Dated 10th June 2022

LONDON UNDERGROUND LIMITED
(Employer)

UK POWER NETWORKS SERVICES (COMMERCIAL) LIMITED
(Contractor)

FRAMEWORK CONTRACT

concerning works to the London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

Batch B

Contract reference number:
2344_C_1001 Batch B

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This Framework Contract is made the 10th June 2022

Between

(1) **London Underground Limited** (No. 01900907) registered office 5 Endeavour Square, Stratford, London E20 1JN (**Employer**); and

(2) **UK Power Networks Services (Commercial) Limited** (No. 02965182) registered office Newington House, 237 Southwark Bridge Road, London, SE1 6NP (**Contractor**).

Background

(A) The Employer has an on-going need to procure certain types of construction works and services. Specifically:

1) the expansion and reinforcement of the London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (phases 1 and 2) (**PLUP Works**); and

2) asset renewals, resilience and other works and services (including in respect of HV substation plant) across the whole London Underground network (**Other Works**),

each as more particularly described in Schedule 2 (*Framework Contract Scope*).

(B) The Employer has packaged elements of the planned PLUP Works into **Batch A** and **Batch B**, and has invited bids for:

1) each such batch; plus (with each batch)

2) a place on the Employer's panel, for the balance of the PLUP Works and for Other Works.

(C) The Contractor has successfully bid and is being appointed for Batch B plus a place on the panel.

(D) The balance of the PLUP Works and Other Works may be the subject of Mini-competitions or Direct Awards subject to, and in accordance with, the terms of this Framework Contract.

(E) Accordingly, the Parties are entering into this **Framework Contract**.

It is agreed in consideration of the payment by the Employer to the Contractor of the sum of £10 (receipt of which the Contractor acknowledges):

1 Definitions and interpretation

1.1 The provisions of Schedule 1 *(Definitions and interpretation)* shall apply.

1.2 The scope of this Framework Contract is set out in Schedule 2 (*Framework Contract Scope*).

1.3 In the event of any inconsistency between two or more parts of (the following parts of) this Framework Contract, the following order of priority shall apply:

(a) these clauses 1 to 36 (inclusive);

(b) the schedules, and their annexures; and

(c) the appendices.

2 Legal Opinion

2.1 If the Contractor is not a company registered in England and Wales, the Contractor shall provide to the Employer a legal opinion in the form appended at Appendix 6 of this Framework Contract on the Contractor's execution of this Framework Contract.

3 Term

3.1 This Framework Contract shall take effect on the Commencement Date.

3.2 The initial term of this Framework Contract (**Initial Term**) shall expire 6 years after the Commencement Date, unless terminated earlier in accordance with clause 24.

3.3 At any time prior to the expiry of the Initial Term, the Employer may extend the term of this Framework Contract by a period of up to 2 further years (**Extended Term**). The Employer may extend this Framework Contract by periods of less than 2 years, and if it does so may, prior to the expiry of any Extended Term, elect to extend the term further, and all periods of extension beyond the Initial Term shall, when taken together, constitute the Extended Term. The Initial Term and any Extended Term when taken together shall constitute the **Term** of this Framework Contract.

3.4 The Term shall not exceed 8 years.

3.5 If the Employer wishes this Framework Contract to enter into an Extended Term it shall give the Contractor notice to that effect (**Extension Notice**) prior to the expiry of the Term.

3.6 The Employer has an absolute discretion as to any extension of the Term.

4 Call-off Contracts

Batch B

4.1 Upon entering into this Framework Contract, the Employer is to appoint the Contractor to perform a Call-off Contract for Batch B.

4.2 Such Call-Off Contract is to be entered into subject to, and in accordance with, the terms of this Framework Contract.

Balance of Works

4.3 The Employer may from time to time issue a Proposal to the Contractor in accordance with, and subject to, clause 5 for any works falling within the Balance of Works. Any such Proposal is to be substantially completed save as to Annexes 2, 4 and 6 (and, if applicable, save as to Annex 7), with the addition of any further particulars the Employer wishes to include.

4.4 For the purposes of this clause 4 and more generally, the **Balance of Works** comprises:

(a) the remainder of the Phase 1 PLUP Works, not included within Batch A or Batch B;

(b) the Phase 2 PLUP Works; and

(c) any Other Works.

4.5 The Employer may elect to base any given Proposal on Option A or on Option C of the NEC3 Engineering and Construction Contract (April 2013) with the amendments specified in Schedule 5 (*Conditions of contract*).

4.6 Batch A and Batch B aside, the Employer may not issue a Proposal before the start or after the end of the Term, or after this Framework Contract has been terminated.

4.7 At its own cost, the Contractor shall price and complete each Proposal in accordance with clause 8 *(Pricing)* and any and all relevant requirements of the Proposal (including the conditions of contract). The Contractor is to return each completed Proposal Response to the Employer within 28 days of receiving the Proposal, or within such other period as the Employer may reasonably notify.

4.8 Within 120 days (or such other period as the Employer may have reasonably specified in the relevant Proposal) of the Employer receiving a Proposal Response, or of any revision or change, he may issue the Contractor with an acceptance of the Proposal Response concerned (**Acceptance**). Any Acceptance is to be subject to the inclusion of any revisions or changes to that Proposal Response the Parties have agreed beforehand.

4.9 The Employer has no obligation to issue the Contractor with any Acceptance.

4.10 The Employer remains free to procure and/or to award any works falling within the Balance of Works at any time during the Term.

4.11 The Employer is free to decide:

(a) the packaging or batching of any work or site within the scope of this Framework Contract into or as between Proposals or Call-off Contracts; and

(b) the timing of, and sequencing in which, it issues Proposals for any given work or site(s).

4.12 The Contractor will meet with the Employer twice yearly (or at such other frequency as the Employer requires) with a view to discussing the Employer's likely requirements in respect of Proposals, and the timing of its requirements, over the balance of the Term. The Contractor is to attend and participate in all such meetings at its own cost.

4.13 The Contractor acknowledges and agrees that it is not guaranteed any given, or volume of, work falling within clause 4.4, and that the Employer is under no obligation to issue Proposals for, or award, any such work under or in connection with this Framework Contract. Equally, subject to clause 5.9, the Contractor acknowledges that the Employer is free to employ anyone else to carry out any work which could otherwise be procured under this Framework Contract.

5 Mini-competition and Direct Award

5.1 Subject to clauses 4.13 and 5.2, the Employer intends to run Mini-competitions in procuring any works comprised within the Balance of Works.

Direct Award

5.2 The Employer may elect to award the following work to the Contractor or to the Other Contractor (as the case may be), without first running a Mini-competition (a **Direct Award**):

(a) works which (in the Employer's reasonable opinion) have an interface with or are substantially related to any PLUP Works or Other Works which shall have been awarded to the contractor concerned;

(b) works whose forecast value (in the Employer's reasonable opinion) is less than £1,000,000.00;

(c) works which the Employer reasonably believes ought to be allocated in such a way, given a lack of capacity or potential conflict of interest on the part of the contractor not being appointed.

5.3 For the purposes of clause 5.2(b), **forecast value** means the Employer's reasonable forecast of the tendered total of the prices (exclusive of VAT). Where such value is likely to differ as between the two contractors, the lower of the two is the one which counts.

5.4 Where and to the extent the Employer elects to rely on clause 5.2(b), it is to seek to allocate work as between the two contractors on alternating basis, such that the first commission is allocated to the Other Contractor, the second to the Contractor, the third to the Other Contractor and the fourth to the Contractor (and so on).

5.5 The Employer shall evaluate a Proposal Response the subject of a proposed Direct Award against the requirements stated in the Proposal to determine if it may accept the Proposal Response in accordance with clause 4.8 but without prejudice to clause 4.9.

Mini-competition Process

5.6 Clauses 5.7 to 5.9 (inclusive) apply where the Employer is running a Mini-competition.

5.7 In addition to the requirements of clause 4, a Proposal for a Mini-competition:

(a) confirms that the Employer is running a Mini-competition;

(b) sets out the weightings applicable to the General Criteria for the relevant Mini-competition; and

(c) is sent to the Contractor and the Other Contractor.

5.8 For the purposes of clause 5.7(b):

(a) technical elements are to be given a (total aggregate) weighting of 50% to 70% (inclusive); whilst

(b) commercial elements are to be given a (total aggregate) weighting of 30% to 50% (inclusive).

5.9 Other than by reason of any irregularity affecting the tendering process, the Employer shall not award a Call-off Contract via a Mini-competition other than by the application of the weighted criteria advertised in the Proposal.

6 Engrossments

6.1 Within 28 days of his notifying the Contractor of an Acceptance (or such longer period as the Employer may reasonably notify), the Employer may (but shall not be obliged to) issue the Contractor with engrossments of an agreement in the relevant form contained in Appendix 3.

6.2 Any such engrossments shall reflect the relevant Proposal Response and Acceptance (plus any agreed revisions or changes).

6.3 Such engrossments are to be executed and returned by the Contractor within 14 days of his receiving them and, if so required by the Employer, are to be executed and delivered as deeds.

6.4 Once executed by the Contractor and the Employer, a Call-off Contract is created.

6.5 The Employer shall not be bound by any Proposal Response or Acceptance; only by Call-off Contracts if and when entered into in by the Employer and the Contractor in accordance with clauses 4.1 and 4.2, or this clause 6.

7 Not used

7.1 Not used.

8 Pricing

8.1 The Contractor is to price each Proposal in accordance with, and not exceeding the applicable amounts and percentages stated in, the Schedule of Rates.

8.2 The Contractor shall, upon request by the Employer, provide such evidence as the Employer may reasonably require in order to demonstrate compliance with clause 8.1.

8.3 The Contractor shall complete an activity schedule as required for each Proposal. In doing so, the Contractor is to describe all activities, items of work, quantities and time estimates in a way which is consistent with

(a) the Schedule of Rates;

(b) any requirements within the conditions of contract (including as to the programme)

in each case where and to the extent applicable.

9 Adjustment of rates

9.1 With effect from 1 April 2022 and each subsequent anniversary thereof (in each case, the **Adjustment Date**) all of the rates and prices in the Schedule of Rates (**Items**) shall be adjusted annually in accordance with clause 9.2.

9.2 Each Item (or the Item as previously adjusted under this clause 9.2) shall be adjusted by reference to the Agreed Index value as at the Adjustment Date (**Current Index Value**) and the Agreed Index value as at 12 months before the Adjustment Date (**Previous Index Value**), according to the following formula:

$$D = \frac{AxB}{C}$$

where:

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D= *the Item as adjusted*

A= *the Item to be adjusted*

B= *the Current Index Value*

C= *the Previous Index Value.*

9.3 If between Adjustment Dates the Agreed Index is rebased, an appropriate adjustment shall be made to the formula in clause 9.2 to remove any distorting effect of the rebasing.

9.4 Rates and prices which are adjusted under the above provisions of this clause 9 are treated as being included in and forming part of the Schedule of Rates, with effect from the relevant Adjustment Date (for the purposes of pricing any Proposals issued by the Employer on or after such date).

9.5 Adjustments under this clause 9 may result in given rates and prices in the Schedule of Rates being increased or decreased.

9.6 Subject to clause 63.14 of the conditions of contract, the foregoing provisions of this clause 9 are irrelevant to the amount payable under any given Call-off Contract, once such Call-off Contract has been entered into.

10 Personnel

10.1 The Contractor shall appoint **REDACTED** as its **Framework Representative.**

10.2 Subject to clause 32.1, the Contractor's Framework Representative is to:

(a) have full authority to act on behalf of and bind the Contractor for all purposes relating to or associated with this Framework Contract or any Call-off Contract;

(b) personally manage, supervise and co-ordinate the overall performance of the Contractor's works and services, and other duties and obligations, under or in connection with this Framework Contract;

(c) regularly liaise with the Employer, including by telephone, correspondence and meetings; and

(d) undertake any and all other functions ascribed to him elsewhere in this Framework Contract, or in any Call-off Contract.

10.3 The Contractor is to appoint the **Key Individuals** named in the template contract data in Schedule 4 (Annex 2) for the roles / responsibilities shown, for each individual Call-off Contract.

10.4 Each Key Individual shall:

(a) personally perform the roles and functions allocated to them (including any functions ascribed to them elsewhere in this Framework Contract, or in any Call-off Contract);

(b) ensure that the Contractor's Framework Representative is kept fully informed on all relevant matters and is able to perform the role and functions ascribed to them under this Framework Contract; and

(c) attend all meetings arising under or in connection with this Framework Contract or any Call-off Contract.

10.5 As soon as is reasonably practicable (and in any event within 28 days after the Commencement Date), the Contractor shall submit for the Employer's approval a succession plan for its Framework Representative and each of Key Individuals which it is required to appoint subject to, and in accordance with, this clause 10. The succession plan shall conform to any and all relevant requirements of the Generic Works Information (including without limitation requirements as to competency, qualifications and experience).

10.6 Without prejudice to the remaining provisions of this clause 10, the Contractor shall comply with its (approved) succession plan and all relevant requirements of the Generic Works Information regarding the appointment and replacement of the Contractor's Framework Representative and/or the Key Individuals.

10.7 Where either the Contractor's Framework Representative or any Key Individual is unavailable for any period and in cases of urgency, such person may delegate to another suitably qualified and experienced person such of his functions as are required to be undertaken in his absence in order to ensure continuity under this Framework Contract and the applicable Call-off Contracts, and the Contractor shall promptly notify the Employer of such delegation. Subject to the foregoing, and save as provided in the Contractor's approved succession plan, neither the Contractor's Framework Representative nor any of the Key Individuals shall be entitled to delegate their functions without the Employer's prior written consent.

10.8 The Contractor may only replace its Framework Representative or any Key Individual:

(a) for a reason permitted under the Contractor's approved succession plan;

(b) if such person ceases to be employed or engaged by the Contractor; or

(c) if there is another exceptional reason for their replacement, which reason shall be subject to the Employer's prior approval (not to be unreasonably withheld).

10.9 The Contractor shall promptly replace its Framework Representative, any Key Individual(s) or any other person involved in the provision of any works or services, or in the relationship between the Employer and the Contractor, if so requested by the Employer (acting reasonably).

10.10 Any replacement Framework Representative or Key Individual is to be subject to the prior approval of the Employer (not to be unreasonably withheld).

10.11 Without prejudice to the foregoing, save where the Employer otherwise agrees (at its sole discretion), the Contractor shall not appoint any person as its Framework Representative or as a Key Individual for the purposes of any Call-off Contract (or any replacement of any such person) unless such person satisfies any and all relevant requirements specified in the Generic Works Information and the (approved) succession plan for that role (including, without limitation, any minimum requirements as to qualifications / experience).

11 Records and audit

11.1 The Contractor shall maintain, and shall procure that its Subcontractors maintain, a true and correct set of records required for the operation of a Call-off Contract relating to all aspects of their performance of this Framework Contract and all transactions related to this Framework Contract. For the avoidance of doubt, such records shall include:

(a) all necessary information for the evaluation of claims or variations;

(b) management accounts, information from management information systems and any other management records;

(c) accounting records (in hard copy as well as computer readable data);

(d) sub-contract files (including proposals of successful and unsuccessful bidders, bids, rebids etc.);

(e) original estimates;

(f) estimating worksheets;

(g) correspondence;

(h) variation and claims files (including documentation covering negotiated settlements);

(i) general ledger entries detailing cash and trade discounts and rebates;

(j) commitments (agreements and leases) greater than £5,000;

(k) detailed inspection records;

(l) such materials prepared in relation to the invitation to tender and subsequent tendering process relating to cost breakdowns, reconciliations against best and final offer pricing and project plans, in each case which have not already been provided to the Employer; and

(m) personnel records including all payroll information in respect of any personnel, including personnel of the Contractor, any Subcontractor and any agency staff of the Contractor involved in the performance of the Framework Contract.

11.2 The Contractor retains and procures that its Subcontractors retain all such records in such a manner as the Employer may reasonably instruct for a period of not less than 12 years after expiry or termination under this Framework Contract. In the absence of specific instructions as to the method of storage, the Contractor shall retain, and shall procure that its Subcontractors retain, their records in an orderly and logical fashion and in accordance with Good Industry Practice.

11.3 The Employer, any party authorised by it and any party legally authorised to inspect any part of the Underground Network and/or any Site shall have the right to inspect and audit any of the records required pursuant to clause 11.1, at any time during the period referred to in clause 11.2.

11.4 The Contractor shall promptly provide all reasonable co-operation and assistance in relation to any audit or check including:

(a) granting or procuring the grant of access to any premises or Sites used in the performance of this Framework Contract, whether the Contractor's own premises or otherwise;

(b) granting or procuring the grant of access to any assets and equipment (including all computer hardware, software and databases) used (whether exclusively or non-exclusively) in the performance of the Contractor's obligations under this Framework Contract, wherever situated and whether the Contractor's own equipment or otherwise (including whether leased or licensed and whether situated at the Contractor's premises, the Sites or otherwise);

(c) making any contracts and other documents and records required to be maintained under this Framework Contract available for inspection;

(d) providing a reasonable number of copies of any contracts and other documents or records reasonably required by the Employer's auditor and/or granting copying facilities to the Employer's auditor for the purposes of making such copies;

(e) complying with the Employer's reasonable requests for access to senior personnel engaged in the Contractor's performance of this Framework Contract; and

(f) providing such oral or written information as required by the Employer for the purposes of the audit.

12 TUPE

12.1 The Contractor shall, and is to ensure that its subcontractors and/or suppliers (of every tier) shall comply and procure with any obligations which may arise out of a transfer to the Employer or another person under the Transfer Regulations upon the expiry of the Term or earlier termination of this Framework Contract or any Call-off Contract.

12.2 At any time during the last 12 months of the Term and/or during any period of notice terminating this Framework Contract and/or during any Call-off Contract, the Employer may require the Contractor to provide, within a specified period of being requested, to the Employer (or to any other person or persons nominated by the Employer) such information as is reasonably required by the Employer or such other persons relevant to the potential liabilities of the Employer or any other person arising under the Transfer Regulations including but not limited to information on the following:

(a) the names of employees of the Contractor or its subcontractors and/or suppliers engaged in providing any works and/or services under or in connection with this Framework Contract or any Call-off Contract, their salaries and other conditions of employment, ages and length of service;

(b) the method of organisation of the employees of the Contractor or its subcontractors and/or suppliers engaged in supplying any such works and/or services and documentary evidence relating to such organisation;

(c) proposals for informing and consulting with affected employees;

(d) details of collective agreements and union recognition agreements; and

(e) any other employee liability information within the meaning of the Transfer Regulations,

and will in addition provide copies to the Employer upon request of any communication with any potential or intended new consultant or the Contractor's employees or their representatives

relating to the effect on such employees of the expiry or termination of the Framework Contract and/or any Call-off Contract.

12.3 The Contractor will provide the Employer upon request with the name and address of a person within its organisation to whom all queries and requests for information under this clause 12 may be addressed. The Contractor will if required by the Employer warrant that any information provided under this clause 12 is accurate, complete and not misleading, including any information supplied in relation to its subcontractors and/or suppliers.

12.4 The Contractor will not and will procure that its subcontractors / suppliers will not in the 6 months prior to the expiry of the Term or termination of this Framework Contract or any Call-off Contract (or, where notice of termination is given of less than 6 months, during any such period of notice) without the Employer's prior written consent:

(a) re-organise or substantially alter the number or method of organisation or identity of the employees engaged in the provision of any works and/or services required under or in connection with this Framework Contract or any Call-off Contract, except to the extent that any such change is the result of a bona fide business reorganisation of the Contractor or the relevant subcontractor and/or supplier which is not related or confined to the employees engaged in supplying such works and/or services or to the expected expiry of or termination of this Framework Contract or the Call-off Contract concerned, or

(b) make any increase to the salaries or any significant change to the terms and conditions of employment of the employees engaged in the provision of any such works / services, except where such increases or changes would have arisen in the ordinary course of the Contractor's or the relevant subcontractor's and/or supplier's business and are not related to the expiry of the Term or termination of this Framework Contract or any Call-off Contract (either because they are applied to all of the Contractor’s or the relevant subcontractor's and/or supplier's employees, whether or not engaged in providing any such works and/or services or otherwise) or are the result of a bona fide business reorganisation of the Contractor or the relevant subcontractor and/or supplier which is not related or confined to the employees engaged in supplying such works and/or services or to the expiry of the Term or termination of this Framework Contract or any Call-off Contract.

12.5 The Contractor shall indemnify the Employer and TfL and any member of the TfL Group against all Relevant Claims and Liabilities arising from or incurred by reason of any act or omission of the Contractor, its servants or agents in connection with or arising from or incurred by reason of the employment of the Transferring Employees, including but not limited to any claim against the Employer or any other person for damages for breach of contract, or for compensation for unfair or wrongful dismissal or redundancy, or failure to provide comparable pension rates, or failure to provide information, or failure to inform or consult Transferring Employees, or in respect of death or personal injury, breach of statutory duty or any other claim in tort by a Transferring Employee, or by a person who would be a Transferring Employee but for any act or omission (including dismissal or constructive dismissal) of the Contractor, arising from the operation (or alleged operation) of the Transfer Regulations in relation to any given works / services required or provided under or in connection with this Framework Contract or any Call-off Contract.

12.6 The Contractor shall indemnify the Employer and all Replacement Employers against all Relevant Claims and Liabilities arising from or related to:

(a) any claim by a Subsequent Relevant Employee in respect of any default, failure or omission (or alleged default, failure or omission) by any person whatsoever concerning or arising from employment before a Subsequent Transfer Date in respect of which the Employer or the Replacement Employer incurs liability cost or expense by reason of the operation (or alleged operation) of the Transfer Regulations; and

(b) any claim by any former or existing employee of the Contractor or relevant subcontractor and/or supplier (other than a Subsequent Relevant Employee) in respect of which the Employer or a Replacement Employer incurs liability cost or expense by reason of the operation (or alleged operation) of the Transfer Regulations.

12.7 In this clause 12, **Relevant Claims and Liabilities** include those incurred by the Employer by reason of any contract term between the Employer and a Replacement Employer provided always that in relation to Relevant Claims and Liabilities which the Employer may incur to a Replacement Employer, the Contractor shall not be required to indemnify the Employer for more than or with a greater scope than it would if such Relevant Claims and Liabilities were made against or incurred by the Employer in providing an indemnity to the Replacement Employer on the same terms set out in sub-clauses (a) and (b) above.

12.8 Equally, in this clause 12, references to the termination of any Call-off Contract shall be treated as including a reference to the termination of the Contractor's obligation to provide the works under such Call-off Contract.

12.9 The provisions of this clause 12 are without prejudice to the Transfer Regulations. Any remedies available to the Employer for any breach by the Contractor of any provision of this clause 12 shall be in addition to and not in substitution for any remedies available to the Employer under any provision of the Transfer Regulations.

13 Assignment and novation

13.1 The Employer may assign, transfer, novate, charge or otherwise deal with in whole or in part any benefit or right under this Framework Contract and/or under any Call-off Contract to or in favour of any person from time to time without the consent of the Contractor, and where the context admits, references to the Employer include its assigns, transferees, chargees or such other person(s) (as applicable).

13.2 The Contractor shall, at the Employer's request, enter into a novation agreement in such form as the Employer shall reasonably specify in order to enable the Employer to exercise its rights as applicable pursuant to clause 13.1.

13.3 The Contractor may not assign, transfer, novate, charge or otherwise deal with this Framework Contract or any Call-off Contract (or any of its rights or obligations under them) without the prior written consent of the Employer save that the Contractor may assign the right to receive any payment becoming due to him under any one or more Call-off Contracts by way of debt factoring.

14 Bribery Act 2010

14.1 The Contractor warrants that no offence under the Bribery Act 2010 has been or will be committed by:

(a) the Contractor; or

(b) any associated person of the Contractor,

in connection with the procurement or implementation of this Framework Contract or any Call-off Contract.

14.2 For the purposes of clause 14.1, the definition of **associated person** in section 8 of the Bribery Act 2010 applies.

14.3 If at any time the Contractor has knowledge of (or has reasonable grounds to suspect the occurrence of) a breach of the warranty in clause 14.1, he shall promptly notify the Employer of such matters within his knowledge, or of such grounds for suspicion, and shall co-operate with the Employer in the investigation of such breach or suspected breach of warranty.

14.4 Breach of this clause 14 is a substantial failure of the Contractor to comply with his obligations under any Call-off Contract, for the purposes of reason for termination R11 of the conditions of contract.

15 Confidentiality

15.1 The Contractor shall, and shall ensure that its Subcontractors (and sub-subcontractors of any tier) shall, treat all information obtained under, arising from or in connection with this Framework Contract or any Call-off Contract as confidential. Other than for the purpose of performing its obligations under this Framework Contract or any Call-off Contract the Contractor shall not disclose any information or documents concerning this Framework Contract or any Call-off Contract to any other person.

15.2 The Contractor and its Subcontractors (and sub-subcontractors of any tier) shall not without the prior written consent of the Employer disclose any information obtained by the Contractor concerning the Employer or any member of the TfL Group to any other person.

15.3 The Employer may require as a precondition to the granting of such consent, that any such third party provides a confidentiality undertaking to the consenting party in terms satisfactory to the consenting party.

15.4 Clause 15.1 does not apply to the disclosure of:

(a) any information which is already in the public domain at the time of its disclosure other than by breach of these provisions;

(b) any information disclosed by the Contractor to any Connected Persons provided that such recipients agree in writing to be bound by the terms of this confidentiality provision;

(c) any information which is required to be disclosed by any applicable law, the regulations of any stock exchange, any taxation authorities or by an order of a court or other tribunal of competent jurisdiction or any relevant regulatory body.

15.5 The Contractor shall procure that the Connected Persons comply with the provisions of this clause 15 and shall be responsible to the Employer for any act or omission of any Connected Person in breach of such obligations.

15.6 The Contractor shall notify the Employer promptly if the Contractor becomes aware of any breach of confidence by a Connected Person and shall give the Employer all assistance the Employer may reasonably require in connection with any proceedings the Employer may bring

or other steps the Employer may take against that Connected Person or any other person for such breach of confidence.

15.7 The Contractor acknowledges that damages would not be an adequate remedy for any breach of this clause 15 by the Contractor and that (without prejudice to all other remedies to which the Employer may be entitled to as a matter of law) the Employer shall be entitled to any form of equitable relief to enforce the provisions of this clause 15.

15.8 At the Employer's request and in any event upon the termination or expiry of the Framework Contract, the Contractor shall promptly deliver to the Employer or destroy as the Employer may direct all documents and other materials in the possession, custody or control of the Contractor (or the relevant parts of such materials) that bear or incorporate the whole or any part of the confidential information and if instructed by the Employer in writing, shall remove all electronically held confidential information, including the purging of all disk-based confidential information and the reformatting of all disks.

15.9 The Contractor shall not advertise or announce this Framework Contract or any works or services carried out pursuant to this Framework Contract or any Call-off Contract without the prior written consent of the Employer and the Employer shall have the right to approve any advertisement or announcement before it is made.

15.10 Neither the Contractor nor anyone employed by him or acting on his behalf shall give information concerning this Framework Contract or any works or services carried out pursuant to this Framework Contract or any Call-off Contract for publication in the press or on radio, television, screen or any other media without the prior written consent of the Employer and, if such consent is given, shall provide to the Employer a full copy of the information to be released and shall not release any such information until the Contractor has received the Employer's prior written consent as to the content of the information to be released. The Contractor shall not, without the prior written approval of the Employer, take or permit to be taken any photographs of anything relating to this Framework Contract or any Call-off Contract for use in any publicity or advertising.

16 Freedom of Information and Transparency

16.1 The Contractor acknowledges that the Employer:

(a) is subject to FOI Legislation and agrees to assist and co-operate with the Employer to enable the Employer to comply with his obligations under the FOI Legislation, and

(b) may be obliged under the FOI Legislation to disclose Information without consulting and/or obtaining consent from the Contractor.

16.2 Without prejudice to the generality of clause 16.1, the Contractor agrees and procures that his subcontractors will agree to:

(a) transfer to the Employer or such other persons as may be notified by the Employer to the Contractor each Information Request relevant to this Framework Contract, Call-off Contracts or any member of the TfL Group that the Contractor or his subcontractor (as the case may be) receive as soon as practicable and in any event within 3 days of receiving such Information Request; and

(b) in relation to Information held by the Contractor on behalf of the Employer, provide the Employer with details about and/or copies of all such Information that the Employer

requests and such details and/or copies are provided within 6 days of a request from the Employer (or such other period as the Employer may reasonably specify), and in such forms as the Employer may reasonably specify.

16.3 The Employer (as may be directed by TfL) is responsible for determining whether Information is exempt or excepted information under the FOI Legislation and for determining what Information (if any) will be disclosed in response to an Information Request in accordance with the FOI Legislation. The Contractor does not himself respond to any person making an Information Request, save to acknowledge receipt, unless expressly authorised to do so in writing by the Employer.

16.4 The Contractor acknowledges that the Employer (as may be directed by TfL) may be obliged to disclose Information without consulting or obtaining consent from the Contractor.

16.5 The Contractor acknowledges that the Employer is subject to the Transparency Commitment. Accordingly, notwithstanding clauses 15 (*Confidentiality*) and 16.1 to 16.4, the Contractor hereby gives its consent for the Employer to publish the Contract Information to the general public.

16.6 The Employer may in its absolute discretion redact all or part of the Contract Information prior to its publication. In so doing and in its absolute discretion the Employer may take account of the exemptions/exceptions that would be available in relation to Information requested under the FOI Legislation. The Employer may in its absolute discretion consult with the Contractor regarding any redactions to the Contract Information to be published pursuant to clause 16.5. The Employer shall make the final decision regarding publication and/or redaction of the Contract Information.

17 Conflict of interest

17.1 The Contractor acknowledges and agrees that it does not have any interest in any matter where there is or is reasonably likely to be a conflict of interest with the performance of this Framework Contract or any member of the TfL Group, save to the extent fully disclosed to and approved in writing by the Employer.

17.2 The Contractor shall undertake ongoing and regular conflict of interest checks throughout the Term and in any event not less than once in every 6 months and shall notify the Employer in writing immediately on becoming aware of any actual or potential conflict of interest with performing this Framework Contract or any member of the TfL Group and shall work with the Employer to do whatever is necessary (including the separation of staff working and/or data relating to the works from the matter in question) to manage such conflict to the Employer's satisfaction and provided that, where the Employer is not so satisfied (in his absolute discretion), the Employer shall be entitled to terminate this Framework Contract or any Call-off Contract as applicable.

18 Prohibited Acts

18.1 The Contractor shall not, and shall use its reasonable endeavours to procure that its Subcontractors shall not, commit any Prohibited Act.

18.2 The Employer may audit and check any and all such records as are necessary in order to monitor compliance with this clause 18 at any time during performance of this Framework Contract and during the 12 years thereafter.

18.3 If the Contractor, any of its shareholders or any Subcontractor or anyone employed by or acting on behalf of the Contractor or any of his agents commits any Prohibited Act, this shall constitute a material breach of this Framework Contract or a Call-off Contract and shall entitle the Employer to terminate this Framework Contract in whole or in part with immediate effect in accordance with clause 24.

18.4 If a Prohibited Act is committed by an employee of the Contractor or by any Subcontractor (or employee or agent of such Subcontractor) then the Employer may (at its sole discretion) choose to serve a warning notice upon the Contractor instead of exercising its right to terminate with immediate effect and unless, within thirty (30) days of receipt of such warning notice, the Contractor removes or procures the removal of the relevant employee or Subcontractor (as the case may be) and (if necessary) procures the provision of the affected works or services by another person or Subcontractor, this shall constitute a material breach of this Framework Contract and shall entitle the Employer to terminate this Framework Contract in whole or in part with immediate effect in accordance with clause 24.

19 Crime and Disorder Act

The Contractor acknowledges that TfL is under a duty in accordance with section 17 of the Crime and Disorder Act 1998 to:

(a) have due regard to the impact of crime, disorder and community safety in the exercise of TfL's duties;

(b) where appropriate, identify actions to reduce levels of crime and disorder; and

(c) without prejudice to any other obligation imposed on the Employer, exercise its functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent in its area:

(i) crime and disorder (including anti-social and other behaviour adversely affecting the local environment);

(ii) the misuse of drugs, alcohol and other substances; and

(iii) re-offending,

and in the performance of this Framework Contract, the Contractor shall assist and co-operate with the Employer and relevant members of the TfL Group and shall use reasonable endeavours to procure that its subcontractors assist and co-operate with the Employer and relevant members of the TfL Group to enable TfL to satisfy this duty.

20 Best Value

The Contractor acknowledges that TfL is a best value authority for the purposes of the Local Government Act 1999 and as such the Employer and the Contractor are required to make arrangements to secure continuous improvement in the way they exercise their functions, having regard to a combination of economy, efficiency and effectiveness. The Contractor shall assist the Employer (and, where appropriate, TfL) to discharge this duty and agrees to negotiate in good faith any changes to this Framework Contract in order for the Employer (and, where appropriate, TfL) to achieve best value.

21 Data protection

21.1 The Contractor shall comply at all times with all of its obligations under the Data Protection Act 2018 (including any subordinate legislation made under that Act from time to time) and any policies issued by the Employer from time to time in relation to processing personal data and does not by any act, omission or default cause the Employer to be in breach of these requirements. If processing Personal Data on behalf of the Employer ("**Employer Personal Data**"), the Contractor shall only carry out such processing in the carrying out of its obligations pursuant to this Framework Contract and at all times in accordance with any instructions from the Employer.

21.2 The Contractor shall provide the Employer with such information as it may reasonably require to satisfy itself of compliance by the Contractor with the requirements of this clause 21. When the Contractor receives a written request from the Employer for information about, or a copy of, Employer Personal Data, the Contractor shall supply such information or data to the Employer within such time and in such a form as is specified in the request (such time to be reasonable) or if no period of time is specified in the request, then the Employer shall supply the information or data within 14 days from the date of the request.

21.3 The Employer shall remain solely responsible for determining the purposes and manner in which Employer Personal Data is to be processed and the Contractor shall take appropriate technical and organisational security measures satisfactory to the Employer against unauthorised or unlawful processing of Employer Personal Data and against accident loss, destruction of or damage to Employer Personal Data. The Contractor shall not share any Employer Personal Data with any Subcontractor or third party unless there is a written agreement in place which requires the Subcontractor or third party to:

(a) only process Employer Personal Data in accordance with the Employer's instructions to the Contractor; and

(b) comply with the same data protection requirements that the Contractor is required to comply with under this Framework Contract.

21.4 The Contractor shall cooperate with the Employer in complying with requests or enquiries made pursuant to the Data Protection Act.

22 Parent company guarantee

22.1 If a parent owns the Contractor, upon the execution of this Framework Contract, the Contractor shall deliver to the Employer a parent company guarantee in terms of the draft contained in Appendix 4 (or such other terms as the Employer shall have approved) executed as a deed and delivered by the ultimate parent company of the Contractor (as the term is defined in Section 1162 of the Companies Act 2006) (or such other parent company as the Employer may have approved) (**Parent Company**) (**Parent Company Guarantee**).

22.2 If the Contractor is an incorporated joint venture, the Contractor procures that the Parent Company of each shareholder in and/or member of the Contractor gives to the Employer a parent company guarantee in accordance with the requirements of clause 22.1.

22.3 If the Contractor comprises two or more companies acting in an unincorporated joint venture, consortium, partnership or otherwise, the Contractor procures that the Parent Company of each such company gives to the Employer a parent company guarantee in accordance with the requirements of clause 22.1.

22.4 If any Parent Company providing a guarantee required pursuant to this clause 22 is not a company registered in England and Wales, the Contractor is to procure that such Parent Company provides to the Employer a legal opinion in the form set out in Appendix 5 upon the Parent Company's execution of any such guarantee.

22.5 The Contractor acknowledges and agrees that the Parent Company Guarantee (and any Contractor's Bond) shall be provided as security for the performance of all of the Contractor's obligations under this Framework Contract including without limitation all of those obligations of the Contractor under any and all Call-off Contracts made under this Framework Contract.

22.6 The provision of:

(a) the Parent Company Guarantee in accordance with clauses 22.1 to 22.3; and

(b) the legal opinion referred to in clause 22.4;

shall in each case be a condition precedent to the Employer's obligation to make any payment under any Call-off Contract.

22.7 If at any time the credit rating of the Parent Company falls below a Standard & Poor's credit rating of "BBB-" or a Moody's credit rating of "Baa3" (the "**Minimum Acceptable Credit Rating**"), the Contractor, if requested in writing to do so by the Employer, shall give the Employer a performance bond in the form set out in Appendix 7 (the "**Contractor's Bond**") within one week of the Employer's request.

22.8 The Contractor's Bond shall be provided by either a bank, insurer or a suitable financial institution whose long-term, unsecured, unsubordinated indebtedness has a 'A+' (Standard & Poor's) (or its equivalent from each of the ratings agencies which rate the bond provider).

22.9 The Contractor's Bond shall be provided and maintained for the period(s) referred to in clause 22.11 for an amount equivalent 10%of the Relevant Prices.

22.10 A reason for not accepting the bank, insurer or suitable financial institution is that the Employer considers that its commercial position or its creditworthiness or credit rating is not strong enough to carry the Contractor's Bond.

22.11 The Contractor shall provide and maintain the Contractor's Bond until the earlier of:

(a) 12 months after:

(i) Completion of the Call-off Contract which has the latest Completion of each of the Call-off Contracts made under this Framework Contract or if earlier,

(ii) the date of termination of this Framework Contract; or

(b) the date on which the credit rating of the Parent Company has met or exceeded, for a continuous period of 2 months, the Minimum Acceptable Credit Rating (but without prejudice to the Contractor's obligation to provide a further Contractor's Bond if, on any subsequent occasion, such credit rating again falls below the Minimum Acceptable Credit Rating).

22.12 The Contractor's cost of providing and maintaining any Contractor's Bond shall be borne solely by the Contractor. If the Contractor has not provided:

(a) the Contractor's Bond in accordance with clauses 22.7 to 22.11 within 4 weeks of the Employer's request, and/or has not provided:

(b) a Parent Company Guarantee in accordance with clauses 22.1 to 22.3;

then without prejudice to any other of its rights under the Framework Contract or any Call-off Contract, the Employer may procure a bond (the "**Employer's Bond**") for the greater of the amounts referred to in clause 22.9 and for the period referred to in clause 22.11.

22.13 The cost to the Employer of the Employer's Bond shall be paid or allowed as a debt payable by the Contractor to the Employer.

22.14 The requirements in this clause 22 are in addition to any requirement for performance security under or pursuant to any other term of this Framework Contract or any Call-off Contract.

23 Change of Control

23.1 No Change of Control shall be permitted to occur without the prior written consent of the Employer to such Change of Control, which shall not be unreasonably withheld.

24 Expiry and termination

24.1 The Employer may terminate this Framework Contract for convenience, by giving the Contractor 28 days' notice to that effect.

24.2 Without prejudice to any other right or remedy available to the Employer, if there is a Contractor Default Event:

(a) the Employer shall be entitled to terminate this Framework Contract with immediate effect, by giving the Contractor a written notice referring to this clause 24.2(a); and

(b) such Contractor Default Event shall constitute a substantial failure by the Contractor to comply with its obligations under each Call-off Contract (for the purposes of reason for termination R11).

24.3 The following are **Contractor Default Events**:

(a) the Contractor enters into compulsory or voluntary liquidation (other than for the purpose of effecting a solvent reconstruction or amalgamation provided that if the company resulting from such reconstruction or amalgamation is a different legal entity it shall agree to be bound by and assume the obligations of the Contractor under this Framework Contract and any all Call-Off Contract as required by the Employer) or is deemed unable to pay its debts as they fall due in accordance with Section 123(1) of the Insolvency Act 1986, or a meeting of its shareholders or directors is convened to consider any resolution for (or petition or file documents with the courts for) its administration or an administrative receiver, manager, administrator, liquidator, trustee or other similar officer is appointed or notice is given to appoint the same or any similar or analogous procedure or step is taken in any jurisdiction;

(b) the Contractor fails to price, complete and return any two or more Proposal Responses as required by this Framework Contract;

(c) the Employer has terminated or otherwise has the right to terminate the Contractor's employment under any two more Call-off Contracts by reason of the Contractor's default, breach or insolvency;

(d) the Contractor has not provided or maintained a Parent Company Guarantee or Contractor's Bond as required by clause 22 of this Framework Contract;

(e) if any Contractor's Bond required under clause 22.7 of this Framework Contract becomes wholly or partly invalid or unenforceable or any bond provider providing the Contractor's Bond suffers an event, in each case, the Contractor fails to provide a replacement Contractor's Bond in accordance with this Framework Contract within 20 days of the Contractor's Bond becoming invalid or unenforceable;

(f) if the guarantor's obligations under the Parent Company Guarantee become wholly or partly invalid or unenforceable;

(g) if any provider of a Contractor's Bond or Parent Company Guarantee fails or refuses to comply with any performance or payment obligations assumed under the Contractor's Bond or Parent Company Guarantee.

(h) the Contractor commits a breach of any of clauses 13 (*Assignment and Novation*) or 23 (*Change of Control*);

(i) the Employer is not satisfied on the issue of any conflict of interest in accordance with clause 17 (*Conflict of interest*);

(j) the Contractor or anyone employed by or acting on behalf of the Contractor (whether or not acting independently of the Contractor when committing any breach) commits a Safety Breach or Prohibited Act;

(k) the Contractor has, at the date of this Framework Contract or of each Call-off Contract, been in one of the situations referred to in Regulation 57(1) of the Public Contracts Regulations 2015 and should therefore have been excluded from the procurement procedure in accordance with those Regulations or Regulation 80(2) of the Utilities Contracts Regulations 2016 (without prejudice to the Company's rights of termination implied into this Framework Contract and each Call-off Contract by Regulation 73(3) of the Public Contracts Regulations 2015 or Regulation 89(3) of the Utilities Contracts Regulations 2016);

(l) the Contractor otherwise commits a material or persistent breach of this Framework Contract, and in the case of such a breach that is capable of remedy, fails to remedy that breach within 14 days (or such other timeframe as specified in writing by the Employer) from the date of notice to the Contractor giving details of the breach and requiring it to be remedied.

24.4 Without prejudice to the Employer's right to terminate this Framework Contract under clauses 24.1, 24.2 or 24.3(l) or at common law, the Employer may terminate this Framework Contract at any time following a Declaration of Ineffectiveness or a Public Procurement Termination Event in accordance with the provisions of clause 25 (*Declaration of Ineffectiveness and Public Procurement Termination Event*).

24.5 This Framework Contract survives the Term or any termination of this Framework Contract, for the purposes of any Call-off Contract.

24.6 Notwithstanding the expiry or earlier termination of this Framework Contract, the Contractor's obligations to complete any works or services instructed under any Call-off Contracts shall continue until completion of the relevant works or services (and the Employer shall be entitled to continue to issue any instructions under and in respect of such Call-off Contracts), and the terms of this Framework Contract (and the relevant Call-off Contracts) shall continue to apply to such works or services.

24.7 In the event that the Employer terminates this Framework Contract for any reason under this clause 24 (*Expiry and termination*), the Contractor shall, without prejudice to any other rights or remedies which the Employer may have under this Framework Contract or under general law, at the Employer's option:

(a) permit the Employer to enter the Contractor's premises and take possession of any equipment, goods or Documentation which are the property of the Employer; and

(b) promptly return to the Employer any equipment, goods or Documentation which are the property of the Employer and of which the Contractor or any of its Subcontractors have possession.

24.8 Following a termination in accordance with clause 24.2 (but not a termination in accordance with clause 24.1), the Contractor shall be liable to the Employer for any Losses of whatever nature arising out of or in connection with the relevant Contractor Default Event.

