and washing service in a manner that complies with the relevant Service Requirements set out in Annex 3 (*Service Requirements*).
- 2.5 Service Requirements – Pest and Vermin Control
- 2.5.1 Prior to the Permit to Use Date, Project Co shall:
 - a. prepare and submit to TfL under the Review Procedure a Pest and Vermin Control Plan which shall:
 - i. be based on and developed from the draft set out in Annex 11 (*Pest and Vermin Control Plan*) of Part 5 (*Project Co O&M Proposals*); and
 - ii. describe a pest and vermin control regime to minimise the risks of infestation and/or nuisance from pests and vermin; and
 - b. ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.
 - 2.5.2 Project Co may propose updates to the Pest and Vermin Control Plan at any time (and shall in any event, review the Pest and Vermin Control Plan not less than once every [REDACTED] during the Availability Period) and submit any proposed updates to the Pest and Vermin Control Plan to TfL under the Review Procedure.
 - 2.5.3 Project Co shall comply with the Pest and Vermin Control Plan which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 2.5.2) and perform its obligations under this Agreement in accordance with such Pest and Vermin Control Plan.
 - 2.5.4 Project Co shall respond to and remove the nuisance or risk caused by pests and vermin in the O&M Area in a manner that complies with the relevant Service Requirements set out in Annex 3 (*Service Requirements*) all Applicable Requirements, social responsibility and ensures minimal disruption to the Services.
- 2.6 Service Requirements – Winter Service
- 2.6.1 Prior to the Permit to Use Date, Project Co shall:

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- a. prepare and submit to TfL under the Review Procedure a Winter Service Plan which shall:
 - i. be based on and developed from the draft Winter Service Plan set out in Annex 12 (*Winter Service Plan*) of Part 5 (*Project Co O&M Proposals*);
 - ii. comply with the requirements set out in references WS01 and WS02 of Annex 3 (*Service Requirements*); and
 - iii. describe how Project Co shall meet the requirements set out in references WS01 and WS02 of Annex 3 (*Service Requirements*); and
 - b. ensure that TfL has endorsed such plan as "received" or "received with comments" in accordance with the Review Procedure.
- 2.6.2 Project Co shall provide Winter Service in accordance with the guidance and best practice set out in the 'well-managed highway infrastructure' code of practice (as may be amended from time to time by the National Winter Service Research Group).
- 2.6.3 Project Co shall provide winter maintenance services for the Project Facilities in accordance with the O&M Standards and shall ensure that:
- a. the Project Roads and other areas and surfaces constructed and intended for use by the public and workers on foot and/or using motorised or non-motorised means of travel within the O&M Area are safe and free of snow or hazards created by icy conditions; and
 - b. the requirements and standards specified in Annex 3 (*Service Requirements*) with respect to winter service are achieved.
- 2.6.4 Project Co may propose updates to the Winter Service Plan at any time (and shall in any event review the Winter Service Plan not less than once every [REDACTED] during the Availability Period) and shall submit any proposed updates to the Winter Service Plan to TfL under the Review Procedure.
- 2.6.5 Project Co shall comply with the Winter Service Plan which is endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure (including in accordance with paragraph 2.6.4) and perform its obligations under this Agreement in accordance with such Winter Service Plan.

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Annex 1 of Part 3 – Tunnel ME&P Systems Performance Requirements

<i>Ref</i>	<i>Item</i>	<i>System</i>	<i>Performance Requirement</i>
TVS 1	<i>Tunnel Ventilation system</i>	Emergency ventilation	[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]
TVS 2	<i>Tunnel Ventilation system</i>	Emissions control ventilation	[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]
TFFFS 1	<i>Tunnel fixed fire-fighting system</i>	Fixed fire-fighting system (fire suppression system)	[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]
			[Redacted]

			[REDACTED]
<p>TFFFS 2</p>		<p>Fire hydrants</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p>TFFFS 3</p>		<p>Fire extinguishers</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p>TFFFS 4</p>		<p>Fire main/water supply</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