24.9 Termination of this Framework Contract and/or any Call-off Contract for whatever reason shall not affect the accrued rights of the Parties arising in any way out of this Framework Contract and the relevant Call-off Contract as at the date of termination and in particular but without limitation the right to recover damages against the other Party.

25 Declaration of Ineffectiveness and Public Procurement Termination Event

25.1 Without prejudice to the Employer's right to terminate this Framework Contract under clause 24 (*Expiry and termination*) or at common law, the Employer may terminate this Framework Contract at any time in accordance with the provisions of this clause 25 in the event that:

(a) there is a Declaration of Ineffectiveness; or

(b) there is a Public Procurement Termination Event (without prejudice to the Employer's rights of termination implied into this Framework Contract by Regulation 73(3) of the Public Contracts Regulations 2015 or by Regulation 89(3) of the Utilities Contracts Regulations 2016).

25.2 In the event that any court makes a Declaration of Ineffectiveness or there is a Public Procurement Termination Event, the Employer shall notify the Contractor. The Parties agree that the provisions of this clause 25 shall apply as from the date of receipt by the Contractor of the notification of a Declaration of Ineffectiveness or a Public Procurement Termination Event. Where there is any conflict or discrepancy between the provisions of clause 24 (*Expiry and* termination) and this clause 25 or the Cessation Plan, the provisions of this clause 25 and the Cessation Plan prevail.

25.3 The Declaration of Ineffectiveness or the Public Procurement Termination Event does not prejudice or affect any right, liability or remedy which has accrued or which shall accrue to either Party prior to or after such Declaration of Ineffectiveness or Public Procurement Termination Event.

25.4 As from the date of receipt by the Contractor of the notification of the Declaration of Ineffectiveness or the Public Procurement Termination Event, the Parties (acting reasonably and in good faith) agree or, in the absence of such agreement, the Employer reasonably determines an appropriate Cessation Plan with the object of achieving:

(a) an orderly and efficient cessation of the works and services pursuant to this Framework Contract or (at the Employer's request) a transition of such works and services to the Employer or such other entity as the Employer may specify; and

(b) minimal disruption or inconvenience to the Employer or to public passenger transport services or facilities, in accordance with the provisions of this clause 25 and to give effect to the terms of the Declaration of Ineffectiveness or the Public Procurement Termination Event.

25.5 Upon agreement, or determination by the Employer of the Cessation Plan the Parties comply with their respective obligations under the Cessation Plan.

25.6 The Employer pays the Contractor's reasonable costs in assisting the Employer in preparing, agreeing and complying with the Cessation Plan. Such costs are based on any comparable costs or charges agreed as part of this Framework Contract or as otherwise reasonably determined by the Employer provided that the Employer is not to be liable to the Contractor for any loss of profit, revenue goodwill or loss of opportunity as a result of the early termination of this Framework Contract in accordance with this clause 25.

26 Disputes

26.1 The Parties shall follow the Dispute Resolution Procedure for the avoidance and resolution of Disputes.

27 Set-off

27.1 Without prejudice to any other rights of the Employer (whether at law or equity), whenever

(a) under this Framework Contract or any other contract between the Employer and the Contractor (including any Call-off Contract(s)) any sum of money is recoverable from or payable by the Contractor; or

(b) any Losses are reasonably and properly owed to, or incurred by, the Employer or any member of the TfL Group under or arising out of this Framework Contract or any other contract between the Contractor and the Employer or any member of the TfL Group (again, including any Call-off Contract(s)),

the same may be set-off and/or deducted from any sum then due or which at any time thereafter may become due to the Contractor under this Framework Contract or any one or more Call-off Contract(s).

28 Indemnity and Limits on liability

28.1 The Contractor shall be liable for, and shall indemnify the Employer, including any of its employees, servants, agents, subcontractors, directors and officers and members of the TfL Group on an after-tax basis against all Losses suffered or incurred by the Employer or relevant member of the TfL Group, arising from or in connection with the performance or non-performance of the Contractor under this Framework Contract:

(a) in respect of death or personal injury to any person;

(b) Not used

(c) arising out of or in the course of or by reason of any act, omission, negligence or breach of contract or breach of statutory duty, wilful misconduct of the Contractor, its employees, agents or subcontractors;

(d) arising under the Employer's contracts with third parties, and

shall, at its own cost on the Employer's request, defend the Employer in any proceedings involving the same.

28.2 The Contractor shall not be liable to indemnify the Employer or any member of the TfL Group under the indemnity in clause 28.1 to the extent Losses are due to the negligence, breach of duty or breach of contract of the Employer.

28.3 The Employer may withhold from any sum due or which may become due to the Contractor any sum due to the Employer as a result of the operation of clause 28.1.

28.4 Other than in respect of the Losses (i) described in clauses 28.1(a) and 28.1(d) above and Excepted Liabilities, neither Party shall have any liability to the other for any Consequential Loss arising out of the performance of its obligations under or in connection with this Framework Contract. Each Party respectively undertakes not to sue the other Party, TfL or any member of the TfL Group in respect of Consequential Loss.

28.5 The Contractor's total liability to the Employer for all matters arising under or in connection with this Framework Contract, other than the excluded matters, is limited to £10,000,000 (ten million pounds) and applies in contract, tort and otherwise to the extent allowed under the law of this Framework Contract. The excluded matters are amounts payable by the Contractor as stated in this Framework Contract for:

(a) the Contractor's liability under or in connection with any Call-off Contract, each of which is subject to separate limitations on liability under secondary option X18;

(b) Excepted Liabilities;

(c) Not used

(d) any Losses against which the Employer is indemnified under clause 12 (*TUPE*);

(e) any liability which cannot be excluded / limited under applicable law;

(f) any liability to repay any payment made in error or any other overpayment.

29 Service of notice

29.1 Subject to clause 29.2, any notice to be served under this Framework Contract (but not a Call-off Contract) shall be in English and in writing and shall be deemed to have been given by any effective means, and takes effect as being given and served if sent or delivered to the person at the address identified below or at such other address as may from time to time be notified by either Party to the other:

(a) if delivered by hand:

(i) by 4.00 p.m. on a Working Day, on the day of delivery; but otherwise

(ii) on the first Working Day after it is delivered,

(b) if sent by post, on the first Working Day after it is sent.

The addresses are:

for the Employer, **REDACTED**, 5 Endeavour Square, Stratford, London E20 1JN; and

for the Contractor, **REDACTED**, Newington House, 237 Southwark Bridge Road, London, SE1 6NP.

If a Party's details change, it must notify the other party promptly.

29.2 The Employer may from time to time require (in writing) that any given notice(s) under this Framework Contract is given via the Document Management System. Where and to the extent the Employer does so, such notice(s) shall be given (and shall take effect) in accordance with the provisions of clause 13 of the conditions of contract.

30 Contracts (Rights of Third Parties) Act 1999

30.1 The provisions of:

(a) clauses 12.5 (*TUPE*), 19 (*Crime and Disorder Act*), 20 (*Best Value*) and 28.1 (*Indemnity and Limits on liability*) are for the additional benefit of relevant members of the TfL Group; and

(b) clause 12.5 (*TUPE*) is for the additional benefit of Replacement Employers,

and (in each case) any permitted assignee of the rights of such person(s), and the Contractor's duties, obligations, representations and warranties under such clauses shall be enforceable and actionable by such person(s) pursuant to the Contracts (Rights of Third Parties) Act 1999.

30.2 Subject to clause 30.1, this Framework Contract is not intended to confer any rights on any third party pursuant to the Contracts (Rights of Third Parties) Act 1999.

30.3 The Employer and the Contractor may vary the whole or any part of this Framework Contract by agreement, without first having to obtain the consent of any person to whom rights are given in clause 30.1.

31 Entire agreement

This Framework Contract (including all Call-off Contracts issued under it) constitutes the entire agreement between the Parties, and supersedes all other agreements, understandings and arrangements between the Parties, and all representations by them (whether oral or written), relating to the subject matter of this Framework Contract (or any given Call-off Contract).

32 Relationship of the Parties

32.1 Except as expressly provided otherwise in this Framework Contract, nothing in this Framework Contract, nor any actions taken by the Parties pursuant to this Framework Contract, shall create

a partnership, unincorporated association, co-operative agency, joint venture or relationship of employer and employee or principal and agent between the Parties, or authorise either Party to make representations or enter into any commitments for or on behalf of any other Party.

33 Variations

This Framework Contract may only be varied in writing duly executed by a director or other duly authorised representative of each of the Parties.

34 Survival

34.1 The provisions of clauses 11 (*Records and audit*), 12 (*TUPE*), 15 (*Confidentiality*), 16 (*Freedom of Information and Transparency*), 18 (*Prohibited Acts*), 21 (*Data protection*), 24 (*Expiry and termination*), 25 (*Declaration of Ineffectiveness and Public Procurement Termination Event*), 26 (*Disputes*), 27 (*Set-off*), 28 (*Indemnity and Limits on liability*), 29 (*Service of notice*), 30 (*Contracts (Rights of Third Parties) Act 1999*), 31 (*Entire agreement*), 34 (*Survival*), 34.1 (*Waiver and severance*) and 36 (*Governing law and jurisdiction*) shall survive the termination or expiry of this Framework Contract and any Call-off Contract and continue in full force and effect, along with any other clauses, Schedules, Appendices or Annexes of this Framework Contract and any Call-off Contract necessary to give effect to them. In addition, any other provision of this Framework Contract and any Call-off Contract which by its nature or implication (including in respect of any accrued rights and liabilities) is required to survive the termination shall survive such termination as aforesaid.

35 Waiver and severance

35.1 Failure by the Employer to exercise his rights under this Framework Contract and/or any given Call-off Contract does not constitute waiver of those rights nor any of them nor does any such failure relieve the Contractor from any of his obligations under such contract. The waiver in one instance of any right, condition or requirement does not constitute a continuing or general waiver of that or any other right, condition or requirement.

35.2 If any provision of this Framework Contract or any given Call-off Contract is held by any court or competent authority to be void or unenforceable in whole or in part, the other provisions of the relevant contract and the remainder of the affected provision(s) shall continue to be valid.

36 Governing law and jurisdiction

36.1 This Framework Contract shall be governed by, and construed in accordance with, English law.

36.2 Subject to clause 26 (*Disputes*) and the Dispute Resolution Procedure, the Parties agree that the English courts shall have exclusive jurisdiction to settle any dispute or claim (whether contractual or non-contractual) that arises out of or in connection with this Framework Contract or its subject matter or formation.

Executed as a deed by affixing the common seal of **London Underground Limited** in the presence of:)))))

REDACTED

.....

Authorised signatory

Executed as a deed by **UK Power Networks Services (Commercial) Limited** acting by a director in the presence of))))))

REDACTED

.....

Director

REDACTED

.....

Name

REDACTED

.....

Signature of witness

REDACTED

Name .....

REDACTED

Address .....

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Schedule 1

Definitions and interpretation

1 Interpretation

1.1 In this Schedule 1, references to any clause, paragraph, schedule or appendix shall (unless otherwise stated, or the context requires otherwise) be read as references to the relevant clause, paragraph, schedule or appendix of or to the Framework Contract.

1.2 In this Framework Contract and each Call-off Contract under it:

(a) where the context admits, the singular includes the plural, and vice versa, and the masculine also includes the feminine and the neutral;

(b) references to persons or parties includes individuals, partnerships, firms and corporations and any organisation having legal capacity include firms and corporate bodies;

(c) any obligation undertaken by more than one person is joint and several;

(d) **including** and similar terms are to be read without limitation;

(e) clause headings have no effect;

(f) any reference to legislation or **applicable law** includes:

(i) any act of parliament, any instrument, rule or order made under any act of parliament and any regulation or by-law of any local authority or of any Statutory Undertaker which has jurisdiction with regard this Framework Contract or any Call-off Contract or the works under any Call-off Contract or of any Statutory Undertaker with whose systems the works under any Call-off Contract are or will be connected, including any statutory provisions and any decisions of a relevant authority under the statutory provisions which control the right to develop the site under any Call-off Contract (in connection with which the works under such Call-off Contract are to be provided); and

(ii) any relevant amendment, re-enactment, replacement or substitution of, or any subordinate law / legislation / instrument / order / rule / regulation / bye-law / provision / scheme / warrant / directive / code of practice made or approved under, of such law / legislation / act / instrument / rule / order / regulation / by-law / provision / decision; and

(g) laws / legislation are regarded as applicable to the Contractor where they impose duties, obligations or restrictions on the Employer or TfL in relation to the Underground Network and/or its operation, and (without prejudice to the remaining provisions of this Framework Contract or any Call-off Contract) the Contractor performs its obligations under this Framework Contract and each Call-off Contract in compliance with such duties, obligations and restrictions as if such laws / legislation imposed such duties, obligations and restrictions on the Contractor (itself).

1.3 Unless otherwise defined in the Framework Contract (including in this Schedule 1), terms used in the conditions of contract have the same meaning in this Framework Contract as in the conditions of contract.

2 General definitions

In this Framework Contract and each Call-off Contract (in each case, where relevant and where the context allows) the following terms shall have the following meanings:

(a) **Acceptance** means the Employer's acceptance of any given priced and completed Proposal Response;

(b) **Adjudicator** means any adjudicator appointed from time to time in accordance with the Dispute Resolution Procedure;

(c) **Adjustment Date** takes its meaning from clause 9.1;

(d) **Agreed Index** means the UK consumer price index for all items (CPI Index 00: all items 2015=100) published by the Office for National Statistics;

(e) **Balance of Works** takes its meaning from clause 4.4;

(f) **Batch A** and **Batch B** each take their meanings from paragraph (B) of the background section of the Framework Contract, each being more particularly defined in the ITN;

(g) **Call-off Contract** means a call-off contract falling within clause 4.2 or 6.4;

(h) **Cessation Plan** means a plan agreed between the Parties or determined by the Employer in accordance with clause 25 (*Declaration of Ineffectiveness and Public Procurement Termination Event*) to give effect to a Declaration of Ineffectiveness or Public Procurement Termination Event;

(i) **Commencement Date** means 10th June 2022;

(j) **Conflict Avoidance Panel** means an independent person or persons appointed from time to time in accordance with the procedure set out in Schedule 7 (*Dispute Resolution Procedure*);

(k) **conditions of contract** is defined in the Contract Data Part 1 of the relevant Proposal, Proposal Response or Call-off Contract (as the context requires);

(l) **Consequential Loss** means in relation to a breach of this Framework Contract or other circumstances in which a Party is entitled to recover any costs, expenses or liabilities suffered or incurred, loss of profit, loss of revenue, loss of contract, loss of goodwill and/or other financial loss resulting from such breach and whether or not the Party committing the breach knew, or ought to have known, that such loss would be likely to be suffered as a result of such breach;

(m) **Contract Data Part 1** means the contract data part 1 in each Proposal, Proposal Response or Call-off Contract (as the context requires);

(n) **Contract Data Part 2** means the contract data part 2 in each Proposal, Proposal Response or Call-off Contract (as the context requires);

(o) **Contract Information** means:

(i) this Framework Contract in its entirety and any Call-off Contract (including from time to time agreed changes to the Framework Contract or any Call-off Contract as applicable); and

(ii) data extracted from the invoices submitted pursuant to any Call-off Contract which shall consist of the Contractor's name, the expenditure account code, the expenditure account code description, the document number, the clearing date and the invoice amount;

(p) **Contractor Default Event** means any of the events or circumstances set out in clause 24.3;

(q) **Contractor's Bond** takes its meaning from clause 22.7;

(r) Not used;

(s) **Current Index Value** takes its meaning from clause 9.2;

(t) **Current Service Provider** means any person, company or other legal entity which on or before the Commencement Date was the employer of any of the Transferring Employees (which may include the Employer);

(u) **Declaration of Ineffectiveness** means a declaration of ineffectiveness in relation to this Framework Contract made by a court of competent jurisdiction in accordance with Regulation 98 of the Public Contracts Regulations 2015 (as amended) or Regulation 113(2)(a) or Regulation 118(3) of the Utilities Contracts Regulations 2016 (as amended);

(v) **Direct Award** takes its meaning from clause 5.2;

(w) **Dispute** means any dispute, controversy or claim arising out of or in connection with this Framework Contract or any Call-off Contract or any works or services instructed / carried out under any of them.

(x) **Dispute Resolution Procedure** means the procedure for resolving Disputes contained in Schedule 7 (*Dispute Resolution Procedure*);

(y) **Documentation** means all documents, items of information, data, reports, drawings, specifications, plans, software, designs, inventions and/or other material produced or supplied by or on behalf of the Contractor in the performance of this Framework Contract or Call-off Contract as applicable;

(z) **Document Management System** means the Employer's document management and information exchange system (more particularly described in the Generic Works Information), or such other system(s) for managing documents or exchanging information as the Employer may designate from time to time;

(aa) **Either Contractor** means the Contractor or the Other Contractor;

(bb) **Employer Personal Data**:

(i) when such term is used in the Framework Contract, takes its meaning from clause 21.1;

(ii) when such term is used in a Call-off Contract, Personal Data and/or Sensitive Personal Data Processed by the *Contractor* (including any Subcontractor) on behalf of the *Employer*, pursuant to or in connection with that Call-off Contract as set out in the Processing Statement.

(cc) **Employer's Bond** takes its meaning from clause 22.12;

(dd) **Employer's Panel** means the panel referenced in paragraph (B) of the background section of the Framework Contract;

(ee) **Employer's Works Information** means the Employer's works information in any Proposal or Proposal Response;

(ff) **Excepted Liabilities** means the liability of the Contractor for:

(i) Losses against which the Contractor is entitled to an indemnity under any policy of insurance (or would have been entitled but for any breach or failure to maintain such insurance);

(ii) Losses caused by fraudulent acts or acts of a criminal nature;

(iii) Losses caused by the Contractor committing a Prohibited Act or Safety Breach;

(iv) Losses caused by the Contractor breaching any of clauses 13.3 (*Assignment and novation*), 14 (*Bribery Act 2010*), 15 (*Confidentiality*), 18 (*Prohibited Acts*), 23 (*Change of Control*) or 25 (*Declaration of Ineffectiveness and Public Procurement Termination Event*);

(gg) **Extended Term** takes its meaning from clause 3.3;

(hh) **Extension Notice** takes its meaning from clause 3.5;

(ii) **Financial Year** means each year commencing on 1st April and ending on 31st March the following calendar year;

(jj) **Framework Representative** takes its meaning from clause 10.1;

(kk) **General Criteria** means the general criteria for the assessment of priced and completed Proposal Responses for each Mini-competition under clause 5, contained in Schedule 6 (*General Criteria*);

(ll) **Generic Works Information** means the descriptions of work, plus the related information in Appendix 1;

(mm) **Good Industry Practice** means the exercise of that degree of skill, diligence, prudence and foresight and operating practice which would reasonably and ordinarily be expected from time to time from a skilled, competent and experienced contractor seeking in good faith to comply with all its contractual obligations and all applicable laws (whether or not binding on the Employer), and engaged in the same type of undertaking and under the same or similar circumstances as those envisaged by this Framework Contract;

(nn) **Key Individual** derives its meaning from clause 10;

(oo) **Initial Term** takes its meaning from clause 3.2;

(pp) **insolvent** and **insolvency** are construed according to s113 of the Housing Grants, Construction and Regeneration Act 1996;

(qq) **Items** takes its meaning from clause 9.1;

(rr) **ITN** means the invitation to negotiate issued by the Employer on 26 April 2021 for its procurement of the works and services described in Schedule 2 (*Framework Contract Scope*);

(ss) **Losses** means any damages, expenses, liabilities, losses, claims, proceedings, compensation and costs whatsoever or howsoever arising;

(tt) **Mini-competition** means the mini-competition process provided for in clause 5;

(uu) **Minimum Acceptable Credit Rating** takes its meaning from clause 22.7;

(vv) **Other Contractor** means the contractor appointed for Batch A pursuant to the procurement which led to this Framework Contract;

(ww) **Other Contractor's Contract** means the framework agreement under which the Other Contractor is appointed to the Employer's Panel;

(xx) **Other Works** takes its meaning from paragraph (A) (sub-paragraph 2) of the background section of the Framework Contract; such works being more particularly described in Schedule 2 (*Framework Contract Scope*);

(yy) **Parent Company** takes its meaning from clause 22.1;

(zz) **Parent Company Guarantee** takes its meaning from clause 22.1;

(aaa) **Party** and **Parties** means a party to, or the parties to this Framework Contract;

(bbb) **Phase 1 PLUP Works** means those PLUP Works identified as such in Schedule 2 (*Framework Contract Scope*);

(ccc) **Phase 2 PLUP Works** means those PLUP Works identified as such in Schedule 2 (*Framework Contract Scope*);

(ddd) **PLUP Works** takes its meaning from paragraph (A) (sub-paragraph (A)1) of the background section of the Framework Contract, such works being more particularly described in Schedule 2 (*Framework Contract Scope*);

(eee) **Previous Index Value** takes its meaning from clause 9.2;

(fff) **Prohibited Act** means:

(i) offering or agreeing to give to any servant, employee, officer or agent of the Employer or the TfL Group any grant, gift or consideration of any kind as an inducement or reward:

(A) for doing or not doing (or for having done or not having done) any act in relation to the obtaining or performance of this Framework Contract, any Call-off Contract or any other contract with the Employer; or

(B) for showing or not showing favour or disfavour to any person in relation to this Framework Contract, any Call-off Contract or any other contract with the Employer;

(ii) entering into this Framework Contract, any Call-off Contract or any other contract with the Employer in connection with which commission has been paid or has been agreed to be paid by the Contractor or on his behalf or to his knowledge unless, before the relevant contract or document is entered into, particulars of any such commission and the terms and conditions of any such contract or document for the payment thereof have been disclosed in writing to the Employer;

(iii) committing any offence:

(A) under the Prevention of Corruption Acts 1889-1916 and/or the Bribery Act 2010,

(B) under any law or legislation creating offences in respect of fraudulent acts, or

(C) at common law in respect of fraudulent acts

in relation to this Framework Contract, any Call-off Contract or any other contract with the Employer; or

(iv) defrauding or attempting to defraud the Employer,

(ggg) **Project** means the *project* defined in the Call-off Contract Data Part 1;

(hhh) **Proposal** means a proposal for a Call-off Contract substantially in the form of the draft contained in Schedule 4, plus the Works Information, annexes and other documents supplied with / referenced within such proposal;

(iii) **Proposal Response** means a response to a Proposal, completed and submitted by the Contractor in accordance with clause 4.7, plus any other documents supplied with / referenced within such response;

(jjj) **Public Procurement Termination Event** means

(i) the Framework Contract has been subject to any substantial modification which would require a new procurement procedure in accordance with Regulation 72(9) of the Public Contracts Regulations 2015 or Regulation 88(8) of the Utilities Contracts Regulations 2016; or

(ii) if the Employer determines that this Framework Contract should not have been awarded to the Contractor in view of a serious infringement of the obligations contained under the EU Treaties and applicable procurement Regulations.

(kkk) **Relevant Claims and Liabilities** means all liabilities, obligations, proceedings, court or tribunal orders, losses, fines and penalties, damages, expenses, costs (including reasonable legal costs and disbursements) actions, claims and demands;

(lll) **Relevant Date** means the date on which (as the case may be):

(i) the Contractor's Bond is required under clause 22.7; or

(ii) a Parent Company Guarantee is required under clauses 22.1 to 22.3 inclusive;

(mmm) **Relevant Prices** means in respect of a Financial Year, the aggregate total of:

(i) the sum of the Total of the Prices under each of the Call-off Contracts made under this Framework that have not reached the defects date at the Relevant Date;

(ii) any other amounts to which the Contractor has or will become entitled under each of the Call-off Contracts made under this Framework Contract in the Financial Year;

(nnn) **Replacement Employer** means any person to whom a Subsequent Relevant Employee may or does transfer under the Transfer Regulations on expiry or termination of this Framework Contract (or part of it) or any Call-off Contract;

(ooo) **Responsible Procurement Principles** mean the seven principles of responsible procurement more particularly described in the GLA Group Responsible Procurement Policy dated March 2006, as updated in January 2008 and as may be further updated from time to time.

(ppp) **Schedule of Rates** means the schedule of rates in Schedule 3, as the same may be revised from time to time in accordance with this Framework Contract;

(qqq) **Subsequent Relevant Employee** means a person employed or engaged by the Contractor or relevant subcontractor / supplier from time to time in respect of any part of the provision of any works / services required under or in connection with this Framework Contract and/or any Call-off Contract who would transfer to a Replacement Employer by virtue of the Transfer Regulations on the expiry or termination of the Framework Contract (or part of it) or any Call-off Contract;

(rrr) **Subsequent Transfer Date** means the time and date on which a Subsequent Relevant Employee transfers to a Replacement Employer by virtue of the Transfer Regulations;

(sss) **Term** takes its meaning from clause 3.3;

(ttt) **TfL Group** means Transport for London (**TfL**), a statutory body set up by the Greater London Authority Act 1999 and any of its subsidiaries and their subsidiaries; the Employer is a member of the TfL Group;

(uuu) **Transferring Employees** means those employees of or those engaged by the Current Service Provider who transfer or have the right to transfer to the Contractor under the Transfer Regulations;

(vvv) **Transfer Regulations** means all or any of the following: the Transfer of Undertakings (Protection of Employment) Regulations 2006; the Transfer of Employment (Pension Protection) Regulations 2005; any other or further regulations, order or statutory instrument which apply or are capable of applying to a person to whom section 257 of the Pensions Act 2004 applies, each as amended, replaced or extended from time to time and including any regulations or other legislation which (either with or without modification) re-enacts, adopts, consolidates or enacts in rewritten form any such regulations etc;

(www) **Underground Network** means the stations and depots (wherever situate), assets, systems, track, and other buildings, which are used in the maintenance and provision of the underground service known as “the "London Underground";

(xxx) **Working Day** means any day other than:

(i) a Saturday or a Sunday; or

(ii) Christmas Day, Good Friday, or a day which under the Banking and Financial Dealings Act 1971 is a Bank Holiday in England and Wales.

Schedule 2

Framework Contract Scope

This Framework Contract covers the design, manufacture, installation and commissioning of high voltage (HV) plant and related civil works and HV and fibre optic/pilot cabling related to the ongoing upgrading, maintenance and reinforcement of the Employer's power system.

PLUP Works

The PLUP Works entail the provision of a detailed system design and build consisting of the procurement, supply, construction, installation, terminating, testing and commissioning and successful handover of the assets and structures necessary to facilitate implementation of the HV, (direct current) DC and (low voltage) LV Power network upgrades – such works to be instructed and provided subject to and in accordance with the terms of this Framework Contract. The substation and HV network works required to deliver these upgrades are split into two phases to align with the two phases of the overall Piccadilly line upgrade, as follows:

- Phase 1: all infrastructure upgrade works required to support introduction of the 24TS (the forthcoming new Piccadilly line tube stock), and to increase peak Piccadilly line service to 27 trains per hour (TPH);
- Phase 2: all infrastructure upgrade works required to support the new Piccadilly line signalling system, and the subsequent increase peak Piccadilly line service to 36TPH.

The Phase 1 scope comprises of 15 substation and switch house upgrades as well as extensive cable upgrades across the power network. Phase 2 comprises seven substation upgrades, cable upgrades, as well as associated works to increase the nominal track mainline voltage from 630V to 750V.

The Site Locations for Phase 1 and 2 of PLUP Works are listed below:

Phase 1 - Site Locations		
Substation	**Cable Routes**	
	From	**To**
Northfields	Acton Town	Northfields
Cockfosters	Wood Green	Cockfosters
	Cockfosters	Southgate
	Southgate	Arnos Grove
	Arnos Grove	Wood Green
Sudbury Hill	Alperton	Sudbury Hill
	Sudbury Hill	Rayners Lane
	Harrow	Rayners Lane
	North Ealing	Alperton
Hyde Park Corner	Leicester Square	Hyde Park Corner
	Hyde Park Corner	South Kensington
Leicester Square	Leicester Square	Embankment
	Embankment	Lambeth
	Lambeth	Leicester Square
	Stockwell	Leicester Square Embankment Lambeth

Manor House - Substation	Manor House	Wood Green
Manor House – HV Network Coupling Transformers	Cobourg St	Manor House
	Manor House Sub	Manor House Cable Shaft
Cobourg Street - 22kV Switchboard	Cobourg St	Mansell St.
Mansell Street - One panel extension - 22kV		
Hatton Cross	Hounslow	Hatton Cross
	Hatton Cross	Heathrow Central
Hounslow	Hounslow	Northfields
Ravenscourt Park	Chiswick Park	Ravenscourt Park
	Cromwell Curve	Barons Court
Acton Town – One panel extension of 11kV switchboard	Neasden	Acton Town
	Neasden	Alperton
Southgate		
Holloway Road		

Phase 2 - Site Locations		
Substation	**Cable Routes**	
	From	**To**
Alperton		
North Ealing	Acton Town	North Ealing
Heathrow Central	Hatton Cross	Heathrow Central
	Heathrow Central	Heathrow T5 TCH
Hounslow West Traction Coupling Hut (TCH)-Upgrade DC Switchboard	Hounslow	Hatton Cross
	Ravenscourt Park	Hounslow
	Hounslow	Hounslow West TCH
	Hounslow West TCH	Hatton Cross
Russell Square	Holloway Road	Manor House
	Russell Square	Leicester Square
	Holloway Rd	Russell Square
Wood Green		
Arnos Grove		

The scope at each substation varies from site to site; however, the general scope of work at each substation (Phase 1 and Phase 2) will entail the detailed design and installation of:

- Replacement of existing transformer rectifiers with new and provision of additional Class VI - 630/750V transformer rectifiers to enhance network capacity.
- Replacement of existing life-expired auxiliary transformers, and installation of additional auxiliary transformers to enhance network capacity and resilience.
- Replacement of SCADA marshalling cabinets and Remote Terminal Units (RTU).
- New fibre optic cabinets.
- Existing DC, 11kV and LVAC switchboards replaced with new to meet rating, functionality and safety requirements of upgrades.
- New LV and DC metering schemes.
- Replacement of ancillary equipment to facilitate the installation and operation of the substation such as lighting, small power, ventilation, fire alarm and detection systems.
- New bleed resistors.
- New 50V and 110V DC battery and supply systems.
- New and replacement LV, DC and HV cabling.

- New Cable Management System (CMS) and/or modification of the existing CMS.
- Earthing and bonding.
- Structural strengthening works to facilitate the installation of new power assets, including extensions to existing buildings.
- Modifications to existing structures, including related steel works, brick, concrete and other building material type strengthening and structural works.
- New Plant, including cranes, lifting beams, and hoists.
- New fencing, handrails, ladders and staircases, shutter doors, fire doors, weather proofing, cladding and building finishes.
- New and modified drainage systems.
- Temporary works and enabling works necessary to deliver the works.

Each substation will also have a corresponding general set of upgrades to the 11kV and fibre optic cable network. This will entail the detailed design and installation of:

- Replacement 11kV cables.
- New 11kV cables.
- New fibre optic cables.
- Remote end modifications.
- New Cable Route Management System (CRMS) and/or modification to existing CRMS.
- Assessments of existing structures utilised to support the CRMS and strengthening or additional structures installed as required.

The cable network works will also include, but are not limited to: concept and detailed design of cable route posts and hangers; cable pulling (including the organisation and use of engineering trains); procurement of various types of Employer approved HV and low voltage (LV) cable; installation of exterior and interior CRMS; termination and jointing of cables; testing of cables; and the commissioning and delivery in service of all of the above.

Other power upgrades required as part of the PLUP Works are:

- Installation of new coupling transformers and blast proof pens.
- Replacement of existing 22kV switchboard with new 22kV switchboard to meet rating, functionality and safety requirements of upgrades.
- Installation of new 22kV cables and required CRMS.

Other Works

Other Works may be at site locations anywhere on the London Underground network. Other Works may be included in the *works* of any future Call-off Contract at the discretion of the Employer - such works to be instructed and provided subject to and in accordance with the terms of this Framework Contract. Other Works will include scope from the following:

- Detailed design and/or installation of new substation assets, including any combination of the below scope items:
    - Replacement of existing transformer rectifiers with new and provision of additional Class VI - 630/750V transformer rectifiers to enhance network capacity.
    - Replacement of existing life-expired auxiliary transformers, and installation of additional auxiliary transformers to enhance network capacity and resilience.
    - Replacement of SCADA marshalling cabinets and Remote Terminal Units (RTU).
    - New fibre optic cabinets.
    - Existing DC, 11kV and LVAC switchboards replaced with new to meet rating, functionality and safety requirements of upgrades.
    - New LV and DC metering schemes.

- Replacement of ancillary equipment to facilitate the installation and operation of the substation such as lighting, small power, ventilation, fire alarm and detection systems.
- New bleed resistors.
- New 50V and 110V DC battery and supply systems.
- New and replacement LV, DC and HV cabling.
- New Cable Management System (CMS) and/or modification of the existing CMS.
- Earthing and bonding.
- Structural strengthening works to facilitate the installation of new power assets, including extensions to existing buildings.
- Modifications to existing structures, including related steel works, brick, concrete and other building material type strengthening and structural works.
- New Plant, including cranes, lifting beams, and hoists.
- New fencing, handrails, ladders and staircases, shutter doors, fire doors, weather proofing, cladding and building finishes.
- New and modified drainage systems.
- Temporary works and enabling works necessary to deliver the works.

- Detailed design and/or installation work for new/upgraded transformer rooms, including any combination of the below scope items:
  - New 11kV/433V Auxiliary transformers
  - LVAC switchgear and LV metering
  - RTU (slave)
  - 110V DC battery charger and distribution
  - Fibre optic cabinets and cables
  - HV and LV cables
  - Earthing and bonding.
  - Ancillary equipment to facilitate the installation and operation of the substation such as lighting, small power, ventilation, fire alarm and detection systems.
  - Construction of new transformer rooms
  - Structural strengthening works to facilitate the installation of new power assets
  - Modifications to existing structures, including related steel works, brick, concrete and other building material type strengthening and structural works.
  - New Plant, including cranes, lifting beams, and hoists.
  - New fencing, handrails, ladders and staircases, shutter doors, fire doors, weather proofing and building finishes.
  - New and modified drainage systems.
    Temporary works and enabling works necessary to deliver the works

- Detailed design and/or installation of new/upgraded cable works, including any combination of the below scope items:
  - Replacement 11kV cables.
  - New 11kV cables.
  - New fibre optic cables.
  - Remote end modifications.
  - New Cable Route Management System (CRMS) and/or modification to existing CRMS.

Schedule 3

Schedule of Rates

REDACTED

Schedule 4

Draft Proposal and Annexes

[Date]

Dear Sirs

Proposal for works at ♦
Issued under the Framework Contract dated ♦, referenced ♦

In accordance with the above Framework Contract you are requested and required to complete and return a Proposal Response for the works mentioned above and specified and described in the attached Works Information identified in the Contract Data Part 1.

For these purposes:

1 the Contract Data Part 1 is in Annex 1 to this Proposal;

2 you are to complete the Contract Data Part 2 in Annex 2;

3 the conditions of contract (and their Annexes) are in Annex 3[1];

4 the Employer's Works Information is in Annex 4;

5 [you are to provide the Contractor's Works Information for Annex 5;][2]

6 the Site Information is in Annex 6;

7 you are to complete the Activity Schedule in Annex 7;

8 [you are to provide the Programme for Annex 8.][3]

[Any other documents which will form part of any resulting Call-off Contract are contained in Annex 9.]

[This is a Proposal for a Mini-competition, and the weightings applicable to the General Criteria are ♦.][4]

[This is a Proposal for a Direct Award, and the Employer's criteria against which your Proposal Response will be assessed are set out in ♦].

This Proposal does not give rise to any Call-off Contract, and is issued on the basis set out in clauses 4 and 6 of the Framework Contract.

Please complete this Proposal and return your Proposal Response to us within [28] [♦] days.

Yours faithfully

[1] Extract the relevant conditions of contract for either Option A or C from Schedule 5a or 5b **and** the Annexes in Schedule 5c and include in Annex 3.
[2] To be considered on a case by case basis.
[3] Changes may be required if the Programme is to be provided after the Contract Date.
[4] Include only where running a Mini-competition.

…….
For and on behalf of
London Underground Limited

Annex 1

Contract Data Part 1 – Data provided by the *Employer*

Statements given in all contracts

1. General

- The *conditions of contract* are the core clauses and the clauses for main Option [A][C][5] and secondary Options clauses[6] [X1], X2, [X5,] [X6,] [X7,] [X13,] [X15], X18, [X20], X21, X23, [Y(UK)1], Y(UK)2 and Y(UK)3 of the NEC3 Engineering and Construction Contract April 2013 as amended or inserted in each case in accordance with secondary Option Z.
- The *works* are [ ] and associated works, as more particularly described in the Works Information.
- The *project* is ♦[7]
- The *Employer* is

  Name: London Underground Limited (No. 01900907)

  Address: 5 Endeavour Square, Stratford, London E20 1JN
- The *Project Manager* is

  Name: London Underground Limited (No. 01900907)

  [Contact: ♦][8]

  Address: 5 Endeavour Square, Stratford, London E20 1JN
- The *Supervisor* is

  Name: London Underground Limited (No. 01900907)

  [Contact: ♦][9]

  Address: 5 Endeavour Square, Stratford, London E20 1JN

[5] Select either Option A or Option C
[6] Delete the Secondary Options in square brackets, if they are not to be used in the contract.
[7] The *project* is the wider project which the *works* form part of.
[8] Insert the name and job title of the main LUL contact for the *Project Manager* role.
[9] Insert the name and job title of the main LUL contact for the *Supervisor* role.

- The *Principal Designer* is:

  Name: [the *Employer*] [the *Contractor*] [♦][10]

  Address: ♦.

- The Works Information comprises:

  a) the Works Information provided by the *Employer* in Section [X][11] ;

  b) (insofar as it is relevant to the *works* or the performance of the Parties' other duties and obligations under this contract) the Generic Works Information; and

  c) the Works Information (if any) provided by the *Contractor* in Section [X][12].

- The Site Information is in Section [X][13].

- The *boundaries of the site* are identified on the drawing(s) / document(s) referenced ♦[14], contained in the Site Information.

- The *language of this contract* is English.

- The *law of the contract* is the law of England and Wales.

- The *period for reply* is 14 (calendar) days.

- The *tribunal* is the courts of England and Wales.

- The following matters will be included in the Risk Register:

  [ ]

3. Time

- The *starting date* is: [ ]

- The *access dates* are:

Part of the Site	Date
1. [ ]	[ ]

[10] Select / complete as appropriate.
[11] This section should refer to the correlating section stated in the Form of Agreement.
[12] This section should refer to the correlating section stated in the Form of Agreement.
[13] This section should refer to the correlating section stated in the Form of Agreement.
[14] Insert reference numbers of the documents that describe the Site boundaries. The documents themselves should be included in Annex 5.

2. [ ] [ ]

3. [ ] [ ]

- The *Contractor* submits revised programmes at intervals no longer than 4 weeks.

4. Testing and Defects

- The *defects date* is 104 weeks after Completion of the whole of the *works.*
- The *defect correction period* is 4 weeks except that
  - the *defect correction period* for [ ] is [ ] weeks
  - the *defect correction period* for [ ] is [ ] weeks

5. Payment

- The *currency of this contract* is Pounds Sterling.
- The *assessment interval* is a period of 4 weeks.
- The *interest rate* is 2.00 % per annum above the base rate of the Bank of England.
- The *Contractor* submits invoices [ ] and such invoices contain the following information [ ].[15]
- The *Employer* is an End User for the purposes of this contract

6. Compensation events

- The place where weather is to be recorded is [ ]
- The *weather measurements* to be recorded for each calendar month are
  - o the cumulative rainfall (mm)
  - o the number of days with rainfall more than 5 mm

[15] The method for submission of invoices will need to be identified, noting that where the *Contractor* submits an undisputed VAT invoice electronically, which complies with the Standard on Electronic Invoicing, then TfL is obliged to accept such invoice. The information required to process invoices should also be described. This information may include: the vendor number; purchase order number; SAP order number; and a brief description of the services performed.

- o the number of days with minimum air temperature less than 0 degrees Celsius
- o the number of days with snow lying at 09.00 hours GMT and
- o such other measurements as may be required and stipulated in the Works Information.

- The *weather measurements* are supplied by the Meteorological Office.
- The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at St James' Park, London, weather station and which are available from The Meteorological Office, The Climate Department, Fitzroy Road, Exeter Devon EX1 3PB (Telephone 0370 900 0100 or Fax 0370 900 5050)

Where no recorded data are available

Assumed values for the ten year return *weather data* for each *weather measurement* for each calendar month are [ ]

8. Risks and insurance

Insurances taken out by the *Employer*

- **Construction All Risks Insurance** - details and minimum limit of indemnity as set out in the Insurance Table in clause 84.2 of the conditions of contract.
- **Public liability insurance** - details and minimum limit of indemnity as set out in the Insurance Table in clause 84.2 of the conditions of contract.

Insurances taken out by the *Contractor*

- **Employer's liability insurance -** details as set out in the Insurance Table in clause 84.2 of the conditions of contract with a minimum limit of indemnity in the amount of [ ]
- ***Contractor's* equipment loss insurance -** details and minimum limit of indemnity as set out in the Insurance Table in clause 84.2 of the conditions of contract.

- **Professional indemnity insurance -** details as set out in the Insurance Table in clause 84.2 of the conditions of contract with a minimum limit of indemnity in the amount of [ ] .

Optional statements

If the *Employer* has decided the *completion date* for the whole of the *works*

- The *completion date* for the whole of the *works* is [ ]

If no programme is identified in part two of the Contract Data

- The *Contractor* is to submit a first programme for acceptance within 4 weeks of the Contract Date.

If the *Employer* has identified work which is to meet a stated *condition* by a *key date*

- The *key dates* and *conditions* to be met are

condition to be met	*key date*
1. [ ]	[ ]
2. [ ]	[ ]
3. [ ]	[ ]

If Option Y(UK)1 is used and the *Employer* is to pay any charges made and is paid any interest paid by the *project bank*

- The *Employer* is to pay any charges made and is paid any interest paid by the *project bank*

If Y(UK)2 is used and the final date for payment is not 14 days after the date when payment is due

[ ]

Cover/deductibles for insurances provided by the *Employer*[16]

1 **Construction All Risks Insurance** (as stated in the Insurance Table)

Cover/indemnity is: the full reinstatement value of the *works*

The deductibles are:

- £250,000 per occurrence for loss or damage to the *works* caused by defects in design plan specification materials or workmanship (DE5 1995). Such deductible shall only apply in respect of reinstatement or making good of that part which is itself defective;
- £25,000 per occurrence in respect of loss or damage to the works caused by defect in design plan specification materials or workmanship (DE3 1995);
- £25,000 per occurrence in respect of loss or damage caused by storm, tempest, water damage, subsidence or collapse;
- £5,000 every other occurrence.

2 **Public liability insurance** (as stated in the Insurance Table)

Cover/indemnity is £10,000,000.00

The deductibles are: £10,000 per occurrence

If additional insurances are to be provided

- The *Contractor* provides these additional insurances

  1. Product liability insurance.
  2. Cover/indemnity is £10,000,000.00 per occurrence.

If there are *additional termination events*:

- These are the *additional termination events*

1. [ ]
2. [ ]
3. [ ]

[16] The deductibles must not be changed.

If Option C is used

- The *Contractor's* share of any difference between the final Price for Work Done to Date and the final total of the Prices is [50% (fifty per cent)].
- The *share termination threshold* is [ ]
- The *Contractor* prepares forecasts of Defined Cost for the *works* at intervals no longer than [ ] weeks.

  The *exchange rates* are those published in [ ] on [ ] (date)

If Option X1 is used

- The proportions used to calculate the Price Adjustment Factor are:

  0.[ ] linked to the index for [ ]

  0.[ ] linked to the index for [ ]

  0.[ ] linked to the index for [ ]

  0.[ ] linked to the index for [ ]

  0.[ ] Non-adjustable

_____

Total 1.00

- The *base date* for indices is [ ]
- The indices are those prepared by [ ]

If Option X5 is used

• The *completion date* for each *section* of the *works* is

section	description	*completion date*
1	[ ]	[ ]
2	[ ]	[ ]

If Options X5 and X6 are used together

- The bonus for each *section* of the *works* is

section	description	amount per day
1	[ ]	[ ]
2	[ ]	[ ]

Remainder of the *works* [ ]

If Options X5 and X7 are used together

- Delay damages for each *section* of the *works* are

section	description	amount per day
1	[ ]	[ ]
2	[ ]	[ ]

Remainder of the *works* [ ]

If Option X6 is used (but not if Option X5 is also used)

The bonus for the whole of the *works* is [ ] per day

If Option X7 is used (but not if Option X5 is also used)

- Delay damages for Completion of the whole of the *works* are [ ] per day

If Option X13 is used

- The amount of the performance bond is an amount equalling 10% of the tendered total of the Prices.

If Option X18 is used

- The *Contractor's* liability to the *Employer* for indirect or consequential loss is limited to [ ]
- For any one event, the *Contractor's* liability to the *Employer* for loss of or damage to the *Employer's* property is [limited to [ ] / unlimited]]

- The *Contractor's* total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to a sum equalling 100% of the total of the Prices.

If Option X20 is used

- The *incentive schedule* for Key Performance Indicators is in ♦, save that:
  - the following Key Performance Indicators shall not apply: ♦; and
  - the following amendments and/or additional Key Performance Indicators shall apply: ♦.
- A report of performance against each Key Performance Indicator is provided at [the relevant intervals specified in the *incentive schedule*] [intervals of [ ] months].]

Option Y(UK)3

Clauses 51.6, 83.1, Z2.15 and Z2.17.14 are for the additional benefit of any member(s) of the TfL Group.

If Option Y(UK)1 and Y(UK)3 are both used

term	**person or organisation**
The provisions of Option Y(UK)1	Any member of the TfL Group and Named Suppliers

Option Z

- The *additional conditions of contract* are the amendments to core, main and secondary option clauses and additional conditions of contract incorporated in the consolidated *conditions of contract*

Annex 2

Contract Data Part 2 – Data provided by the *Contractor*[17]

- The *Contractor* is

  Name: [ ]

  Address: [ ]

- The *fee percentage* is [ ]
- The *activity schedule* is in Annex 7.
- The tendered total of the Prices is [ ]
- The *working* areas[18] are the Site and [ ]
- The key people are

1. Name [ ]

   Job [ ]

   Responsibilities [ ]

   Qualifications [ ]

   Experience [ ]

2. Name [ ]

   Job [ ]

   Responsibilities [ ]

   Qualifications [ ]

   Experience [ ]

3. Name [ ]

   Job [ ]

[17] See notes to Annex 1.

[18] The *working areas* should not include the *contractor's* head or satellite offices

Responsibilities [ ]

Qualifications [ ]

Experience [ ]

Of these, [ ] are also Key Individuals (for the purposes of clause 10.3 of the Framework Contract).

- The following matters will be included in the Risk Register

[ ]

Optional Statements

[**If the *Contractor* is to provide Works information for his design**

- The Works Information for the *Contractor's* design is in Section [X][19].]

If Option X23 is used

- The *handover period* for [ ] is [ ]
- The *handover period* for [ ] is [ ]

If Option Y(UK)1 is used

- The *project bank* is [ ]
- *named suppliers* are [ ]

Where Option A is being used:

Data for Shorter Schedule of Cost Components

- The percentage for people overheads is [ ] %
- The rates for Equipment are

	Equipment	**size or capacity**	**Rate**
1.	[ ]	[ ]	[ ]
2.	[ ]	[ ]	[ ]

[19] This section should refer to the correlating section stated in the Form of Agreement.

- The hourly rates for Defined Cost of design outside the Working Areas are

	category of employee	hourly rate
1.	[ ]	[ ]
2.	[ ]	[ ]

- The percentage for design overheads is [ ] %
- The categories of design employees whose travelling expenses to and from the Working Areas are included in the Defined Cost are [ ]

Where Option C is being used

Data for Schedule of Cost Components

The listed items of Equipment purchased for work on this contract, with an on cost charge, are

Equipment	**time-related charge**	**per time period**
[ ]	[ ]	per [ ]
[ ]	[ ]	per [ ]
[ ]	[ ]	per [ ]
[ ]	[ ]	per [ ]

The rates for special Equipment are

Equipment	**size or capacity**	**Rate**
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]

The hourly rates for Defined Cost of manufacture and fabrication outside the Working Areas are

category of employee	hourly rate
[ ]	[ ]
[ ]	[ ]

[ ] [ ]

[ ] [ ]

The percentage for manufacture and fabrication overheads is [ ] %

Data for both schedules of cost components

The hourly rates for Defined Cost of design outside the Working Areas are

category of employee	hourly rate
[ ]	[ ]
[ ]	[ ]
[ ]	[ ]
[ ]	[ ]

The percentage for design overheads is [ ] %

The categories of design employees whose travelling expenses to and from the Working Areas are included as a cost of design of the *works* and Equipment done outside the Working Areas are

[ ]

[ ]

[ ]

[ ]

Data for the Shorter Schedule of Costs Components

The percentage for people overheads is [ ] %

The rates for Equipment are

Equipment	**size or capacity**	**rate**
[ ]	[ ]	[ ]
[ ]	[ ]	[ ]

The published list of Equipment is the last edition of the list published by [ ]

The percentage for adjustment for Equipment in the published list is [ ] (state plus or minus)

Annex 3[20]

Conditions of Contract

[20] Extract the relevant conditions of contract for either Option A or C from Schedule 5a or 5b respectively and the Annexes in Schedule 5c and include in this Annex 3

Annex 4

Employer's Works Information[21]

[21] The specific Works Information should reference the Generic Works Information (as applying if / as relevant).

Annex 5

Contractor's Works Information[22]

[22] The details of the Works Information to be provided by the *Contractor* will be specific to the site and the proposed *works* to which the Proposal relates.

Annex 6

Site Information[23]

[23] Site information will be specific to the site of the proposed *works*.

Annex 7

Activity Schedule

[Annex 8

Programme]

[Annex 9

Other documents]

Schedule 5

Conditions of Contract

Schedule 5a

Conditions of contract

Consolidated conditions of contract for Main Option A

The following amended conditions of contract are based on the NEC family of contracts (2013 edition), the copyright of which belongs to the Institution of Civil Engineers.

Part 1 - Amendments to Core Clauses

1 General

Actions **10**

10.1 The *Employer*, the *Contractor*, the *Project Manager* and the *Supervisor* shall act as stated in this contract and in a spirit of mutual trust and co-operation.

Identified and defined terms **11**

11.1 In these conditions of contract terms identified in the Contract Data are in italics and defined terms have capital initials. Where they are not defined within the *conditions of contract* (including Annex 1 (*Additional definitions*)) or the Contract Data, defined terms have the meanings given to them in the Framework Contract and/or the Form of Agreement.

Z1.1

11.2 (1) The Accepted Programme is the programme identified in the Contract Data or is the latest programme accepted by the *Project Manager*. The latest programme accepted by the *Project Manager* supersedes previous Accepted Programmes.

(1A) CDM Regulations means the Construction (Design and Management) Regulations 2015.

(2) Completion is when the *Contractor* has

- done all the work and done all such other things which the Works Information states he is to do by the Completion Date
- provided any and all as-built documentation, final issue drawings specifications and operation and maintenance manuals required (by the Completion Date) under clause Z2.25 and
- corrected notified Defects which would have prevented the *Employer* from using the *works* and Others from doing their work.

If the work which the *Contractor* is to do by the Completion Date is not stated in the Works Information, Completion is when the *Contractor* has done all the work necessary for the *Employer* to use the *works* and for Others to do their work.

(3) The Completion Date is the *completion date* unless later changed in accordance with this contract.

Z1.1.1 (4) The Contract Date is the date of this contract.

(4A) A Critical Defect is a Defect which:

- is critical to the operation and/or safety of the Underground Network, or to the safety of persons using or working at the Site;
- falls within a category of Defects identified in the Works Information as Critical Defects; or

- is deemed by the *Supervisor* to be critical to the carrying out and completion of the *works* and/or the work of Others.

Z1.1.2 (5) A Defect is

- a part of the *works* which is not in accordance with the Works Information or the requirements of this contract, or
- a part of the *works* designed by the *Contractor* which is not in accordance with the applicable law or the *Contractor's* design which the *Project Manager* has accepted.

Z1.1.3 (6) The Defects Certificate is either a list of Defects that the *Supervisor* or the *Contractor* has notified before the *defects date* which the *Contractor* has not corrected or, if there are no such Defects, a statement that there are none.

(7) Equipment is items provided by the *Contractor* and used by him to Provide the Works and which the Works Information does not require him to include in the *works*.

(7A) Form of Agreement means the form of agreement forming part of this contract executed and entered into by the Parties in accordance with clauses 4.1 and 4.2, or clause 6, of the Framework Contract.

(7B) Framework Contract means the framework contract dated ♦ (reference: ♦) entered into between the *Employer* (1) and the *Contractor* (2) extending to the type of work(s) identified in the Form of Agreement, under and in accordance with which this contract was entered into (as a call-off contract) between the Parties.

(8) The Fee is the amount calculated by applying the *fee percentage* to the Defined Cost of work.

(9) A Key Date is the date by which work is to meet the Condition stated. The Key Date is the *key date* stated in the Contract Data and the Condition is the *condition* stated in the Contract Data unless later changed in accordance with this contract.

Z1.1.4 (10) Others are people or organisations who are not the *Employer*, the *Project Manager*, the *Supervisor* the Adjudicator the *Contractor* or any employee, Subcontractor or supplier of the *Contractor*.

Z1.1.5 (11) The Parties are the *Employer* (which expression includes his successors in title and assigns) and the *Contractor*.

(12) Plant and Materials are items intended to be included in the *works*.

(13) To Provide the Works means to do the work necessary to complete the *works* in accordance with this contract and all incidental work, services and actions which this contract requires.

(14) The Risk Register is a register of the risks which are listed in the Contract Data and the risks which the *Project Manager* or the *Contractor* has notified as an early warning matter. It includes a description of the risk and a description of the actions which are to be taken to avoid or reduce the risk.

(15) The Site is the area within the *boundaries of the site* and the volumes above and below it which are affected by work included in this contract.

(16) Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in.

(17) A Subcontractor is a person or organisation who has a contract with the *Contractor* to

- construct or install part of the *works*,
- provide a service necessary to Provide the Works or

- supply Plant and Materials which the person or organisation has wholly or partly designed specifically for the *works*.

(17A) The Supplementary Notes are the supplementary notes to the Shorter Schedule of Cost Components, contained in Part 5 of these consolidated conditions of contract.

(18) The Working Areas are those parts of the *working areas* which are

- necessary for Providing the Works and
- used only for work in this contract

unless later changed in accordance with this contract.

(19) Works Information is information which either

- specifies and describes the *works* or
- states any constraints on how the *Contractor* Provides the Works

and is either

- in the documents which the Contract Data states it is in or
- in an instruction given in accordance with this contract.

(20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(22) Defined Cost is the cost of the components in the Shorter Schedule of Cost Components whether work is subcontracted or not excluding the cost of preparing quotations for compensations events, provided that there shall be no double counting in respect of any component of cost incurred under or in connection with any other Call-off Contract entered into pursuant to the Framework Contract.

(27) The Price for Work Done to Date is the total of the Prices for

- **each group of completed activities and**
- **each completed activity which is not in a group,**

A completed activity is one which is without Defects which would either delay or be covered by immediately following work.

(30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

Z1.2 11.3 Where relevant, and where the context requires, the following apply:

(a) the defined terms in Annex 1 to these consolidated conditions of contract; and

(b) the rules of interpretation in Paragraph 1 of Schedule 1 to the Framework Contract.

Interpretation and the law **12**

Z1.3

12.1 In this contract, except where the context shows otherwise, words in the singular also mean in the plural and the other way round and words in the masculine also mean in the feminine and neuter.

Z1.3.1 12.1A References to "this contract" mean the contract between the *Employer* and the *Contractor* including the documents listed as forming the contract in the Form of Agreement.

Z1.3.2

12.1B In this contract, unless otherwise stated or the context otherwise requires, references to:

(a) any Appendix or Schedule, are to the relevant Appendix or Schedule of the Framework Contract,

(b) any Annex, are to the relevant Annex to these consolidated conditions of contract (contained in Schedule 5 to the Framework Contract),

(c) "including" means "including without limitation",

(d) "fault" of the *Employer* or the *Contractor* includes the breach, unlawful act, negligence, omission, default or failure to comply with any provision of this contract of the *Employer* or the *Contractor* (as the case may be).

12.1C The term "Defined Cost" is read and applied in conjunction with the relevant Supplementary Notes, and any assessment, calculation or forecast of Defined Cost is made subject to and in accordance with the same.

Z1.3.3

12.2 This contract is governed by and is construed in accordance with the *law of the contract*~~.~~ and, subject to the Dispute Resolution Procedure, the Parties submit to the exclusive jurisdiction of the courts of England and Wales.

12.3 No change to this contract, unless provided for by the *conditions of contract*, has effect unless it has been agreed, confirmed in writing and signed by the Parties.

Z1.3.4

12.3A Words denoting persons or parties includes individuals, partnerships, firms and corporations and any organisation having legal capacity.

12.4 This contract is the entire agreement between the Parties.

Z1.3.5

12.5 The headings to the sections, clauses and sub-clauses of the conditions of this contract are for convenience only and do not affect the construction or interpretation of the *conditions of contract*.

Y2.1(2)

12.6 A period of time stated in days is a period calculated in accordance with Section 116 of the Act.

Communications **13**

Z1.4

Z1.4.1

13.1 The *Employer*, the *Contractor*, the *Project Manager* and the *Supervisor* comply with the communications requirements in the Works Information. Each instruction, certificate, submission, proposal, record, acceptance, notification, reply and other communication which this contract requires is communicated in a form which can be read, copied and recorded. Writing is in the *language of this contract*.

13.2 A communication has effect when it is received at the last address notified by the recipient for receiving communications or, if none is notified, at the address of the recipient stated in the Contract Data.

13.3 If this contract requires the *Project Manager*, the *Supervisor* or the *Contractor* to reply to a communication, unless otherwise stated in this contract, he replies within the *period for reply*.

13.4 The *Project Manager* replies to a communication submitted or resubmitted to him by the *Contractor* for acceptance. If his reply is not acceptance, the *Project Manager* states his reasons and the *Contractor* resubmits the communication within the *period for reply* taking account of these reasons. A reason for withholding acceptance is that more information is needed in order to assess the *Contractor*'s submission fully.

13.5 The *Project Manager* may extend the *period for reply* to a communication if the *Project Manager* and the *Contractor* agree to the extension before the reply is

due. The *Project Manager* notifies the *Contractor* of the extension which has been agreed.

13.6 The *Project Manager* issues his certificates to the *Employer* and the *Contractor*. The *Supervisor* issues his certificates to the *Project Manager* and the *Contractor*.

13.7 A notification which this contract requires is communicated separately from other communications.

13.8 The *Project Manager* may withhold acceptance of a submission by the *Contractor*. Withholding acceptance for a reason stated in this contract is not a compensation event.

The *Project Manager* and the *Supervisor* **14**

Z1.5 14.1 The *Project Manager*'s or the *Supervisor*'s acceptance of a communication from the *Contractor* or of his work does not change the *Contractor*'s responsibility to Provide the Works or his liability for his design.

14.2 The *Project Manager* and the *Supervisor*, after notifying the *Contractor*, may delegate any of their actions and may cancel any delegation. A reference to an action of the *Project Manager* or the *Supervisor* in this contract includes an action by his delegate.

14.3 The *Project Manager* may give an instruction to the *Contractor* which changes the Works Information or a Key Date.

14.4 The *Employer* may replace the *Project Manager* or the *Supervisor* after he has notified the *Contractor* of the name of the replacement.

Y2.1/Z1.5.1 14.5 The *Project Manager* is for relevant purposes the "specified person" as defined in section 110A(6) of the Act.

Adding to the Working Areas **15**

15.1 The *Contractor* may submit a proposal for adding an area to the Working Areas to the *Project Manager* for acceptance. A reason for not accepting is that the proposed area is either not necessary for Providing the Works or used for work not in this contract.

Early warning **16**

Z1.7

Z1.7.1 16.1 The *Contractor* and the *Project Manager* give an early warning by notifying the other as soon as either becomes aware of any matter which could

- increase the total of the Prices,
- delay Completion,
- delay meeting a Key Date,
- impair the performance of the *works* in use,
- adversely affect the work of Others, or
- adversely affect the *Employer* (including by increasing the monies payable by the *Employer* to Others engaged on the Project) and/or cause any disruption to the operation of the Underground Network.

In the notification the *Contractor* and the *Project Manager* state whether the early warning must be dealt with immediately or can wait until the next scheduled risk reduction meeting.

The *Contractor* may give an early warning by notifying the *Project Manager* of any other matter which could increase his total cost. The *Project Manager* enters early warning matters in the Risk Register. Early warning of a matter for which a compensation event has previously been notified is not required.

16.2 Either the *Project Manager* or the *Contractor* may instruct the other to attend a risk reduction meeting. Each may instruct other people to attend if the other agrees.

16.3 At a risk reduction meeting, those who attend co-operate in

- making and considering proposals for how the effect of the registered risks can be avoided or reduced,
- seeking solutions that will bring advantage to all those who will be affected,
- deciding on the actions which will be taken and who, in accordance with this contract, will take them and
- deciding which risks have now been avoided or have passed and can be removed from the Risk Register.

16.4 The *Project Manager* revises the Risk Register to record the decisions made at each risk reduction meeting and issues the revised Risk Register to the *Contractor*. If a decision needs a change to the Works Information, the *Project Manager* instructs the change at the same time as he issues the revised Risk Register.

Ambiguities and inconsistencies **17**

17.1 The *Project Manager* or the *Contractor* notifies the other as soon as either becomes aware of an ambiguity or inconsistency in or between the documents which are part of this contract. The *Project Manager* gives an instruction resolving the ambiguity or inconsistency.

Illegal and impossible requirements **18**

18.1 The *Contractor* notifies the *Project Manager* as soon as he considers that the Works Information requires him to do anything which is illegal or impossible. If the *Project Manager* agrees, he gives an instruction to change the Works Information appropriately.

Prevention **19**

19.1 If an event occurs which

- stops the *Contractor* completing the *works* or
- stops the *Contractor* completing the *works* by the date shown on the Accepted Programme,

and which

- neither Party could prevent and
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it,

the *Project Manager* gives an instruction to the *Contractor* stating how he is to deal with the event.

2 The *Contractor*'s main responsibilities

Providing the Works **20**

Z1.8

Z1.8.1 20.1 The *Contractor* Provides the Works in accordance with the Works Information, and in accordance with (and shall otherwise comply with):

- all applicable law; and
- (unless and to the extent the *Employer* grants a concession in relation the same) all applicable Standards.

20.2 Not used (as not an Option A clause).

20.3 Not used (as not an Option A clause).

20.4 Not used (as not an Option A clause).

20.5 Not used (as not an Option A clause).

Z1.8.2 20.6 These *conditions of contract* and the warranties and undertakings in them are deemed to apply to all *works* performed by the *Contractor* both before and after the Contract Date.

Framework Contract **20A**

Z1.8A

Z1.8A.1 20A.1 The *Contractor* Provides the Works, and performs his other duties and obligations under this contract, in compliance with all relevant provisions of the Framework Contract, and otherwise complies with the provisions of the Framework Contract to the extent they are relevant to or are capable of being applied in respect of the *works* and/or the Site.

20A.2 Notwithstanding any other provision the *Contractor* shall not be entitled to:

- any additional remuneration or any change in the Prices, any Completion Date or any Key Date; or
- any release from the *Contractor's* duties and obligations,

under this contract, by reason of any termination of or fault on the *Contractor's* part under the Framework Contract or any other Call-off Contract.

The *Contractor*'s design **21**

Z1.9

Z1.9.1 21.1 Where Option X21 is used, the *Contractor* is responsible for the design of all of the *works* (save insofar as Option X21 provides otherwise). Otherwise, where Option X21 is not used, the Contractor designs the parts of the *works* which the Works Information states he is to design.

Z1.9.2 21.2 The *Contractor* submits the particulars of his design as the Works Information requires to the *Project Manager* for acceptance. A reason for not accepting the *Contractor's* design is that it does not comply with the Works Information, this contract or the applicable law.

The *Contractor* does not proceed with the relevant work until the *Project Manager* has accepted his design.

21.3 The *Contractor* may submit his design for acceptance in parts if the design of each part can be assessed fully.

Value Engineering **21A**

Z1.9A

Z1.9A.1 21A.1 The *Contractor* may propose to the *Project Manager* that the Works Information provided by the *Employer* should be changed so as to result in a reduction to the anticipated total Defined Cost of the *works* and/or result in a saving in the time required to Provide the Works or any part thereof. In such event the *Contractor* submits details of the proposal to the *Project Manager* in accordance with the requirements set out in the Works Information. The *Project Manager* may provide the *Contractor* with details of the *Employer's* estimated additional costs resulting from a *Contractor's* proposal.

Z1.9A.2 21A.2 If the *Project Manager* accepts the proposal referred to in clause 21A.1, he gives an instruction changing the Works Information and:

- the Prices are reduced by the *Employer's* share of the overall saving; but
- the Completion Date is not changed.

For the purposes of this clause 21A.2, the ***Employer's* share of the overall saving** equals 50% (fifty per cent) of the sum of the following, namely:

- the saving in Defined Cost identified in the *Contractor's* proposal or otherwise agreed between the *Project Manager* and the *Contractor*;
- the associated Fee (being such saving in Defined Cost multiplied by the *fee percentage*); plus
- the *Employer's* estimated additional costs.

Using the *Contractor*'s design **22**

Z1.10 22.1 The *Employer* may use and copy the *Contractor*'s design for any purpose specified in clause Z2.7.

Z1.10.1

Design of Equipment **23**

23.1 The *Contractor* submits particulars of the design of an item of Equipment to the *Project Manager* for acceptance if the *Project Manager* instructs him to. A reason for not accepting is that the design of the item will not allow the *Contractor* to Provide the Works in accordance with

- the Works Information,
- the *Contractor*'s design which the *Project Manager* has accepted or
- the applicable law.

People **24**

Z1.11

Z1.11.1 24.1 The *Contractor*:

- complies with Option X23 (where such Option applies); and
- either employs each key person named to do the job stated in the Contract Data or employs a replacement person who has been accepted by the *Project Manager*.

The *Contractor* submits the name, relevant qualifications and experience of a proposed replacement person to the *Project Manager* for acceptance. A reason for not accepting the person is that his relevant qualifications and experience are not as good as those of the person who is to be replaced.

Z1.11.2 24.2 The *Project Manager* may, having stated his reasons, instruct the *Contractor* to remove any person under his control. The *Contractor* then arranges that, after one day, such person has no further connection with the work included in this contract.

Working with the *Employer* and Others **25**

Z1.12

25.1 The *Contractor* co-operates with Others in obtaining and providing information which they need in connection with the *works*. He co-operates with Others and shares the Working Areas with them as stated in the Works Information.

25.2 The *Employer* and the *Contractor* provide services and other things as stated in the Works Information. Any cost incurred by the *Employer* as a result of the *Contractor* not providing the services and other things which he is to provide is assessed by the *Project Manager* and paid by the *Contractor*.

Z1.12.1

25.3 If the *Project Manager* decides that the work does not meet the Condition stated for a Key Date by the date stated and, as a result, the *Employer* incurs additional cost either

- in carrying out work or
- by paying an additional amount to Others in carrying out work

on the Project, the additional cost which the *Employer* has paid or will incur is paid by the *Contractor*. The *Project Manager* assesses the additional cost within four weeks of the date when the Condition for the Key Date is met. The *Project Manager's* assessment is without prejudice to any other rights and remedies the *Employer* may have arising from the *Contractor's* failure to meet a Key Date.

Subcontracting **26**

Z1.13

Z1.13.1

26.1 If the *Contractor* subcontracts work, he is responsible for Providing the Works as if he had not subcontracted and he complies with the provisions of the Works Information. This contract applies as if a Subcontractor's employees and equipment were the *Contractor*'s.

26.2 The *Contractor* submits the name of each proposed Subcontractor to the *Project Manager* for acceptance. A reason for not accepting the Subcontractor is that his appointment will not allow the *Contractor* to Provide the Works. The *Contractor* does not appoint a proposed Subcontractor until the *Project Manager* has accepted him.

Z1.13.2

26.3 The *Contractor* submits the proposed contract for each subcontract to the *Project Manager* for acceptance unless the *Project Manager* has agreed that no submission is required.

The *Contractor* does not appoint a Subcontractor on the proposed subcontract conditions submitted until the *Project Manager* has accepted them. A reason for not accepting them is that

- they will not allow the *Contractor* to Provide the Works, ~~or~~
- they do not include a statement that the parties to the subcontract shall act in a spirit of mutual trust and co-operation,
- they contain payment terms that do not comply with the Public Contracts Regulations 2015, or
- they do not obligate the Subcontractor to provide the deeds of warranty that the *Employer* might require under clause Z2.2, or any warranties or guarantees falling within Z2.3.1(a) (which are required from the Subcontractor concerned).

26.3A The *Contractor* pays its Subcontractors amounts due to them, promptly and in any event in conformance with all relevant requirements of the Public Contracts Regulations 2015 (irrespective of whether such regulations apply).

Other responsibilities **27**

Z1.14

27.1 The *Contractor* obtains approval of his design from Others where necessary.

27.2 The *Contractor* provides access to work being done and to Plant and Materials being stored for this contract for

- the *Project Manager*,
- the *Supervisor* and
- Others notified to him by the *Project Manager*.

27.3 The *Contractor* obeys an instruction which is in accordance with this contract and is given to him by the *Project Manager* or the *Supervisor*.

Z1.14.1

27.4 The *Contractor* acts in accordance with the health and safety requirements stated in the Works Information and co-operates with persons having health and safety responsibilities on or adjacent to the Site for the effective discharge of all such responsibilities. Without prejudice to the generality of the above, if a Safety Breach is committed by one of the *Contractor's* employees or agents or by any Subcontractor (or one of the Subcontractor's employees or agents) then the *Employer* may (at his sole discretion) choose to serve a warning notice upon the *Contractor* instead of exercising his right to terminate with immediate effect pursuant to clause 91.8 and unless, within thirty (30) days of receipt of such warning notice, the *Contractor* removes or procures the removal of the relevant person or Subcontractor (as the case may be) from the Site and (if necessary) procures the provision of the affected *works* by another person or Subcontractor this constitutes a material breach of this contract and entitles the *Employer* to terminate the contract in whole or in part with immediate effect in accordance with clause 91.8.

3 Time

Starting, Completion and Key Dates **30**

Z1.15

30.1 The *Contractor* does not start work on the Site until the first *access date* and does the work so that Completion is on or before the Completion Date.

Z1.15.1 30.1A The *Contractor* notifies the *Project Manager* when in his opinion the *works* will have been completed in accordance with this contract and requests an inspection. The *Project Manager* and the *Contractor* undertake such inspection in accordance with the requirements set out in the Works Information. The *Supervisor* may attend the inspection.

Z1.15.2 30.2 The *Contractor* provides all information and evidence listed or identified in the Works Information as being required to demonstrate that the *works* have been so completed. If the *Project Manager* is satisfied that the *works* have been so completed, he decides the date of Completion. The *Project Manager* certifies Completion within one week of Completion. If the *Project Manager* is not so satisfied, he notifies the *Contractor* of his reasons for not accepting that the *works* have been completed and the *Contractor* notifies the *Project Manager* in accordance with clause 30.1A when the necessary corrective action has been taken.

30.3 The *Contractor* does the work so that the Condition stated for each Key Date is met by the Key Date.

The programme **31**

Z1.16

31.1 If a programme is not identified in the Contract Data, the *Contractor* submits a first programme to the *Project Manager* for acceptance within the period stated in the Contract Data.

Z1.16.1 31.2 The *Contractor* shows on each programme which he submits for acceptance

- the *starting date*, *access dates*, Key Dates and Completion Date,
- planned Completion,
- the order and timing of the operations which the *Contractor* plans to do in order to Provide the Works,
- the order and timing of the work of the *Employer* and Others as last agreed with them by the *Contractor* or, if not so agreed, as stated in the Works Information,
- the dates when the *Contractor* plans to meet each Condition stated for the Key Dates and to complete other work needed to allow the *Employer* and Others to do their work,
- provisions for
  - float,
  - time risk allowances,
  - environmental and health and safety requirements and
- the procedures set out in this contract,
- the dates when, in order to Provide the Works in accordance with his programme, the *Contractor* will need
  - any access in accordance with the access requirements in the Works Information and access to a part of the Site if later than its *access date*,
  - acceptances,
  - Plant and Materials and other things to be provided by the *Employer* and
  - information from Others,

- for each operation, a statement of how the *Contractor* plans to do the work identifying the principal Equipment and other resources which he plans to use and
- other information which the Works Information requires the *Contractor* to show on a programme submitted for acceptance.

31.3 Within two weeks of the *Contractor* submitting a programme to him for acceptance, the *Project Manager* either accepts the programme or notifies the *Contractor* of his reasons for not accepting it. A reason for not accepting a programme is that

- the *Contractor*'s plans which it shows are not practicable,
- it does not show the information which this contract requires,
- it does not represent the *Contractor's* plans realistically or
- it does not comply with the Works Information.

31.4 The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance.

Revising the programme **32**

32.1 The *Contractor* shows on each revised programme

- the actual progress achieved on each operation and its effect upon the timing of the remaining work,
- the effects of implemented compensation events,
- how the *Contractor* plans to deal with any delays and to correct notified Defects and
- any other changes which the *Contractor* proposes to make to the Accepted Programme.

32.2 The *Contractor* submits a revised programme to the *Project Manager* for acceptance

- within the *period for reply* after the *Project Manager* has instructed him to,
- when the *Contractor* chooses to and, in any case,
- at no longer interval than the interval stated in the Contract Data from the *starting date* until Completion of the whole of the *works*.

Access to and use of the Site **33**

Z1.17

33.1 Subject to the provisions of the Works Information regarding access, the *Employer* allows access to and use of each part of the Site to the *Contractor* which is necessary for the work included in this contract. Access and use is allowed on or before the later of its *access date* and the date for access shown on the Accepted Programme.

Z1.17.1

Z1.17.2 33.1A The *Employer* does not guarantee uninterrupted or exclusive access to or use of the Site or any Working Area and access is limited in accordance with this contract.

Instructions to stop or not to start work **34**

34.1 The *Project Manager* may instruct the *Contractor* to stop or not to start any work and may later instruct him that he may re-start or start it.

Take over **35**

Z1.18

35.1 The *Employer* need not take over the *works* before the Completion Date if it is stated in the Contract Data that he is not willing to do so. Otherwise the *Employer* takes over the *works* not later than two weeks after Completion.

Z1.18.1

35.2 The *Employer* may use or permit Others to use any part of the *works* before Completion has been certified. If he does so, he does not take over, and is not treated as having taken over, the part of the *works* when he (or Others) begins to use it and the *Contractor* remains responsible for the care and protection of that part of the *works* and for its maintenance in accordance with the requirements of the Works Information whilst it is being used by the *Employer* and/or Others until take over is certified by the *Project Manager* in accordance with clause 35.3.

35.3 The *Project Manager* certifies the date upon which the *Employer* takes over any part of the *works* and its extent within one week of the date.

Acceleration **36**

Z1.19

36.1 The *Project Manager* may instruct the *Contractor* to submit a quotation for an acceleration to achieve Completion before the Completion Date. The *Project Manager* states changes to the Key Dates to be included in the quotation. A quotation for an acceleration comprises proposed changes to the Prices and a revised programme showing the earlier Completion Date and the changed Key Dates. The *Contractor* submits details of his assessment with each quotation.

36.2 The *Contractor* submits a quotation or gives his reasons for not doing so within the *period for reply*.

Z1.19.1

36.3 When the *Project Manager* accepts a quotation for an acceleration, he changes the Prices, the Completion Date and the Key Dates accordingly and accepts the revised programme. If the *Project Manager* does not accept a quotation for an acceleration, or does not accept the *Contractor's* reasons for not submitting a quotation, the *Project Manager* may issue an instruction to the *Contractor* to accelerate and the *Contractor* proceeds to accelerate in accordance with that instruction and the *Project Manager* makes his own assessment of the compensation event.

4 Testing and Defects

Tests and inspections **40**

40.1 This clause only applies to tests and inspections required by the Works Information or the applicable law.

40.2 The *Contractor* and the *Employer* provide materials, facilities and samples for tests and inspections as stated in the Works Information.

40.3 The *Contractor* and the *Supervisor* each notifies the other of each of his tests and inspections before it starts and afterwards notifies the other of its results. The *Contractor* notifies the *Supervisor* in time for a test or inspection to be arranged and done before doing work which would obstruct the test or inspection. The *Supervisor* may watch any test done by the *Contractor*.

40.4 If a test or inspection shows that any work has a Defect, the *Contractor* corrects the Defect and the test or inspection is repeated.

40.5 The *Supervisor* does his tests and inspections without causing unnecessary delay to the work or to a payment which is conditional upon a test or inspection being successful. A payment which is conditional upon a *Supervisor*'s test or inspection being successful becomes due at the later of the *defects date* and the end of the last *defect correction period* if

- the *Supervisor* has not done the test or inspection and
- the delay to the test or inspection is not the *Contractor*'s fault.

40.6 The *Project Manager* assesses the cost incurred by the *Employer* in repeating a test or inspection after a Defect is found. The *Contractor* pays the amount assessed.

Testing and inspection before delivery **41**

41.1 The *Contractor* does not bring to the Working Areas those Plant and Materials which the Works Information states are to be tested or inspected before delivery until the *Supervisor* has notified the *Contractor* that they have passed the test or inspection.

Searching for and notifying Defects **42**

42.1 Until the *defects date*, the *Supervisor* may instruct the *Contractor* to search for a Defect. He gives his reason for the search with his instruction. Searching may include

- uncovering, dismantling, re-covering and re-erecting work,
- providing facilities, materials and samples for tests and inspections done by the *Supervisor* and
- doing tests and inspections which the Works Information does not require.

42.2 Until the *defects date*, the *Supervisor* notifies the *Contractor* of each Defect as soon as he finds it and the *Contractor* notifies the *Supervisor* of each Defect as soon as he finds it.

Correcting Defects **43**

43.1 The *Contractor* corrects a Defect whether or not the *Supervisor* notifies him of it.

43.2 The *Contractor* corrects a notified Defect before the end of the *defect correction period*. The *defect correction period* begins at Completion for Defects notified before Completion and when the Defect is notified for other Defects.

43.3 The *Supervisor* issues the Defects Certificate at the later of the *defects date* and the end of the last *defect correction period*. The *Employer*'s rights in

respect of a Defect which the *Supervisor* has not found or notified are not affected by the issue of the Defects Certificate.

43.4 The *Project Manager* arranges for the *Employer* to allow the *Contractor* access to and use of a part of the *works* which he has taken over if they are needed for correcting a Defect. In this case the *defect correction period* begins when the necessary access and use have been provided.

Accepting Defects **44**

44.1 The *Contractor* and the *Project Manager* may each propose to the other that the Works Information should be changed so that a Defect does not have to be corrected.

44.2 If the *Contractor* and the *Project Manager* are prepared to consider the change, the *Contractor* submits a quotation for reduced Prices or an earlier Completion Date or both to the *Project Manager* for acceptance. If the *Project Manager* accepts the quotation, he gives an instruction to change the Works Information, the Prices and the Completion Date accordingly.

Uncorrected Defects **45**

45.1 If the *Contractor* is given access in order to correct a notified Defect but he has not corrected it within its *defect correction period*, the *Project Manager* assesses the cost to the *Employer* of having the Defect corrected by other people and the *Contractor* pays this amount. The Works Information is treated as having been changed to accept the Defect.

45.2 If the *Contractor* is not given access in order to correct a notified Defect before the *defects date*, the *Project Manager* assesses the cost to the *Contractor* of correcting the Defect and the *Contractor* pays this amount. The Works Information is treated as having been changed to accept the Defect.

Critical Defects **46**

Z1.19A

Z1.19A.1 46.1 The *Employer* may take any and all necessary actions (including, without limitation, appointing Others) to correct or mitigate a Critical Defect, whether before or after Completion, and (without prejudice to any other right of remedy) to recover the costs of doing so from the *Contractor*. Clauses 43 to 45 (inclusive) are to be read and applied accordingly.

Z1.19A.2 46.2 The *Supervisor* notifies the *Contractor* of a Critical Defect as soon as reasonably practicable.

5 Payment

Assessing the amount due **50**

Z1.20

50.1 The *Project Manager* assesses the amount due at each assessment date. The first assessment date is decided by the *Project Manager* to suit the procedures of the Parties and is not later than the *assessment interval* after the *starting date*. Later assessment dates occur

- at the end of each *assessment interval* until four weeks after the *Supervisor* issues the Defects Certificate and
- at Completion of the whole of the *works*.

Z1.20.1 50.1A The *Contractor* submits an application for payment to the *Project Manager* in a form prescribed by the Works Information not less than fourteen days prior to each assessment date. The application states the sum that the *Contractor* considers to be due to him at the payment due date and the basis on which that sum is calculated.

50.2 The amount due is

- the Price for Work Done to Date,
- plus other amounts to be paid to the *Contractor*,
- less amounts to be paid by or retained from the *Contractor*.

Any tax which the law requires the *Employer* to pay to the *Contractor* is included in the amount due.

50.3 If no programme is identified in the Contract Data, one quarter of the Price for Work Done to Date is retained in assessments of the amount due until the *Contractor* has submitted a first programme to the *Project Manager* for acceptance showing the information which this contract requires.

Z1.20.2 50.3A If any revised programme is not submitted by the *Contractor* to the *Project Manager* for acceptance showing the information which this contract requires within the timescales required by clause 32.2, one tenth of the total cumulative increase in the amount due since the assessment date following the last submission of such revised programme is retained in all assessments of the amount due and is not payable to the *Contractor* until such revised programme has been submitted to the *Project Manager* for acceptance.

Z1.20.3 50.4 In assessing the amount due, the *Project Manager* considers any application for payment the *Contractor* has submitted in accordance with clause 50.1A. The *Project Manager* gives the *Contractor* details of how the amount due has been assessed.

50.5 The *Project Manager* corrects any wrongly assessed amount due in a later payment certificate.

50.6 Not used (as not an Option A clause).

50.7 Not used (as not an Option A clause).

Z1.20.4 50.8 If any performance bond required by this contract is not procured by the *Contractor* and delivered to the *Employer* in accordance with Option X13, one quarter of the Price for Work Done to Date is retained in assessments of the amount due and is not payable to the *Contractor* until such performance bond has been delivered.

Z1.20.5 50.9 If a warranty required under sub-clauses Z2.1.2 and/or Z2.2 is not delivered to the *Employer* in accordance with the provisions of sub-clauses Z2.1.2 or Z2.2 as applicable:

- in the case of warranties required under sub-clause Z2.1.2 one tenth of the total cumulative increase in the amount due since the assessment date following the end of the period for provision of such warranty is retained in all assessments of the amount due; or
- in the case of warranties required under sub-clause Z2.2, one half of the total cumulative increase in the amount due since the assessment date_following the end of the period for provision of such warranty relative to the work carried out and/or goods supplied by the relevant Subcontractor and/or consultant) is retained in all assessments of the amount due

and in each case is not payable to the *Contractor* until such warranty is delivered.

Z1.20.5A 50.9A If a warranty or guarantee required under sub-clause Z2.3.1 is not delivered to the *Employer* in accordance with the provisions of sub-clauses Z2.3.1 and Z2.3.2, one half of the total cumulative increase in the amount due since the assessment date following the end of the period for provision of such warranty or guarantee is retained in all assessments of the amount due.

Z1.20.6 50.10 If a Management Plan is not provided by the times or within the timescales required by this contract, one tenth of the total cumulative increase in the amount due since the assessment date following the end of the period for provision of such Management Plan is retained in all assessments of the amount due and is not payable to the *Contractor* until such Management Plan is delivered.

Z1.20.7 50.11 If the *Contractor's* employment is terminated under clause 91.1 because the *Contractor* has become insolvent within the meaning of section 113 of the Act (R10A), the *Employer* need not pay any sum due to the *Contractor* other than any amount due to him under clause 90.4 either:

- where the *Contractor* becomes insolvent prior to the prescribed period before the final date for payment, provided that the *Employer* or *Project Manager* issues a Pay Less Notice notifying the *Employer's* intention not to pay such sum, or
- in any event, if the *Contractor* becomes insolvent after the prescribed period before the final date for payment.

Payment 51

Y1.1.1 51.1 The *Project Manager* certifies a payment within seven days of each assessment date. The first payment is the amount due. Other payments are the change in the amount due since the last payment certificate. A payment is made by the *Contractor* to the *Employer* if the change reduces the amount due. Other payments are made by the *Employer* to the *Contractor*. Payments are in the *currency of this contract* unless otherwise stated in this contract. If a certificate is not issued by the *Project Manager* in accordance with this clause 51.1, the sum to be paid by the *Employer* is the sum stated as due in the *Contractor's* application in accordance with clause 50.1A.

Y1.1.2 Y2.2 The date on which payment becomes due is seven days after the assessment date. The final date for payment is fourteen days or a different period for payment if stated in the Contract Data after the date on which payment becomes due.

Y1.1.2A 51.1B The *Project Manager's* certificate is the *Employer's* notice of payment to the *Contractor* specifying the amount due at the payment due date (the notified sum) and stating the basis on which the amount is calculated.

Y1.1.2B

51.1C Not later than five days after receipt of the payment certificate the *Contractor* delivers to the *Employer* (copied to the *Project Manager*) a VAT invoice in the amount of the certificate with a copy of the certificate attached. The *Contractor* issues a corrected VAT invoice, where required, within five days of receipt of a Pay Less Notice.

Y1.1.3

51.2 Each certified payment is made within ~~three weeks~~ twenty-one days of the assessment date or, if a different period is stated in the Contract Data, within the period stated. If a certified payment is late, or if a payment is late because the *Project Manager* does not issue a certificate which he should issue, or either Party fails to pay a sum or any part of it due to the other Party by the final date for its payment, interest is paid on the late payment. Interest is assessed from the final date by which the late payment should have been made until the date when the late payment is made, and is included in the first assessment after the late payment is made.

Y1.1.3A

51.2A If the amount to be paid to the *Contractor* is less than the amount to be paid by or retained from the *Contractor*, the difference is recoverable from the *Contractor* as a debt due on demand.

Y1.1.4

Y2.3 If either Party intends to pay less than the notified sum, he notifies the other Party not later than seven days (the prescribed period) before the final date for payment by stating the amount considered to be due and the basis on which that sum is calculated. A Party does not withhold payment of an amount due under this contract unless he has notified his intention to pay less than the notified sum as required by this contract. In the case of the *Employer*, the notice may be given on his behalf by the *Project Manager*.