			[REDACTED]
TFFFS 5		Sump suppression system(s)	[REDACTED]
TIDMS 1	<i>Tunnel incident detection and monitoring system</i>	Air quality sensors	[REDACTED]
TIDMS 2		Anemometers	[REDACTED]

			[REDACTED]
<p>TIDMS 3</p>		<p>Sump detection system(s)</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p>TIDMS 4</p>		<p>Heat detection in tunnel (Distributed Temperature Sensor (DTS))</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p>TIDMS 5</p>	<p>CCTV</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	

			[REDACTED]
TIDMS 6		Automatic incident detection system	[REDACTED]
COMMS 1	<i>Tunnel Communications system</i>	Emergency telephones	[REDACTED]
COMMS 2		Radio (emergency services)	[REDACTED]

			<p>[REDACTED]</p>
<p>COMMS 3</p>		<p>Radio break-in</p>	<p>[REDACTED]</p>
<p>COMMS 4</p>		<p>Voice alarm/public address system</p>	<p>[REDACTED]</p>
<p>COMMS 5</p>		<p>Telephone cabinet alarm</p>	<p>[REDACTED]</p>

			[REDACTED]
COMMS 6		Mobile phone facilities	[REDACTED]
TTS 1	<i>Tunnel traffic signage and other signage</i>	Portal lane control signals	[REDACTED]
TTS 2		Tunnel lane control	[REDACTED]

		<p>signals</p>	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
<p><i>TTS 3</i></p>		<p>Variable message signs</p>	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
<p><i>TTS 4</i></p>		<p>Evacuation signs (running man)</p>	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
<p><i>TTS 5</i></p>		<p>Tunnel entry control barrier and</p>	<p>[Redacted]</p> <p>[Redacted]</p>

			<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p><i>TLS 2</i></p>		<p>Emergency lighting</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
<p><i>TLS 3</i></p>		<p>Evacuation lighting</p>	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

			<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
TEPS 1	<i>Tunnel electrical power supply and distribution system</i>	HV supplies	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
TEPS 2		Uninterruptable Power Supply ("UPS")	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>
TEPS 3		Generator	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>

			[REDACTED]
TCS 1	<i>Tunnel Control System</i>	Project Co TCS	[REDACTED]
TCS 2		Secondary tunnel control system	[REDACTED]
TP 1	<i>Tunnel pumped drainage system</i>	Pumping system	[REDACTED]

			[REDACTED]
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Annex 2 of Part 3 - Structures (including Buildings) and Highway Assets – Performance Requirements

Ref	Asset	Performance Requirement
St	Structures	[Redacted]
TSB1	Tunnel Service Buildings (non-structural or non-load bearing assets)	[Redacted]
TSB2	Tunnel Service Buildings (structural or load bearing assets)	[Redacted]
FPA1	Footways and paved areas	[Redacted]
FPA2	Walkways / Cross	[Redacted]

	<p>Passageways</p>	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
<p><i>FBW</i></p>	<p>Fences, screens and boundary walls (including noise barriers), which are not Structures</p>	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
<p><i>VRS</i></p>	<p>Vehicle restraint systems</p>	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
<p><i>StrL</i></p>	<p>Street Lighting (outside the tunnel bores) to the extent not a Structure</p>	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>

FTS	Fixed Traffic signs and road markings	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
RS	Road studs	<p>[Redacted]</p> <p>[Redacted]</p>
CWY1	Carriageway (Structural Condition)	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
CWY2	Carriageway (Surface Condition)	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>

<i>Drn</i>	Drainage Infrastructure, to the extent not a Structure	[Redacted]
<i>CGF</i>	Covers, Gratings, Frames and Boxes	[Redacted]
<i>KC</i>	Kerbs and Channels	[Redacted]
<i>EC</i>	Embankments and Cuttings	[Redacted]