51.3 If an amount due is corrected in a later certificate either

- by the *Project Manager* in relation to a mistake or a compensation event or
- following a decision of the *Adjudicator* or the *tribunal*,

interest on the correcting amount is paid. Interest is assessed from the date when the incorrect amount was certified until the date when the correcting amount is certified and is included in the assessment which includes the correcting amount.

51.4 Interest is calculated on a daily basis at the *interest rate* and is compounded annually.

Z1.20.8

51.5 The consideration for any supply made pursuant to or in connection with the terms of this contract, and all sums payable under this contract, are exclusive of VAT. Where, under the terms of this contract, a supply is made that is subject to VAT, the person receiving the supply must pay a sum equal to the amount of VAT which is or becomes chargeable on that supply to the person making the supply in addition to, and at the same time as, paying any other consideration for that supply and a valid VAT invoice must be issued by the person making the supply.

If any VAT invoice delivered by the *Contractor* under this contract is an electronic invoice, the *Employer* accepts and processes the electronic invoice submitted by the *Contractor* where the invoice is undisputed and where it complies with the Standard on Electronic Invoicing.

Z1.20.9

51.6 Where the *Employer* is an End User for the purposes of this contract, the Parties acknowledge that:

- services provided by the *Contractor* to the *Employer* on or after 1 March 2021 pursuant to this contract are expected to include "specified services" (within the meaning of article 4 of the Reverse Charge Order) and will be "excepted supplies" (within the meaning of article 8 of the Reverse Charge Order) on the basis that the

Employer is an End User in respect of such specified services and

- accordingly the Reverse Charge Order will not apply and the *Employer* will not be required to account for VAT to HM Revenue & Customs in respect of such supplies under section 55A of VATA.

Where the *Employer* is not an End User for the purposes of this contract:

- the Parties acknowledge that services provided by the *Contractor* to the *Employer* on or after 1 March 2021 pursuant to this contract will include "specified services" (within the meaning of article 4 of the Reverse Charge Order) and are expected to be subject to the Reverse Charge Order on the basis that the *Employer* is not an End User,
- accordingly, the Parties acknowledge that the *Employer* will be required to account for VAT to HM Revenue & Customs in respect of such supplies from the *Contractor* under section 55A of VATA and
- the *Contractor* will deliver an invoice to the *Employer* in accordance with clause 51.1C stating that the Reverse Charge Order applies or any other appropriate language as suggested by HM Revenue & Customs in their relevant guidance.

In any event the *Contractor* indemnifies the *Employer* his employees and agents and members of the TfL Group on a continuing basis from and against all Losses arising from the *Contractor's* failure to account for or to pay any VAT relating to payments made to the *Contractor* under this contract. Any amounts due under this clause 51.6 are paid in cleared funds by the *Contractor* to the *Employer* not less than five (5) days before the date upon which the tax or other liability or other Losses are payable by the *Employer*.

Where under this contract any amount is calculated by reference to any sum which has been or may be incurred by any person, the amount includes any VAT in respect of that amount only to the extent that such VAT is not recoverable as input tax by that person (or a member of the same VAT group) whether by set off or repayment.

If the Reverse Charge Order is incorrectly applied and the *Employer* pays an amount in respect of VAT to the *Contractor* in error, then the *Contractor* will pay to the *Employer* on demand an amount equal to such VAT plus any interest, penalties or surcharges charged or imposed on the *Employer* by HM Revenue & Customs arising from the late payment of any VAT.

If the *Employer's* status as an End User changes during the term of this contract, the *Employer* uses its reasonable endeavours to notify the *Contractor* and the *Contractor* applies the Revers Charge accordingly.

Defined Cost **52**

52.1 All the *Contractor*'s costs which are not included in the Defined Cost are treated as included in the Fee. Defined Cost includes only amounts calculated using rates and percentages stated in the Contract Data and other amounts at open market or competitively tendered prices with deductions for all discounts, rebates and taxes which can be recovered.

53 Not used.

The Activity Schedule **54**

54.1 Information in the Activity Schedule is not Works Information or Site Information.

54.2 If the *Contractor* changes a planned method of working at his discretion so that the activities on the Activity Schedule do not relate to the

operations on the Accepted Programme, he submits a revision of the Activity Schedule to the *Project Manager* for acceptance.

54.3 A reason for not accepting a revision of the Activity Schedule is that

- **it does not comply with the Accepted Programme,**
- **any changed Prices are not reasonably distributed between the activities or**
- **the total of the Prices is changed.**

55 Not used (as not an Option A clause)

Z1.21.1 56 In addition to any other rights of the *Employer* whether at law or equity under this contract, whenever

- under this contract or any other contract between the *Employer* and the *Contractor* (including the Framework Contract and any Call-off Contract(s) issued under it) any sum of money is recoverable from or payable by the *Contractor* or
- any Losses are reasonably and properly owed to, or incurred by, the *Employer* or any member of the TfL Group under or arising out of this contract or any other contract between the *Employer* and the *Contractor* (again, including the Framework Contract or any Call-off Contract(s) issued under it)

the same may be set-off and/or deducted from any sum then due or which at any time thereafter may become due to the *Contractor* under this contract.

Z1.22.1 57.1 If the *Employer* is or at any time up to the making of the final payment under this contract becomes a 'contractor' for the purposes of the Construction Industry Scheme, his obligation to make any payment under this contract is subject to the provisions and requirements of the Construction Industry Scheme and the *Contractor* complies with the provisions of the Works Information regarding the Construction Industry Scheme.

6 Compensation events

Compensation events **60**

Z1.23

Z1.23.1 60.1 The following are compensation events

(1) The *Project Manager* gives an instruction changing the Works Information except

- a change made in order to accept a Defect ~~or~~
- a change to the Works Information provided by the *Contractor* for his design which is made to enable the *Contractor* to Provide the Works or is made at his request or to comply with other Works Information provided by the *Employer*,
- a change to the Works Information made pursuant to clause 21A (*Value Engineering*) or
- an instruction which is stated in this contract not to give rise to a compensation event.

(2) Subject to the requirements of the Works Information regarding access and provided that the *Contractor* has booked and co-ordinated access in accordance with its requirements, the *Employer* does not allow access to and use of a part of the Site in accordance with the provisions of this contract by the later of its *access date* and the date shown on the Accepted Programme.

(3) The *Employer* does not provide something which he is to provide by the date for providing it shown on the Accepted Programme.

(4) The *Project Manager* gives an instruction to accelerate or to stop or not to start any work or to change a Key Date.

(5) The *Employer* or Others

- do not work within the times shown on the Accepted Programme,
- do not work within the conditions stated in the Works Information or
- carry out work on the Site that is not stated in the Works Information.

(6) The *Project Manager* or the *Supervisor* does not reply to a communication from the *Contractor* within the period required by this contract, and subsequently fails to respond within 14 days to any reminder served upon it by the *Contractor* after the *period for reply* has expired, referring to this cl.60.1(6).

(7) The *Project Manager* gives an instruction for dealing with an object of value or of historical or other interest found within the Site.

(8) The *Project Manager* or the *Supervisor* changes a decision which he has previously communicated to the *Contractor*.

(9) The *Project Manager* withholds an acceptance (other than acceptance of a quotation for acceleration or for not correcting a Defect) for a reason not stated in this contract.

(10) The *Supervisor* instructs the *Contractor* to search for a Defect and no Defect is found unless the search is needed only because the *Contractor* gave insufficient notice of doing work obstructing a required test or inspection or because a known Defect suggests the likely presence of a similar or related Defect elsewhere in the *works*.

(11) A test or inspection done by the *Supervisor* causes unnecessary delay.

(12) The *Contractor* encounters physical conditions which

- are within the Site,
- are not weather conditions and

- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for them.

Only the difference between the physical conditions encountered and those for which it would have been reasonable to have allowed is taken into account in assessing a compensation event.

(13) A *weather measurement* is recorded

- within a calendar month,
- before the Completion Date for the whole of the *works* and
- at the place stated in the Contract Data

the value of which, by comparison with the *weather data*, is shown to occur on average less frequently than once in ten years.

Only the difference between the *weather measurement* and the weather which the *weather data* show to occur on average less frequently than once in ten years is taken into account in assessing a compensation event.

(14) An event which is an *Employer*'s risk stated in this contract.

(15) The *Project Manager* certifies take over of a part of the *works* before both Completion and the Completion Date.

(16) The *Employer* does not provide materials, facilities and samples for tests and inspections as stated in the Works Information.

(17) The *Project Manager* notifies a correction to an assumption which he has stated about a compensation event.

(18) A breach of contract or act of prevention on the part of the *Employer* which is not one of the other compensation events in this contract.

(19) An event which

- stops the Contractor completing the *works* or
- stops the Contractor completing the *works* by the date shown on the Accepted Programme,

and which

- neither Party could prevent,
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it and
- is not one of the other compensation events stated in this contract.

60.2 In judging the physical conditions for the purpose of assessing a compensation event, the *Contractor* is assumed to have taken into account

- the Site Information,
- publicly available information referred to in the Site Information,
- information obtainable from a visual inspection of the Site and
- other information which an experienced contractor could reasonably be expected to have or to obtain.

60.3 If there is an ambiguity or inconsistency within the Site Information (including the information referred to in it), the *Contractor* is assumed to have taken into account the physical conditions more favourable to doing the work.

Notifying compensation events **61**

Z1.24

61.1 For compensation events which arise from the *Project Manager* or the *Supervisor* giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption, the *Project Manager* notifies the *Contractor* of the compensation event at the time of that communication. He also instructs the *Contractor* to submit quotations, unless the event arises from

a fault of the *Contractor* or quotations have already been submitted. The *Contractor* puts the instruction or changed decision into effect.

61.2 The *Project Manager* may instruct the *Contractor* to submit quotations for a proposed instruction or a proposed changed decision. The *Contractor* does not put a proposed instruction or a proposed changed decision into effect.

Z1.24.1 61.3 The *Contractor* notifies the *Project Manager* of an event which has happened or which he expects to happen as a compensation event if

- the *Contractor* believes that the event is a compensation event and
- the *Project Manager* has not notified the event to the *Contractor*.

If the *Contractor* does not notify a compensation event within eight weeks of becoming aware or when he ought reasonably to have become aware of the event, he is not entitled to a change in the Prices, the Completion Date or a Key Date unless the event arises from the *Project Manager* or the *Supervisor* giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption.

Z1.24.2 61.4 If the *Project Manager* decides that an event notified by the *Contractor*

- arises from a fault of the *Contractor* (or of any subcontractor or supplier of the *Contractor*),
- has not happened and is not expected to happen,
- has no effect upon Defined Cost, Completion or meeting a Key Date or
- is not one of the compensation events stated in this contract

he notifies the *Contractor* of his decision that the Prices, the Completion Date and the Key Dates are not to be changed. If the *Project Manager* decides otherwise, he notifies the *Contractor* accordingly and instructs him to submit quotations.

The *Project Manager* notifies his decision to the *Contractor* and, if his decision is that the Prices, the Completion Date or the Key Dates are to be changed, instructs him to submit quotations before the end of either

- one week after the *Contractor*'s notification or
- a longer period to which the *Contractor* has agreed,

If the *Project Manager's* decision is that the Prices, the Completion Date or the Key Dates are not to be changed, the *Contractor* notifies the *Project Manager* if he does not accept the decision and at the same time of his reasons for not accepting the decision. The *Contractor's* notification does not affect the *Project Manager's* decision that the Prices, Completion Date or the Key Dates are not to be changed. If the *Contractor* does not provide this notification within four weeks of notification of the *Project Manager's* decision, he is treated as having accepted the *Project Manager's* decision.

If the *Project Manager* does not notify his decision, the *Contractor* may notify the *Project Manager* of his failure. A failure by the *Project Manager* to reply within two weeks of this notification is treated as acceptance by the *Project Manager* that the event is a compensation event and an instruction to submit quotations.

61.5 If the *Project Manager* decides that the *Contractor* did not give an early warning of the event which an experienced contractor could have given, he notifies this decision to the *Contractor* when he instructs him to submit quotations.

61.6 If the *Project Manager* decides that the effects of a compensation event are too uncertain to be forecast reasonably, he states assumptions about the event in his instruction to the *Contractor* to submit quotations. Assessment of the event is based on these assumptions. If any of them is later found to have been wrong, the *Project Manager* notifies a correction.

61.7 A compensation event is not notified after the *defects date.*

Quotations for compensation events **62**

Z1.25

62.1 After discussing with the *Contractor* different ways of dealing with the compensation event which are practicable, the *Project Manager* may instruct the *Contractor* to submit alternative quotations. The *Contractor* submits the required quotations to the *Project Manager* and may submit quotations for other methods of dealing with the compensation event which he considers practicable.

Z1.25.1

62.2 Quotations for compensation events comprise proposed changes to the Prices and any delay to the Completion Date and Key Dates assessed by the *Contractor*. The *Contractor* submits details of his assessment in accordance with the requirements of the Works Information with each quotation. If the programme for remaining work is altered by the compensation event, the *Contractor* includes the alterations to the Accepted Programme in his quotation.

62.3 The *Contractor* submits quotations within three weeks of being instructed to do so by the *Project Manager*. The *Project Manager* replies within two weeks of the submission. His reply is

- an instruction to submit a revised quotation,
- an acceptance of a quotation,
- a notification that a proposed instruction will not be given or a proposed changed decision will not be made or
- a notification that he will be making his own assessment.

62.4 The *Project Manager* instructs the *Contractor* to submit a revised quotation only after explaining his reasons for doing so to the *Contractor*. The *Contractor* submits the revised quotation within three weeks of being instructed to do so.

62.5 The *Project Manager* extends the time allowed for

- the *Contractor* to submit quotations for a compensation event and
- the *Project Manager* to reply to a quotation

if the *Project Manager* and the *Contractor* agree to the extension before the submission or reply is due. The *Project Manager* notifies the extension that has been agreed to the *Contractor*.

62.6 If the *Project Manager* does not reply to a quotation within the time allowed, the *Contractor* may notify the *Project Manager* of his failure. If the *Contractor* submitted more than one quotation for the compensation event, he states in his notification which quotation he proposes is to be accepted. If the *Project Manager* does not reply to the notification within two weeks, and unless the quotation is for a proposed instruction or a proposed changed decision, the *Contractor*'s notification is treated as acceptance of the quotation by the *Project Manager*.

Assessing compensation events **63**

Z1.26

63.1 The changes to the Prices are assessed as the effect of the compensation event upon

- the actual Defined Cost of the work already done,
- the forecast Defined Cost of the work not yet done and
- the resulting Fee.

If the compensation event arose from the *Project Manager* or the *Supervisor* giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption, the date which divides the work already done from the work not yet done is the date of that communication. In all other cases, the date is the date of the notification of the compensation event.

63.2 If the effect of a compensation event is to reduce the total Defined Cost, the Prices are not reduced except as stated in this contract.

Z1.26.1 63.3 A delay to the Completion Date is assessed as the length of time that, due to the compensation event, planned Completion is later than planned Completion as shown on the Accepted Programme. A delay to a Key Date is assessed as the length of time that, due to the compensation event, the planned date when the Condition stated for a Key Date will be met is later than the date shown on the Accepted Programme provided always that the delay is only assessed as giving rise to a change in the Completion Date or a Key Date if and to the extent that the compensation event is the principal cause of the delay.

The *Project Manager* may determine an earlier Completion Date or Key Date if the effect of the compensation event is to reduce the time required for Completion or meeting a Key Date.

Z1.26.2 63.4 The rights of the *Employer* and the *Contractor* to changes to the Prices, the Completion Date and the Key Dates are their only rights in respect of a compensation event and the *Employer* has no financial liability to the *Contractor* other than amounts to which the *Contractor* is entitled under this contract.

63.5 If the *Project Manager* has notified the *Contractor* of his decision that the *Contractor* did not give an early warning of a compensation event which an experienced contractor could have given, the event is assessed as if the *Contractor* had given early warning.

Z1.26.3 63.6 Assessment of the effect of a compensation event includes reasonable and proportionate risk allowances for cost and time for matters which have a significant chance of occurring and are at the *Contractor*'s risk under this contract. Assessments take into account the extent to which the compensation event is caused or contributed to by any fault of the *Contractor* and assumes that the *Contractor* has taken all reasonable steps to mitigate the actual or potential effects of the event.

63.7 Assessments are based upon the assumptions that the *Contractor* reacts competently and promptly to the compensation event, that any Defined Cost and time due to the event are reasonably incurred and that the Accepted Programme can be changed.

63.8 A compensation event which is an instruction to change the Works Information in order to resolve an ambiguity or inconsistency is assessed as if the Prices, the Completion Date and the Key Dates were for the interpretation most favourable to the Party which did not provide the Works Information.

63.9 If a change to the Works Information makes the description of the Condition for a Key Date incorrect, the *Project Manager* corrects the description. This correction is taken into account in assessing the compensation event for the change to the Works Information.

63.10 Subject to clause 21A, if **the effect of a compensation event is to reduce the total Defined Cost and the event is**

- **a change to the Works Information or**
- **a correction of an assumption stated by the *Project Manager* for assessing an earlier compensation event**

the Prices are reduced.

63.11 Not used (as not an Option A clause).

63.12 Assessments for changed Prices for compensation events are in the form of changes to the Activity Schedule.

63.13 Not used (as not an Option A clause).

63.14 If the *Project Manager* and the *Contractor* agree, rates and lump sums may be used to assess a compensation event, including those in the Schedule of Rates. For the purposes of this clause 63.14, the Schedule of Rates means the schedule as at the date the initial Proposal (leading to this contract) was issued under clause 4.3 of the Framework Contract.

The *Project Manager*'s Assessments

Z1.27

64

Z1.27.1

64.1 The *Project Manager* assesses a compensation event

- if the *Contractor* has not submitted a quotation and details of his assessment in accordance with the Works Information within the time allowed,
- if the *Project Manager* decides that the *Contractor* has not assessed the compensation event correctly in a quotation and he does not instruct the *Contractor* to submit a revised quotation,
- if, when the *Contractor* submits quotations for a compensation event, he has not submitted a programme or alterations to a programme which this contract requires him to submit or
- if, when the *Contractor* submits quotations for a compensation event, the *Project Manager* has not accepted the *Contractor*'s latest programme for one of the reasons stated in this contract.

64.2 The *Project Manager* assesses a compensation event using his own assessment of the programme for the remaining work if

- there is no Accepted Programme or
- the *Contractor* has not submitted a programme or alterations to a programme for acceptance as required by this contract.

64.3 The *Project Manager* notifies the *Contractor* of his assessment of a compensation event and gives him details of it within the period allowed for the *Contractor*'s submission of his quotation for the same event. This period starts when the need for the *Project Manager*'s assessment becomes apparent.

64.4 If the *Project Manager* does not assess a compensation event within the time allowed, the *Contractor* may notify the *Project Manager* of his failure. If the *Contractor* submitted more than one quotation for the compensation event, he states in his notification which quotation he proposes is to be accepted. If the *Project Manager* does not reply within two weeks of this notification the notification is treated as acceptance of the *Contractor*'s quotation by the *Project Manager*.

Implementing compensation events

65

65.1 A compensation event is implemented when

Z1.28

- the *Project Manager* notifies his acceptance of the *Contractor*'s quotation,
- the *Project Manager* notifies the *Contractor* of his own assessment, or
- a *Contractor*'s quotation is treated as having been accepted by the *Project Manager*.

65.2 The assessment of a compensation event is not revised if a forecast upon which it is based is shown by later recorded information to have been wrong.

Z1.28.1 65.3 The *Contractor* notifies the *Project Manager* if he does not accept the *Project Manager's* assessment and at the same time of his reasons for not accepting the *Project Manager's* assessment. If the *Contractor* does not provide this notification within four weeks of notification of the *Project Manager's* assessment, he is treated as having accepted the *Project Manager's* assessment.

65.4 The changes to the Prices, the Completion Date and the Key Dates are included in the notification implementing a compensation event.

7 Title

The *Employer*'s title to Plant and Materials **70**

Z1.29

Z1.29.1 70.1 Whatever title the *Contractor* has to Plant and Materials which is outside the Working Areas passes to the *Employer* as soon as the *Contractor* or *Supervisor* has marked them as for this contract or the *Employer* makes payment (partial or otherwise) for them, whichever is the earlier. The *Contractor* ensures that such Plant and Materials are clearly identified as belonging to the *Employer* and are set aside for the *Employer*.

70.2 Whatever title the *Contractor* has to Plant and Materials passes to the *Employer* if it has been brought within the Working Areas. The title to Plant and Materials passes back to the *Contractor* if it is removed from the Working Areas with the *Project Manager*'s permission.

Z1.29.2 70.3 Where required by the Works Information, or if otherwise requested by the *Project Manager*, the *Contractor* provides proof of his title to Plant and Materials prior to their value being included in the assessment of any amount due under this contract.

Marking Equipment, Plant and Materials outside the Working Areas **71**

71.1 The *Supervisor* marks Equipment, Plant and Materials which are outside the Working Areas if

- this contract identifies them for payment and
- the *Contractor* has prepared them for marking as the Works Information requires.

Removing Equipment **72**

72.1 The *Contractor* removes Equipment from the Site when it is no longer needed unless the *Project Manager* allows it to be left in the *works*.

Objects and materials within the site **73**

73.1 The *Contractor* has no title to an object of value or of historical or other interest within the Site. The *Contractor* notifies the *Project Manager* when such an object is found and the *Project Manager* instructs the *Contractor* how to deal with it. The *Contractor* does not move the object without instructions.

73.2 The *Contractor* has title to materials from excavation and demolition only as stated in the Works Information.

8 Risks and insurance

***Employer*'s risks** **80**

Z1.30 80.1 The following are *Employer*'s risks.

- Claims, proceedings, compensation and costs payable which are due to
  - use or occupation of the Site by the *works* or for the purpose of the *works* which is the unavoidable result of the *works*,
  - negligence, breach of statutory duty or interference with any legal right by the *Employer* or by any person employed by or contracted to him except the *Contractor* or
- Z1.30.1 a fault of the *Employer* or a fault in his design (save where this contract provides that the *Contractor* is responsible for such design / verifying its efficacy).
- Loss of or damage to Plant and Materials supplied to the *Contractor* by the *Employer*, or by Others on the *Employer*'s behalf, until the *Contractor* has received and accepted them.
- Loss of or damage to the *works*, Plant and Materials due to
  - war, civil war, rebellion, revolution, insurrection, military or usurped power,
  - strikes, riots and civil commotion not confined to the *Contractor*'s employees or
  - radioactive contamination.
- Loss of or wear or damage to the parts of the *works* taken over by the *Employer*, except loss, wear or damage occurring before the issue of the Defects Certificate which is due to
  - a Defect which existed at take over,
  - an event occurring before take over which was not itself an *Employer*'s risk or
  - the activities of the *Contractor* on the Site after take over.
- Loss of or wear or damage to the *works* and any Equipment, Plant and Materials retained on the Site by the *Employer* after a termination, except loss, wear or damage due to the activities of the *Contractor* on the Site after the termination.
- Damage caused by the *Employer* or *Others* to the parts of the works used by the *Employer* or *Others* before Completion, except damage occurring which is due to:
  - a Defect
  - an event occurring before use by the Employer or Others which was not itself an Employer's risk or
  - the activities of the Contractor on the Site before Completion
- Additional *Employer*'s risks stated in the Contract Data Part One.

80.2 No matter in the Risk Register which is stated as being the *Employer's* responsibility, or 'owned' by the *Employer*, shall be read or construed as:

- being an additional *Employer's* risk (unless and to the extent such matter is specified within the Contract Data Part One as an additional *Employer's* risk), or
- amending any *Employer's* risk or any compensation event under this contract.

The *Contractor*'s risks **81**

81.1 From the *starting date* until the Defects Certificate has been issued, the risks which are not carried by the *Employer* are carried by the *Contractor*.

Repairs 82

82.1 Until the Defects Certificate has been issued and unless otherwise instructed by the *Project Manager*, the *Contractor* promptly replaces loss of and repairs damage to the *works*, Plant and Materials.

Indemnity 83

Z1.31

Z1.31.1 83.1 The *Contractor* is responsible for and indemnifies the *Employer*, his employees and agents and members of the TfL Group against all Losses in respect of events or matters which are at his risk including:

- personal injury to or death of any person;
- loss of or damage to property real or personal belonging to the *Employer* or for which it is responsible other than to the *works*; and
- any other Losses arising under his contracts with Others.

Without prejudice to the foregoing, the *Contractor* provides this indemnity against:

- all Losses arising from any infringement of any intellectual property right of any third party (including a Subcontractor) arising out of the design, construction or use of the *works* or the project,
- any Losses arising from the *Contractor's* failure to account for or to pay any VAT relating to payments made to the *Contractor* under this contract in accordance with clause 51.6;
- any Losses arising from any nuisance or interference referred to in clause Z2.6 and which could have been avoided by the *Contractor* using all reasonable and practical means, and
- any Losses arising from any breach of Data Protection Legislation or clause Z2.17.

Z1.31.2 83.2 The *Contractor's* liability to indemnify the *Employer*, his employees and agents and members of the TfL Group is reduced if events at the *Employer's* risk contributed to the Losses. The reduction is in proportion to the extent that events which were at the *Employer's* risk contributed, taking into account each Party's responsibilities under this contract. The *Contractor's* indemnity under clause 83.1 remains in force for the duration of this contract and continues to survive expiry or termination of the contract along with any other clauses or schedules of the contract necessary to give effect to it.

Z1.31.3 83.3 Notwithstanding any other clause in this contract the *Contractor's,* and its Subcontractors', liability for damage to existing structures belonging to the *Employer* which do not form part of the *works* and which arises during the carrying out of the *works* at the Site shall be limited to £25,000 per occurrence and the *Employer* will ensure that its property insurers waive rights of subrogation against the *Contractor* and its Subcontractors for such Losses.

Remedies

Z1.32

Z1.32.1 83A.1 The Parties acknowledge and agree that the payment or deduction of:

(a) liquidated damages for disruption to the Underground Network pursuant to clause Z2.12 is without prejudice to the *Employer's* right to delay damages pursuant to Option X7; and

(b) delay damages pursuant to Option X7 is without prejudice to the *Employer's* right to liquidated damages for disruption pursuant to clause Z2.12.

PROVIDED THAT the Parties agree that either or both of (a) liquidated damages for disruption to the Underground Network pursuant to clause Z2.12 and (b) delay damages the *Contractor* pays pursuant to Option X7 constitute the sole remedy for the *Employer* for such delay and disruption. For the avoidance of doubt, damages the *Contractor* pays pursuant to clause Z2.12 and/or Option X7 are excluded from the limitations of liability, as set out in Option X18 and the Contract Data.

Insurance cover **84**

Z1.33

Z1.33.1 84.1 The Parties provide the insurances stated in the Insurance Table. The *Contractor* provides additional insurances as stated in the Contract Data.

Z1.33.2 84.2

Insurance Table		
Insurance Against	**Party Responsible for ensuring insurance is in place**	**Minimum amount of cover or minimum limit of indemnity**
Construction All Risks insurance All risks of loss of or damage (not excluded by the terms and conditions of the policy) to the *works* and Plant and Materials, temporary works (i.e. works erected or constructed for the purpose of making possible the erection or installation of the *works*), equipment, temporary buildings and property owned by or supplied by the *Employer*.	*Employer* in the joint names of the Parties and any other contractors or subcontractors of any tier engaged in carrying out the *works* on the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.	The full reinstatement value of the *works*
Public liability insurance All sums for which the insured becomes legally liable to pay as damages in respect of death of or injury or illness or disease to third parties and/or loss of or damage to third party property, obstruction, loss of amenities, trespass,	*Employer* in the joint names of the Parties and any other contractors or	Not less than £10,000,000 per occurrence or as otherwise stated in the Contract Data.

nuisance or any like cause happening during the period of insurance and arising out of or in connection with the carrying out of the *works* at the Site (unless excluded by the terms and conditions of the policy).	subcontractors of any tier engaged in carrying out the *works* on the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.	
Employer's liability insurance Liability for death of or bodily injury or illness sustained by employees of the *Contractor* arising out of or in the course of their employment in connection with this contract or the Project	*Contractor*	Not less than £10,000,000 per occurrence or as otherwise stated in the Contract Data, whichever is the greater
Contractor's Equipment loss insurance Loss of or damage to constructional plant, tools, equipment, temporary buildings (including contents therein) belonging to or the responsibility of the *Contractor*	*Contractor*	The replacement cost
Professional Indemnity Insurance Fault in respect of design of the *works* or other professional services for which the *Contractor* or his Subcontractors is responsible.	*Contractor*	£10,000,000 in the aggregate or as otherwise stated in the Contract Data

Z1.33.3 84.3 In respect of the insurances provided by the *Contractor*:

- the insurances provide cover from the *starting date* until the Defects Certificate or a termination certificate has been issued, whichever is the later, provided however that the *Contractor* ensures that his professional indemnity insurance is in place from the Contract Date until not less than 12 years after Completion;
- the *Contractor* bears the cost of all premiums, which is deemed to be included in the Fee;
- if such professional indemnity insurance ceases to be available at commercially reasonable rates and on reasonable terms, the Parties meet and the *Contractor* outlines the steps he intends to take to manage such risks. If the steps proposed by the *Contractor* are not acceptable to the

Employer (acting reasonably), the Parties agree an alternative method of managing such risk.

Z1.33.4 84.4 The *Contractor* does not by any act or fault prejudice, lose or forgo the Parties' right or the right of either of them to make or proceed with a claim against any insurer.

Z1.33.5 84.5 The *Contractor* procures that:

- his Subcontractors (and sub-subcontractors of any tier) maintain employer's liability and (where appropriate) motor liability insurances as required by law; and
- any Subcontractors falling within clause Z2.2.1, maintain professional indemnity insurance covering their liabilities under their subcontracts in respect of their design.

Z1.33.6 84.6 The insurances provided pursuant to this contract do not relieve the *Contractor* from any of his obligations and liabilities under this contract.

Insurance policies **85**

Z1.34

Z1.34.1 85.1 Before the *starting date* and on each renewal of the insurance policy until the *defects date*, the *Contractor* submits to the *Project Manager* for acceptance certificates which state that the insurance required by this contract is in force. The certificates are signed by the *Contractor*'s insurer or insurance broker. A reason for not accepting the certificates is that:

- they do not comply with this contract,
- the proposed insurer is not a reputable insurer authorised to underwrite the insurances in the United Kingdom; or
- the proposed insurer is not, having regard, without limitation, to the size, nature and complexity of the *works*, of sufficient financial strength.

Z1.34.2 85.2 Not used.

85.3 The Parties comply with the terms and conditions of the insurance policies.

Z1.34.3 85.4 Any amount not recovered from an insurer (including excesses or deductibles) is borne by the *Employer* for events which are at his risk and by the *Contractor* for events which are at his risk.

Z1.34.4 85.5 In the event of the insolvency of an insurer of either Party, the insuring Party informs the other Party forthwith on becoming aware thereof and submits documentary evidence of alternative insurance to the other Party for acceptance.

If the *Contractor* does not insure **86**

Z1.35

Z1.35.1 86.1 The *Employer* may insure a risk which this contract requires the *Contractor* to insure if the *Contractor* does not submit a required certificate. The cost of this insurance (including all reasonable expenses incurred by the *Employer* in respect of taking out such insurance) to the *Employer* is paid by the *Contractor*. If the *Employer* insures a risk which this contract requires the *Contractor* to insure, this is without prejudice to any of the *Employer*'s other rights, powers or remedies under this contract.

Insurance by the *Employer* **87**

Z1.36 87.1 The *Project Manager* submits policies and certificates for insurances provided by the *Employer* to the *Contractor* for acceptance before the *starting date* and afterwards as the *Contractor* instructs. The *Contractor* accepts the policies and certificates if they comply with this contract.

87.2 The *Contractor*'s acceptance of an insurance policy or certificate provided by the *Employer* does not change the responsibility of the *Employer* to provide the insurances stated in the Contract Data.

87.3 The *Contractor* may insure a risk which this contract requires the *Employer* to insure if the *Employer* does not submit a required policy or certificate. The cost of this insurance to the *Contractor* is paid by the *Employer*.

Z1.36.1 87.4 The *Contractor* co-operates with the *Employer* regarding the handling and settlement of claims under the *Employer's* insurances and complies with the requirements of the *Employer's* insurers in connection with the handling and settlement of claims, including where appropriate the provision of such information, documents and records as the *Employer*, its claims handler and its insurers require.

Z1.36.2 87.5 The *Contractor* complies and ensures that its Subcontractors comply with the requirements of the *Employer's* claims handling procedures, such procedure to be provided to the *Contractor* by the *Employer.*

Z1.36.3 87.6 The *Contractor* does not compromise, settle or waive any claim which the *Contractor* may have under the *Employer's* insurances without the prior written consent of the *Employer*.

Z1.36.4 87.7 The insurances provided by the *Employer* are in effect for the duration of the *works* at the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.

Z1.36.5 87.8 The *Contractor* ensures that each subcontract with its Subcontractors includes an acknowledgement that the Subcontractor is an insured party under the insurances provided by the *Employer* while the Subcontractor is engaged in carrying out the *works* at the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.

9 Termination

Termination 90

Z1.37

90.1 If either Party wishes to terminate the *Contractor*'s obligation to Provide the Works he notifies the *Project Manager* and the other Party giving details of his reason for terminating. The *Project Manager* issues a termination certificate to both Parties promptly if the reason complies with this contract.

90.2 The *Contractor* may terminate only for a reason identified in the Termination Table. The *Employer* may terminate for any reason. The procedures followed and the amounts due on termination are in accordance with the Termination Table.

TERMINATION TABLE

	Terminating Party	Reason	Procedure	Amount due
Z1.37.1	The *Employer*	A reason other than the reasons listed in this Termination Table	P1 and P2	A1 and A2 and A4
		R1–R15, R10A, R18, R25A	P1, P2 and P3	A1 and A3
		R17, ~~or~~ R20	P1 and P3	A1 and A2
		R21	P1 and P4	A1 and A2
		R22-R24	P1, P2 and P3	A1 and A3
		R25	P1 and P4	A1 and A2
		R27	P1 and P4	A1 and A2
	The *Contractor*	R1–R10, R10A, R16 or R19	P1 and P4	A1, A2 and A4
		R17 or R20	P1 and P4	A1 and A2

90.3 The procedures for termination are implemented immediately after the *Project Manager* has issued a termination certificate.

Z1.37.2

90.4 Within thirteen weeks of termination, the *Project Manager* certifies a final payment to or from the *Contractor* which is the *Project Manager*'s assessment of the amount due on termination less the total of previous payments. Payment

is made within three weeks of the *Project Manager*'s certificate or (where payment is due to the *Contractor*) within three weeks of receipt of the VAT invoice. Within 5 days of issue of the payment certificate the *Contractor* delivers to the *Employer* a VAT invoice in the amount of the certificate.

90.5 After a termination certificate has been issued, the *Contractor* does no further work necessary to Provide the Works.

Reasons for termination **91**

Z1.38

Z1.38.1 91.1 Either Party may terminate if the other Party has done one of the following (or its equivalent in other jurisdictions).

- If the other Party is an individual and has
  - presented his petition for bankruptcy (R1),
  - had a bankruptcy order made against him (R2),
  - had a receiver appointed over his assets (R3) or
  - made an arrangement with his creditors (R4).
- If the other Party is a company or partnership and has
  - had a winding-up order made against it (R5),
  - had a provisional liquidator appointed to it (R6),
  - passed a resolution for winding-up (other than in order to amalgamate or reconstruct) (R7),
  - had an administration order made against it (R8),
  - had a receiver, receiver and manager, or administrative receiver appointed over the whole or a substantial part of its undertaking or assets (R9) or
  - made an arrangement with its creditors (R10).
- If the other Party has become insolvent as defined in section 113 of the Act (R10A).

91.2 The *Employer* may terminate if the *Project Manager* has notified that the *Contractor* has defaulted in one of the following ways and not put the default right within four weeks of the notification.

- Substantially failed to comply with his obligations (R11).
- Not provided a bond or guarantee which this contract requires (R12).
- Appointed a Subcontractor for substantial work before the *Project Manager* has accepted the Subcontractor (R13).

Z1.38.2 91.3 The *Employer* may terminate if the *Project Manager* has notified that the *Contractor* has defaulted in one of the following ways and not stopped defaulting within four weeks of the notification.

- Substantially hindered the *Employer* or Others (R14).
- Substantially broken a health or safety regulation or requirement of this contract (R15).

91.4 The *Contractor* may terminate if the *Employer* has not paid an amount due under the contract within eleven weeks of the date that it should have been paid (R16).

91.5 Either Party may terminate if the Parties have been released under the law from further performance of the whole of this contract (R17).

91.6 If the *Project Manager* has instructed the *Contractor* to stop or not to start any substantial work or all work and an instruction allowing the work to re-start or start has not been given within thirteen weeks,

- the *Employer* may terminate if the instruction was due to a default by the *Contractor* (R18),
- the *Contractor* may terminate if the instruction was due to a default by the *Employer* (R19) and
- either Party may terminate if the instruction was due to any other reason (R20).

Z1.38.3 91.7 The *Employer* may terminate if an event occurs which

- stops the *Contractor* completing the *works* or
- stops the *Contractor* completing the *works* by the date shown on the Accepted Programme and is forecast to delay Completion by more than 13 weeks,

and which

- neither Party could prevent and
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it (R21).

Z1.38.4 91.8 The *Employer* may terminate the *Contractor's* appointment in the event of:

- a Safety Breach or a Prohibited Act or in the event the *Contractor* has persistently failed to comply with his obligations under Clause Z2.20 or has failed to comply with its obligations under Clause Z2.17 (R22),
- a conflict of interest which has not been resolved to the *Employer's* satisfaction in accordance with the provisions of Z2.18 (R23),
- any cap on the *Contractor's* liability under this contract has been or is reasonably likely to be exceeded (R24),
- the *Employer* not obtaining any necessary funding for the Project and/or the necessary funding is curtailed (R25),
- A Change of Control (R25A).

Z1.38.5 91.9 In the event that either:

- any court or other competent authority declares or orders that this contract or the Framework Contract is ineffective or shortened pursuant to the *law of the contract* from time to time including any applicable law, directive or requirement of the European Union; or
- this contract or the Framework Contract has been subject to any substantial modification which would require a new procurement procedure in accordance with regulation 72(9) of the Public Contracts Regulations 2015 or regulation 88(8) of the Utilities Contract Regulations 2016; or
- the *Contractor* has, at the time of contract award, been in one of the situations referred to in regulation 57(1) of the Public Contracts Regulations 2015 (to the extent not already covered by this clause 91.9) and should therefore have been excluded from the procurement procedure in accordance with those regulations; or
- to the extent not already provided for in this clause 91.9, the *Employer* may terminate if it determines that the contract or the Framework Contract should not have been awarded to the *Contractor* in view of a serious infringement of the obligations contained under the EU Treaties and / or the applicable procurement regulations,

then:

- the *Employer* notifies the *Project Manager* and the *Contractor* in writing as soon as reasonably practicable of the declaration or order;

- the *Project Manager* issues a termination certificate to both Parties certifying the date the contract became or is to become ineffective or shortened; and
- the contract is deemed for all purposes to have been terminated by the *Employer* on the date named in the termination certificate (R26).

Notwithstanding the declaration or order, the provisions of clauses 90-93 continue in full force and effect along with any other provisions of this contract or the Framework Contract necessary to give effect to them. In addition, any provisions of the contract or the Framework Contract which by their nature or implication are required to regulate, determine or limit the Parties' rights and liabilities that have accrued at the date the contract became ineffective or shortened survive the declaration or order as aforesaid.

Z1.38.6 91.10 The *Employer* may terminate the *Contractor's* appointment if an event occurs which is an *additional termination event* (R27).

Procedures on termination **92**

Z1.39

92.1 On termination, the *Employer* may complete the *works* and may use any Plant and Materials to which he has title (P1).

Z1.39.1 92.2 The procedure on termination also includes one or more of the following as set out in the Termination Table. In each case, the Site is left in a safe, clean and workmanlike condition to the satisfaction of the *Project Manager*.

P2 The *Employer* may instruct the *Contractor* to leave the Site, remove any Equipment, Plant and Materials from the Site and assign the benefit of and/or enter into a novation of any subcontract or other contract related to performance of this contract to the *Employer*.

P3 The *Employer* may use any Equipment to which the *Contractor* has title to complete the *works*. The *Contractor* promptly removes the Equipment from Site when the *Project Manager* notifies him that the *Employer* no longer requires it to complete the *works*.

P4 The *Contractor* leaves the Working Areas and removes the Equipment.

Payment on termination **93**

Z1.40 93.1 The amount due on termination includes (A1)

- an amount due assessed as for normal payments,
- the Defined Cost for Plant and Materials
  - within the Working Areas or
  - to which the *Employer* has title and of which the *Contractor* has to accept delivery,
- other Defined Cost reasonably incurred in expectation of completing the whole of the *works*,
- any amounts retained by the *Employer* and
- a deduction of any un-repaid balance of an advanced payment.

93.2 The amount due on termination also includes one or more of the following as set out in the Termination Table.

A2 The forecast Defined Cost of removing the Equipment.

A3 A deduction of the forecast of the additional cost to the *Employer* of completing the whole of the *works*.

A4 The *fee percentage* applied to any excess of the total of the Prices at the Contract Date over the Price for Work Done to Date.

93.3 The amount due on termination is assessed without taking grouping of activities into account.

Part 2 – Additional conditions of contract

Contractor's Warranties

Z2.1

Z2.1.1 The *Employer* may at any time before or within 12 years after Completion enter into an agreement or agreements without the *Contractor's* consent being required with:

- PFI Contractors,
- persons providing finance in connection with the *works*,
- purchasers and tenants of the whole or any part of the *works*,
- developers having or acquiring an interest in whole or any part of the *works*;
- any other persons having or acquiring an interest in neighbouring or adjacent property;
- any Oversite Developer;
- any person providing finance in connection with an Oversite Development;
- any tenant of the whole or any part of an Oversite Development;
- any purchaser of an Oversite Development or from an Oversite Developer.

Z2.1.2 The *Contractor*, within 21 days of the *Employer's* request duly executes and delivers to the *Employer* deeds of warranty in the appropriate form contained in Annex 3, in favour of each such persons and/or in favour of any member of the TfL Group.

Subcontractors' Warranties

Z2.2

Z2.2.1 This clause Z2.2 applies to:

- the Subcontractors specified in the Contract Data; and
- any Subcontractors (of any tier) who undertake any material element of design or provide any professional service for the purposes of the *Contractor's* Providing the Works.

Z2.2.2 Each such Subcontractor shall be appointed by deed, on terms approved by the *Project Manager* pursuant to clause 26.

Z2.2.3 Unless informed by the *Employer* in writing that such documents are not required, the *Contractor* shall within 21 days after appointing each such Subcontractor:

- supply a complete certified copy of the Subcontractor's appointment; and
- procure that the Subcontractor duly executes and delivers in favour of the *Employer* a deed of warranty in the appropriate form contained in Annex 4.

Z2.2.3 Whenever the *Employer* from time to time requires, and within 21 days of such request, the *Contractor* shall procure that the Subcontractor duly executes and delivers a deed of warranty in the appropriate form contained in Annex 4 in favour of in favour of any person or person(s) falling within clause Z2.1.1.

Z2.2.4 If the *Contractor* is unable to procure any requisite deed of warranty in the appropriate form and within the timescales required by this clause Z2.2, then without prejudice to the *Employer's* rights and remedies the *Contractor* consults with the *Employer* as to what steps can reasonably be taken to procure the

outstanding warranty and safeguard the *Employer's* (or the relevant third party beneficiary's) interests.

Product guarantees

Z2.3

Z2.3.1 Without prejudice to clauses Z2.1 and Z2.2 or any right or remedy of the *Employer*, the *Contractor* procures in favour of the *Employer*, or takes such steps (including executing any documents) as are reasonably necessary to assign or otherwise transfer to the *Employer* the benefit of:

(a) the product, goods, materials, plant, equipment and/or supplier warranties and guarantees which the Works Information states the *Contractor* is to obtain; and

(b) any other such warranties or guarantees as are available from any subcontractors or suppliers.

Z2.3.2 The *Contractor*:

(a) procures that any and all warranties or guarantees falling within clause Z2.3.1(a) provide cover of not less than 2 years' from installation and conform to the (other) relevant requirements of the Works Information; and

(b) uses reasonable endeavours to procure that any warranties or guarantees falling within clause Z2.3.1(b) conform to the relevant requirements of the Works Information

(c) procures any such warranties or guarantees within the applicable timescales stated in the Works Information, or where no such timescale is stated, within 21 days of the *Employer's* request for the same.

Warranties and Undertakings

Z2.4

Z2.4.1 The *Contractor* warrants and undertakes to the *Employer* as a condition of this contract that:

- he has all the resources including financial, technical and human resources as are required to carry out and complete the *works* in accordance with the *conditions of contract*,
- all design, workmanship, manufacture and fabrication will be in accordance with the Works Information and applicable law,
- the *works* will be carried out using only materials and goods which are of sound and good quality and that he will only specify substances and materials for incorporation in the *works* and only incorporate substances and materials which are in accordance with the Standards, general good building and engineering practice and the requirements of the Works Information,
- the Plant and Materials will on Completion be capable of being used, operated and maintained in a safe, economic and efficient manner, free from any unreasonable risk to the health and well-being of persons using it and free from any unreasonable or avoidable risk of pollution, nuisance, interference or hazard,
- Plant and Materials will not deteriorate at a greater rate than that reasonably to be expected of high quality, reliable, well-designed plant and materials of a similar nature and manufacture,
- neither the functionality nor the performance of the *works*, or any computer product, application or system forming part of the *works*, or any Plant, Materials or Equipment, or any part of the railways on which works are undertaken, or any part of the Underground Network is affected, made inoperable, difficult or suffers any abnormality by reason of any software defect,

- the Plant and Materials will at take-over operate safely in accordance with the specification set out in the Works Information, in combination with any plant, equipment or system to which it is to be connected,
- he will maintain a sufficient supply of the spare parts (including software) necessary for the operation and maintenance of the *works* as specified in the Works Information, and
- the proceeds of insurance taken out by the *Contractor* pursuant to clause 84 of the *conditions of contract* will be used solely for the purposes of the *works* and for no other purpose.

Accounts and Records

Z2.5

Z2.5.1 The *Contractor* maintains and retains (and procures that his Subcontractors maintain and retain) the Minimum Records for a minimum of 12 years from Completion of the *works*.

Z2.5.2 The *Contractor* complies with (and ensures his Subcontractors comply with) the provisions of the Works Information (including the Subcontractor Procurement Plan) regarding accounts and records. The *Employer* and his authorised representatives are entitled to audit the Minimum Records in accordance with the provisions set out in the Works Information.

Z2.5.3 The *Contractor* ensures that any requirements of Data Protection Legislation are complied with to enable the *Employer* to exercise its rights under or pursuant to this clause Z2.5.

Nuisance

Z2.6

Z2.6.1 The *Contractor* uses all reasonable endeavours to prevent any public or private nuisance including nuisance caused by noxious fumes, noisy working operations or the deposit of materials or debris or other interference with the rights of adjoining or neighbouring landowners, tenants or occupiers or Statutory Undertakers arising out of the *works* and, if the *Employer* (acting reasonably) considers that the claim should be defended, defends or, if the *Employer* so elects, assists the *Employer* in defending any action or proceedings which may be instituted in relation thereto.

Z2.6.2 Without prejudice to the *Contractor's* obligations under clause Z2.6.1 if the carrying out of the *works* is likely to necessitate any interference (including the oversailing of tower crane jibs) with the rights of adjoining or neighbouring landowners, tenants or occupiers, the *Contractor* without cost to the *Employer* obtains the prior written agreement of such landowners, tenants or occupiers subject to the approval of the *Employer*. The *Contractor* complies (at his own cost) in every respect with the conditions contained in such agreements.

Intellectual Property Rights

Z2.7

Z2.7.1 **Vesting of IPR**

The Parties agree that the IPR in all Documentation and works that is created wholly or mainly in connection with the performance of this contract (including IPR created by a Subcontractor or sub-subcontractor of any tier) vests in the *Employer*. The *Contractor* procures that each Subcontractor (or sub-subcontractor of any tier) assigns such IPR to the *Employer*.

Z2.7.2 **Background IPR**

In respect of Background IPR, the *Contractor* grants (in respect of his own Background IPR) and procures the grant of (in respect of a Subcontractor's or other third party's Background IPR) a non-exclusive, world-wide, perpetual, irrevocable, royalty free licence (including the right to sub-licence) to the *Employer* to use the Background IPR for the following purposes:

(a) understanding the *works*,

(b) operating, maintaining, repairing, modifying, altering, enhancing, re-figuring, correcting and replacing the *works*, any Equipment or Plant and Materials,

(c) extending, interfacing with, integrating with, connection into and adjusting the *works* and/or the works of Others,

(d) enabling the *Employer* to carry out the operation, maintenance, repair, renewal and enhancement of the Underground Network,

(e) enabling the *Employer* to perform his function and duties as Infrastructure Manager and Operator of the Underground Network,

(f) executing and completing the *works*, and

(g) designing, testing and commissioning the *works.*

Z2.7.3 **Access to Documentation**

The *Contractor* promptly provides (or procures that its Subcontractors provide) the *Employer* or any person nominated by the *Employer* with access to such Documentation (and in such form) as the *Employer* or its nominee may reasonably require from time to time. In the event of any termination / expiry of this contract (for any reason) the *Contractor* hands over to the *Employer* such Documentation (in such form) as the *Employer* may reasonably require, promptly and in any event no later than 7 days after the *Employer's* request.

Z2.7.4 **IPR Claims**

(a) The *Contractor* promptly notifies the *Employer* upon becoming aware of an infringement, alleged infringement or potential infringement of any IPR (including any claims, demands or actions (collectively "Claims") relating to the same) which affects or may affect the provision of the *works*

(b) Subject to the *Employer's* proper observance of its obligations under this contract, the *Contractor* indemnifies the *Employer* against all Claims and Losses that arise from or are incurred by reason of any infringement or alleged infringement of any IPR.

(c) The *Employer*, at the request of the *Contractor*, gives the *Contractor* all reasonable assistance for the purpose of contesting any such Claim. The *Contractor* reimburses the *Employer* for all Losses incurred in doing so and/or the *Contractor* conducts any litigation and all negotiations at its own expense arising from such Claim. The *Contractor* consults with the *Employer* in respect of the conduct of any Claim and keeps the *Employer* regularly and fully informed as to the progress of such Claim.

Z2.7.5 **Corporate IPR**

(a) The *Employer* grants the *Contractor* a non-exclusive, non-transferable, royalty-free licence to the *Contractor* to use, and allow his Subcontractors to use, the Corporate IPRs for the duration of this contract for the sole purpose of enabling the *Contractor* to Provide the Works and to comply with his obligations under this contract.

(b) The *Contractor* uses, and procures that his Subcontractors use, the Corporate IPRs in compliance with any relevant Standards and applicable law.

I(c) The *Contractor* does not use, and procures that his Subcontractors do not use, the Corporate IPRs in combination with any other trade marks without the *Employer's* prior written consent.

(d) On written request by the *Project Manager*, the *Contractor* supplies to the *Project Manager* copies or details of items on or in relation to which it uses the Corporate IPRs or details of the manner in which they are used. If the *Project Manager* reasonably determines that any use of the Corporate IPRs falls below the Standards, the *Project Manager* gives the *Contractor* written notice of that fact and the *Contractor* corrects the use so as to comply with the Standards taking into account the *Project Manager's* instructions.

(e) The *Contractor* is not entitled to bring any action against any third party for infringement relating to the Corporate IPRs and the *Employer* is not obliged to bring or extend any proceedings relating to the Corporate IPRs if it decides in his sole discretion not to do so.

(f) As soon as reasonably practicable after expiry or termination of this contract for any reason, the *Contractor* and his Subcontractors remove the Corporate IPRs from or (where removal is not reasonably practical) destroy or, if the *Project Manager* so elects, deliver to the *Project Manager* or any other UK company or person designated by the *Project Manager*, all items and documents which the *Project Manager* does not require for the operation, maintenance, repair, renewal or enhancement of the Underground Network on or in relation to which the Corporate IPRs are then used.

Assignment

Z2.8

Z2.8.1 The *Contractor* does not assign, transfer, novate, charge or otherwise deal with this contract (or any of his rights or obligations under it) without the*Employer's* prior written consent, save that the *Contractor* may assign the right to receive any payment becoming due to him under this contract by way of debt factoring.

Z2.8.2 The *Employer* may assign, transfer, novate, charge or otherwise deal in whole or in part any benefit or right under this contract at any time to any person.

Confidentiality

Z2.9

Z2.9.1 The *Contractor* treats, and ensures that his Subcontractors (and sub-subcontractors of any tier) treat all information obtained under, arising from or in connection with this contract, the *works* and the Site as confidential. Other

than for the purpose of providing the *works* the *Contractor* does not disclose any information or documents concerning this contract to any other person.

Z2.9.2 The *Contractor* and his Subcontractors (and sub-subcontractors of any tier) do not without the prior written consent of the *Employer* disclose any information obtained by the *Contractor* concerning the *Employer*, the TfL Group or the Infracos or PFI Contractors to any other person.

Z2.9.3 The *Employer* may require as a precondition to the granting of such consent, that any such third party provides a confidentiality undertaking to the consenting party in terms satisfactory to the consenting party.

Z2.9.4 Clause Z2.9.1 does not apply to the disclosure of:

(a) any information which is already in the public domain at the time of its disclosure other than by breach of these provisions,

(b) any information disclosed by the *Contractor* to any Connected Persons provided that such recipients agree in writing to be bound by the terms of this confidentiality provision;

(c) any information which is required to be disclosed by any applicable law, the regulations of any stock exchange, any taxation authorities or by an order of a court or other tribunal of competent jurisdiction or any relevant regulatory body.

Z2.9.5 The *Contractor* procures that the Connected Persons comply with the provisions of this clause Z2.9 and is responsible to the *Employer* for any act or omission of any Connected Person in breach of such obligations.

Z2.9.6 The *Contractor* notifies the *Employer* promptly if the *Contractor* becomes aware of any breach of confidence by a Connected Person and gives the *Employer* all assistance the *Employer* may reasonably require in connection with any proceedings the *Employer* may bring or other steps the *Employer* may take against that Connected Person or any other person for such breach of confidence.

Z2.9.7 The *Contractor* acknowledges that damages would not be an adequate remedy for any breach of this Clause by the *Contractor* and that (without prejudice to all other remedies to which the *Employer* may be entitled to as a matter of law) the *Employer* is entitled to any form of equitable relief to enforce the provisions of this Clause.

Z2.9.8 At the *Employer's* request and in any event upon the termination or expiry of the contract, the *Contractor* promptly delivers to the *Employer* or destroy as the *Employer* may direct all documents and other materials in the possession, custody or control of the *Contractor* (or the relevant parts of such materials) that bear or incorporate the whole or any part of the confidential information and if instructed by the *Employer* in writing, remove all electronically held confidential information, including the purging of all disk-based confidential information and the reformatting of all disks.

Z2.9.9 Except as provided under deeds of warranty required by the *Employer* under Sub-clause Z2.1, the *Contractor* does not (and procures that the Connected Persons do not) without the prior written approval of the *Employer* at any time for any reason disclose to any person or publish or make any statement concerning this contract or the *works* or the Site.

Conflict avoidance and disputes resolution
Z2.10

Z2.10.1 The *Employer*, the *Contractor* and the *Project Manager*:

(a) co-operate with each other in the early identification, notification and avoidance or resolution of any Dispute; and

(b) follow the procedures set out in Schedule 7 of the Framework Contract, for the avoidance and resolution of Disputes.

Z2.10.2 Accordingly, the provisions of Schedule 7 of the Framework Contract have effect.

Adjudication

Z2.11

Z2.11.1 The provisions of clause Z2.10, and those of Schedule 7 of the Framework Contract, are without prejudice to any right(s) of either Party to refer a Dispute to adjudication at any time pursuant to the Act.

Liquidated Damages for Disruption (to the Underground Network)

Z2.12

Z2.12.1 The *Contractor* will pay and/or the *Employer* may deduct from the amount due by way of liquidated damages such sums as may be identified and calculated in accordance with Annex 6 to these conditions of contract in respect of any interference with, disruption to, or closure of the Underground Network or any part thereof which is caused by a failure by the *Contractor* to Provide the Works or a breach of his obligations under this contract.

Responsible Procurement

Z2.13

Z2.13.1 The *Contractor* has regard to the Responsible Procurement Principles and complies at all times with the obligations with regard to the Responsible Procurement Principles set out in the Works Information. Compliance with such obligations and instructions does not constitute a compensation event unless the *Project Manager* issues an instruction and states in his instruction that it constitutes a compensation event.

Crime and Disorder

Z2.14

Z2.14.1 The *Contractor* acknowledges that the *Employer* is under a duty in accordance with Section 17 of the Crime and Disorder Act, 1998 to

- have due regard to the impact of crime, disorder and community safety in the exercise of the *Employer's* duties,
- where appropriate, identify actions to reduce levels of crime and disorder,
- without prejudice to any other obligation imposed on the *Employer*, exercise his functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent, crime and disorder in its area,

and in the performance of the contract the *Contractor* assists and co-operates, and uses reasonable endeavours to procure that his Subcontractors (and sub-sub-contractors) assist and co-operate, with the *Employer* where possible to enable the *Employer* to satisfy his duty.

London Living Wage

Z2.15

Z2.15.1 The *Contractor* acknowledges and agrees that the Mayor, pursuant to section 155 of the GLA Act, has directed the TfL Group (including the *Employer*) to ensure that the London Living Wage is paid to anyone engaged by the TfL Group who is required to perform contractual obligations in Greater London or on the Underground Network.

Z2.15.2 Without prejudice to the generality of Clause Z2.15.1, the *Contractor* will and procures that his Subcontractors (and sub-subcontractors of any tier) will:

(a) ensure that none of his employees engaged in the performance of the *works* in Greater London or on the Underground Network (but not otherwise) for two (2) or more hours of work in any given day in a week, for eight (8) or more consecutive weeks in a year is paid an hourly wage (or equivalent of an hourly wage) less than the London Living Wage,

(b) ensure that none of his employees engaged in the performance of the *works* is paid less than the amount to which they are entitled in their respective contracts of employment,

(c) co-operate and provide all reasonable assistance to the *Employer* and any member of the TfL Group in monitoring the effect of the London Living Wage,

(d) provide to the *Employer* or his nominees such information concerning the London Living Wage as the *Employer* or his nominees may reasonably require from time to time, including (without limitation):

- all information necessary for the *Employer* to confirm that the *Contractor* is complying with his obligations under this clause Z2.15, and
- reasonable evidence that sub-clause Z2.15.2(a) is implemented,

(e) in connection with sub-clause Z2.15.2(d)

- acknowledge and agree that the CCSL may contact and meet with any trade unions representing the employees of the *Contractor* and Subcontractor (and sub-subcontractor of any tier) in order to establish that the obligations in sub-clause Z2.15.2(a) have been complied with, and
- liaise and cooperate with the *Employer* and the CCSL in order to establish that the obligations in sub-clause Z2.15.2(a) have been complied with, and

(f) disseminate on behalf of the *Employer* to his employees engaged in the performance of the *works* such perception questionnaires as the *Employer* may reasonably require from time to time and promptly collates and returns to the *Employer* responses to such questionnaires.

Z2.15.3 For the avoidance of doubt, the *Contractor*:

(a) implements the annual increase in the rate of the London Living Wage, and

(b) procures that his Subcontractors (and sub-subcontractors of any tier) implement the annual increase in the rate of the London Living Wage

on or before 1 April in the year following the publication of the increased rate of the London Living Wage.

Z2.15.4 The *Employer* may in accordance with the audit right set out in clause Z2.5 audit and check the provision of the London Living Wage to the employees of the *Contractor* and Subcontractor (and sub-subcontractor of any tier).

Z2.15.5 Any breach by the *Contractor* of the provisions of this clause Z2.15 is treated as the *Contractor* having substantially failed to comply with his obligations for the purpose of clause 91.2 of this contract.

Data Transparency

Z2.16

Z2.16.1 The *Contractor* acknowledges that the *Employer* is subject to the Transparency Commitment. Accordingly, notwithstanding clauses Z2.19 and Z2.9, the *Contractor* hereby gives his consent for the *Employer* to publish the Contract Information to the general public.

Z2.16.2 The *Employer* may in his absolute discretion redact all or part of the Contract Information prior to its publication. In so doing and in his absolute discretion the *Employer* may take account of the exemptions/exceptions that would be available in relation to information requested under the FOI Legislation. The *Employer* may in his absolute discretion consult with the *Contractor* regarding any redactions to the Contract Information to be published pursuant to clause Z2.16.1. The *Employer* makes the final decision regarding publication and/or redaction of the Contract Information.

Data Protection

Z2.17

Z2.17.1 The *Contractor* complies with all of its obligations under the Data Protection Legislation and, if Processing Personal Data on behalf of the *Employer*, only carries out such Processing to Provide the Works in accordance with this contract. With respect to the Parties' rights and obligations under this contract, the Parties acknowledge that the *Employer* is a Data Controller solely responsible for determining the purposes and manner in which Personal Data is to be Processed and the *Contractor* is a Data Processor.

Z2.17.2 Details of the Employer Personal Data to be Processed by the *Contractor* and the purposes of such Processing are as set out in the Processing Statement, which the Parties complete before any Processing takes place.

Z2.17.3 The *Contractor*:

(a) Processes the Employer Personal Data only in accordance with documented instructions from the *Employer* to perform its obligations under this contract;

(b) uses its reasonable endeavours to assist the *Employer* in complying with its obligations under Data Protection Legislation and does not perform its obligations under this contract in such a way as to cause the *Employer* to breach any of its obligations under Data Protection Legislation to the extent the *Contractor* is aware, or ought reasonably to have been aware, that the same would be a breach of such obligations;

(c) notifies the *Employer* immediately if it determines or is notified that an instruction to Process Personal Data issued to it by the *Employer* is incompatible with any obligations under Data Protection Legislation to the extent the *Contractor* is aware, or ought reasonably to have been aware, that the same would be a breach of such obligations;

(d) maintains, and makes available to the *Employer* on its request, documentation which describes the Processing operations for which it is responsible under this contract including:

- the purposes for which Employer Personal Data is Processed,
- the types of Personal Data and categories of Data Subject involved,
- the source(s) of the Personal Data,
- any recipients of the Personal Data,
- the location(s) of any overseas Processing of Employer Personal Data,
- retention periods for different types of Employer Personal Data and
- where possible a general description of the security measures in place to protect Employer Personal Data.

(e) where requested to do so by the *Employer*, or where Processing Employer Personal Data presents a specific risk to privacy, carries out or assists the *Employer* to carry out a Data Protection Impact Assessment in accordance with guidance issued from time to time by the Information Commissioner (and any relevant requirements detailed in Data Protection Legislation) and makes the results of such an assessment available to the *Employer*;

(f) without prejudice to any cyber security and/or payment card industry data security standard obligations in this contract, takes appropriate technical and organisational security measures that are satisfactory to the *Employer* from time to time, against unauthorised or unlawful Processing of Employer Personal Data and against accidental loss, destruction of, or damage to such Employer Personal Data;

(g) without prejudice to any cyber security and/or payment card industry data security standard obligations in this contract, provides the *Employer* with such information as the *Employer* may from time to time require to satisfy itself of compliance by the *Contractor* (including any Subcontractor) with clauses Z2.17.3(f) and Z2.17.3(h), including, protocols, procedures, guidance, training and manuals. For the avoidance of doubt, this includes a full report recording the results of any privacy or security audit carried out at the request of the *Contractor* itself or the *Employer*;

(h) notifies the *Employer* without undue delay and in any event within 24 hours by written notice with all relevant details reasonably available of any actual or suspected breach of this clause Z2.17, including the unauthorised or unlawful Processing of Employer Personal Data, or its accidental loss, destruction or damage;

(i) having notified the *Employer* of a breach in accordance with clause Z2.17.3(h), keeps the *Employer* properly and regularly informed in writing until the breach has been resolved to the satisfaction of the *Employer*;

(j) fully cooperates as the *Employer* requires with any investigation or audit in relation to Employer Personal Data and/or its Processing including allowing access to premises, computers and other information systems, records, documents and agreements as may be reasonably necessary (whether in relation to Processing pursuant to this contract, in relation to compliance with Data Protection Legislation or in relation to any actual or suspected breach), whether by the *Employer* (or any agent acting on its behalf), any relevant regulatory body, including the Information Commissioner, the police and any other statutory law enforcement agency, and does so both during the contract and after its termination or expiry (for so long as the *Contractor* retains and/or Processes Employer Personal Data);

(k) notifies the *Employer* within two (2) business days if the *Contractor* (including any Subcontractor), receives:

- from a Data Subject (or third party on their behalf):
  - a Subject Access Request (or purported Subject Access Request),
  - a request to rectify, block or erase any Employer Personal Data or
  - any other request, complaint or communication relating to the Employer's obligations under Data Protection Legislation;
- any communication from the Information Commissioner or any other regulatory authority in connection with Employer Personal Data; or
- a request from any third party for disclosure of Employer Personal Data where compliance with such request is required or purported to be required by law;

(l) provides the *Employer* with full cooperation and assistance (within the timescales reasonably required by the *Employer*) in relation to any complaint, communication or request made as referred to in clause Z2.17.3(k), including by promptly providing:

- the Employer with full details and copies of the complaint, communication or request;
- where applicable, such assistance as is reasonably requested by the Employer to enable it to comply with the Subject Access Request within the relevant timescales set out in Data Protection Legislation; and
- where applicable, such assistance as is reasonably required by the Employer to enable it to comply with a request from a Data Subject to rectify, block or erase any Employer Personal Data.

(m) when notified in writing by the *Employer*, supplies a copy of, or information about, any Employer Personal Data. The *Contractor* supplies such information or data to the *Employer* within such time and in such form as specified in the request (such time to be reasonable) or if no period of time is specified in the request, then within two (2) business days from the date of the request;

(n) prepares and securely maintains a record of all categories of Processing activities carried out on behalf of the *Employer* in relation to the Employer Personal Data, as a minimum: (i) its name and contact details and details of a Data Protection Officer (if appointed) or other person with responsibility for data protection compliance; (ii) the categories of Processing it carries out on behalf of the *Employer*; (iii) transfers to Restricted Countries; (iv) a general description of the technical and organisational security measures referred to in this clause Z2.17; and (v) the same information in relation to any Subcontractor, together with its name and contact details and when notified in writing by the *Employer*, complies with any agreement between the *Employer* and any Data Subject in relation to any Processing which causes or is likely to cause substantial and unwarranted damage or distress to such Data Subject, or any court order requiring the rectification, blocking, erasure or destruction of any Employer Personal Data;

(o) if required to do so by Data Protection Legislation, appoints a designated Data Protection Officer; and

(p) makes available to the *Employer* all information necessary to demonstrate compliance with the obligations set out in this clause Z2.17.

Z2.17.4 The *Contractor* does not share Employer Personal Data with any Subcontractor without prior written consent from the *Employer* and only where there is a written contract in place between the *Contractor* and the Subcontractor which requires the Subcontractor to:

(a) only Process Employer Personal Data in accordance with the *Employer's* documented instructions to the *Contractor*; and

(b) comply with the same obligations which the *Contractor* is required to comply with under this clause Z2.17 (and clauses Z2.5 and Z2.9).

The *Contractor* remains responsible and liable to the *Employer* for all acts and omissions of any Subcontractor as if they were its own.

Z2.17.5 The *Contractor* itself, and procures that any Subcontractor:

(a) only Processes Employer Personal Data in accordance with the *Employer's* documented instructions to the *Contractor* and as reasonably necessary to perform this contract in accordance with its terms;

(b) does not Process Employer Personal Data for any other purposes (in whole or part) and specifically, but without limitation, reproduce or refer to it in training materials, training courses, commercial discussions and negotiations with third parties or in relation to proposals or tenders with the *Employer*;

(c) does not Process Employer Personal Data in such a way as to:

- place the *Employer* in breach of Data Protection Legislation,
- expose the *Employer* to the risk of actual or potential liability to the Information Commissioner or Data Subjects,
- expose the *Employer* to reputational damage including adverse publicity;

(d) the *Contractor* does not allow its personnel to access Employer Personal Data unless such access is necessary to Provide the Works;

(e) the *Contractor* takes all reasonable steps to ensure the reliability and integrity of the Connected Persons who can access Employer Personal Data;

(f) the *Contractor* ensures that all Connected Persons who can access Employer Personal Data:

- are informed of its confidential nature,
- are made subject to an explicit duty of confidence,
- understand and comply with any relevant obligations created by either this contract or Data Protection Legislation and
- receive adequate training in relation to the use, care, protection and handling of Personal Data on an annual basis;

(g) does not disclose or transfer Employer Personal Data to any third party without the *Contractor* having obtained the prior written consent of the *Employer* (save where such disclosure or transfer is specifically authorised under this contract);

(h) without prejudice to clause Z2.17.3, wherever the *Contractor* uses any mobile or portable device for the transmission or storage of Employer Personal Data, ensures that each such device encrypts Employer Personal Data; and

(i) complies during the course of this contract with any written retention and/or deletion policy or schedule provided by the *Employer* to the *Contractor* from time to time.

Z2.17.6 The *Contractor* does not, and procures that any Subcontractor does not, Process or otherwise transfer any Employer Personal Data in or to any Restricted Countries without prior written consent from the *Employer* (which consent may be subject to additional conditions imposed by the *Employer*).

Z2.17.7 If, after the Contract Date, the *Contractor (*including any Subcontractor) wishes to Process and/or transfer any Employer Personal Data in or to any Restricted Countries, the following provisions apply:

(a) the *Contractor* submits a written request to the *Employer* setting out details of the following:

- the Employer Personal Data which will be transferred to and/or Processed in any Restricted Countries,
- the Restricted Countries which the Employer Personal Data will be transferred to and/or Processed in,
- any Subcontractor or other third parties who will be Processing and/or receiving Employer Personal Data in Restricted Countries,
- how the *Contractor* ensures an adequate level of protection and adequate safeguards in respect of the Employer Personal Data that will be Processed in and/or transferred to Restricted Countries so as to ensure the *Employer's* compliance with Data Protection Legislation,

(b) in preparing and evaluating such a request, the Parties refer to and comply with applicable policies, procedures, guidance and codes of practice produced by the Parties and/or the Information Commissioner in connection with the Processing of Personal Data in (and/or transfer of Personal Data to) any Restricted Countries;

(c) the *Contractor* complies with any instructions and carries out such actions as the *Employer* may notify in writing when providing its consent to such Processing or transfers, including:

- incorporating standard and/or model clauses (which are approved by the European Commission as offering adequate safeguards under the Data Protection Legislation) into this contract or a separate data processing agreement between the Parties; and
- procuring that any Subcontractor or other third party who will be Processing and/or receiving or accessing the Employer Personal Data in any Restricted Countries enters into a data processing agreement with the Contractor on terms which are equivalent to those agreed between the Employer and the Contractor in connection with the Processing of Employer Personal Data in (and/or transfer of Employer Personal Data to) any Restricted Countries, and which may include the incorporation of the clauses referred to in the bullet point above.

Z2.17.8 The *Contractor* and any Subcontractor (if any), acknowledges:

(a) the importance to Data Subjects and the *Employer* of safeguarding Employer Personal Data and Processing it only in accordance with the *Employer's* instructions and this contract;

(b) the loss and damage the *Employer* is likely to suffer in the event of a breach of this contract or negligence in relation to Employer Personal Data;

(c) any breach of any obligation in relation to Employer Personal Data and/or negligence in relation to performance or non-performance of such obligation is deemed a material breach of this contract and

a substantial failure by the *Contractor* to comply with his obligations;

(d) notwithstanding clause 91.2, if the *Contractor* has committed a material breach under clause Z2.17.8(c) on two or more separate occasions, the *Employer* may at its option:

- withdraw authorisation for Processing by a specific Subcontractor by immediate written notice; or
- terminate the *Contractor's* obligation to Provide the Works in whole or part with immediate written notice to the *Contractor*.

Z2.17.9 Compliance by the *Contractor* with this clause Z2.17 is without additional charge to the *Employer* and compliance with this clause is not a compensation event.

Z2.17.10 Following termination or expiry of this contract or termination of the *Contractor's* obligation to Provide the Works, in each case howsoever arising, the *Contractor*:

(a) may Process the Employer Personal Data only for so long and to the extent as is necessary to properly comply with its non-contractual obligations arising under law (and will then comply with clause Z2.17.10(b));

(b) subject to clause Z2.17.10(a)

- on written instructions from the *Employer* either securely destroys or securely and promptly returns to the *Employer* or a recipient nominated by the *Employer* (in such usable format as and to the extent the *Employer* may reasonably require) the Employer Personal Data or
- in the absence of instructions from the *Employer* after 12 months from the expiry or termination of this contract or termination of the *Contractor's* obligation to Provide the Works securely destroys the Employer Personal Data.

Z2.17.11 Employer Personal Data may not be Processed following termination or expiry of this contract or termination of the *Contractor's* obligation to Provide the Works save as permitted by clause Z2.17.10.

Z2.17.12 For the avoidance of doubt, and without prejudice to clause Z2.17.10, the obligations in this clause Z2.17 apply following termination or expiry of this contract or termination of the *Contractor's* obligation to Provide the Works to the extent the Party concerned retains or Processes Employer Personal Data.

Z2.17.13 The *Contractor* takes reasonable precautions to preserve the integrity of the Employer Data and to prevent any corruption or loss of the Employer Data.

Z2.17.14 The *Contractor* indemnifies the *Employer* and members of the TfL Group from and against all Losses resulting from any breach by the *Contractor* or any Subcontractor of the Data Protection Legislation or clause Z2.17. The *Contractor's* liability in respect of any breach of this clause Z2.17 insofar as they relate to fines, court awards, settlements and legal costs is limited to a total of £10,000,000.

Conflict of Interest
Z2.18

Z2.18.1 The *Contractor* acknowledges and agrees that he does not have any interest in any matter where there is or is reasonably likely to be a conflict of interest

with Providing the Works or any member of the TfL Group, save to the extent fully disclosed to and approved in writing by the *Employer*.

Z2.18.2 The *Contractor* undertakes ongoing and regular conflict of interest checks throughout the duration of the contract and in any event not less than once in every six months and notifies the *Employer* in writing immediately on becoming aware of any actual or potential conflict of interest with Providing the Works or any member of the TfL Group and works with the *Employer* to do whatever is necessary (including the separation of staff working and/or data relating to the *works* from the matter in question) to manage such conflict to the *Employer's* satisfaction and provided that, where the *Employer* is not so satisfied (in his absolute discretion), the *Employer* is entitled to terminate the contract.

Freedom of Information

Z2.19

Z2.19.1 The *Contractor* acknowledges that the *Employer*:

- is subject to FOI Legislation and agrees to assist and co-operate with the *Employer* to enable the *Employer* to comply with his obligations under the FOI Legislation, and
- may be obliged under the FOI Legislation to disclose Information without consulting and/or obtaining consent from the *Contractor*.

Z2.19.2 Without prejudice to the generality of Clause Z2.19.1, the *Contractor* agrees and procures that his Subcontractors will agree to:

- transfer to the *Employer* or such other persons as may be notified by the *Employer* to the *Contractor* each Information Request relevant to this contract, the *works* or any member of the TfL Group that the *Contractor* or his Subcontractor (as the case may be) receive as soon as practicable and in any event within 3 days of receiving such Information Request; and
- in relation to Information held by the *Contractor* on behalf of the *Employer*, provide the *Employer* with details about and/or copies of all such Information that the *Employer* requests and such details and/or copies are provided within 6 days of a request from the *Employer* (or such other period as the *Employer* may reasonably specify), and in such forms as the *Employer* may reasonably specify.

Z2.19.3 The *Employer* (as may be directed by TfL) is responsible for determining whether Information is exempt or excepted information under the FOI Legislation and for determining what Information (if any) will be disclosed in response to an Information Request in accordance with the FOI Legislation. The *Contractor* does not himself respond to any person making an Information Request, save to acknowledge receipt, unless expressly authorised to do so in writing by the *Employer*.

Z2.19.4 The *Contractor* acknowledges that the *Employer* (as may be directed by TfL) may be obliged under FOI Legislation to disclose Information without consulting or obtaining consent from the *Contractor*.

Criminal Record Declarations

Z2.20

Z2.20.1 The *Contractor* procures from each Relevant Individual (as the case may be) a declaration that he has no Relevant Convictions (**"Declaration"**) or disclosure of any Relevant Convictions he has committed. A Declaration is procured prior to a Relevant Individual carrying out any aspect of the *works.* The *Contractor* confirms to the *Employer* in writing on request and in any event not less than once in every year that each Relevant Individual has provided a

Declaration. The *Contractor* procures that a Relevant Individual notifies the *Contractor* immediately if he commits a Relevant Conviction throughout the duration of this contract and the *Contractor* notifies the *Employer* in writing immediately on becoming aware that a Relevant Individual has committed a Relevant Conviction.

Z2.20.2 The *Contractor* is not permitted to engage or allowed to act on behalf of the *Contractor* or any Subcontractor in the performance of any aspect of the *works* any Relevant Individual who has disclosed a Relevant Conviction.

Z2.20.3 The *Employer* may in accordance with the audit rights set out or referred to in Clause Z2.5 audit and check any and all such records as are necessary or referred to in order to monitor compliance with this Clause at any time during performance of this contract.

Z2.20.4 If the *Contractor* fails to comply with the requirements under Clauses Z2.20.1 and/or Z2.20.2, the *Employer* may, without prejudice to his rights under Clause 91.8, serve notice on the *Contractor* requiring the *Contractor* to immediately remove or procure the removal of (as the case may be) any Relevant Individual who has not provided a Declaration from the Site with immediate effect and take such steps as are necessary to ensure that such Relevant Individual has no further involvement with the carrying out of the *works* unless (in the case of non-compliance with Clause Z2.20.1) within 7 days of receipt of the notice the *Contractor* confirms to the *Employer* he has procured all of the Declarations required under Clause Z2.20.1.

Z2.20.5 A persistent breach of Clause Z2.20.1 and/or Z2.20.2 by the *Contractor* constitutes a material breach of this contract and entitles the *Employer* to terminate the contract in whole or in part with immediate effect in accordance with Clause 91.8.

Z2.20.6 If either Party becomes aware that a Relevant Individual has committed a Relevant Conviction, the *Contractor* removes or procures the removal (as the case may be) of such Relevant Individual from the Site with immediate effect and take such steps as are necessary to ensure that such Relevant Individual has no further involvement with the carrying out of the *works*.

Z2.20.7 Nothing in this Clause Z2.20 in any way waives, limits or amends any obligation of the *Contractor* to the *Employer* arising under this contract and the *Contractor's* obligation to Provide the Works remain in full force and effect and the *Contractor* cannot claim any extra costs or time as a result of any actions under this Clause Z2.20.

Best Value

Z2.21

Z2.21.1 The *Contractor* acknowledges that TfL is a best value authority for the purposes of the Local Government Act 1999 and as such TfL and the *Employer* are required to make arrangements to secure continuous improvement in the way they exercise their functions, having regard to a combination of economy, efficiency and effectiveness. The *Contractor* assists the *Employer* (and, where appropriate, TfL) to discharge this duty and agrees to negotiate in good faith any changes to this contract in order for the *Employer* (and, where appropriate, TfL) to achieve best value.

Prohibited Acts

Z2.22

Z2.22.1 The *Contractor* does not and uses his reasonable endeavours to procure that his Subcontractors (and sub-subcontractors of any tier) do not commit any Prohibited Act.

Z2.22.2 Without prejudice to his rights under Clause Z2.5 the *Employer* may audit and check any and all such records as are necessary in order to monitor compliance with this clause at any time during performance of this contract and during the 12 years thereafter.

Z2.22.3 If the *Contractor*, any of his shareholders or any Subcontractor or anyone employed by or acting on behalf of the *Contractor* or any of his agents commits any Prohibited Act, this constitutes a material breach of this contract and entitles the *Employer* to terminate the contract in whole or in part with immediate effect in accordance with clause 91.8.

Z2.22.4 If a Prohibited Act is committed by an employee of the *Contractor* or by any Subcontractor (or employee or agent of such Subcontractor) then the *Employer* may (at his sole discretion) choose to serve a warning notice upon the *Contractor* instead of exercising his right to terminate with immediate effect and unless, within thirty (30) days of receipt of such warning notice, the *Contractor* removes or procures the removal of the relevant employee or Subcontractor (as the case may be) from the Site and (if necessary) procures the provision of the affected *works* by another person or Subcontractor this constitutes a material breach of this contract and entitles the *Employer* to terminate the contract in whole or in part with immediate effect in accordance with clause 91.8.

CDM Regulations

Z2.23

Z2.23.1 The *Employer* appoints the *Contractor* to be the principal contractor and (if so specified within the Contract Data) Principal Designer for the purposes of the *works*.

Z2.23.2 Each Party undertakes to the other that it has complied and will comply with its statutory duties under the CDM Regulations in relation to the *works*.

Z2.23.3 Before the date of Completion of each *section* the *Contractor* is to provide:

- (where the *Contractor* is appointed as the Principal Designer) to the *Employer* two paper copies and two electronic copies of the health and safety file (updated for each *section* of the *works*) conforming to the requirements of the CDM Regulations; or
- (where the *Contractor* is not appointed as the Principal Designer) to the Principal Designer such information as the Principal Designer reasonably requires the *Contractor* to provide for inclusion in the health and safety file.

Not used

Z2.24

Not used

Z2.25

As-builts etc.

Z2.25

Z2.25.1 At or before (and as a condition of) Completion of the *works* or any *section*, the *Contractor* shall without charge provide to the *Project Manager* all requisite:

- as-built documentation and final issue drawings and specifications; and
- operation and maintenance manuals,

as are specified in the Standards (including without limitation the *Employer's* Category 1 Standard S1900 (Quality Inspection Completion Certificate)) and any and all additional requirements of the Works Information.

Site conditions

Z2.26

Z2.26.1 The *Employer* gives no warranty or representation as to the condition of the Site, any existing structures, plant or assets or any adjoining property or any services in or under the Site or as to the accuracy or sufficiency of any soils or survey data or other data contained in the Works Information or otherwise made available to the *Contractor* by the *Employer*, or as to any recommendations or conclusions made or reached in any such document.

Approvals / consents etc.

Z2.27

Z2.27.1 Subject to clause Z2.27.2, the *Contractor* obtains any and all approvals, licences and consents required from Others, and complies with their lawful requirements, for or in connection with Providing the Works.

Z2.27.2 The *Employer* shall be responsible for obtaining any and all approvals, licences or consents which are stated in the Works Information or in any relevant Standards as being for the *Employer* to obtain.

Where the *Employer* is so responsible, the *Contractor* shall provide the *Employer* with all information, drawings or other documents as and when reasonably requested by the *Employer* which are necessary for the *Employer* to obtain the requisite approvals, licences and consents.

Z2.27.3 The *Contractor* is not entitled to a compensation event as a result of its compliance with the requirements of this clause Z2.27.

Part 3 - Option Clauses

DISPUTE RESOLUTION

Option W1 - Not used

Option W2 – Not used (see Z2.10 and Z2.11, and Schedule 7 of the Framework Contract)

SECONDARY OPTION CLAUSES

Option X1: Price adjustment for inflation

Defined terms **X1**

X1.1 (a) The Base Date Index (B) is the latest available index before the *base date*.

(b) The Latest Index (L) is the latest available index before the date of assessment of an amount due.

(c) The Price Adjustment Factor is the total of the products of each of the proportions stated in the Contract Data multiplied by (L – B)/B for the index linked to it.

Price Adjustment Factor X1.2 If an index is changed after it has been used in calculating a Price Adjustment Factor, the calculation is repeated and a correction included in the next assessment of the amount due.

The Price Adjustment Factor calculated at the Completion Date for the whole of the *works* is used for calculating price adjustment after this date.

Compensation events X1.3 The Defined Cost for compensation events is assessed using the

- Defined Cost current at the time of assessing the compensation event adjusted to *base date* by dividing by one plus the Price Adjustment Factor for the last assessment of the amount due and
- Defined Cost at *base date* levels for amounts calculated from rates stated in the Contract Data for employees and Equipment.

Price adjustment Option A X1.4 Each amount due includes an amount for price adjustment which is the sum of

- the change in the Price for Work Done to Date since the last assessment of the amount due multiplied by the Price Adjustment Factor for the date of the current assessment,
- the amount for price adjustment included in the previous amount due and
- correcting amounts, not included elsewhere, which arise from changes to indices used for assessing previous amounts for price adjustment.

Option X2: Changes in the law

Changes in the law **X2**

Z1.40A.1 X2.1 A change in the law of the country in which the Site is located is a compensation event if it occurs after the Contract Date. The *Project Manager* may notify the *Contractor* of a compensation event for such a change in the law and instruct him to submit quotations. If the effect of a compensation event which is a change in the law is to reduce the total Defined Cost, the Prices are reduced.

X2.2 A change in guidance of the country in which the Site is located and issued by Public Health England (or any successor body) in connection with the Coronavirus Pandemic is a compensation event if it occurs after the Effective Date. The *Project Manager* may notify the *Contractor* of a compensation event for such a change in the law and instruct him to submit quotations. If the effect

of a compensation event which is a change in such guidance is to reduce the total Defined Cost, the Prices are reduced.

For the purpose of this clause X2.2, “Effective Date” shall mean 1 August 2021.

Option X3 - Not used

Option X4 - Not used

Option X5: Sectional Completion

Sectional Completion **X5**

X5.1 In these *conditions of contract*, unless stated as the whole of the *works*, each reference and clause relevant to

- the *works*,
- Completion and
- Completion Date

applies, as the case may be, to either the whole of the *works* or any *section* of the *works*.

Option X6: Bonus for early Completion

Bonus for early Completion **X6**

X6.1 The *Contractor* is paid a bonus calculated at the rate stated in the Contract Data for each day from the earlier of

- Completion and
- the date on which the *Employer* takes over the *works*

until the Completion Date.

Option X7: Delay damages

Delay damages **X7**

X7.1 The *Contractor* pays delay damages at the rate stated in the Contract Data from the Completion Date for each day until the earlier of

- Completion and
- the date on which the *Employer* takes over the *works* and
- the date on which the *Project Manager* issues a termination certificate or the date on which the contract is otherwise terminated for any reason.

X7.2 If the Completion Date is changed to a later date after delay damages have been paid, the *Employer* repays the overpayment of damages with interest. Interest is assessed from the date of payment to the date of repayment and the date of repayment is an assessment date.

X7.3 If the *Employer* takes over a part of the *works* before Completion, the delay damages are reduced from the date on which the part is taken over. The *Project Manager* assesses the benefit to the *Employer* of taking over the part of the *works* as a proportion of the benefit to the *Employer* of taking over the whole of the *works* not previously taken over. The delay damages are reduced in this proportion.