Annex 3 of Part 3 – Service Requirements

Ref	Service	Sub-Service	Service Requirements
SL01	Soft landscaped area (Grassed and planted areas)	Weed control	<p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>
SL02		Grass cutting	<p>[Redacted]</p> <p>[Redacted]</p>
SL03		Landscape Management Plan	<p>[Redacted]</p>
CSW01	Cleaning sweeping and washing	Cleaning and sweeping	<p>[Redacted]</p> <p>[Redacted]</p>
CSW02		Tunnel washing	<p>[Redacted]</p> <p>[Redacted]</p>

CSW03		Graffiti	[REDACTED]
CSW04		Cleaning, Sweeping and Washing Plan	[REDACTED]
PVC01	Pest and Vermin Control	General requirements	[REDACTED]
PVC02		Pest and Vermin Control Plan	[REDACTED]
WS01	Winter Service	Precautionary treatment	[REDACTED]
WS02		Snow and ice clearing	[REDACTED]
WS03		Winter Service Plan	[REDACTED]

SCHEDULE 18**OPERATION AND MAINTENANCE REQUIREMENTS****Part 4 - Operation and Maintenance Standards****1. General**

- 1.1 Project Co shall perform the Services in accordance with the standards and specifications set out in this Part 4 (*Operation and Maintenance Standards*) including the following:
- 1.1.1 the standards listed in paragraph 1 (*TfL Standards*) of Annex 1 (*Inspections and Maintenance Standards*) ;
 - 1.1.2 the documents that form part of the DMRB listed in paragraph 2 (*DMRB Inspections and Maintenance Standards*) of Annex 1 (*Inspections and Maintenance Standards*);
 - 1.1.3 documents that form part of the MCHW listed in paragraph 3 (*MCHW Maintenance Standards and Specifications*) of Annex 1 (*Inspections and Maintenance Standards*);
 - 1.1.4 the codes of practice listed in paragraph 4 (*Codes of Practice*) of Annex 1 (*Inspections and Maintenance Standards*); and
 - 1.1.5 the other documents listed in paragraph 5 (*Other Documents*) of Annex 1 (*Inspections and Maintenance Standards*).
- 1.2 Any discrepancies between any provisions of this Agreement and the documents referred to in this Part 4 (*O&M Standards*) shall be resolved as follows:
- 1.2.1 where any requirements set out in Part 3 (*Asset Management*) conflict with or are inconsistent with this Part 4 (*O&M Standards*), the requirements of Part 3 (*Asset Management*) shall prevail;
 - 1.2.2 where any of the standards listed in paragraph 1 (*TfL Standards*) of Annex 1 (*Inspections and Maintenance Standards*) conflict with or are inconsistent with the documents that form part of the DMRB listed in paragraph 2.2 of Annex 1 (*Inspections and Maintenance Standards*) or the documents that form part of the MCHW listed in paragraph 3 (*MCHW Maintenance Standards and Specifications*) of Annex 1 (*Inspections and Maintenance Standards*), the standards listed in paragraph 1 (*TfL Standards*) of Annex 1 (*Inspections and Maintenance Standards*) shall prevail;
 - 1.2.3 where any of the requirements in the documents that form part of the DMRB listed in paragraph 2.2 of Annex 1 (*Inspections and Maintenance Standards*) conflict with the other requirements of this Agreement, the other requirements of the Agreement shall prevail;
 - 1.2.4 where any of the requirements in the documents listed in paragraph 3 (*MCHW Maintenance Standards and Specifications*) of Annex 1 (*Inspections and Maintenance Standards*) conflict with the other requirements of this Agreement, the other requirements of the Agreement shall prevail; and

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Part 4, Operation and Maintenance Standards

- 1.2.5 where conflicts are otherwise unresolved pursuant to paragraphs 1.2.1 to 1.2.4, Project Co shall seek resolution of the discrepancy with TfL.
- 1.3 Any reference to a document or requirement in paragraph 1 (*General*) shall be deemed to be a reference to the edition or version of that document or requirement as at the Bid Date.
- 1.4 The Parties acknowledge and agree that any changes in the O&M Standards following the Bid Date shall be dealt with in accordance with the provisions of Part 3 (*Changes in O&M Standards*) of Schedule 22 (*Change Procedure*).
- 1.5 Except as otherwise defined in this Agreement, capitalised terms used in this Part 4 (*O&M Standards*) shall have the meanings given to them in the relevant documents referred to in this Part 4 (*O&M Standards*).