Option X12 - Not used

Option X13: Performance bond

Performance bond **X13**

Z1.43.1 X13.1 The *Contractor* gives the *Employer* a performance bond, provided by a bank or insurer which the *Project Manager* has accepted, for the amount stated in the

Contract Data and in the form set out in Annex 2. A reason for not accepting the bank or insurer is that it is not licensed to carry out surety business in the United Kingdom or that its commercial position is not strong enough to carry the bond. Its commercial position will not (unless the *Project Manager* agrees otherwise) be strong enough if it is rated less than 'A+' (Standard & Poors) (or its equivalent from each of the ratings agencies which rate the bond provider). The bond is given at the Contract Date~~,~~ ~~–~~unless the *Employer* (in its sole discretion) gives its prior written consent to the bond being given by a later date.

Z1.43.2 X13.2 If a performance bond expires in accordance with its terms prior to the issue of the Defects Certificate or the provider of a performance bond no longer holds a long-term credit rating of at least 'A' (Standard & Poors) (or its equivalent from each of the ratings agencies which rate the bond provider) and if the *Employer* so requests, the *Contractor* provides to the *Employer* a bond in the same form and amount (net of any claims previously made on the bond) as that originally provided and from a bank or insurer which the *Project Manager* has accepted:

- in the case of an expired bond, not later than 7 days before the expiry of the original bond; or
- in the case of a downgraded credit rating, within 35 da's of the *Employer's* request for a replacement bond.

Failure by the *Contractor* to provide to the *Employer* a replacement bond will constitute default under the contract sufficient to enable the *Employer* to make a demand under the original bond or terminate the contra–t.

Option X14 - Not used

Option X15 - Limitation of the *Contractor's* liability for his design to reasonable skill and care

The *Contractor's* design **X15**

Z1.44.1 X15.1 The *Contractor* is not liable for Defects in the works due to his design so far as he proves that he used all the reasonable skill ~~and~~ care and diligence normally used by an appropriate and competent professional designer experienced in carrying out design works similar to those included in the works in connection with projects of a similar size, scope and complexity to the Project to ensure that his design complied with the Works Information.

X15.2 If the *Contractor* corrects a Defect for which he is not liable under this contract it is a compensation event.

Option X16 - Not used

Option X17 - Not used

Option X18: Limitation of liability

Limitation of liability **X18**

Z1.46.1 X18.1 Without prejudice to the *Employer's* entitlement to delay damages (Option X7), or liquidated damages for disruption pursuant to Z2.12, the *Contractor*'s liability to the *Employer* for the *Employer*'s indirect or consequential loss is limited to the amount stated in the Contract Data.

X18.2 For any one event, the liability of the *Contractor* to the *Employer* for loss of or damage to the *Employer*'s property is limited to the amount stated in the Contract Data.

Z1.46.2 X18.3 The *Contractor*'s liability to the *Employer* for Defects due to his design which are not listed on the Defects Certificate is not limited by the issue of the Defects Certificate and is in addition to any damages stated in this contract for delay or disruption. The Defects Certificate is not evidence of the *Contractor's* having

complied with core clause 2 (the *Contractor's* main obligations) or core clause 4 (Testing and Defects).

Z1.46.3 X18.4 The *Contractor*'s total liability to the *Employer* for all matters arising under or in connection with this contract, other than the excluded matters, is limited to the amount stated in the Contract Data and applies in contract, tort or delict and otherwise to the extent allowed under the *law of the contract*.

The excluded matters are amounts payable by the *Contractor* as stated in this contract for

- loss of or damage to the *Employer*'s property,
- liquidated damages for disruption (Z2.12),
- delay damages if Option X7 applies
- the matters listed in X18.6.]

Z1.46.4 X18.5 Not used.

Z1.46.5 X18.6 The limitations in X18.1, X18.2 and X18.4 do not apply to any liability for:

- death or bodily injury;
- Losses caused by fraudulent acts or acts of a criminal nature;
- Losses against which the *Contractor* is entitled to an indemnity under any policy of insurance other than professional indemnity insurance;
- Losses against which the *Employer* or any member of the TfL Group is entitled to an indemnity under clause 51.6;
- any other Losses against which the *Employer* or any member of the TfL Group is entitled to an indemnity under clause 83.1, in respect of;
    - any infringement of intellectual property right of any third party (including a Subcontractor) arising out of the design, construction or use of the works or the project;
    - any Losses from the *Contractor's* failure to account for or to pay any VAT relating to payments made to the *Contractor* under this contract in accordance with clause 51.6,
    - any Losses arising from any nuisance or interference referred to in clause Z2.6 and which could have been avoided by the *Contractor* using all reasonable and practical means;
    - Losses caused by the *Contractor* breaching any of clauses 27.4, Z2.8 (Assignment and novation), Z2.9 (Confidentiality) or Z2.22 (Prohibited Acts); or
    - Losses arising from a Change of Control by the *Contractor* to which the *Employer* has not consented;
- Losses caused by the *Contractor's* breach of Clause Z2.17;
- costs in any proceedings; or
- interest on any debt or damages.

Option X20: Key Performance Indicators

Incentives X20.1 A Key Performance Indicator is an aspect of performance by the *Contractor* for which a target is stated in the Incentive Schedule. The Incentive Schedule is the *incentive schedule* unless later changed in accordance with this contract.

X20.2 From the *starting date* until the Defects Certificate has been issued, the *Contractor* reports to the *Project Manager* his performance against each of the Key Performance Indicators. Reports are provided at the intervals stated in the Contract Data and include the forecast final measurement against each indicator.

X20.3 If the *Contractor*'s forecast final measurement against a Key Performance Indicator will not achieve the target stated in the Incentive Schedule, he submits to the *Project Manager* his proposals for improving performance.

X20.4 Not used.

X20.5 The *Employer* may add a Key Performance Indicator to the Incentive Schedule or revise any existing Key Performance Indicator, by mutual agreement.

Single Point Design Responsibility

X21

Z1.47

X21.1 In this Option, "***Employer's* Design Information**" means any drawings, proposals, specifications, method statements, designs, plans, schemes or other documents, or concepts prepared or developed by the *Employer* and included in the Works Information.

X21.2 The *Contractor* is deemed to have scrutinized, prior to the Contract Date, the *Employer's* Design Information. The *Contractor* is responsible for the design of the *works* and for the accuracy of such *Employer's* Design Information except as stated in clauses X21.3 and X21.4 below.

X21.3 Save as provided in clause X21.4, the *Employer* is not responsible for any error, inaccuracy or omission of any kind in the *Employer's* Design Information as originally included in the contract, and does not give any representation or warranty as to the accuracy, status or completeness of the *Employer's* Design Information.

X21.4 The *Employer* is responsible for the correctness of the following elements of the *Employer's* Design Information:

(a) Plant and Materials, and data and information, which are stated in the Works Information as being the responsibility of the *Employer*,

(b) definitions of intended purposes of the *works* or any part thereof, and

(c) criteria for the testing and performance of the completed *works*.

X21.5 Save where the Works Information specifies otherwise, insofar as there is a dependency, interconnection (structural or otherwise) or any other design, aesthetic, performance, life cycle or physical connection / relationship as between (i) any *Employer's* Design Information for which the *Employer* is responsible pursuant to clause X21.4 and (ii) any part of the *works* for which the *Contractor* has design responsibility, the *Contractor* checks such *Employer's* Design Information and co-ordinates and integrates its design accordingly, such that the *works* are (upon Completion) fully functioning and co-ordinated, and in conformance will all relevant requirements of this contract.

X21.6 Where there is a mistake, inaccuracy or discrepancy in or omission from the *Employer's* Design Information, or the Works Information provided by the *Contractor*, the *Contractor* informs the *Project Manager* in writing of his proposed amendment to remove the mistake, inaccuracy, discrepancy or omission. Within two weeks, the *Project Manager* may consent to the *Contractor's* proposed amendment or comment in writing on such an amendment provided that the *Project Manager* does not unreasonably withhold his consent to a proposed amendment. The *Contractor* takes account of such comments and resubmits his proposed amendment to the *Project Manager*. Such process is repeated until the *Project Manager* accepts the *Contractor's* proposed amendment.

X21.7 The following do not give rise to a compensation event:

- anything which is the *Contractor's* responsibility as set out in this Option X21;

- any comment, failure to comment or delay in commenting by the *Project Manager* in connection with this Option X21 (which is also not treated as an act of prevention or breach of contract by the *Employer*);
- any discrepancy, mistake, inaccuracy in, or omission from, the *Contractor's* design and/or the *Employer's* Design Information; or
- any change made to the *Employer's* Design Information at the *Contractor's* instigation or so as to enable the *Contractor* to Provide the Works or made to comply with other Works Information.

X21.8 The *Contractor* pays (and the *Employer* is entitled to recover from the *Contractor*) the *Employer's* reasonably and necessarily incurred costs of making any change to any Employer's Design Information which is required / made at the *Contractor's* instigation or so as to enable the *Contractor* to Provide the Works or to comply with other Works Information or by reason of any Defect or any breach of this contract on the part of the *Contractor*.

Novation of Associated Contracts **X22** **Not used**

Key Person Succession Plan **X23**

Z1.49

X23.1 If a key person succession plan is stated in the Works Information to be applicable to the *works*, then the *Contractor* complies with the provisions set out in the Works Information regarding the appointment and replacement of key persons in accordance with the key person succession plan.

X23.2 The *Contractor* submits his key person succession plan to the *Project Manager* for acceptance in accordance with the Works Information. A reason for not accepting a key person succession plan is that it does not contain the information required by the Works Information and/or a key person named in the key person succession plan does not have acceptable competency, qualifications or experience.

X23.3 Save where a key person is removed pursuant to sub-clause 24.2 or for other reasons which the *Project Manager* considers are outside the *Contractor's* reasonable control, if a key person:

- ceases to be employed to do the job stated in the Contract Data; and/or
- the *Contractor* fails to comply with an accepted key person succession plan,

the salary and expense costs associated with the replacement key person during the relevant *handover period* are disregarded for the purposes of calculating Defined Cost, unless the *Project Manager* decides to reduce or waive this requirement.

OPTION Y

Option Y(UK)1: Project Bank Account

Definitions	**Y(UK)1**	
	Y1.1	(1) The Authorisation is a document authorising the *project bank* to make payments to the *Contractor* and Named Suppliers. (2) Named Suppliers are *named suppliers* and other Suppliers who have signed the Joining Deed. (3) Project Bank Account is the account used to receive payments from the *Employer* and the *Contractor* and make payments to the *Contractor* and Named Suppliers. (4) A Supplier is a person or organisation who has a contract to • construct or install part of the *works*, • provide a service necessary to Provide the Works or • supply Plant and Materials for the *works*. (5) Trust Deed is an agreement in the form set out in the contract which contains provisions for administering the Project Bank Account. (6) Joining Deed is an agreement in the form set out in the contract under which the Supplier joins the Trust Deed.
Project Bank Account	Y1.2	The *Contractor* establishes the Project Bank Account with the *project bank* within three weeks of the Contract Date.
	Y1.3	Unless stated otherwise in the Contract Data, the *Contractor* pays any charges made and is paid any interest paid by the *project bank*. The charges and interest by the *project bank* are not included in Defined Cost.
	Y1.4	The *Contractor* submits to the *Project Manager* for acceptance details of the banking arrangements for the Project Bank Account. A reason for not accepting the banking arrangements is that they do not provide for payments to be made in accordance with this contract. The *Contractor* provides to the *Project Manager* copies of communications with the *project bank* in connection with the Project Bank Account.
Named Suppliers	Y1.5	The *Contractor* includes in his contracts with Named Suppliers the arrangements in this contract for the operation of the Project Bank Account and Trust Deed. The *Contractor* notifies the Named Suppliers of the details of the Project Bank Account and the arrangements for payment of amounts due under their contracts.
	Y1.6	The *Contractor* submits proposals for adding a Supplier to the Named Suppliers to the *Project Manager* for acceptance. A reason for not accepting is that the addition of the Supplier does not comply with the Works Information. The *Employer*, the *Contractor* and the Supplier sign the Joining Deed after acceptance.
Payments	Y1.7	On or before each assessment date, the *Contractor* submits to the *Project Manager* an application for payment, and shows in the application the amounts due to Named Suppliers in accordance with their contracts.

	Y1.8	Within the time set out in the banking arrangements to allow the *project bank* to make payment to the *Contractor* and Named Suppliers in accordance with the contract, • the *Employer* makes payment to the Project Bank Account of the amount which is due to be paid under the contract and • the *Contractor* makes payment to the Project Bank Account of any amount which the *Employer* has notified the *Contractor* he intends to withhold from the certified amount and which is required to make payment to Named Suppliers.
	Y1.9	The *Contractor* prepares the Authorisation, setting out the sums due to Named Suppliers as assessed by the *Contractor* and to the *Contractor* for the balance of the payment due under the contract. After signing the Authorisation, the *Contractor* submits it to the *Project Manager* no later than four days before the final date for payment. The *Employer* signs the Authorisation and submits it to the *project bank* no later than one day before the final date for payment.
	Y1.10	The *Contractor* and Named Suppliers receive payment from the Project Bank Account of the sums set out in the Authorisation as soon as practicable after the Project Bank Account receives payment.
	Y1.11	A payment which is due from the *Contractor* to the *Employer* is not made through the Project Bank Account.
Effect of payment	Y1.12	Payments made from the Project Bank Account are treated as payments from the *Employer* to the *Contractor* in accordance with this contract or from the *Contractor* or *Subcontractor* to Named Suppliers in accordance with their contracts as applicable. A delay in payment due to a failure of the *Contractor* to comply with the requirements of this clause is not treated as late payment under this contract.
Trust Deed	Y1.13	The *Employer*, the *Contractor* and *named suppliers* sign the Trust Deed before the first assessment date.
Termination	Y1.14	If the *Project Manager* issues a termination certificate, no further payment is made into the Project Bank Account.

Trust Deed

This agreement is made between the *Employer*, the *Contractor* and the Named Suppliers.

Terms in this deed have the meanings given to them in the contract between . . . . . and
. . . . . for . . . . . (the *works*).

Background

The *Employer* and the *Contractor* have entered into a contract for the *works.*

The Named Suppliers have entered into contracts with the *Contractor* or a Subcontractor in connection with the *works*.

The *Contractor* has established a Project Bank Account to make provision for payment to the *Contractor* and the Named Suppliers.

Agreement

The parties to this deed agree that

- sums due to the *Contractor* and Named Suppliers and set out in the Authorisation are held in trust in the Project Bank Account by the *Contractor* for distribution to the *Contractor* and Named Suppliers in accordance with the banking arrangements applicable to the Project Bank Account,
- further Named Suppliers may be added as parties to this deed with the agreement of the *Employer* and *Contractor.* The agreement of the *Employer* and *Contractor* is treated as agreement by the Named Suppliers who are parties to this deed,
- this deed is subject to the law of the contract for the *works*,
- the benefits under this deed may not be assigned.

Executed as a deed on . . . . . .

by

. . . . . (*Employer*)
. . . . . (*Contractor*)
. . . . . .
. . . . . .
. . . . . .
. . . . . .
(Named Suppliers)

Joining Deed

This agreement is made between the *Employer*, the *Contractor* and . . . . . (the Additional Supplier).

Terms in this deed have the meanings given to them in the contract between . . . . . and . . . . . for . . . . . (the *works*).

Background

The *Employer* and the *Contractor* have entered into a contract for the *works.*

The Named Suppliers have entered into contracts with the *Contractor* or a Subcontractor in connection with the *works*.

The *Contractor* has established a Project Bank Account to make provision for payment to the *Contractor* and the Named Suppliers.

The *Employer*, the *Contractor* and the Named Suppliers have entered into a deed as set out in Annex 1 (the Trust Deed), and have agreed that the Additional Supplier may join that deed.

Agreement

The Parties to this deed agree that

- the Additional Supplier becomes a party to the Trust Deed from the date set out below,
- this deed is subject to the law of the contract for the *works*,
- the benefits under this deed may not be assigned.

Executed as a deed on . . . . . .

by

. . . . . (*Employer*)

. . . . . (*Contractor*)

. . . . . (Additional Supplier)

Option Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

Definitions **Y(UK)2**

Z1.54. Y2.1 (1) The Act is The Housing Grants, Construction and Regeneration Act 1996 as amended by the Local Democracy, Economic Development and Construction Act 2009.

(2) A period of time stated in days is a period calculated in accordance with Section 116 of the Act.

Suspension of performance Y2.4 If the *Contractor* exercises his right under the Act to suspend performance, it is a compensation event.

Option Y(UK)3: The Contracts (Rights of Third Parties) Act 1999

Y(UK)3

Third Party Rights **Y3.1 A person or organisation who is not one of the Parties may enforce a term of this contract under the Contracts (Rights of Third Parties) Act 1999 only if the term and the person or organisation are stated in the Contract Data.**

Option Z: *Additional conditions of contract*

Additional conditions of contract The *additional conditions of contract* stated in the Contract Data are part of this contract and incorporated into these consolidated conditions of contract.

Z1.55.1

Part 4 - Schedule of Cost Components

SHORTER SCHEDULE OF COST COMPONENTS

Z1.57.1

An amount is included only in one cost component and only if it is incurred in order to Provide the Works.

People **1** The following components of the cost of

- people who are directly employed by the *Contractor,* and whose normal place of working is within the Working Areas,
- people who are directly employed by the *Contractor,* and whose normal place of working is not within the Working Areas but who are working in the Working Areas and
- people who are not directly employed by the *Contractor* but are paid for by him according to the time worked while they are within the Working Areas.

11 Amounts paid by the *Contractor* including those for meeting the requirements of the law (save for employer's liability insurance) and for pension provision.

Equipment **2** The following components of the cost of Equipment which is used within the Working Areas (including the cost of accommodation but excluding Equipment cost covered by the percentage for people overheads).

21 Amounts for Equipment which is in the published list stated in the Contract Data. These amounts are calculated by applying the percentage adjustment for listed Equipment stated in the Contract Data to the rates in the published list and by multiplying the resulting rate by the time for which the Equipment is required.

22 Amounts for Equipment listed in the Contract Data which is not in the published list stated in the Contract Data. These amounts are the rates stated in the Contract Data multiplied by the time for which the Equipment is required.

23 The time required is expressed in hours, days, weeks or months consistently with the list of items of Equipment in the Contract Data or with the published list stated in the Contract Data.

24 Unless the item is in the published list and the rate includes the cost component, payments for

- transporting Equipment to and from the Working Areas other than for repair and maintenance,
- erecting and dismantling Equipment and
- constructing, fabricating or modifying Equipment as a result of a compensation event.

25 Unless the item is in the published list and the rate includes the cost component, the purchase price of Equipment which is consumed.

26 Unless included in the rate in the published list, the cost of operatives is included in the cost of people.

27 Amounts for Equipment which is neither in the published list stated in the Contract Data nor listed in the Contract Data, at competitively tendered or open market rates, multiplied by the time for which the Equipment is required.

Plant and Materials **3** The following components of the cost of Plant and Materials.

31 Payments for

- purchasing Plant and Materials,

- delivery to and removal from the Working Areas,
- providing and removing packaging and
- samples and tests.

32 Cost is credited with payments received for disposal of Plant and Materials unless the cost is disallowed.

Charges **4** The following components of the cost of charges paid by the *Contractor*.

41 A charge calculated by applying the percentage for people overheads stated in the Contract Data to people item 11 to cover the costs of

- payments for the provision and use in the Working Areas of water, gas and electricity,
- payments for buying or leasing land, compensation for loss of crops or buildings, royalties, inspection certificates, charges for access to the Working Areas, facilities for visits to the Working Areas by Others and
- payments for the provision and use of equipment, supplies and services (excluding accommodation) for catering, medical facilities and first aid, recreation, sanitation, security, copying, telephone, telex, fax, radio, CCTV, surveying and setting out, computing, and hand tools not powered by compressed air.

42 Payments for cancellation charges arising from a compensation event.

43 Payments to public authorities and other properly constituted authorities of charges which they are authorised to make in respect of the *works*.

44 Consumables and equipment provided by the *Contractor* for the *Project Manager*'s and *Supervisor*'s office.

45 Specialist services.

46 Payments to a surety for the provision of any performance bond required under Option X13 if Option X13 is used.

Manufacture and fabrication **5** The following components of the cost of manufacture and fabrication of Plant and Materials, which are

- wholly or partly designed specifically for the *works* and
- manufactured or fabricated outside the Working Areas.

51 Amounts paid by the *Contractor*.

Design **6** The following components of the cost of design of the *works* and Equipment done outside the Working Areas.

61 The total of the hours worked by employees multiplied by the hourly rates stated in the Contract Data for the categories of employees listed.

62 An amount for overheads calculated by multiplying this total by the percentage for design overheads stated in the Contract Data.

63 The cost of travel to and from the Working Areas for the categories of design employees listed in the Contract Data.

Insurance **7** The following are deducted from cost

- costs against which this contract required the *Contractor* to insure
- other costs paid to the *Contractor* by insurers and
- the cost of excess payments or deductibles.

Part 5 – Supplementary Notes

SUPPLEMENTARY NOTES TO SHORTER SCHEDULE OF COST COMPONENTS

The following notes should be read in conjunction with the relevant definitions of Defined Cost and the Shorter Schedule of Cost Components. Without prejudice to the effect of clause 52.1 (by virtue of which all items not included in the Defined Cost are deemed to be included in the Fee):

- **Part A** of the notes provides some additional clarification as to what will be considered Defined Cost.
- **Part B** contains notes applicable to all cost components including requirements in relation to the presentation of costs by the *Contractor*, pre-conditions for costs reasonably incurred and requirements for the verification of costs by the *Employer*.

Part A Notes

Section 1: People

Wages, salaries and amounts paid by the *Contractor*

Amounts paid by the *Contractor* do not include any overheads or profit paid with respect to people employed or seconded from group companies.

Payments made to people for bonuses and incentives:

Only those bonuses and incentive payments which have been made in relation to performance in Providing the Works will be considered to be Defined Cost. There must be clear identification that any bonus and incentive payments made are related to the achievement of pre-agreed performance criteria.

Any bonus or incentive payment which has been made in respect of the following is not included in the Defined Cost:

- bonus or incentive payment which is not linked to Providing the Works
- any bonus or incentive payment which exceeds 10% of the base salary cost.

Section 7: Insurance

Excess payments or deductibles on all insurance policies relating to this contract are not considered Defined Cost.

Part B Notes

1 - Reasonably Incurred Costs

Costs are only considered reasonably incurred if they meet the following criteria:

- the *Contractor* can demonstrate that they represent competitive market rates;
- they are not included w'ithin the *Contractor's* Fee or overhead percentages;
- they have been captured within systems for the collection of data either accepted by the *Project Manager* or stated in the Works Information.

3 - Cost Verification

An audit of the *Contractor's* financial controls and compliance procedures specified in this contract will be carried out by the *Employer* or his representatives to ensure the controls are operating effectively.

Without prejudice to the requirement of Z2.5, the *Employer* or his representatives will carry out a range of reviews and detailed open-book audits to verify and provide internal assurances that all costs have been reasonably incurred by the *Contractor* and his Subcontractors and that they accord with the Shorter Schedule of Cost Components and these Supplementary Notes.

The *Contractor* is required to replicate a similar cost verification regime when dealing with the costs of his Subcontractors and other related parties and ensures that the *Employer* has rights of access to all Subcontractors and suppliers (including at lower tier levels) and their accounts to audit/verify Defined Cost.

Schedule 5b

Conditions of contract

Consolidated conditions of contract for Main Option C

The following amended conditions of contract are based on the NEC family of contracts (2013 edition), the copyright of which belongs to the Institution of Civil Engineers.

Part 1 - Amendments to Core Clauses

1 General

Actions **10**

10.1 The *Employer*, the *Contractor*, the *Project Manager* and the *Supervisor* shall act as stated in this contract and in a spirit of mutual trust and co-operation.

Identified and defined terms **11**

11.1 In these conditions of contract terms identified in the Contract Data are in italics and defined terms have capital initials. Where they are not defined within the *conditions of contract* (including Annex 1 (*Additional definitions*)) or the Contract Data, defined terms have the meanings given to them in the Framework Contract and/or the Form of Agreement.

Z1.1

11.2 (1) The Accepted Programme is the programme identified in the Contract Data or is the latest programme accepted by the *Project Manager*. The latest programme accepted by the *Project Manager* supersedes previous Accepted Programmes.

(1A) CDM Regulations means the Construction (Design and Management) Regulations 2015.

(2) Completion is when the *Contractor* has

- done all the work and done all such other things which the Works Information states he is to do by the Completion Date
- provided any and all as-built documentation, final issue drawings specifications and operation and maintenance manuals required (by the Completion Date) under clause Z2.25 and
- corrected notified Defects which would have prevented the *Employer* from using the *works* and Others from doing their work.

If the work which the *Contractor* is to do by the Completion Date is not stated in the Works Information, Completion is when the *Contractor* has done all the work necessary for the *Employer* to use the *works* and for Others to do their work.

(3) The Completion Date is the *completion date* unless later changed in accordance with this contract.

Z1.1.1 (4) The Contract Date is the date of this contract.

(4A) A Critical Defect is a Defect which:

- is critical to the operation and/or safety of the Underground Network, or to the safety of persons using or working at the Site;
- falls within a category of Defects identified in the Works Information as Critical Defects; or

- is deemed by the *Supervisor* to be critical to the carrying out and completion of the *works* and/or the work of Others.

Z1.1.2

(5) A Defect is

- a part of the *works* which is not in accordance with the Works Information or the requirements of this contract, or
- a part of the *works* designed by the *Contractor* which is not in accordance with the applicable law or the *Contractor's* design which the *Project Manager* has accepted.

Z1.1.3

(6) The Defects Certificate is either a list of Defects that the *Supervisor* or the *Contractor* has notified before the *defects date* which the *Contractor* has not corrected or, if there are no such Defects, a statement that there are none.

(7) Equipment is items provided by the *Contractor* and used by him to Provide the Works and which the Works Information does not require him to include in the *works*.

(7A) Form of Agreement means the form of agreement forming part of this contract executed and entered into by the Parties in accordance with clauses 4.1 and 4.2, or clause 6, of the Framework Contract.

(7B) Framework Contract means the framework contract dated ♦ (reference: ♦) entered into between the *Employer* (1) and the *Contractor* (2) extending to the type of work(s) identified in the Form of Agreement, under and in accordance with which this contract was entered into (as a call-off contract) between the Parties.

(8) The Fee is the amount calculated by applying the *fee percentage* to the Defined Cost of work.

(9) A Key Date is the date by which work is to meet the Condition stated. The Key Date is the *key date* stated in the Contract Data and the Condition is the *condition* stated in the Contract Data unless later changed in accordance with this contract.

Z1.1.4

(10) Others are people or organisations who are not the *Employer*, the *Project Manager*, the *Supervisor*, the Adjudicator the *Contractor* or any employee, Subcontractor or supplier of the *Contractor*.

Z1.1.5

(11) The Parties are the *Employer* (which expression includes his successors in title and assigns) and the *Contractor*.

(12) Plant and Materials are items intended to be included in the *works*.

(13) To Provide the Works means to do the work necessary to complete the *works* in accordance with this contract and all incidental work, services and actions which this contract requires.

(14) The Risk Register is a register of the risks which are listed in the Contract Data and the risks which the *Project Manager* or the *Contractor* has notified as an early warning matter. It includes a description of the risk and a description of the actions which are to be taken to avoid or reduce the risk.

(15) The Site is the area within the *boundaries of the site* and the volumes above and below it which are affected by work included in this contract.

(16) Site Information is information which

- describes the Site and its surroundings and
- is in the documents which the Contract Data states it is in.

(17) A Subcontractor is a person or organisation who has a contract with the *Contractor* to

- construct or install part of the *works*,
- provide a service necessary to Provide the Works or
- supply Plant and Materials which the person or organisation has wholly or partly designed specifically for the *works*.

(17A) The Supplementary Notes are the supplementary notes to the Schedule of Cost Components and/or the Shorter Schedule of Cost Components (as applicable), contained in Part 5 of these consolidated conditions of contract.

(18) The Working Areas are those parts of the *working areas* which are

- necessary for Providing the Works and
- used only for work in this contract

unless later changed in accordance with this contract.

(19) Works Information is information which either

- specifies and describes the *works* or
- states any constraints on how the *Contractor* Provides the Works

and is either

- in the documents which the Contract Data states it is in or
- in an instruction given in accordance with this contract.

(20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract.

(23) Defined Cost is

- **the amount of payments due to Subcontractors for work which is subcontracted without taking account of amounts deducted for**
    - **retention,**
    - **payment to the *Employer* as a result of the Subcontractor failing to meet a Key Date,**
    - **the correction of Defects after Completion,**
    - **payments to Others and**
    - **the supply of equipment, supplies and services included in the charge for overhead cost within the Working Areas in this contract**

and

- **the cost of components in the Schedule of Cost Components for other work**

less Disallowed Cost, and provided that there shall be no double counting in respect of any component of cost incurred under or in connection with any other Call-off Contract entered into pursuant to the Framework Contract.

(25) Disallowed Cost is cost which the *Project Manager* decides

- **is not justified by the *Contractor*'s accounts and records or has not been reasonably incurred,**
- **should not have been paid to a Subcontractor or supplier in accordance with his contract,**
- **was incurred only because the *Contractor* did not**
    - **follow an acceptance or procurement procedure stated in the Works Information or**
    - **give an early warning which this contract required him to give**

and the cost of

- **correcting Defects after Completion,**
- **correcting Defects caused by the *Contractor* not complying with a constraint on how he is to Provide the Works stated in the Works Information,**
- **Plant and Materials not used to Provide the Works (after allowing for reasonable wastage) unless resulting from a change to the Works Information,**
- **resources not used to Provide the Works (after allowing for reasonable availability and utilisation) or not taken away from the Working Areas when the *Project Manager* requested**
- **a key person not appointed in accordance with this contract,**
- **preparation for and conduct of an adjudication or proceedings of the *tribunal* and**
- **fines, charges, penalties and fees imposed on or accepted by the *Contractor as* a result of any unsafe, unlawful or criminal conduct or any infr*ingement o*r disregard of any applicable law.**

(29) The Price for Work Done to Date is the total Defined Cost which the *Project Manager* forecasts will have been paid by the *Contractor* before the next assessment date plus the Fee.

(30) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

Z1.2 11.3 Where relevant, and where the context requires, the following apply:

(c) the defined terms in Annex 1 to these consolidated conditions of contract; and

(d) the rules of interpretation in Paragraph 1 of Schedule 1 to the Framework Contract.

Interpretation and the law **12**

Z1.3

12.1 In this contract, except where the context shows otherwise, words in the singular also mean in the plural and the other way round and words in the masculine also mean in the feminine and neuter.

Z1.3.1 12.1A References to "this contract" mean the contract between the *Employer* and the *Contractor* including the documents listed as forming the contract in the Form of Agreement.

Z1.3.2 12.1B In this contract, unless otherwise stated or the context otherwise requires, references to:

(a) any Appendix or Schedule, are to the relevant Appendix or Schedule of the Framework Contract,

(b) any Annex, are to the relevant Annex to these consolidated conditions of contract (contained in Schedule 5 to the Framework Contract),

(c) "including" means "including without limitation",

(d) “fault” of the *Employer* or the *Contractor* includes the breach, unlawful act, negligence, omission, default or failure to comply with any provision of this contract of the *Employer* or the *Contractor* (as the case may be).

12.1C The term "Defined Cost" is read and applied in conjunction with the relevant Supplementary Notes, and any assessment, calculation or forecast of Defined Cost is made subject to and in accordance with the same.

Z1.3.3 12.2 This contract is governed by and is construed in accordance with the *Law of the contract* and, subject to the Dispute Resolution Procedure, the Parties submit to the exclusive jurisdiction of the courts of England and Wales.

12.3 No change to this contract, unless provided for by the *conditions of contract*, has effect unless it has been agreed, confirmed in writing and signed by the Parties.

Z1.3.4 12.3A Words denoting persons or parties includes individuals, partnerships, firms and corporations and any organisation having legal capacity.

12.4 This contract is the entire agreement between the Parties.

Z1.3.5 12.5 The headings to the sections, clauses and sub-clauses of the conditions of this contract are for convenience only and do not affect the construction or interpretation of the *conditions of contract*.

Y2.1(2) 12.6 A period of time stated in days is a period calculated in accordance with Section 116 of the Act.

Communications **13**

Z1.4

Z1.4.1 13.1 The *Employer*, the *Contractor*, the *Project Manager* and the *Supervisor* comply with the communications requirements in the Works Information. Each instruction, certificate, submission, proposal, record, acceptance, notification, reply and other communication which this contract requires is communicated in a form which can be read, copied and recorded. Writing is in the *language of this contract*.

13.2 A communication has effect when it is received at the last address notified by the recipient for receiving communications or, if none is notified, at the address of the recipient stated in the Contract Data.

13.3 If this contract requires the *Project Manager*, the *Supervisor* or the *Contractor* to reply to a communication, unless otherwise stated in this contract, he replies within the *period for reply*.

13.4 The *Project Manager* replies to a communication submitted or resubmitted to him by the *Contractor* for acceptance. If his reply is not acceptance, the *Project Manager* states his reasons and the *Contractor* resubmits the communication within the *period for reply* taking account of these reasons. A reason for withholding acceptance is that more information is needed in order to assess the *Contractor*'s submission fully.

13.5 The *Project Manager* may extend the *period for reply* to a communication if the *Project Manager* and the *Contractor* agree to the extension before the reply is due. The *Project Manager* notifies the *Contractor* of the extension which has been agreed.

13.6 The *Project Manager* issues his certificates to the *Employer* and the *Contractor*. The *Supervisor* issues his certificates to the *Project Manager* and the *Contractor*.

13.7 A notification which this contract requires is communicated separately from other communications.

13.8 The *Project Manager* may withhold acceptance of a submission by the *Contractor*. Withholding acceptance for a reason stated in this contract is not a compensation event.

The *Project Manager* and the *Supervisor* **14**

Z1.5

14.1 The *Project Manager*'s or the *Supervisor*'s acceptance of a communication from the *Contractor* or of his work does not change the *Contractor*'s responsibility to Provide the Works or his liability for his design.

14.2 The *Project Manager* and the *Supervisor*, after notifying the *Contractor*, may delegate any of their actions and may cancel any delegation. A reference to an action of the *Project Manager* or the *Supervisor* in this contract includes an action by his delegate.

14.3 The *Project Manager* may give an instruction to the *Contractor* which changes the Works Information or a Key Date.

14.4 The *Employer* may replace the *Project Manager* or the *Supervisor* after he has notified the *Contractor* of the name of the replacement.

Y2.1/Z1.5.1

14.5 The *Project Manager* is for relevant purposes the "specified person" as defined in section 110A(6) of the Act.

Adding to the Working Areas **15**

15.1 The *Contractor* may submit a proposal for adding an area to the Working Areas to the *Project Manager* for acceptance. A reason for not accepting is that the proposed area is either not necessary for Providing the Works or used for work not in this contract.

Early warning **16**

Z1.7

Z1.7.1

16.1 The *Contractor* and the *Project Manager* give an early warning by notifying the other as soon as either becomes aware of any matter which could

- increase the total of the Prices,
- delay Completion,
- delay meeting a Key Date,
- impair the performance of the *works* in use,
- adversely affect the work of Others, or
- adversely affect the *Employer* (including by increasing the monies payable by the *Employer* to Others engaged on the Project) and/or cause any disruption to the operation of the Underground Network.

In the notification the *Contractor* and the *Project Manager* state whether the early warning must be dealt with immediately or can wait until the next scheduled risk reduction meeting.

The *Contractor* may give an early warning by notifying the *Project Manager* of any other matter which could increase his total cost. The *Project Manager* enters early warning matters in the Risk Register. Early warning of a matter for which a compensation event has previously been notified is not required.

16.2 Either the *Project Manager* or the *Contractor* may instruct the other to attend a risk reduction meeting. Each may instruct other people to attend if the other agrees.

16.3 At a risk reduction meeting, those who attend co-operate in

- making and considering proposals for how the effect of the registered risks can be avoided or reduced,
- seeking solutions that will bring advantage to all those who will be affected,
- deciding on the actions which will be taken and who, in accordance with this contract, will take them and
- deciding which risks have now been avoided or have passed and can be removed from the Risk Register.

16.4 The *Project Manager* revises the Risk Register to record the decisions made at each risk reduction meeting and issues the revised Risk Register to the *Contractor*. If a decision needs a change to the Works Information, the

Project Manager instructs the change at the same time as he issues the revised Risk Register.

Ambiguities and inconsistencies **17**

17.1 The *Project Manager* or the *Contractor* notifies the other as soon as either becomes aware of an ambiguity or inconsistency in or between the documents which are part of this contract. The *Project Manager* gives an instruction resolving the ambiguity or inconsistency.

Illegal and impossible requirements **18**

18.1 The *Contractor* notifies the *Project Manager* as soon as he considers that the Works Information requires him to do anything which is illegal or impossible. If the *Project Manager* agrees, he gives an instruction to change the Works Information appropriately.

Prevention **19**

19.1 If an event occurs which

- stops the *Contractor* completing the *works* or
- stops the *Contractor* completing the *works* by the date shown on the Accepted Programme,

and which

- neither Party could prevent and
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it,

the *Project Manager* gives an instruction to the *Contractor* stating how he is to deal with the event.

Providing the Works **20**

Z1.8

Z1.8.1 20.1 The *Contractor* Provides the Works in accordance with the Works Information, and in accordance with (and shall otherwise comply with):

- all applicable law; and
- (unless and to the extent the *Employer* grants a concession in relation the same) all applicable Standards.

20.2 Not used (as not an Option C clause).

20.3 The *Contractor* advises the *Project Manager* on the practical implications of the design of the *works* and on subcontracting arrangements.

20.4 The *Contractor* prepares forecasts of the total Defined Cost for the whole of the *works* in consultation with the *Project Manager* and submits them to the *Project Manager*. Forecasts are prepared at the intervals stated in the Contract Data from the *starting date* until Completion of the whole of the *works.* Each forecast is in a format prescribed in the Works Information. An explanation of the changes made since the previous forecast is submitted with each forecast.

20.5 Not used (as not an Option C clause).

Z1.8.2 20.6 These *conditions of contract* and the warranties and undertakings in them are deemed to apply to all *works* performed by the *Contractor* both before and after the Contract Date.

Framework Contract **20A**

Z1.8A

Z1.8A.1 20A.1 The *Contractor* Provides the Works, and performs his other duties and obligations under this contract, in compliance with all relevant provisions of the Framework Contract, and otherwise complies with the provisions of the Framework Contract to the extent they are relevant to or are capable of being applied in respect of the *works* and/or the Site.

20A.2 Notwithstanding any other provision the *Contractor* shall not be entitled to:

- any additional remuneration or any change in the Prices, any Completion Date or any Key Date; or
- any release from the *Contractor's* duties and obligations,

under this contract, by reason of any termination of or fault on the *Contractor's* part under the Framework Contract or any other Call-off Contract.

The *Contractor*'s design **21**

Z1.9

Z1.9.1 21.1 Where Option X21 is used, the *Contractor* is responsible for the design of all of the *works* (save insofar as Option X21 provides otherwise). Otherwise, where Option X21 is not used, the Contractor designs the parts of the *works* which the Works Information states he is to design.

Z1.9.2 21.2 The *Contractor* submits the particulars of his design as the Works Information requires to the *Project Manager* for acceptance. A reason for not accepting the *Contractor's* design is that it does not comply with the Works Information, this contract or the applicable law.

The *Contractor* does not proceed with the relevant work until the *Project Manager* has accepted his design.

21.3 The *Contractor* may submit his design for acceptance in parts if the design of each part can be assessed fully.

Value Engineering **21A**

Z1.9A

Z1.9A.1 21A.1 The *Contractor* may propose to the *Project Manager* that the Works Information provided by the *Employer* should be changed so as to result in a reduction to the anticipated total Defined Cost of the *works* and/or result in a saving in the time required to Provide the Works or any part thereof. In such event the *Contractor* submits details of the proposal to the *Project Manager* in accordance with the requirements set out in the Works Information. The *Project Manager* may provide the *Contractor* with details of the *Employer's* estimated additional costs resulting from a *Contractor's* proposal.

Z1.9A.2 21A.2 Not used (as not an Option C clause).

Z1.9A.3 21A.3 If the *Project Manager* accepts the proposal referred to in clause 21A.1, he gives an instruction changing the Works Information and:

- the Prices are not reduced save as agreed between the *Project Manager* and the *Contractor* in order to reflect the *Employer's* estimated additional costs; and
- the Completion Date is not changed.

Using the *Contractor*'s design **22**

Z1.10 22.1 The *Employer* may use and copy the *Contractor*'s design for any purpose specified in clause Z2.7.

Z1.10.1

Design of Equipment **23**

23.1 The *Contractor* submits particulars of the design of an item of Equipment to the *Project Manager* for acceptance if the *Project Manager* instructs him to. A reason for not accepting is that the design of the item will not allow the *Contractor* to Provide the Works in accordance with

- the Works Information,
- the *Contractor*'s design which the *Project Manager* has accepted or
- the applicable law.

People **24**

Z1.11

Z1.11.1 24.1 The *Contractor*:

- complies with Option X23 (where such Option applies); and
- either employs each key person named to do the job stated in the Contract Data or employs a replacement person who has been accepted by the *Project Manager*.

The *Contractor* submits the name, relevant qualifications and experience of a proposed replacement person to the *Project Manager* for acceptance. A reason for not accepting the person is that his relevant qualifications and experience are not as good as those of the person who is to be replaced.

Z1.11.2 24.2 The *Project Manager* may, having stated his reasons, instruct the *Contractor* to remove any person under his control. The *Contractor* then arranges that, after one day, such person has no further connection with the work included in this contract.

Working with the *Employer* and Others **25**

Z1.12

25.1 The *Contractor* co-operates with Others in obtaining and providing information which they need in connection with the *works*. He co-operates with Others and shares the Working Areas with them as stated in the Works Information.

25.2 The *Employer* and the *Contractor* provide services and other things as stated in the Works Information. Any cost incurred by the *Employer* as a result of the *Contractor* not providing the services and other things which he is to provide is assessed by the *Project Manager* and paid by the *Contractor*.

Z1.12.1

25.3 If the *Project Manager* decides that the work does not meet the Condition stated for a Key Date by the date stated and, as a result, the *Employer* incurs additional cost either

- in carrying out work or
- by paying an additional amount to Others in carrying out work

on the Project, the additional cost which the *Employer* has paid or will incur is paid by the *Contractor*. The *Project Manager* assesses the additional cost within four weeks of the date when the Condition for the Key Date is met. The *Project Manager's* assessment is without prejudice to any other rights and remedies the *Employer* may have arising from the *Contractor's* failure to meet a Key Date.

Subcontracting **26**

Z1.13

Z1.13.1

26.1 If the *Contractor* subcontracts work, he is responsible for Providing the Works as if he had not subcontracted and he complies with the provisions of the Works Information. This contract applies as if a Subcontractor's employees and equipment were the *Contractor*'s.

26.2 The *Contractor* submits the name of each proposed Subcontractor to the *Project Manager* for acceptance. A reason for not accepting the Subcontractor is that his appointment will not allow the *Contractor* to Provide the Works. The *Contractor* does not appoint a proposed Subcontractor until the *Project Manager* has accepted him.

Z1.13.2

26.3 The *Contractor* submits the proposed contract for each subcontract to the *Project Manager* for acceptance unless the *Project Manager* has agreed that no submission is required.

The *Contractor* does not appoint a Subcontractor on the proposed subcontract conditions submitted until the *Project Manager* has accepted them. A reason for not accepting them is that

- they will not allow the *Contractor* to Provide the Works,
- they do not include a statement that the parties to the subcontract shall act in a spirit of mutual trust and co-operation,
- they contain payment terms that do not comply with the Public Contracts Regulations 2015, or
- they do not obligate the Subcontractor to provide the deeds of warranty that the *Employer* might require under clause Z2.2, or any warranties or guarantees falling within Z2.3.1(a) (which are required from the Subcontractor concerned).

26.3A The *Contractor* pays its Subcontractors amounts due to them, promptly and in any event in conformance with all relevant requirements of the Public Contracts Regulations 2015 (irrespective of whether such regulations apply).

Other responsibilities **27**

Z1.14

27.1 The *Contractor* obtains approval of his design from Others where necessary.

27.2 The *Contractor* provides access to work being done and to Plant and Materials being stored for this contract for

- the *Project Manager*,
- the *Supervisor* and
- Others notified to him by the *Project Manager*.

27.3 The *Contractor* obeys an instruction which is in accordance with this contract and is given to him by the *Project Manager* or the *Supervisor*.

Z1.14.1

27.4 The *Contractor* acts in accordance with the health and safety requirements stated in the Works Information and co-operates with persons having health and safety responsibilities on or adjacent to the Site for the effective discharge of all such responsibilities. Without prejudice to the generality of the above, if a Safety Breach is committed by one of the *Contractor's* employees or agents or by any Subcontractor (or one of the Subcontractor's employees or agents) then the *Employer* may (at his sole discretion) choose to serve a warning notice upon the *Contractor* instead of exercising his right to terminate with immediate effect pursuant to clause 91.8 and unless, within thirty (30) days of receipt of such warning notice, the *Contractor* removes or procures the removal of the relevant person or Subcontractor (as the case may be) from the Site and (if necessary) procures the provision of the affected *works* by another person or Subcontractor this constitutes a material breach of this contract and entitles the *Employer* to terminate the contract in whole or in part with immediate effect in accordance with clause 91.8.

3 Time

Starting, Completion and Key Dates **30**

Z1.15

30.1 The *Contractor* does not start work on the Site until the first *access date* and does the work so that Completion is on or before the Completion Date.

Z1.15.1 30.1A The *Contractor* notifies the *Project Manager* when in his opinion the *works* will have been completed in accordance with this contract and requests an inspection. The *Project Manager* and the *Contractor* undertake such inspection in accordance with the requirements set out in the Works Information. The *Supervisor* may attend the inspection.

Z1.15.2 30.2 The *Contractor* provides all information and evidence listed or identified in the Works Information as being required to demonstrate that the *works* have been so completed. If the *Project Manager* is satisfied that the *works* have been so completed, he decides the date of Completion. The *Project Manager* certifies Completion within one week of Completion. If the *Project Manager* is not so satisfied, he notifies the *Contractor* of his reasons for not accepting that the *works* have been completed and the *Contractor* notifies the *Project Manager* in accordance with clause 30.1A when the necessary corrective action has been taken.

30.3 The *Contractor* does the work so that the Condition stated for each Key Date is met by the Key Date.

The programme **31**

Z1.16

31.1 If a programme is not identified in the Contract Data, the *Contractor* submits a first programme to the *Project Manager* for acceptance within the period stated in the Contract Data.

Z1.16.1 31.2 The *Contractor* shows on each programme which he submits for acceptance

- the *starting date*, *access dates*, Key Dates and Completion Date,
- planned Completion,
- the order and timing of the operations which the *Contractor* plans to do in order to Provide the Works,
- the order and timing of the work of the *Employer* and Others as last agreed with them by the *Contractor* or, if not so agreed, as stated in the Works Information,
- the dates when the *Contractor* plans to meet each Condition stated for the Key Dates and to complete other work needed to allow the *Employer* and Others to do their work,
- provisions for
  - float,
  - time risk allowances,
  - environmental and health and safety requirements and
- the procedures set out in this contract,
- the dates when, in order to Provide the Works in accordance with his programme, the *Contractor* will need
  - any access in accordance with the access requirements in the Works Information and access to a part of the Site if later than its *access date*,
  - acceptances,
  - Plant and Materials and other things to be provided by the *Employer* and
  - information from Others,

- for each operation, a statement of how the *Contractor* plans to do the work identifying the principal Equipment and other resources which he plans to use and
- other information which the Works Information requires the *Contractor* to show on a programme submitted for acceptance.

31.3 Within two weeks of the *Contractor* submitting a programme to him for acceptance, the *Project Manager* either accepts the programme or notifies the *Contractor* of his reasons for not accepting it. A reason for not accepting a programme is that

- the *Contractor*'s plans which it shows are not practicable,
- it does not show the information which this contract requires,
- it does not represent the *Contractor's* plans realistically or
- it does not comply with the Works Information.

31.4 The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance.

Revising the programme **32**

32.1 The *Contractor* shows on each revised programme

- the actual progress achieved on each operation and its effect upon the timing of the remaining work,
- the effects of implemented compensation events,
- how the *Contractor* plans to deal with any delays and to correct notified Defects and
- any other changes which the *Contractor* proposes to make to the Accepted Programme.

32.2 The *Contractor* submits a revised programme to the *Project Manager* for acceptance

- within the *period for reply* after the *Project Manager* has instructed him to,
- when the *Contractor* chooses to and, in any case,
- at no longer interval than the interval stated in the Contract Data from the *starting date* until Completion of the whole of the *works*.

Access to and use of the Site **33**

Z1.17

33.1 Subject to the provisions of the Works Information regarding access, the *Employer* allows access to and use of each part of the Site to the *Contractor* which is necessary for the work included in this contract. Access and use is allowed on or before the later of its *access date* and the date for access shown on the Accepted Programme.

Z1.17.1

Z1.17.2 33.1A The *Employer* does not guarantee uninterrupted or exclusive access to or use of the Site or any Working Area and access is limited in accordance with this contract.

Instructions to stop or not to start work **34**

34.1 The *Project Manager* may instruct the *Contractor* to stop or not to start any work and may later instruct him that he may re-start or start it.

Take over **35**

Z1.18

35.1 The *Employer* need not take over the *works* before the Completion Date if it is stated in the Contract Data that he is not willing to do so. Otherwise the *Employer* takes over the *works* not later than two weeks after Completion.

Z1.18.1

35.2 The *Employer* may use or permit Others to use any part of the *works* before Completion has been certified. If he does so, he does not take over, and is not treated as having taken over, the part of the *works* when he (or Others) begins to use it and the *Contractor* remains responsible for the care and protection of that part of the *works* and for its maintenance in accordance with the requirements of the Works Information whilst it is being used by the *Employer* and/or Others until take over is certified by the *Project Manager* in accordance with clause 35.3.

35.3 The *Project Manager* certifies the date upon which the *Employer* takes over any part of the *works* and its extent within one week of the date.

Acceleration **36**

Z1.19

36.1 The *Project Manager* may instruct the *Contractor* to submit a quotation for an acceleration to achieve Completion before the Completion Date. The *Project Manager* states changes to the Key Dates to be included in the quotation. A quotation for an acceleration comprises proposed changes to the Prices and a revised programme showing the earlier Completion Date and the changed Key Dates. The *Contractor* submits details of his assessment with each quotation.

36.2 The *Contractor* submits a quotation or gives his reasons for not doing so within the *period for reply*.

Z1.19.1

36.3 When the *Project Manager* accepts a quotation for an acceleration, he changes the Prices, the Completion Date and the Key Dates accordingly and accepts the revised programme. If the *Project Manager* does not accept a quotation for an acceleration, or does not accept the *Contractor's* reasons for not submitting a quotation, the *Project Manager* may issue an instruction to the *Contractor* to accelerate and the *Contractor* proceeds to accelerate in accordance with that instruction and the *Project Manager* makes his own assessment of the compensation event.

4 Testing and Defects

Tests and inspections **40**

40.1 This clause only applies to tests and inspections required by the Works Information or the applicable law.

40.2 The *Contractor* and the *Employer* provide materials, facilities and samples for tests and inspections as stated in the Works Information.

40.3 The *Contractor* and the *Supervisor* each notifies the other of each of his tests and inspections before it starts and afterwards notifies the other of its results. The *Contractor* notifies the *Supervisor* in time for a test or inspection to be arranged and done before doing work which would obstruct the test or inspection. The *Supervisor* may watch any test done by the *Contractor*.

40.4 If a test or inspection shows that any work has a Defect, the *Contractor* corrects the Defect and the test or inspection is repeated.

40.5 The *Supervisor* does his tests and inspections without causing unnecessary delay to the work or to a payment which is conditional upon a test or inspection being successful. A payment which is conditional upon a *Supervisor*'s test or inspection being successful becomes due at the later of the *defects date* and the end of the last *defect correction period* if

- the *Supervisor* has not done the test or inspection and
- the delay to the test or inspection is not the *Contractor*'s fault.

40.6 The *Project Manager* assesses the cost incurred by the *Employer* in repeating a test or inspection after a Defect is found. The *Contractor* pays the amount assessed.

40.7 When the *Project Manager* assesses the cost incurred by the *Employer* in repeating a test or inspection after a Defect is found, the *Project Manager* does not include the *Contractor*'s cost of carrying out the repeat test or inspection.

Testing and inspection before delivery **41**

41.1 The *Contractor* does not bring to the Working Areas those Plant and Materials which the Works Information states are to be tested or inspected before delivery until the *Supervisor* has notified the *Contractor* that they have passed the test or inspection.

Searching for and notifying Defects **42**

42.1 Until the *defects date*, the *Supervisor* may instruct the *Contractor* to search for a Defect. He gives his reason for the search with his instruction. Searching may include

- uncovering, dismantling, re-covering and re-erecting work,
- providing facilities, materials and samples for tests and inspections done by the *Supervisor* and
- doing tests and inspections which the Works Information does not require.

42.2 Until the *defects date*, the *Supervisor* notifies the *Contractor* of each Defect as soon as he finds it and the *Contractor* notifies the *Supervisor* of each Defect as soon as he finds it.

Correcting Defects **43**

43.1 The *Contractor* corrects a Defect whether or not the *Supervisor* notifies him of it.

43.2 The *Contractor* corrects a notified Defect before the end of the *defect correction period*. The *defect correction period* begins at Completion for Defects notified before Completion and when the Defect is notified for other Defects.

43.3 The *Supervisor* issues the Defects Certificate at the later of the *defects date* and the end of the last *defect correction period*. The *Employer*'s rights in respect of a Defect which the *Supervisor* has not found or notified are not affected by the issue of the Defects Certificate.

43.4 The *Project Manager* arranges for the *Employer* to allow the *Contractor* access to and use of a part of the *works* which he has taken over if they are needed for correcting a Defect. In this case the *defect correction period* begins when the necessary access and use have been provided.

Accepting Defects **44**

44.1 The *Contractor* and the *Project Manager* may each propose to the other that the Works Information should be changed so that a Defect does not have to be corrected.

44.2 If the *Contractor* and the *Project Manager* are prepared to consider the change, the *Contractor* submits a quotation for reduced Prices or an earlier Completion Date or both to the *Project Manager* for acceptance. If the *Project Manager* accepts the quotation, he gives an instruction to change the Works Information, the Prices and the Completion Date accordingly.

Uncorrected Defects **45**

45.1 If the *Contractor* is given access in order to correct a notified Defect but he has not corrected it within its *defect correction period*, the *Project Manager* assesses the cost to the *Employer* of having the Defect corrected by other people and the *Contractor* pays this amount. The Works Information is treated as having been changed to accept the Defect.

45.2 If the *Contractor* is not given access in order to correct a notified Defect before the *defects date*, the *Project Manager* assesses the cost to the *Contractor* of correcting the Defect and the *Contractor* pays this amount. The Works Information is treated as having been changed to accept the Defect.

Critical Defects **46**

Z1.19A

Z1.19A.1 46.1 The *Employer* may take any and all necessary actions (including, without limitation, appointing Others) to correct or mitigate a Critical Defect, whether before or after Completion, and (without prejudice to any other right of remedy) to recover the costs of doing so from the *Contractor*. Clauses 43 to 45 (inclusive) are to be read and applied accordingly.

Z1.19A.2 46.2 The *Supervisor* notifies the *Contractor* of a Critical Defect as soon as reasonably practicable.

5 Payment

Assessing the amount due **50**

Z1.20

50.1 The *Project Manager* assesses the amount due at each assessment date. The first assessment date is decided by the *Project Manager* to suit the procedures of the Parties and is not later than the *assessment interval* after the *starting date*. Later assessment dates occur

- at the end of each *assessment interval* until four weeks after the *Supervisor* issues the Defects Certificate and
- at Completion of the whole of the *works*.

Z1.20.1 50.1A The *Contractor* submits an application for payment to the *Project Manager* in a form prescribed by the Works Information not less than fourteen days prior to each assessment date. The application states the sum that the *Contractor* considers to be due to him at the payment due date and the basis on which that sum is calculated.

50.2 The amount due is

- the Price for Work Done to Date,
- plus other amounts to be paid to the *Contractor*,
- less amounts to be paid by or retained from the *Contractor*.

Any tax which the law requires the *Employer* to pay to the *Contractor* is included in the amount due.

50.3 If no programme is identified in the Contract Data, one quarter of the Price for Work Done to Date is retained in assessments of the amount due until the *Contractor* has submitted a first programme to the *Project Manager* for acceptance showing the information which this contract requires.

Z1.20.2 50.3A If any revised programme is not submitted by the *Contractor* to the *Project Manager* for acceptance showing the information which this contract requires within the timescales required by clause 32.2, one tenth of the total cumulative increase in the amount due since the assessment date following the last submission of such revised programme is retained in all assessments of the amount due and is not payable to the *Contractor* until such revised programme has been submitted to the *Project Manager* for acceptance.

Z1.20.3 50.4 In assessing the amount due, the *Project Manager* considers any application for payment the *Contractor* has submitted in accordance with clause 50.1A. The *Project Manager* gives the *Contractor* details of how the amount due has been assessed.

50.5 The *Project Manager* corrects any wrongly assessed amount due in a later payment certificate.

50.6 Payments of Defined Cost made by the *Contractor* in a currency other than the *currency of this contract* are included in the amount due as payments to be made to him in the same currency. Such payments are converted to the *currency of this contract* in order to calculate the Fee and any *Contractor*'s share using the *exchange rates*.

50.7 Not used (as not an Option C clause).

Z1.20.4 50.8 If any performance bond required by this contract is not procured by the *Contractor* and delivered to the *Employer* in accordance with Option X13, one quarter of the Price for Work Done to Date is retained in assessments of the amount due and is not payable to the *Contractor* until such performance bond has been delivered.

Z1.20.5 50.9 If a warranty required under sub-clauses Z2.1.2 and/or Z2.2 is not delivered to the *Employer* in accordance with the provisions of sub-clauses Z2.1.2 or Z2.2 as applicable:

- in the case of warranties required under sub-clause Z2.1.2 one tenth of the total cumulative increase in the amount due since the assessment date following the end of the period for provision of such warranty is retained in all assessments of the amount due; or
- in the case of warranties required under sub-clause Z2.2, one half of the total cumulative increase in the amount due since the assessment date following the end of the period for provision of such warranty relative to the work carried out and/or goods supplied by the relevant Subcontractor and/or consultant) is retained in all assessments of the amount due

and in each case is not payable to the *Contractor* until such warranty is delivered.

Z1.20.5A 50.9A If a warranty or guarantee required under sub-clause Z2.3.1 is not delivered to the *Employer* in accordance with the provisions of sub-clauses Z2.3.1 and Z2.3.2, one half of the total cumulative increase in the amount due since the assessment date following the end of the period for provision of such warranty or guarantee is retained in all assessments of the amount due.

Z1.20.6 50.10 If a Management Plan is not provided by the times or within the timescales required by this contract, one tenth of the total cumulative increase in the amount due since the assessment date following the end of the period for provision of such Management Plan is retained in all assessments of the amount due and is not payable to the *Contractor* until such Management Plan is delivered.

Z1.20.7 50.11 If the *Contractor's* employment is terminated under clause 91.1 because the *Contractor* has become insolvent within the meaning of section 113 of the Act (R10A), the *Employer* need not pay any sum due to the *Contractor* other than any amount due to him under clause 90.4 either:

- where the *Contractor* becomes insolvent prior to the prescribed period before the final date for payment, provided that the *Employer* or *Project Manager* issues a Pay Less Notice notifying the *Employer's* intention not to pay such sum, or
- in any event, if the *Contractor* becomes insolvent after the prescribed period before the final date for payment.

Payment 51

Y1.1.1 51.1 The *Project Manager* certifies a payment within seven days of each assessment date. The first payment is the amount due. Other payments are the change in the amount due since the last payment certificate. A payment is made by the *Contractor* to the *Employer* if the change reduces the amount due. Other payments are made by the *Employer* to the *Contractor*. Payments are in the *currency of this contract* unless otherwise stated in this contract. If a certificate is not issued by the *Project Manager* in accordance with this clause 51.1, the sum to be paid by the *Employer* is the sum stated as due in the *Contractor's* application in accordance with clause 50.1A.

Y1.1.2 Y2.2 The date on which payment becomes due is seven days after the assessment date. The final date for payment is fourteen days or a different period for payment if stated in the Contract Data after the date on which payment becomes due.

Y1.1.2A

51.1B The *Project Manager's* certificate is the *Employer's* notice of payment to the *Contractor* specifying the amount due at the payment due date (the notified sum) and stating the basis on which the amount is calculated.

Y1.1.2B

51.1C Not later than five days after receipt of the payment certificate the *Contractor* delivers to the *Employer* (copied to the *Project Manager*) a VAT invoice in the amount of the certificate with a copy of the certificate attached. The *Contractor* issues a corrected VAT invoice, where required, within five days of receipt of a Pay Less Notice.

Y1.1.3

51.2 Each certified payment is made within twenty-one days of the assessment date or, if a different period is stated in the Contract Data, within the period stated. If a certified payment is late, or if a payment is late because the *Project Manager* does not issue a certificate which he should issue, or either Party fails to pay a sum or any part of it due to the other Party by the final date for its payment, interest is paid on the late payment. Interest is assessed from the final date by which the late payment should have been made until the date when the late payment is made, and is included in the first assessment after the late payment is made.

Y1.1.3A

51.2A If the amount to be paid to the *Contractor* is less than the amount to be paid by or retained from the *Contractor*, the difference is recoverable from the *Contractor* as a debt due on demand.

Y1.1.4

Y2.3 If either Party intends to pay less than the notified sum, he notifies the other Party not later than seven days (the prescribed period) before the final date for payment by stating the amount considered to be due and the basis on which that sum is calculated. A Party does not withhold payment of an amount due under this contract unless he has notified his intention to pay less than the notified sum as required by this contract. In the case of the *Employer*, the notice may be given on his behalf by the *Project Manager*.

51.3 If an amount due is corrected in a later certificate either

- by the *Project Manager* in relation to a mistake or a compensation event or
- following a decision of the *Adjudicator* or the *tribunal*,

interest on the correcting amount is paid. Interest is assessed from the date when the incorrect amount was certified until the date when the correcting amount is certified and is included in the assessment which includes the correcting amount.

51.4 Interest is calculated on a daily basis at the *interest rate* and is compounded annually.

Z1.20.8

51.5 The consideration for any supply made pursuant to or in connection with the terms of this contract, and all sums payable under this contract, are exclusive of VAT. Where, under the terms of this contract, a supply is made that is subject to VAT, the person receiving the supply must pay a sum equal to the amount of VAT which is or becomes chargeable on that supply to the person making the supply in addition to, and at the same time as, paying any other consideration for that supply and a valid VAT invoice must be issued by the person making the supply.

If any VAT invoice delivered by the *Contractor* under this contract is an electronic invoice, the *Employer* accepts and processes the electronic invoice submitted by the *Contractor* where the invoice is undisputed and where it complies with the Standard on Electronic Invoicing.

Z1.20.9

51.6 Where the *Employer* is an End User for the purposes of this contract, the Parties acknowledge that:

- services provided by the *Contractor* to the *Employer* on or after 1

March 2021 pursuant to this contract are expected to include "specified services" (within the meaning of article 4 of the Reverse Charge Order) and will be "excepted supplies" (within the meaning of article 8 of the Reverse Charge Order) on the basis that the *Employer* is an End User in respect of such specified services and

- accordingly the Reverse Charge Order will not apply and the *Employer* will not be required to account for VAT to HM Revenue & Customs in respect of such supplies under section 55A of VATA.

Where the *Employer* is not an End User for the purposes of this contract:

- the Parties acknowledge that services provided by the *Contractor* to the *Employer* on or after 1 March 2021 pursuant to this contract will include "specified services" (within the meaning of article 4 of the Reverse Charge Order) and are expected to be subject to the Reverse Charge Order on the basis that the *Employer* is not an End User,
- accordingly, the Parties acknowledge that the *Employer* will be required to account for VAT to HM Revenue & Customs in respect of such supplies from the *Contractor* under section 55A of VATA and
- the *Contractor* will deliver an invoice to the *Employer* in accordance with clause 51.1C stating that the Reverse Charge Order applies or any other appropriate language as suggested by HM Revenue & Customs in their relevant guidance

In any event the *Contractor* indemnifies the *Employer* his employees and agents and members of the TfL Group on a continuing basis from and against arising from the *Contractor's* failure to account for or to pay any VAT relating to payments made to the *Contractor* under this contract. Any amounts due under this clause 51.6 are paid in cleared funds by the *Contractor* to the *Employer* not less than five (5) days before the date upon which the tax or other liability or other Losses are payable by the *Employer*.

Where under this contract any amount is calculated by reference to any sum which has been or may be incurred by any person, the amount includes any VAT in respect of that amount only to the extent that such VAT is not recoverable as input tax by that person (or a member of the same VAT group) whether by set off or repayment.

If the Reverse Charge Order is incorrectly applied and the *Employer* pays an amount in respect of VAT to the *Contractor* in error, then the *Contractor* will pay to the *Employer* on demand an amount equal to such VAT plus any interest, penalties or surcharges charged or imposed on the *Employer* by HM Revenue & Customs arising from the late payment of any VAT.

If the *Employer's* status as an End User changes during the term of this contract, the *Employer* uses its reasonable endeavours to notify the *Contractor* and the *Contractor* applies the Reverse Charge accordingly.

Defined Cost **52**

52.1 All the *Contractor*'s costs which are not included in the Defined Cost are treated as included in the Fee. Defined Cost includes only amounts calculated using rates and percentages stated in the Contract Data and other amounts at open market or competitively tendered prices with deductions for all discounts, rebates and taxes which can be recovered.

52.2 **The *Contractor* keeps these records**

- **accounts of payments of Defined Cost,**
- **proof that the payments have been made,**
- **communications about and assessments of compensation events for Subcontractors and**
- **other records as stated in the Works Information.**

52.3 **The *Contractor* allows the *Project Manager* to inspect at any time within working hours the accounts and records which he is required to keep.**

The *Contractor's Share* **53**

Z1.20.A **53.1** **The *Project Manager* assesses the *Contractor*'s share of the difference between the total of the Prices and the Price for Work Done to Date. The difference is divided into increments falling within each of the *share ranges*. The limits of a *share range* are the Price for Work Done to Date divided by the total of the Prices, expressed as a percentage. The *Contractor*'s share equals the sum of the products of the increment within each *share range* and the corresponding *Contractor's share percentage*.**

53.2 **If the Price for Work Done to Date is less than the total of the Prices, the *Contractor* is paid his share of the saving. If the Price for Work Done to Date is greater than the total of the Prices, the *Contractor* pays his share of the excess.**

53.3 **The *Project Manager* makes a preliminary assessment of the *Contractor*'s share at Completion of the whole of the *works* using his forecasts of the final Price for Work Done to Date and the final total of the Prices. This share is included in the amount due following Completion of the whole of the *works*.**

53.4 **The *Project Manager* makes a final assessment of the *Contractor*'s share using the final Price for Work Done to Date and the final total of the Prices. This share is included in the final amount due.**

Z1.20A.1 **53.5** **Without limiting sub-clauses 53.1 to 53.4 and 93, if at any time prior to Completion:**

- **the Price for Work Done to Date exceeds the total of the Prices (excluding, for the avoidance of doubt, any adjustment to the Prices arising from compensation events which have not yet been implemented); and**
- **the *Project Manager* assesses that the final Price for Work Done to Date is likely to exceed the final total of the Prices**

the *Project Manager* may deduct from sums otherwise due to the *Contractor* a sum equivalent to the *Project Manager's* reasonable assessment of the likely *Contractor's* share of the excess of the forecast final Price for Work Done to Date over the forecast final total of the Prices. Any sum so deducted is taken into account in assessing the amount due under clauses 53.3 and 53.4 or, if applicable, clause 93.

The Activity Schedule **54**

54.1 **Information in the Activity Schedule is not Works Information or Site Information.**

54.2 **If the *Contractor* changes a planned method of working at his discretion so that the activities on the Activity Schedule do not relate to the operations on the Accepted Programme, he submits a revision of the Activity Schedule to the *Project Manager* for acceptance.**

54.3 **A reason for not accepting a revision of the Activity Schedule is that**

- **it does not comply with the Accepted Programme,**

- **any changed Prices are not reasonably distributed between the activities or**
- **the total of the Prices is changed.**

55 Not used (as not an Option C clause)

Z1.21.1 56 In addition to any other rights of the *Employer* whether at law or equity under this contract, whenever

- under this contract or any other contract between the *Employer* and the *Contractor* (including the Framework Contract and any Call-off Contract(s) issued under it) any sum of money is recoverable from or payable by the *Contractor* or
- any Losses are reasonably and properly owed to, or incurred by, the *Employer* or any member of the TfL Group under or arising out of this contract or any other contract between the *Employer* and the *Contractor* (again, including the Framework Contract or any Call-off Contract(s) issued under it)

the same may be set-off and/or deducted from any sum then due or which at any time thereafter may become due to the *Contractor* under this contract.

Z1.22.1 56.1 If the *Employer* is or at any time up to the making of the final payment under this contract becomes a 'contractor' for the purposes of the Construction Industry Scheme, his obligation to make any payment under this contract is subject to the provisions and requirements of the Construction Industry Scheme and the *Contractor* complies with the provisions of the Works Information regarding the Construction Industry Scheme.

6 Compensation events

Compensation events **60**

Z1.23

Z1.23.1 60.1 The following are compensation events

(1) The *Project Manager* gives an instruction changing the Works Information except

- a change made in order to accept a Defect
- a change to the Works Information provided by the *Contractor* for his design which is made to enable the *Contractor* to Provide the Works or is made at his request or to comply with other Works Information provided by the *Employer*,
- a change to the Works Information made pursuant to clause 21A (*Value Engineering*) or
- an instruction which is stated in this contract not to give rise to a compensation event.

(2) Subject to the requirements of the Works Information regarding access and provided that the *Contractor* has booked and co-ordinated access in accordance with its requirements, the *Employer* does not allow access to and use of a part of the Site in accordance with the provisions of this contract by the later of its *access date* and the date shown on the Accepted Programme.

(3) The *Employer* does not provide something which he is to provide by the date for providing it shown on the Accepted Programme.

(4) The *Project Manager* gives an instruction to accelerate or to stop or not to start any work or to change a Key Date.

(5) The *Employer* or Others

- do not work within the times shown on the Accepted Programme,
- do not work within the conditions stated in the Works Information or
- carry out work on the Site that is not stated in the Works Information.

(6) The *Project Manager* or the *Supervisor* does not reply to a communication from the *Contractor* within the period required by this contract, and subsequently fails to respond within 14 days to any reminder served upon it by the *Contractor* after the *period for reply* has expired, referring to this cl.60.1(6).

(7) The *Project Manager* gives an instruction for dealing with an object of value or of historical or other interest found within the Site.

(8) The *Project Manager* or the *Supervisor* changes a decision which he has previously communicated to the *Contractor*.

(9) The *Project Manager* withholds an acceptance (other than acceptance of a quotation for acceleration or for not correcting a Defect) for a reason not stated in this contract.

(10) The *Supervisor* instructs the *Contractor* to search for a Defect and no Defect is found unless the search is needed only because the *Contractor* gave insufficient notice of doing work obstructing a required test or inspection or because a known Defect suggests the likely presence of a similar or related Defect elsewhere in the *works*.

(11) A test or inspection done by the *Supervisor* causes unnecessary delay.

(12) The *Contractor* encounters physical conditions which

- are within the Site,
- are not weather conditions and

- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for them.

Only the difference between the physical conditions encountered and those for which it would have been reasonable to have allowed is taken into account in assessing a compensation event.

(13) A *weather measurement* is recorded

- within a calendar month,
- before the Completion Date for the whole of the *works* and
- at the place stated in the Contract Data

the value of which, by comparison with the *weather data*, is shown to occur on average less frequently than once in ten years.

Only the difference between the *weather measurement* and the weather which the *weather data* show to occur on average less frequently than once in ten years is taken into account in assessing a compensation event.

(14) An event which is an *Employer*'s risk stated in this contract.

(15) The *Project Manager* certifies take over of a part of the *works* before both Completion and the Completion Date.

(16) The *Employer* does not provide materials, facilities and samples for tests and inspections as stated in the Works Information.

(17) The *Project Manager* notifies a correction to an assumption which he has stated about a compensation event.

(18) A breach of contract or act of prevention on the part of ~~by~~ the *Employer* which is not one of the other compensation events in this contract.

(19) An event which

- stops the Contractor completing the works or
- stops the Contractor completing the works by the date shown on the Accepted Programme,

and which

- neither Party could prevent,
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it and
- is not one of the other compensation events stated in this contract.

60.2 In judging the physical conditions for the purpose of assessing a compensation event, the *Contractor* is assumed to have taken into account

- the Site Information,
- publicly available information referred to in the Site Information,
- information obtainable from a visual inspection of the Site and
- other information which an experienced contractor could reasonably be expected to have or to obtain.

60.3 If there is an ambiguity or inconsistency within the Site Information (including the information referred to in it), the *Contractor* is assumed to have taken into account the physical conditions more favourable to doing the work.

Notifying compensation events **61**

Z1.24

61.1 For compensation events which arise from the *Project Manager* or the *Supervisor* giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption, the *Project Manager* notifies the *Contractor* of the compensation event at the time of that communication. He also instructs the *Contractor* to submit quotations, unless the event arises from

a fault of the *Contractor* or quotations have already been submitted. The *Contractor* puts the instruction or changed decision into effect.

61.2 The *Project Manager* may instruct the *Contractor* to submit quotations for a proposed instruction or a proposed changed decision. The *Contractor* does not put a proposed instruction or a proposed changed decision into effect.

Z1.24.1 61.3 The *Contractor* notifies the *Project Manager* of an event which has happened or which he expects to happen as a compensation event if

- the *Contractor* believes that the event is a compensation event and
- the *Project Manager* has not notified the event to the *Contractor*.

If the *Contractor* does not notify a compensation event within eight weeks of becoming aware or when he ought reasonably to have become aware of the event, he is not entitled to a change in the Prices, the Completion Date or a Key Date unless the event arises from the *Project Manager* or the *Supervisor* giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption.

Z1.24.2 61.4 If the *Project Manager* decides that an event notified by the *Contractor*

- arises from a fault of the *Contractor* (or of any subcontractor or supplier of the *Contractor*),
- has not happened and is not expected to happen,
- has no effect upon Defined Cost, Completion or meeting a Key Date or
- is not one of the compensation events stated in this contract

he notifies the *Contractor* of his decision that the Prices, the Completion Date and the Key Dates are not to be changed. If the *Project Manager* decides otherwise, he notifies the *Contractor* accordingly and instructs him to submit quotations.

The *Project Manager* notifies his decision to the *Contractor* and, if his decision is that the Prices, the Completion Date or the Key Dates are to be changed, instructs him to submit quotations before the end of either

- one week after the *Contractor*'s notification or
- a longer period to which the *Contractor* has agreed,

If the *Project Manager's* decision is that the Prices, the Completion Date or the Key Dates are not to be changed, the *Contractor* notifies the *Project Manager* if he does not accept the decision and at the same time of his reasons for not accepting the decision. The *Contractor's* notification does not affect the *Project Manager's* decision that the Prices, Completion Date or the Key Dates are not to be changed. If the *Contractor* does not provide this notification within four weeks of notification of the *Project Manager's* decision, he is treated as having accepted the *Project Manager's* decision.

If the *Project Manager* does not notify his decision, the *Contractor* may notify the *Project Manager* of his failure. A failure by the *Project Manager* to reply within two weeks of this notification is treated as acceptance by the *Project Manager* that the event is a compensation event and an instruction to submit quotations.

61.5 If the *Project Manager* decides that the *Contractor* did not give an early warning of the event which an experienced contractor could have given, he notifies this decision to the *Contractor* when he instructs him to submit quotations.

61.6 If the *Project Manager* decides that the effects of a compensation event are too uncertain to be forecast reasonably, he states assumptions about the event in his instruction to the *Contractor* to submit quotations. Assessment of the event is based on these assumptions. If any of them is later found to have been wrong, the *Project Manager* notifies a correction.

61.7 A compensation event is not notified after the *defects date.*

Quotations for compensation events **62**

62.1 After discussing with the *Contractor* different ways of dealing with the compensation event which are practicable, the *Project Manager* may instruct the *Contractor* to submit alternative quotations. The *Contractor* submits the required quotations to the *Project Manager* and may submit quotations for other methods of dealing with the compensation event which he considers practicable.

Z1.25

Z1.25.1 62.2 Quotations for compensation events comprise proposed changes to the Prices and any delay to the Completion Date and Key Dates assessed by the *Contractor*. The *Contractor* submits details of his assessment in accordance with the requirements of the Works Information with each quotation. If the programme for remaining work is altered by the compensation event, the *Contractor* includes the alterations to the Accepted Programme in his quotation.

62.3 The *Contractor* submits quotations within three weeks of being instructed to do so by the *Project Manager*. The *Project Manager* replies within two weeks of the submission. His reply is

- an instruction to submit a revised quotation,
- an acceptance of a quotation,
- a notification that a proposed instruction will not be given or a proposed changed decision will not be made or
- a notification that he will be making his own assessment.

62.4 The *Project Manager* instructs the *Contractor* to submit a revised quotation only after explaining his reasons for doing so to the *Contractor*. The *Contractor* submits the revised quotation within three weeks of being instructed to do so.

62.5 The *Project Manager* extends the time allowed for

- the *Contractor* to submit quotations for a compensation event and
- the *Project Manager* to reply to a quotation

if the *Project Manager* and the *Contractor* agree to the extension before the submission or reply is due. The *Project Manager* notifies the extension that has been agreed to the *Contractor*.

62.6 If the *Project Manager* does not reply to a quotation within the time allowed, the *Contractor* may notify the *Project Manager* of his failure. If the *Contractor* submitted more than one quotation for the compensation event, he states in his notification which quotation he proposes is to be accepted. If the *Project Manager* does not reply to the notification within two weeks, and unless the quotation is for a proposed instruction or a proposed changed decision, the *Contractor*'s notification is treated as acceptance of the quotation by the *Project Manager*.

Assessing compensation events **63**

Z1.26

63.1 The changes to the Prices are assessed as the effect of the compensation event upon

- the actual Defined Cost of the work already done,
- the forecast Defined Cost of the work not yet done and
- the resulting Fee.

If the compensation event arose from the *Project Manager* or the *Supervisor* giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption, the date which divides the work already done from the work not yet done is the date of that communication. In all other cases, the date is the date of the notification of the compensation event.

63.2 If the effect of a compensation event is to reduce the total Defined Cost, the Prices are not reduced except as stated in this contract.

Z1.26.1 63.3 A delay to the Completion Date is assessed as the length of time that, due to the compensation event, planned Completion is later than planned Completion as shown on the Accepted Programme. A delay to a Key Date is assessed as the length of time that, due to the compensation event, the planned date when the Condition stated for a Key Date will be met is later than the date shown on the Accepted Programme provided always that the delay is only assessed as giving rise to a change in the Completion Date or a Key Date if and to the extent that the compensation event is the principal cause of the delay.

The *Project Manager* may determine an earlier Completion Date or Key Date if the effect of the compensation event is to reduce the time required for Completion or meeting a Key Date.

Z1.26.2 63.4 The rights of the *Employer* and the *Contractor* to changes to the Prices, the Completion Date and the Key Dates are their only rights in respect of a compensation event and the *Employer* has no financial liability to the *Contractor* other than amounts to which the *Contractor* is entitled under this contract.

63.5 If the *Project Manager* has notified the *Contractor* of his decision that the *Contractor* did not give an early warning of a compensation event which an experienced contractor could have given, the event is assessed as if the *Contractor* had given early warning.

Z1.26.3 63.6 Assessment of the effect of a compensation event includes reasonable and proportionate risk allowances for cost and time for matters which have a significant chance of occurring and are at the *Contractor*'s risk under this contract. Assessments take into account the extent to which the compensation event is caused or contributed to by any fault of the *Contractor* and assumes that the *Contractor* has taken all reasonable steps to mitigate the actual or potential effects of the event.

63.7 Assessments are based upon the assumptions that the *Contractor* reacts competently and promptly to the compensation event, that any Defined Cost and time due to the event are reasonably incurred and that the Accepted Programme can be changed.

63.8 A compensation event which is an instruction to change the Works Information in order to resolve an ambiguity or inconsistency is assessed as if the Prices, the Completion Date and the Key Dates were for the interpretation most favourable to the Party which did not provide the Works Information.

63.9 If a change to the Works Information makes the description of the Condition for a Key Date incorrect, the *Project Manager* corrects the description. This correction is taken into account in assessing the compensation event for the change to the Works Information.

63.10 Subject to clause 21A, if **the effect of a compensation event is to reduce the total Defined Cost and the event is**

- **a change to the Works Information or**
- **a correction of an assumption stated by the *Project Manager* for assessing an earlier compensation event**

the Prices are reduced.

63.11 If the effect of a compensation event is to reduce the total Defined Cost and the event is

- **a change to the Works Information, other than a change to the Works Information provided by the *Employer* which the *Contractor* proposed and the *Project Manager* has accepted or**
- **a correction of an assumption stated by the *Project Manager* for assessing an earlier compensation event,**

the Prices are reduced.

63.12 Assessments for changed Prices for compensation events are in the form of changes to the Activity Schedule.

63.13 Not used (as not an Option C clause).

63.14 If the *Project Manager* and the *Contractor* agree, rates and lump sums may be used to assess a compensation event, including those in the Schedule of Rates. For the purposes of this clause 63.14, the Schedule of Rates means the schedule as at the date the initial Proposal (leading to this contract) was issued under clause 4.3 of the Framework Contract.

63.15 If the *Project Manager* and the *Contractor* agree, the *Contractor* assesses a compensation event using the Shorter Schedule of Cost Components. The *Project Manager* may make his own assessments using the Shorter Schedule of Cost Components.

The *Project Manager*'s Assessments

64

Z1.27

Z1.27.1

64.1 The *Project Manager* assesses a compensation event

- if the *Contractor* has not submitted a quotation and details of his assessment in accordance with the Works Information within the time allowed,
- if the *Project Manager* decides that the *Contractor* has not assessed the compensation event correctly in a quotation and he does not instruct the *Contractor* to submit a revised quotation,
- if, when the *Contractor* submits quotations for a compensation event, he has not submitted a programme or alterations to a programme which this contract requires him to submit or
- if, when the *Contractor* submits quotations for a compensation event, the *Project Manager* has not accepted the *Contractor*'s latest programme for one of the reasons stated in this contract.

64.2 The *Project Manager* assesses a compensation event using his own assessment of the programme for the remaining work if

- there is no Accepted Programme or
- the *Contractor* has not submitted a programme or alterations to a programme for acceptance as required by this contract.

64.3 The *Project Manager* notifies the *Contractor* of his assessment of a compensation event and gives him details of it within the period allowed for the *Contractor*'s submission of his quotation for the same event. This period starts when the need for the *Project Manager*'s assessment becomes apparent.

64.4 If the *Project Manager* does not assess a compensation event within the time allowed, the *Contractor* may notify the *Project Manager* of his failure. If the *Contractor* submitted more than one quotation for the compensation event, he states in his notification which quotation he proposes is to be accepted. If the *Project Manager* does not reply within two weeks of this notification the

notification is treated as acceptance of the *Contractor*'s quotation by the *Project Manager*.

Implementing compensation events

65

65.1 A compensation event is implemented when

Z1.28

- the *Project Manager* notifies his acceptance of the *Contractor*'s quotation,
- the *Project Manager* notifies the *Contractor* of his own assessment, or
- a *Contractor*'s quotation is treated as having been accepted by the *Project Manager*.

65.2 The assessment of a compensation event is not revised if a forecast upon which it is based is shown by later recorded information to have been wrong.

Z1.28.1

65.3 The *Contractor* notifies the *Project Manager* if he does not accept the *Project Manager's* assessment and at the same time of his reasons for not accepting the *Project Manager's* assessment. If the *Contractor* does not provide this notification within four weeks of notification of the *Project Manager's* assessment, he is treated as having accepted the *Project Manager's* assessment.

65.4 The changes to the Prices, the Completion Date and the Key Dates are included in the notification implementing a compensation event.

7 Title

The *Employer*'s title to Plant and Materials **70**

Z1.29

Z1.29.1 70.1 Whatever title the *Contractor* has to Plant and Materials which is outside the Working Areas passes to the *Employer* as soon as the *Contractor* or *Supervisor* has marked them as for this contract or the *Employer* makes payment (partial or otherwise) for them, whichever is the earlier. The *Contractor* ensures that such Plant and Materials are clearly identified as belonging to the *Employer* and are set aside for the *Employer*.

70.2 Whatever title the *Contractor* has to Plant and Materials passes to the *Employer* if it has been brought within the Working Areas. The title to Plant and Materials passes back to the *Contractor* if it is removed from the Working Areas with the *Project Manager*'s permission.

Z1.29.2 70.3 Where required by the Works Information, or if otherwise requested by the *Project Manager*, the *Contractor* provides proof of his title to Plant and Materials prior to their value being included in the assessment of any amount due under this contract.

Marking Equipment, Plant and Materials outside the Working Areas **71**

71.1 The *Supervisor* marks Equipment, Plant and Materials which are outside the Working Areas if

- this contract identifies them for payment and
- the *Contractor* has prepared them for marking as the Works Information requires.

Removing Equipment **72**

72.1 The *Contractor* removes Equipment from the Site when it is no longer needed unless the *Project Manager* allows it to be left in the *works*.

Objects and materials within the site **73**

73.1 The *Contractor* has no title to an object of value or of historical or other interest within the Site. The *Contractor* notifies the *Project Manager* when such an object is found and the *Project Manager* instructs the *Contractor* how to deal with it. The *Contractor* does not move the object without instructions.

73.2 The *Contractor* has title to materials from excavation and demolition only as stated in the Works Information.

8 Risks and insurance

***Employer*'s risks** **80**

Z1.30 80.1 The following are *Employer*'s risks.

- Claims, proceedings, compensation and costs payable which are due to
  - use or occupation of the Site by the *works* or for the purpose of the *works* which is the unavoidable result of the *works*,
  - negligence, breach of statutory duty or interference with any legal right by the *Employer* or by any person employed by or contracted to him except the *Contractor* or

Z1.30.1
  - a fault of the *Employer* or a fault in his design (save where this contract provides that the *Contractor* is responsible for such design / verifying its efficacy).
- Loss of or damage to Plant and Materials supplied to the *Contractor* by the *Employer*, or by Others on the *Employer*'s behalf, until the *Contractor* has received and accepted them.
- Loss of or damage to the *works*, Plant and Materials due to
  - war, civil war, rebellion, revolution, insurrection, military or usurped power,
  - strikes, riots and civil commotion not confined to the *Contractor*'s employees or
  - radioactive contamination.
- Loss of or wear or damage to the parts of the *works* taken over by the *Employer*, except loss, wear or damage occurring before the issue of the Defects Certificate which is due to
  - a Defect which existed at take over,
  - an event occurring before take over which was not itself an *Employer*'s risk or
  - the activities of the *Contractor* on the Site after take over.
- Loss of or wear or damage to the *works* and any Equipment, Plant and Materials retained on the Site by the *Employer* after a termination, except loss, wear or damage due to the activities of the *Contractor* on the Site after the termination.
- Damage caused by the *Employer* or *Others* to the parts of the works used by the *Employer* or *Others* before Completion, except damage occurring which is due to:
  - a Defect
  - an event occurring before use by the Employer or Others which was not itself an Employer's risk or
  - the activities of the Contractor on the Site before Completion
- Additional *Employer*'s risks stated in the Contract Data Part One.