2. Application and Interpretation

- 2.1 Unless stated otherwise in this Agreement, the following principles shall apply to the O&M Standards:
- 2.1.1 all references to the "Overseeing Department" or "Overseeing Organisation", "Tunnel Operating Authority" shall be deemed to be references to TfL;
- 2.1.2 all references to the "Contractor", "Operator", "Service Provider", "Managing Agent", "Maintaining Agent", and "Maintaining Organisation", "Design Organisation" shall be deemed to be references to Project Co;
- 2.1.3 where in any document referred to in Annex 1 (*Inspection and Maintenance Standards*) any reference is made to any other standard, specification, advice note or document which may have been superseded, such reference shall be deemed to be reference to the latest appropriate standard, specification, advice note or standard note at the Bid Date;
- 2.1.4 any requirement for "Approval" or "approval" by and/or "agreement" with/of the "Overseeing Department" or "Overseeing Organisation" and any requirement for "Technical Approval" or "technical approval" shall be deemed to be an obligation for Project Co to obtain the endorsement of TfL as "received" or "received with comments" in accordance with the Review Procedure;
- 2.1.5 any requirement to comply with "BD 2" or "BD 101" shall be deemed to be a requirement to comply with this Agreement and any requirement "to be in accordance with BD 2 (or BD 101)" shall be deemed to be a requirement to be in compliance with this Agreement;
- 2.1.6 all references to the "TRMM Manual Volume 3" shall be deemed to be references to the "Routine and Winter Service Code and the Network Management Manual";
- 2.1.7 unless otherwise required by TfL, all references to costs or economics of any kind, including financial justification, consideration or assessment, matters relating to whole life cost or value for money, shall not be deemed to be requirements under this Agreement or recommendations or endorsement by TfL. Such paragraphs and the implementation of appropriate solutions relating to such paragraphs shall therefore be at the discretion of Project Co;

Schedule 18 – Operation and Maintenance Requirements

Part 4, Operation and Maintenance Standards

- 2.1.8 all references to the "Department of Transport" or "Department of Environment, Transport and the Regions" or any successor shall be deemed to be references to the "Department for Transport" except when referring to a document previously produced under such title and unless otherwise stated by TfL;
- 2.1.9 all references to the "Engineer" shall be deemed to be references to Project Co;
- 2.1.10 the heading and all paragraphs of any "implementation" clause shall be deemed to be deleted and replaced with "Not used" unless otherwise stated by TfL;
- 2.1.11 all references to the "Transport and Road Research Laboratory (TRRL)" shall be deemed to be references to its successor, the "Transport Research Laboratory (TRL)";
- 2.1.12 all references to the "Site" shall be deemed to be references to the O&M Area; and
- 2.1.13 all references to "Trunk Roads" or "Trunk Road Motorways" shall be deemed to be applicable to the Project Roads and the SRN.

Annex 1 of Part 4 – Inspections and Maintenance Standards

1. TfL Standards

- 1.1 Silvertown ME&P Systems Conditions Assessment Standard;
- 1.2 Streetscape Guidance;
- 1.3 London Cycle Design Standards;
- 1.4 Green Estate Management Plan for TLRN;
- 1.5 Road Safety Audit document and procedures ; and
- 1.6 TfL SQA Documents listed in Appendix A to this Annex 1.

2. DMRB Inspections and Maintenance Standards

- 2.1 Project Co shall be required to comply with the following DMRB standards:
 - 2.1.1 DMRB Volume 2, including TD 19/06 Requirements for Road Restraint Systems;
 - 2.1.2 DMRB Volume 3, including:
 - a. BD 78/99;
 - b. BD 63/07 Inspection of Highway Structures;
 - c. BD 53/95 Inspection Records for Road Tunnels;
 - d. BD 62/07 As Built Operational and Maintenance Records for Highway Structures;
 - e. BD 87/05 Maintenance Painting of Steelwork;
 - f. BA 72/03 Maintenance of Road Tunnels;
 - g. BD 89/03 The Conservation of Highway Structures;
 - h. BD 27/86 Materials for Repair of Concrete Highway Structures;
 - i. BA 35/90 Inspection and Repair of Concrete Highway Structures;
 - j. BA 83/02 Cathodic Protection for US in Reinforced Concrete Highway Structures;
 - k. BA 83/02 Cathodic Protection for Use in Reinforced Concrete Highway Structures;
 - l. BA 87/04 Management of Corrugated Steel Buried Structures;
 - m. BA 88/04 Management of Buried Concrete Box Structures;
 - n. BD 21/01 The Assessment of Highways Bridges and Structures;
 - o. BA 16/97 The Assessment of Highway Bridges and Structures;

Schedule 18 – Operation and Maintenance Requirements

Part 4, Annex 1 – Inspections and Maintenance Standards

- p. BA 38/93 Assessment of Fatigue Life of Corroded or Damaged Reinforcing Bars;
 - q. BA 39/93 Assessment of Reinforced Concrete Half Joints;
 - r. BD 48/93 The Assessment and Strengthening of Highway Bridge Supports;
 - s. BA 54/94 Load Test for Bridge Assessment;
 - t. BD 55/06 The Assessment of Bridge Substructures and Foundations, Retaining Walls and Buried Structures;
 - u. BA 52/94 The Assessment of Steel Highway Bridges and Structures;
 - v. BD 44/15 The Assessment of Concrete Highway Bridges and Structures;
 - w. BD 61/10 The Assessment of Composite Highway Bridges and Structures;
 - x. BD 79/13 The Management of Sub-standard Highway Structures;
 - y. BD 97/12 The Assessment of Scour and Other Hydraulic Actions at Highway Structures; and
 - z. BD 101/11 Structural Review and Assessment of Highway Structures;
- 2.1.3 DMRB Volume 4, including:
- a. HD 22/08 Managing Geotechnical Risk; and
 - b. HD 41/15 Maintenance of Highway Geotechnical Assets;
- 2.1.4 DMRB Volume 7, including:
- a. HD 23/99 General Information;
 - b. HD 35/04 Conservation of and The Use of Secondary and Recycled Materials;
 - c. HD 31/94 Maintenance of Bituminous Roads;
 - d. HD 29/08 Data for Pavement Assessment;
 - e. HD 30/08 Maintenance Assessment Procedure;
 - f. HD 40/01 Footway Maintenance; and
 - g. HD 36/06 Surfacing Materials for New and Maintenance Construction;
- 2.1.5 DMRB Volume 8, including:
- a. TA 58/92 Currency of the Traffic Signs Manual;
 - b. TD 25/15 Inspection and Maintenance of Traffic Signs on Motorway and All Purpose Trunk Roads;
 - c. TD 26/17 Inspection and Maintenance of Road Markings and Road Studs on Motorways and All Purpose Trunk Roads;

- d. TD 33/05 The Use of Variable Message Signs on All Purpose and Motorway Trunk Roads;
 - e. TA 60/90 The Use of Variable Message Signs on All Purpose and Motorway Trunk Roads;
 - f. TD 23/99 Truck Roads and Trunk Road Motorways Inspection and Maintenance of Road Lighting;
 - g. TD 49/07 Requirements for Lorry Mounted Crash Cushions; and
 - h. TA 64/94 Narrow Lane and Tidal Flow Operation and Roads Works at Motorways and Dual Carriageways;
- 2.1.6 DMRB Volume 10, including:
- a. HA 67/93 The Wildflower Handbook;
 - b. HA 108/04 The Landscape Management Handbook;
 - c. HA 115/05 The Establishment of An Herbaceous Plant Layer in Roadside Woodland;
 - d. TD 19/06 Requirement for Road Restraint Systems;
 - e. TD 26/17 Inspection and Maintenance of Road Markings and Road Studs on Motorways and All Purpose Trunk Roads; and
 - f. HA108/04 The Landscape Management Handbook.

3. MCHW Inspections and Maintenance Standards

- 3.1 MCHW Volume 1 (Specification for Highway Works (SHW));
- 3.2 MCHW Volume 2 (Notes for Guidance for SHW);
- 3.3 MCHW Volume 5 Section 7 - Mechanical Electrical Installations in Road Tunnels; and
- 3.4 MCHW Volume 5 Section 9 - CCTV Survey of Highway Drainage Systems.

4. Codes of Practice

- 4.1 Well Managed Highway Infrastructure;
- 4.2 National Winter Service Research Group - Practical Guidance Documents;
- 4.3 Code of Practice on Litter and Refuse;
- 4.4 Safety at Street Works - A Code of Practice; and
- 4.5 Code of Practice for Inspections (NRSWA).

5. Other Documents

- 5.1 Inspection Manual for Highway Structures Volumes 1 and 2;
- 5.2 Road Tunnel Safety Regulations 2007 and Road Tunnel Safety (Amendment) Regulations 2009;
- 5.3 Routine and Winter Service Code (HA);
- 5.4 Network Management Manual (HA);
- 5.5 Technology Management and Maintenance Manual (HA);
- 5.6 Traffic Signs Regulations and General Directions including Traffic Signs Manual;
- 5.7 Road Tunnels Manual (PIARC);
- 5.8 Provision of Road Restraint Systems on Local Highway Authority Roads;
- 5.9 Local Transport Notes (LTN);
- 5.10 Traffic Advisory Leaflets;
- 5.11 National Highway Sector Schemes - Management Operation Installation and Maintenance of Road Tunnels; and
- 5.12 UK Pavement Management System (UKPMS) - UK Roads Liaison Group.

Appendix A to Annex 1 of Part 4

SQA-0170	Road Safety Audit Document
SQA-0170	Road Safety Audit Procedure 1
SQA-0170	Road Safety Audit Procedure 2
SQA-0189	Streets Traffic Order Team Manual
SQA-0202	Winter Maintenance on the TLRN
SQA-0254	Section 6, 83, or 84 Permanent Traffic Orders
SQA-0255	Section 9 Experimental Orders - Making Them Permanent
SQA-0256	Section 9 Experimental Traffic Orders
SQA-0257	Section 10(2) Modifications to Experimental
SQA-0258	Section 14(1) Temporary Traffic Orders
SQA-0259	Section 14(2) Temporary Traffic Notices
SQA-0260	Continuing a Temporary 14(2) Traffic Restriction by means of a 14(1) Order
SQA-0261	Section 16A Special Event Traffic Orders
SQA-0262	Pedestrian Crossing Traffic Notices
SQA-0288	Damage to TFL Property - Claims
SQA-0457	Traffic Orders Team Quality Manual
SQA-0459	Pigeon Control on the TLRN
SQA-0463	Beginners Guide to Traffic Order Types
SQA-0532	Electrical Disconnection and Removal of Redundant Equipment - Mains Supply
SQA-0664	CCTV Requests from Police and Local Boroughs to LSTOC
SQA-0666	Utility Company support
SQA-0667	LSTOC Airwave Radio Use
SQA-1000	AMD QMS Glossary
SQA-1920	Review of Pedestrian Guardrail (PGR) on the TLRN
SQA-1920	Review of Pedestrian Guardrail (PGR) on the TLRN Procedure

SQA-1921	Drainage Investigation Specification
SQA-1928	Access Covers and other Ironworks on the TLRN
SQA-2020	Inspection Guidance for Bridge Expansion Joints Part 1
SQA-2021	Inspections Guidance for Bridge Expansion Joints Part 2
SQA-2022	Structures Development and Acceptance Proposals
SQA-2023	Requirements for the Development and Acceptance of Proposals for Works Affecting TfL Road Network – Guidance for
SQA-2024	TfL Structures Safety Defects Guidance
SQA-2025	Technical Approval of Highway Structures and Tunnels Schemes
SQA-2025	Technical Approval of Highway Structures and Tunnels Schemes Procedure
SQA-2026	Requirements for Tunnels and Structures Health and Safety Files Records and Maintenance Manuals
SQA-2026.1	Health and Safety File and As-Built Drawings Process Level 4
SQA-2026.2	Maintenance Manual Process Level 4
SQA-2026.3	Bridge Station Data Update Process Level 4
SQA-2035	Structures Inspections Process
SQA-2136	Skid Resistance Policy

SCHEDULE 18

OPERATION AND MAINTENANCE REQUIREMENTS

Part 5 - Project Co O&M Proposals

Annexes of Part 5 – Project Co O&M Proposals

Annex 1 of Part 5 - Operation and Maintenance Strategy

Annex 2 of Part 5 - Governance and Management Plan

Annex 3 of Part 5 - Operation Strategy

Annex 4 of Part 5 - Incident Response Strategy

Annex 5 of Part 5 - Asset Management Strategy

Annex 6 of Part 5 - Inspections Strategy

Annex 7 of Part 5 - Lifecycle Renewals Plan

Annex 8 of Part 5 – Annual Programme

Annex 9 of Part 5 - Landscape Management Plan

Annex 10 of Part 5 - Cleaning, Sweeping and Washing Plan

Annex 11 of Part 5 - Pest and Vermin Control Plan

Annex 12 of Part 5 – Winter Service Plan

[Documents referenced above Excluded commercially sensitive information.]

SCHEDULE 18

OPERATION AND MAINTENANCE REQUIREMENTS

Part 6 - Definitions

For the purposes of this Schedule 18 (*Operation and Maintenance Requirements*), unless the context otherwise requires, the following words and expressions shall have the following meanings:

"Affected Persons" means Users, TfL, TfL Related Parties, members of the public, counterparties to the Third Party Agreements, Emergency Services, Project Co Related Parties and any other persons affected by the relevant matter;

"Agreed Specification" means:

- (a) the relevant specification and details set out in Part 3 (*Project Co Works Proposals*) of Schedule 10 (*Design and Construction Requirements*) or, to the extent such specification and details are subsequently developed in accordance with the Review Procedure, the most recent relevant specification and details endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure; and
- (b) any relevant specification and requirements set out in Part 1 (*Design and Construction Requirements*) of Schedule 10 (*Design and Construction Requirements*);

"Asset Management Strategy" means the strategy developed and updated in accordance with paragraph 1 (*Asset Management Strategy and Planning*) of Part 3 (*Asset Management*);

"Asset Management System" has the meaning given to it in Schedule 10 (*Design and Construction Requirements*);

"Carriageway" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Cleaning Sweeping and Washing Plan" means the plan developed and updated in accordance with paragraph 2.4 (*Cleaning, Sweeping and Washing*) of Part 3 (*Asset Management*);

"Component Specification" means, in relation to any component:

- (a) the specification and details of such components set out in Part 3 (*Project Co Works Proposals*) of Schedule 10 (*Design and Construction Requirements*) or, to the extent such specification and details are subsequently developed in accordance with the Review Procedure, the most recent relevant specification and details endorsed as "received" or "received with comments" by TfL pursuant to the Review Procedure; and
- (b) any relevant specification and requirements relating to such components set out in Part 1 (*Design and Construction Requirements*) of Schedule 10 (*Design and Construction Requirements*);

"Failure" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Governance and Management Plan" means the plan developed and updated in accordance with paragraph 2 (*Governance and Management*) of Part 1 (*Operation and Maintenance Services*);

"Incident Response Plan" means the plan developed and updated in accordance with paragraph 6 (*Incident Response*) of Part 2 (*Operation Requirements*);

TfL Reference: tfl_scp_001527

"Incident Response Strategy" means the strategy developed and updated in accordance with paragraph 6 (*Incident Response*) of Part 2 (*Operation Requirements*);

"Inspection Entity" has the meaning given to it in the RTS Regulations;

"Inspections Strategy" means the strategy developed and updated in accordance with paragraph 1.1 (*Inspections Strategy*) of Part 3 (*Asset Management*);

"Landscape Management Plan" means the plan developed and updated in accordance with paragraph 2.3 (*Landscape Management*) of Part 3 (*Asset Management*);

"Lane Closure Mitigation Measure" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Level of Safety Score" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Lifecycle Renewals Plan" means the plan developed and updated in accordance with paragraph 1.4 (*Lifecycle Renewals Plan*) of Part 3 (*Asset Management*);

"Litter and Refuse Code of Practice" means the Code of Practice on Litter and Refuse published by DEFRA pursuant to the Environmental Protection Act 1990, as may be updated from time to time;

"London Emergency Services Liaison Panel Major Incidents Procedures Manual" means the manual most recently published on behalf of the London Emergency Services Liaison Panel which provides summaries of the responses and responsibilities of each of the emergency services at a major incident, as well as an outline of the support role offered by local authorities;

"Mitigated Level of Safety Score" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Operation and Maintenance Strategy" means the strategy developed and updated in accordance with paragraph 1 (*General Requirements*) of Part 1 (*Operation and Maintenance Services*);

"Operation Strategy" means the strategy developed and updated in accordance with paragraph 5 (*Operation Strategy*) of Part 2 (*Operation Requirements*);

"Operational Protocol" means a protocol identified as an "Operational Protocol" in the Incident Response Plan for systems failure produced by Project Co pursuant to paragraph 6.6.6 of Part 2 (*Operation Requirements*);

"Performance Requirement" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Pest and Vermin Control Plan" means the plan developed and updated in accordance with paragraph 2.5 (*Pest and Vermin Control*) of Part 3 (*Asset Management*);

"Priority 1 Failure" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Prohibited Users" means:

- (a) dangerous goods vehicles, abnormal loads;
- (b) a person or a person using or causing to be used a pedal cycle (whether electric or not), tricycle, barrow, cart, buggy, pedicab, rickshaw, vehicle used as a personal transporter;

(c) human or animal drawn means of conveyance, except if it is conveyed as the load or part of the load of a motor vehicle; and

(d) an animal unless the animal is enclosed in a motorised vehicle;

"Project Co TCS" has the meaning given to it in Schedule 11 (*TfL Requirements*);

"Safety Sub-Function" means the function in the column headed "Safety Sub-Function" in the Tunnel Safety Management System;

"Safety Requirement" means the requirements in the column headed "Safety Requirements" in the Tunnel Safety Management System;

"Service Failure" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Service Requirements" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"Silvertown ME&P Systems Conditions Assessment Standard" means the document described as the "Silvertown ME&P Systems Conditions Assessment Standard" in paragraph 1.1 of Annex 1 (*Inspections and Maintenance Standards*) of Part 4 (*Operation and Maintenance Standards*);

"Speed Reduction Mitigation Measure" has the meaning given to it in Schedule 20 (*Payment Mechanism*);

"TfL TCS" has the meaning given to it in Schedule 11 (*TfL Technology Requirements*);

"████████ Programme" means the programme developed and updated in accordance with paragraph 1.5 (████████ *Programme*) of Part 3 (*Asset Management*);

"Tunnel Manager" has the meaning given to it in the RTS Regulations; and

"Winter Service Plan" means the plan developed and updated in accordance with paragraph 2.6 (*Winter Service*) of Part 3 (*Asset Management*).