80.2 No matter in the Risk Register which is stated as being the *Employer's* responsibility, or 'owned' by the *Employer*, shall be read or construed as:

- being an additional *Employer's* risk (unless and to the extent such matter is specified within the Contract Data Part One as an additional *Employer's* risk), or
- amending any *Employer's* risk or any compensation event under this contract.

The *Contractor*'s risks **81**

81.1 From the *starting date* until the Defects Certificate has been issued, the risks which are not carried by the *Employer* are carried by the *Contractor*.

Repairs **82**

82.1 Until the Defects Certificate has been issued and unless otherwise instructed by the *Project Manager*, the *Contractor* promptly replaces loss of and repairs damage to the *works*, Plant and Materials.

Indemnity **83**

Z1.31

Z1.31.1 83.1 The *Contractor* is responsible for and indemnifies the *Employer*, his employees and agents and members of the TfL Group against all Losses in respect of events or matters which ~~is~~ are at his risk including:

- personal injury to or death of any person;
- loss of or damage to property real or personal belonging to the *Employer* or for which it is responsible other than to the *works*; and
- any other Losses arising under his contracts with Others.

Without prejudice to the foregoing, the *Contractor* provides this indemnity against:

- all Losses arising from any infringement of any intellectual property right of any third party (including a Subcontractor) arising out of the design, construction or use of the *works* or the project,
- any Losses arising from the *Contractor's* failure to account for or to pay any VAT relating to payments made to the *Contractor* under this contract in accordance with clause 51.6;
- any Losses arising from any nuisance or interference referred to in clause Z2.6 and which could have been avoided by the *Contractor* using all reasonable and practical means, and
- any Losses arising from any breach of Data Protection Legislation or clause Z2.17.

Z1.31.2 83.2 The *Contractor's* liability to indemnify the *Employer*, his employees and agents and members of the TfL Group is reduced if events at the *Employer's* risk contributed to the Losses. The reduction is in proportion to the extent that events which were at the *Employer's* risk contributed, taking into account each Party's responsibilities under this contract. The *Contractor's* indemnity under clause 83.1 remains in force for the duration of this contract and continues to survive expiry or termination of the contract along with any other clauses or schedules of the contract necessary to give effect to it.

Z1.31.3 83.3 Notwithstanding any other clause in this contract the *Contractor's,* and its Subcontractors', liability for damage to existing structures belonging to the *Employer* which do not form part of the *works* and which arises during the carrying out of the *works* at the Site shall be limited to £25,000 per occurrence and the *Employer* will ensure that its property insurers waive rights of subrogation against the *Contractor* and its Subcontractors for such Losses.

Remedies

Z1.32

Z1.32.1 83A.1 The Parties acknowledge and agree that the payment or deduction of:

(a) liquidated damages for disruption to the Underground Network pursuant to clause Z2.12 is without prejudice to the *Employer's* right to delay damages pursuant to Option X7; and

(b) delay damages pursuant to Option X7 is without prejudice to the *Employer's* right to liquidated damages for disruption pursuant to clause Z2.12.

PROVIDED THAT the Parties agree that either or both of (a) liquidated damages for disruption to the Underground Network pursuant to clause Z2.12 and (b) delay damages the *Contractor* pays pursuant to Option X7 constitute the sole remedy for the *Employer* for such delay and disruption. For the avoidance of doubt, damages the *Contractor* pays pursuant to clause Z2.12 and/or Option X7 are excluded from the limitations of liability, as set out in Option X18 and the Contract Data.

Insurance cover **84**

Z1.33

Z1.33.1 84.1 The Parties provide the insurances stated in the Insurance Table. The *Contractor* provides additional insurances as stated in the Contract Data.

Z1.33.2 84.2

Insurance Table		
Insurance Against	**Party Responsible for ensuring insurance is in place**	**Minimum amount of cover or minimum limit of indemnity**
Construction All Risks insurance All risks of loss of or damage (not excluded by the terms and conditions of the policy) to the *works* and Plant and Materials, temporary works (i.e. works erected or constructed for the purpose of making possible the erection or installation of the *works*), equipment, temporary buildings and property owned by or supplied by the *Employer*.	*Employer* in the joint names of the Parties and any other contractors or subcontractors of any tier engaged in carrying out the *works* on the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.	The full reinstatement value of the *works*
Public liability insurance All sums for which the insured becomes legally liable to pay as damages in respect of death of or	*Employer*	Not less than £10,000,000 per occurrence or as

injury or illness or disease to third parties and/or loss of or damage to third party property, obstruction, loss of amenities, trespass, nuisance or any like cause happening during the period of insurance and arising out of or in connection with the carrying out of the *works* at the Site (unless excluded by the terms and conditions of the policy).	in the joint names of the Parties and any other contractors or subcontractors of any tier engaged in carrying out the *works* on the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.	otherwise stated in the Contract Data.
Employer's liability insurance Liability for death of or bodily injury or illness sustained by employees of the *Contractor* arising out of or in the course of their employment in connection with this contract or the Project	*Contractor*	Not less than £10,000,000 per occurrence or as otherwise stated in the Contract Data, whichever is the greater
Contractor's Equipment loss insurance Loss of or damage to constructional plant, tools, equipment, temporary buildings (including contents therein) belonging to or the responsibility of the *Contractor*	*Contractor*	The replacement cost
Professional Indemnity Insurance Fault in respect of design of the *works* or other professional services for which the *Contractor* or his Subcontractors is responsible.	*Contractor*	£10,000,000 in the aggregate or as otherwise stated in the Contract Data

Z1.33.3 84.3 In respect of the insurances provided by the *Contractor*:

- the insurances provide cover from the *starting date* until the Defects Certificate or a termination certificate has been issued, whichever is the later, provided however that the *Contractor* ensures that his professional indemnity insurance is in place from the Contract Date until not less than 12 years after Completion;
- the *Contractor* bears the cost of all premiums, which is deemed to be included in the Fee;

- if such professional indemnity insurance ceases to be available at commercially reasonable rates and on reasonable terms, the Parties meet and the *Contractor* outlines the steps he intends to take to manage such risks. If the steps proposed by the *Contractor* are not acceptable to the *Employer* (acting reasonably), the Parties agree an alternative method of managing such risk.

Z1.33.4 84.4 The *Contractor* does not by any act or fault prejudice, lose or forgo the Parties' right or the right of either of them to make or proceed with a claim against any insurer.

Z1.33.5 84.5 The *Contractor* procures that:

- his Subcontractors (and sub-subcontractors of any tier) maintain employer's liability and (where appropriate) motor liability insurances as required by law; and
- any Subcontractors falling within clause Z2.2.1, maintain professional indemnity insurance covering their liabilities under their subcontracts in respect of their design.

Z1.33.6 84.6 The insurances provided pursuant to this contract do not relieve the *Contractor* from any of his obligations and liabilities under this contract.

Insurance policies **85**

Z1.34

Z1.34.1 85.1 Before the *starting date* and on each renewal of the insurance policy until the *defects date*, the *Contractor* submits to the *Project Manager* for acceptance certificates which state that the insurance required by this contract is in force. The certificates are signed by the *Contractor*'s insurer or insurance broker. A reason for not accepting the certificates is that:

- they do not comply with this contract,
- the proposed insurer is not a reputable insurer authorised to underwrite the insurances in the United Kingdom; or
- the proposed insurer is not, having regard, without limitation, to the size, nature and complexity of the *works*, of sufficient financial strength.

Z1.34.2 85.2 Not used.

85.3 The Parties comply with the terms and conditions of the insurance policies.

Z1.34.3 85.4 Any amount not recovered from an insurer (including excesses or deductibles) is borne by the *Employer* for events which are at his risk and by the *Contractor* for events which are at his risk.

Z1.34.4 85.5 In the event of the insolvency of an insurer of either Party, the insuring Party informs the other Party forthwith on becoming aware thereof and submits documentary evidence of alternative insurance to the other Party for acceptance.

If the *Contractor* does not insure **86**

Z1.35

Z1.35.1 86.1 The *Employer* may insure a risk which this contract requires the *Contractor* to insure if the *Contractor* does not submit a required certificate. The cost of this insurance (including all reasonable expenses incurred by the *Employer* in respect of taking out such insurance) to the *Employer* is paid by the *Contractor*. If the *Employer* insures a risk which this contract requires the *Contractor* to insure, this is without prejudice to any of the *Employer's* other rights, powers or remedies under this contract.

Insurance by the *Employer* **87**

Z1.36

87.1 The *Project Manager* submits policies and certificates for insurances provided by the *Employer* to the *Contractor* for acceptance before the *starting date* and afterwards as the *Contractor* instructs. The *Contractor* accepts the policies and certificates if they comply with this contract.

87.2 The *Contractor*'s acceptance of an insurance policy or certificate provided by the *Employer* does not change the responsibility of the *Employer* to provide the insurances stated in the Contract Data.

87.3 The *Contractor* may insure a risk which this contract requires the *Employer* to insure if the *Employer* does not submit a required policy or certificate. The cost of this insurance to the *Contractor* is paid by the *Employer*.

Z1.36.1

87.4 The *Contractor* co-operates with the *Employer* regarding the handling and settlement of claims under the *Employer's* insurances and complies with the requirements of the *Employer's* insurers in connection with the handling and settlement of claims, including where appropriate the provision of such information, documents and records as the *Employer*, its claims handler and its insurers require.

Z1.36.2

87.5 The *Contractor* complies and ensures that its Subcontractors comply with the requirements of the *Employer's* claims handling procedures, such procedure to be provided to the *Contractor* by the *Employer.*

Z1.36.3

87.6 The *Contractor* does not compromise, settle or waive any claim which the *Contractor* may have under the *Employer's* insurances without the prior written consent of the *Employer*.

Z1.36.4

87.7 The insurances provided by the *Employer* are in effect for the duration of the *works* at the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.

Z1.36.5

87.8 The *Contractor* ensures that each subcontract with its Subcontractors includes an acknowledgement that the Subcontractor is an insured party under the insurances provided by the *Employer* while the Subcontractor is engaged in carrying out the *works* at the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.

9 Termination

Termination 90

Z1.37

90.1 If either Party wishes to terminate the *Contractor*'s obligation to Provide the Works he notifies the *Project Manager* and the other Party giving details of his reason for terminating. The *Project Manager* issues a termination certificate to both Parties promptly if the reason complies with this contract.

90.2 The *Contractor* may terminate only for a reason identified in the Termination Table. The *Employer* may terminate for any reason. The procedures followed and the amounts due on termination are in accordance with the Termination Table.

TERMINATION TABLE

	Terminating Party	Reason	Procedure	Amount due
Z1.37.1	The *Employer*	A reason other than the reasons listed in this Termination Table	P1 and P2	A1 and A2 and A4
		R1–R15, R10A, R18, R25A	P1, P2 and P3	A1 and A3
		R17, ~~or~~ R20	P1 and P3	A1 and A2
		R21	P1 and P4	A1 and A2
		R22-R24	P1, P2 and P3	A1 and A3
		R25	P1 and P4	A1 and A2
		R26A	P1, P2 and P3	A1 and A3
		R27	P1 and P4	A1 and A2
	The *Contractor*	R1–R10, R10A, R16 or R19	P1 and P4	A1, A2 and A4
		R17 or R20	P1 and P4	A1 and A2

90.3 The procedures for termination are implemented immediately after the *Project Manager* has issued a termination certificate.

Z1.37.2 90.4 Within thirteen weeks of termination, the *Project Manager* certifies a final payment to or from the *Contractor* which is the *Project Manager*'s assessment of the amount due on termination less the total of previous payments. Payment

is made within three weeks of the *Project Manager*'s certificate or (where payment is due to the *Contractor*) within three weeks of receipt of the VAT invoice. Within 5 days of issue of the payment certificate the *Contractor* delivers to the *Employer* a VAT invoice in the amount of the certificate.

90.5 After a termination certificate has been issued, the *Contractor* does no further work necessary to Provide the Works.

Reasons for termination **91**

Z1.38

Z1.38.1 91.1 Either Party may terminate if the other Party has done one of the following (or its equivalent in other jurisdictions).

- If the other Party is an individual and has
  - presented his petition for bankruptcy (R1),
  - had a bankruptcy order made against him (R2),
  - had a receiver appointed over his assets (R3) or
  - made an arrangement with his creditors (R4).
- If the other Party is a company or partnership and has
  - had a winding-up order made against it (R5),
  - had a provisional liquidator appointed to it (R6),
  - passed a resolution for winding-up (other than in order to amalgamate or reconstruct) (R7),
  - had an administration order made against it (R8),
  - had a receiver, receiver and manager, or administrative receiver appointed over the whole or a substantial part of its undertaking or assets (R9) or
  - made an arrangement with its creditors (R10).
- If the other Party has become insolvent as defined in section 113 of the Act (R10A).

91.2 The *Employer* may terminate if the *Project Manager* has notified that the *Contractor* has defaulted in one of the following ways and not put the default right within four weeks of the notification.

- Substantially failed to comply with his obligations (R11).
- Not provided a bond or guarantee which this contract requires (R12).
- Appointed a Subcontractor for substantial work before the *Project Manager* has accepted the Subcontractor (R13).

Z1.38.2 91.3 The *Employer* may terminate if the *Project Manager* has notified that the *Contractor* has defaulted in one of the following ways and not stopped defaulting within four weeks of the notification.

- Substantially hindered the *Employer* or Others (R14).
- Substantially broken a health or safety regulation or requirement of this contract (R15).

91.4 The *Contractor* may terminate if the *Employer* has not paid an amount due under the contract within eleven weeks of the date that it should have been paid (R16).

91.5 Either Party may terminate if the Parties have been released under the law from further performance of the whole of this contract (R17).

91.6 If the *Project Manager* has instructed the *Contractor* to stop or not to start any substantial work or all work and an instruction allowing the work to re-start or start has not been given within thirteen weeks,

- the *Employer* may terminate if the instruction was due to a default by the *Contractor* (R18),
- the *Contractor* may terminate if the instruction was due to a default by the *Employer* (R19) and
- either Party may terminate if the instruction was due to any other reason (R20).

Z1.38.3 91.7 The *Employer* may terminate if an event occurs which

- stops the *Contractor* completing the *works* or
- stops the *Contractor* completing the *works* by the date shown on the Accepted Programme and is forecast to delay Completion by more than 13 weeks,

and which

- neither Party could prevent and
- an experienced contractor would have judged at the Contract Date to have such a small chance of occurring that it would have been unreasonable for him to have allowed for it (R21).

Z1.38.4 91.8 The *Employer* may terminate the *Contractor's* appointment in the event of:

- a Safety Breach or a Prohibited Act or in the event the *Contractor* has persistently failed to comply with his obligations under Clause Z2.20 or has failed to comply with its obligations under Clause Z2.17 (R22),
- a conflict of interest which has not been resolved to the *Employer's* satisfaction in accordance with the provisions of Z2.18 (R23),
- any cap on the *Contractor's* liability under this contract has been or is reasonably likely to be exceeded (R24),
- the *Employer* not obtaining any necessary funding for the Project and/or the necessary funding is curtailed (R25),
- A Change of Control (R25A).

Z1.38.5 91.9 In the event that either:

- any court or other competent authority declares or orders that this contract or the Framework Contract is ineffective or shortened pursuant to the *law of the contract* from time to time including any applicable law, directive or requirement of the European Union; or
- this contract or the Framework Contract has been subject to any substantial modification which would require a new procurement procedure in accordance with regulation 72(9) of the Public Contracts Regulations 2015 or regulation 88(8) of the Utilities Contract Regulations 2016; or
- the *Contractor* has, at the time of contract award, been in one of the situations referred to in regulation 57(1) of the Public Contracts Regulations 2015 (to the extent not already covered by this clause 91.9) and should therefore have been excluded from the procurement procedure in accordance with those regulations; or
- to the extent not already provided for in this clause 91.9, the *Employer* may terminate if it determines that the contract or the Framework Contract should not have been awarded to the *Contractor* in view of a serious infringement of the obligations contained under the EU Treaties and / or the applicable procurement regulations,

then:

- the *Employer* notifies the *Project Manager* and the *Contractor* in writing as soon as reasonably practicable of the declaration or order;

- the *Project Manager* issues a termination certificate to both Parties certifying the date the contract became or is to become ineffective or shortened; and
- the contract is deemed for all purposes to have been terminated by the *Employer* on the date named in the termination certificate (R26).

Notwithstanding the declaration or order, the provisions of clauses 90-93 continue in full force and effect along with any other provisions of this contract or the Framework Contract necessary to give effect to them. In addition, any provisions of the contract or the Framework Contract which by their nature or implication are required to regulate, determine or limit the Parties' rights and liabilities that have accrued at the date the contract became ineffective or shortened survive the declaration or order as aforesaid.

Z1.38.6 91.10 The *Employer* may terminate the *Contractor's* appointment if an event occurs which is an *additional termination event* (R27).

Z1.38.7 **91.11 Without limiting sub-clause 93, the *Employer* may terminate if the *Project Manager* assesses at any time that (having regard to the Price for Work Done to Date and the total of the Prices at the relevant time):**

- **the final Price for Work Done to Date is likely to exceed the final total of the Prices; and**
- **the resulting forecast of the *Contractor's* share of the excess is likely to exceed the *share termination threshold* (R26A).**

Procedures on termination **92**

Z1.39

92.1 On termination, the *Employer* may complete the *works* and may use any Plant and Materials to which he has title (P1).

Z1.39.1 92.2 The procedure on termination also includes one or more of the following as set out in the Termination Table. In each case, the Site is left in a safe, clean and workmanlike condition to the satisfaction of the *Project Manager*.

P2 The *Employer* may instruct the *Contractor* to leave the Site, remove any Equipment, Plant and Materials from the Site and assign the benefit of and/or enter into a novation of any subcontract or other contract related to performance of this contract to the *Employer*.

P3 The *Employer* may use any Equipment to which the *Contractor* has title to complete the *works*. The *Contractor* promptly removes the Equipment from Site when the *Project Manager* notifies him that the *Employer* no longer requires it to complete the *works*.

P4 The *Contractor* leaves the Working Areas and removes the Equipment.

Payment on termination **93**

Z1.40 93.1 The amount due on termination includes (A1)

- an amount due assessed as for normal payments,
- the Defined Cost for Plant and Materials
  - within the Working Areas or
  - to which the *Employer* has title and of which the *Contractor* has to accept delivery,
- other Defined Cost reasonably incurred in expectation of completing the whole of the *works*,
- any amounts retained by the *Employer* and
- a deduction of any un-repaid balance of an advanced payment.

93.2 The amount due on termination also includes one or more of the following as set out in the Termination Table.

A2 The forecast Defined Cost of removing the Equipment.

A3 A deduction of the forecast of the additional cost to the *Employer* of completing the whole of the *works*.

A4 The *fee percentage* applied to any excess of the total of the Prices at the Contract Date over the Price for Work Done to Date.

93.3 Not used (as not an Option C clause).

Z1.40.1 **93.4 If there is a termination, the *Project Manager* assesses the *Contractor*'s share after he has certified termination. His assessment uses, as the Price for Work Done to Date, the total of the Defined Cost which the *Contractor* has paid and which he is committed to pay for work done before termination and the resulting Fee. The assessment uses as the total of the Prices**

- **the lump sum price for each activity which has been completed and**
- **a proportion of the lump sum price for each incomplete activity which is the proportion of the work in the activity which has been completed.**

93.5 Not used (as not an Option C clause).

93.6 The *Project Manager*'s assessment of the *Contractor*'s share is added to the amount due to the *Contractor* on termination if there has been a saving or deducted if there has been an excess.

Contractor's Warranties

Z2.1

Z2.1.1 The *Employer* may at any time before or within 12 years after Completion enter into an agreement or agreements without the *Contractor's* consent being required with:

- PFI Contractors,
- persons providing finance in connection with the *works*,
- purchasers and tenants of the whole or any part of the *works*,
- developers having or acquiring an interest in whole or any part of the *works*;
- any other persons having or acquiring an interest in neighbouring or adjacent property;
- any Oversite Developer;
- any person providing finance in connection with an Oversite Development;
- any tenant of the whole or any part of an Oversite Development;
- any purchaser of an Oversite Development or from an Oversite Developer.

Z2.1.2 The *Contractor*, within 21 days of the *Employer's* request duly executes and delivers to the *Employer* deeds of warranty in the appropriate form contained in Annex 3, in favour of each such persons and/or in favour of any member of the TfL Group.

Subcontractors' Warranties

Z2.2

Z2.2.1 This clause Z2.2 applies to:

- the Subcontractors specified in the Contract Data; and
- any Subcontractors (of any tier) who undertake any material element of design or provide any professional service for the purposes of the *Contractor's* Providing the Works.

Z2.2.2 Each such Subcontractor shall be appointed by deed, on terms approved by the *Project Manager* pursuant to clause 26.

Z2.2.3 Unless informed by the *Employer* in writing that such documents are not required, the *Contractor* shall within 21 days after appointing each such Subcontractor:

- supply a complete certified copy of the Subcontractor's appointment; and
- procure that the Subcontractor duly executes and delivers in favour of the *Employer* a deed of warranty in the appropriate form contained in Annex 4.

Z2.2.3 Whenever the *Employer* from time to time requires, and within 21 days of such request, the *Contractor* shall procure that the Subcontractor duly executes and delivers a deed of warranty in the appropriate form contained in Annex 4 in favour of in favour of any person or person(s) falling within clause Z2.1.1.

Z2.2.4 If the *Contractor* is unable to procure any requisite deed of warranty in the appropriate form and within the timescales required by this clause Z2.2, then without prejudice to the *Employer's* rights and remedies the *Contractor* consults with the *Employer* as to what steps can reasonably be taken to procure the

outstanding warranty and safeguard the *Employer's* (or the relevant third party beneficiary's) interests.

Product guarantees

Z2.3

Z2.3.1 Without prejudice to clauses Z2.1 and Z2.2 or any right or remedy of the *Employer*, the *Contractor* procures in favour of the *Employer*, or takes such steps (including executing any documents) as are reasonably necessary to assign or otherwise transfer to the *Employer* the benefit of:

(c) the product, goods, materials, plant, equipment and/or supplier warranties and guarantees which the Works Information states the *Contractor* is to obtain; and

(d) any other such warranties or guarantees as are available from any subcontractors or suppliers.

Z2.3.2 The *Contractor*:

(d) procures that any and all warranties or guarantees falling within clause Z2.3.1(a) provide cover of not less than 2 years' from installation and conform to the (other) relevant requirements of the Works Information; and

(e) uses reasonable endeavours to procure that any warranties or guarantees falling within clause Z2.3.1(b) conform to the relevant requirements of the Works Information

(f) procures any such warranties or guarantees within the applicable timescales stated in the Works Information, or where no such timescale is stated, within 21 days of the *Employer's* request for the same.

Warranties and Undertakings

Z2.4

Z2.4.1 The *Contractor* warrants and undertakes to the *Employer* as a condition of this contract that:

- he has all the resources including financial, technical and human resources as are required to carry out and complete the *works* in accordance with the *conditions of contract*,
- all design, workmanship, manufacture and fabrication will be in accordance with the Works Information and applicable law,
- the *works* will be carried out using only materials and goods which are of sound and good quality and that he will only specify substances and materials for incorporation in the *works* and only incorporate substances and materials which are in accordance with the Standards, general good building and engineering practice and the requirements of the Works Information,
- the Plant and Materials will on Completion be capable of being used, operated and maintained in a safe, economic and efficient manner, free from any unreasonable risk to the health and well-being of persons using it and free from any unreasonable or avoidable risk of pollution, nuisance, interference or hazard,
- Plant and Materials will not deteriorate at a greater rate than that reasonably to be expected of high quality, reliable, well-designed plant and materials of a similar nature and manufacture,
- neither the functionality nor the performance of the *works*, or any computer product, application or system forming part of the *works*, or any Plant, Materials or Equipment, or any part of the railways on which works are undertaken, or any part of the Underground Network is affected, made inoperable, difficult or suffers any abnormality by reason of any software defect,

- the Plant and Materials will at take-over operate safely in accordance with the specification set out in the Works Information, in combination with any plant, equipment or system to which it is to be connected,
- he will maintain a sufficient supply of the spare parts (including software) necessary for the operation and maintenance of the *works* as specified in the Works Information, and
- the proceeds of insurance taken out by the *Contractor* pursuant to clause 84 of the *conditions of contract* will be used solely for the purposes of the *works* and for no other purpose.

Accounts and Records

Z2.5

Z2.5.1 The *Contractor* maintains and retains (and procures that his Subcontractors maintain and retain) the Minimum Records for a minimum of 12 years from Completion of the *works*.

Z2.5.2 The *Contractor* complies with (and ensures his Subcontractors comply with) the provisions of the Works Information (including the Subcontractor Procurement Plan) regarding accounts and records. The *Employer* and his authorised representatives are entitled to audit the Minimum Records in accordance with the provisions set out in the Works Information.

Z2.5.3 The *Contractor* ensures that any requirements of Data Protection Legislation are complied with to enable the *Employer* to exercise its rights under or pursuant to this clause Z2.5.

Nuisance

Z2.6

Z2.6.1 The *Contractor* uses all reasonable endeavours to prevent any public or private nuisance including nuisance caused by noxious fumes, noisy working operations or the deposit of materials or debris or other interference with the rights of adjoining or neighbouring landowners, tenants or occupiers or Statutory Undertakers arising out of the *works* and, if the *Employer* (acting reasonably) considers that the claim should be defended, defends or, if the *Employer* so elects, assists the *Employer* in defending any action or proceedings which may be instituted in relation thereto.

Z2.6.2 Without prejudice to the *Contractor's* obligations under clause Z2.6.1 if the carrying out of the *works* is likely to necessitate any interference (including the oversailing of tower crane jibs) with the rights of adjoining or neighbouring landowners, tenants or occupiers, the *Contractor* without cost to the *Employer* obtains the prior written agreement of such landowners, tenants or occupiers subject to the approval of the *Employer*. The *Contractor* complies (at his own cost) in every respect with the conditions contained in such agreements.

Intellectual Property Rights

Z2.7

Z2.7.1 **Vesting of IPR**

The Parties agree that the IPR in all Documentation and works that is created wholly or mainly in connection with the performance of this contract (including IPR created by a Subcontractor or sub-subcontractor of any tier) vests in the *Employer*. The *Contractor* procures that each Subcontractor (or sub-subcontractor of any tier) assigns such IPR to the *Employer*.

Z2.7.2 **Background IPR**

In respect of Background IPR, the *Contractor* grants (in respect of his own Background IPR) and procures the grant of (in respect of a Subcontractor's or other third party's Background IPR) a non-exclusive, world-wide, perpetual, irrevocable, royalty free licence (including the right to sub-licence) to the *Employer* to use the Background IPR for the following purposes:

(a) understanding the *works*,

(b) operating, maintaining, repairing, modifying, altering, enhancing, re-figuring, correcting and replacing the *works*, any Equipment or Plant and Materials,

(c) extending, interfacing with, integrating with, connection into and adjusting the *works* and/or the works of Others,

(d) enabling the *Employer* to carry out the operation, maintenance, repair, renewal and enhancement of the Underground Network,

(e) enabling the *Employer* to perform his function and duties as Infrastructure Manager and Operator of the Underground Network,

(f) executing and completing the *works*, and

(g) designing, testing and commissioning the *works.*

Z2.7.3 **Access to Documentation**

The *Contractor* promptly provides (or procures that its Subcontractors provide) the *Employer* or any person nominated by the *Employer* with access to such Documentation (and in such form) as the *Employer* or its nominee may reasonably require from time to time. In the event of any termination / expiry of this contract (for any reason) the *Contractor* hands over to the *Employer* such Documentation (in such form) as the *Employer* may reasonably require, promptly and in any event no later than 7 days after the *Employer's* request.

Z2.7.4 **IPR Claims**

(a) The *Contractor* promptly notifies the *Employer* upon becoming aware of an infringement, alleged infringement or potential infringement of any IPR (including any claims, demands or actions (collectively "Claims") relating to the same) which affects or may affect the provision of the *works*

(b) Subject to the *Employer's* proper observance of its obligations under this contract, the *Contractor* indemnifies the *Employer* against all Claims and Losses that arise from or are incurred by reason of any infringement or alleged infringement of any IPR.

(c) The *Employer*, at the request of the *Contractor*, gives the *Contractor* all reasonable assistance for the purpose of contesting any such Claim. The *Contractor* reimburses the *Employer* for all Losses incurred in doing so and/or the *Contractor* conducts any litigation and all negotiations at its own expense arising from such Claim. The *Contractor* consults with the *Employer* in respect of the conduct of any Claim and keeps the *Employer* regularly and fully informed as to the progress of such Claim.

Z2.7.5 **Corporate IPR**

(a) The *Employer* grants the *Contractor* a non-exclusive, non-transferable, royalty-free licence to the *Contractor* to use,

and allow his Subcontractors to use, the Corporate IPRs for the duration of this contract for the sole purpose of enabling the *Contractor* to Provide the Works and to comply with his obligations under this contract.

(b) The *Contractor* uses, and procures that his Subcontractors use, the Corporate IPRs in compliance with any relevant Standards and applicable law.

(c) The *Contractor* does not use, and procures that his Subcontractors do not use, the Corporate IPRs in combination with any other trade marks without the *Employer's* prior written consent.

(d) On written request by the *Project Manager*, the *Contractor* supplies to the *Project Manager* copies or details of items on or in relation to which it uses the Corporate IPRs or details of the manner in which they are used. If the *Project Manager* reasonably determines that any use of the Corporate IPRs falls below the Standards, the *Project Manager* gives the *Contractor* written notice of that fact and the *Contractor* corrects the use so as to comply with the Standards taking into account the *Project Manager's* instructions.

(e) The *Contractor* is not entitled to bring any action against any third party for infringement relating to the Corporate IPRs and the *Employer* is not obliged to bring or extend any proceedings relating to the Corporate IPRs if it decides in his sole discretion not to do so.

(f) As soon as reasonably practicable after expiry or termination of this contract for any reason, the *Contractor* and his Subcontractors remove the Corporate IPRs from or (where removal is not reasonably practical) destroy or, if the *Project Manager* so elects, deliver to the *Project Manager* or any other UK company or person designated by the *Project Manager*, all items and documents which the *Project Manager* does not require for the operation, maintenance, repair, renewal or enhancement of the Underground Network on or in relation to which the Corporate IPRs are then used.

Assignment

Z2.8

Z2.8.1 The *Contractor* does not assign, transfer, novate, charge or otherwise deal with this contract (or any of his rights or obligations under it) without the *Employer's* prior written consent, save that the *Contractor* may assign the right to receive any payment becoming due to him under this contract by way of debt factoring.

Z2.8.2 The *Employer* may assign, transfer, novate, charge or otherwise deal in whole or in part any benefit or right under this contract at any time to any person.

Confidentiality

Z2.9

Z2.9.1 The *Contractor* treats, and ensures that his Subcontractors (and sub-subcontractors of any tier) treat all information obtained under, arising from or in connection with this contract, the *works* and the Site as confidential. Other than for the purpose of providing the *works* the *Contractor* does not disclose any information or documents concerning this contract to any other person.

Z2.9.2 The *Contractor* and his Subcontractors (and sub-subcontractors of any tier) do not without the prior written consent of the *Employer* disclose any information obtained by the *Contractor* concerning the *Employer*, the TfL Group or the Infracos or PFI Contractors to any other person.

Z2.9.3 The *Employer* may require as a precondition to the granting of such consent, that any such third party provides a confidentiality undertaking to the consenting party in terms satisfactory to the consenting party.

Z2.9.4 Clause Z2.9.1 does not apply to the disclosure of:

(a) any information which is already in the public domain at the time of its disclosure other than by breach of these provisions,

(b) any information disclosed by the *Contractor* to any Connected Persons provided that such recipients agree in writing to be bound by the terms of this confidentiality provision;

(c) any information which is required to be disclosed by any applicable law, the regulations of any stock exchange, any taxation authorities or by an order of a court or other tribunal of competent jurisdiction or any relevant regulatory body.

Z2.9.5 The *Contractor* procures that the Connected Persons comply with the provisions of this clause Z2.9 and is responsible to the *Employer* for any act or omission of any Connected Person in breach of such obligations.

Z2.9.6 The *Contractor* notifies the *Employer* promptly if the *Contractor* becomes aware of any breach of confidence by a Connected Person and gives the *Employer* all assistance the *Employer* may reasonably require in connection with any proceedings the *Employer* may bring or other steps the *Employer* may take against that Connected Person or any other person for such breach of confidence.

Z2.9.7 The *Contractor* acknowledges that damages would not be an adequate remedy for any breach of this Clause by the *Contractor* and that (without prejudice to all other remedies to which the *Employer* may be entitled to as a matter of law) the *Employer* is entitled to any form of equitable relief to enforce the provisions of this Clause.

Z2.9.8 At the *Employer's* request and in any event upon the termination or expiry of the contract, the *Contractor* promptly delivers to the *Employer* or destroy as the *Employer* may direct all documents and other materials in the possession, custody or control of the *Contractor* (or the relevant parts of such materials) that bear or incorporate the whole or any part of the confidential information and if instructed by the *Employer* in writing, remove all electronically held confidential information, including the purging of all disk-based confidential information and the reformatting of all disks.

Z2.9.9 Except as provided under deeds of warranty required by the *Employer* under Sub-clause Z2.1, the *Contractor* does not (and procures that the Connected Persons do not) without the prior written approval of the *Employer* at any time for any reason disclose to any person or publish or make any statement concerning this contract or the *works* or the Site.

Conflict avoidance and disputes resolution

Z2.10

Z2.10.1 The *Employer*, the *Contractor* and the *Project Manager*:

(a) co-operate with each other in the early identification, notification and avoidance or resolution of any Dispute; and

(b) follow the procedures set out in Schedule 7 of the Framework Contract, for the avoidance and resolution of Disputes.

Z2.10.2 Accordingly, the provisions of Schedule 7 of the Framework Contract have effect.

Adjudication

Z2.11

Z2.11.1 The provisions of clause Z2.10, and those of Schedule 7 of the Framework Contract, are without prejudice to any right(s) of either Party to refer a Dispute to adjudication at any time pursuant to the Act.

Liquidated Damages for Disruption (to the Underground Network)

Z2.12

Z2.12.1 The *Contractor* will pay and/or the *Employer* may deduct from the amount due by way of liquidated damages such sums as may be identified and calculated in accordance with Annex 6 to these conditions of contract in respect of any interference with, disruption to, or closure of the Underground Network or any part thereof which is caused by a failure by the *Contractor* to Provide the Works or a breach of his obligations under this contract.

Responsible Procurement

Z2.13

Z2.13.1 The *Contractor* has regard to the Responsible Procurement Principles and complies at all times with the obligations with regard to the Responsible Procurement Principles set out in the Works Information. Compliance with such obligations and instructions does not constitute a compensation event unless the *Project Manager* issues an instruction and states in his instruction that it constitutes a compensation event.

Crime and Disorder

Z2.14

Z2.14.1 The *Contractor* acknowledges that the *Employer* is under a duty in accordance with Section 17 of the Crime and Disorder Act, 1998 to

- have due regard to the impact of crime, disorder and community safety in the exercise of the *Employer's* duties,
- where appropriate, identify actions to reduce levels of crime and disorder,
- without prejudice to any other obligation imposed on the *Employer*, exercise his functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent, crime and disorder in its area,

and in the performance of the contract the *Contractor* assists and co-operates, and uses reasonable endeavours to procure that his Subcontractors (and sub-sub-contractors) assist and co-operate, with the *Employer* where possible to enable the *Employer* to satisfy his duty.

London Living Wage

Z2.15

Z2.15.1 The *Contractor* acknowledges and agrees that the Mayor, pursuant to section 155 of the GLA Act, has directed the TfL Group (including the *Employer*) to ensure that the London Living Wage is paid to anyone engaged by the TfL Group who is required to perform contractual obligations in Greater London or on the Underground Network.

Z2.15.2 Without prejudice to the generality of Clause Z2.15.1, the *Contractor* will and procures that his Subcontractors (and sub-subcontractors of any tier) will:

(a) ensure that none of his employees engaged in the performance of the *works* in Greater London or on the Underground Network (but not otherwise) for two (2) or more hours of work in any given day in a week, for eight (8) or more consecutive weeks in a year is paid an hourly wage (or equivalent of an hourly wage) less than the London Living Wage,

(b) ensure that none of his employees engaged in the performance of the *works* is paid less than the amount to which they are entitled in their respective contracts of employment,

(c) co-operate and provide all reasonable assistance to the *Employer* and any member of the TfL Group in monitoring the effect of the London Living Wage,

(d) provide to the *Employer* or his nominees such information concerning the London Living Wage as the *Employer* or his nominees may reasonably require from time to time, including (without limitation):

- all information necessary for the *Employer* to confirm that the *Contractor* is complying with his obligations under this clause Z2.15, and
- reasonable evidence that sub-clause Z2.15.2(a) is implemented,

(e) in connection with sub-clause Z2.15.2(d)

- acknowledge and agree that the CCSL may contact and meet with any trade unions representing the employees of the *Contractor* and Subcontractor (and sub-subcontractor of any tier) in order to establish that the obligations in sub-clause Z2.15.2(a) have been complied with, and
- liaise and cooperate with the *Employer* and the CCSL in order to establish that the obligations in sub-clause Z2.15.2(a) have been complied with, and

(f) disseminate on behalf of the *Employer* to his employees engaged in the performance of the *works* such perception questionnaires as the *Employer* may reasonably require from time to time and promptly collates and returns to the *Employer* responses to such questionnaires.

Z2.15.3 For the avoidance of doubt, the *Contractor*:

(a) implements the annual increase in the rate of the London Living Wage, and

(a) procures that his Subcontractors (and sub-subcontractors of any tier) implement the annual increase in the rate of the London Living Wage

on or before 1 April in the year following the publication of the increased rate of the London Living Wage.

Z2.15.4 The *Employer* may in accordance with the audit right set out in clause Z2.5 audit and check the provision of the London Living Wage to the employees of the *Contractor* and Subcontractor (and sub-subcontractor of any tier).

Z2.15.5 Any breach by the *Contractor* of the provisions of this clause Z2.15 is treated as the *Contractor* having substantially failed to comply with his obligations for the purpose of clause 91.2 of this contract.

Data Transparency

Z2.16

Z2.16.1 The *Contractor* acknowledges that the *Employer* is subject to the Transparency Commitment. Accordingly, notwithstanding clauses Z2.19 and Z2.9, the *Contractor* hereby gives his consent for the *Employer* to publish the Contract Information to the general public.

Z2.16.2 The *Employer* may in his absolute discretion redact all or part of the Contract Information prior to its publication. In so doing and in his absolute discretion the *Employer* may take account of the exemptions/exceptions that would be available in relation to information requested under the FOI Legislation. The *Employer* may in his absolute discretion consult with the *Contractor* regarding any redactions to the Contract Information to be published pursuant to clause Z2.16.1. The *Employer* makes the final decision regarding publication and/or redaction of the Contract Information.

Data Protection

Z2.17

Z2.17.1 The *Contractor* complies with all of its obligations under the Data Protection Legislation and, if Processing Personal Data on behalf of the *Employer*, only carries out such Processing to Provide the Works in accordance with this contract. With respect to the Parties' rights and obligations under this contract, the Parties acknowledge that the *Employer* is a Data Controller solely responsible for determining the purposes and manner in which Personal Data is to be Processed and the *Contractor* is a Data Processor.

Z2.17.2 Details of the Employer Personal Data to be Processed by the *Contractor* and the purposes of such Processing are as set out in the Processing Statement, which the Parties complete before any Processing takes place.

Z2.17.3 The *Contractor*:

(a) Processes the Employer Personal Data only in accordance with documented instructions from the *Employer* to perform its obligations under this contract;

(b) uses its reasonable endeavours to assist the *Employer* in complying with its obligations under Data Protection Legislation and does not perform its obligations under this contract in such a way as to cause the *Employer* to breach any of its obligations under Data Protection Legislation to the extent the *Contractor* is aware, or ought reasonably to have been aware, that the same would be a breach of such obligations;

(c) notifies the *Employer* immediately if it determines or is notified that an instruction to Process Personal Data issued to it by the *Employer* is incompatible with any obligations under Data Protection Legislation to the extent the *Contractor* is aware, or ought reasonably to have been aware, that the same would be a breach of such obligations;

(d) maintains, and makes available to the *Employer* on its request, documentation which describes the Processing operations for which it is responsible under this contract including:

- the purposes for which Employer Personal Data is Processed,
- the types of Personal Data and categories of Data Subject involved,
- the source(s) of the Personal Data,
- any recipients of the Personal Data,
- the location(s) of any overseas Processing of Employer Personal Data,
- retention periods for different types of Employer Personal Data and
- where possible a general description of the security measures in place to protect Employer Personal Data.

(e) where requested to do so by the *Employer*, or where Processing Employer Personal Data presents a specific risk to privacy, carries out or assists the *Employer* to carry out a Data Protection Impact Assessment in accordance with guidance issued from time to time by the Information Commissioner (and any relevant requirements detailed in Data Protection Legislation) and makes the results of such an assessment available to the *Employer*;

(f) without prejudice to any cyber security and/or payment card industry data security standard obligations in this contract, takes appropriate technical and organisational security measures that are satisfactory to the *Employer* from time to time, against unauthorised or unlawful Processing of Employer Personal Data and against accidental loss, destruction of, or damage to such Employer Personal Data;

(g) without prejudice to any cyber security and/or payment card industry data security standard obligations in this contract, provides the *Employer* with such information as the *Employer* may from time to time require to satisfy itself of compliance by the *Contractor* (including any Subcontractor) with clauses Z2.17.3(f) and Z2.17.3(h), including, protocols, procedures, guidance, training and manuals. For the avoidance of doubt, this includes a full report recording the results of any privacy or security audit carried out at the request of the *Contractor* itself or the *Employer*;

(h) notifies the *Employer* without undue delay and in any event within 24 hours by written notice with all relevant details reasonably available of any actual or suspected breach of this clause Z2.17, including the unauthorised or unlawful Processing of Employer Personal Data, or its accidental loss, destruction or damage;

(i) having notified the *Employer* of a breach in accordance with clause Z2.17.3(h), keeps the *Employer* properly and regularly informed in writing until the breach has been resolved to the satisfaction of the *Employer*;

(j) fully cooperates as the *Employer* requires with any investigation or audit in relation to Employer Personal Data and/or its Processing including allowing access to premises, computers and other information systems, records, documents and agreements as may be reasonably necessary (whether in relation to Processing pursuant to this contract, in relation to compliance with Data Protection Legislation or in relation to any actual or suspected breach), whether by the *Employer* (or any agent acting on its behalf), any relevant regulatory body, including the Information Commissioner, the police and any other statutory law enforcement agency, and does so both during the contract and after its termination or expiry (for so long as the *Contractor* retains and/or Processes Employer Personal Data);

(k) notifies the *Employer* within two (2) business days if the *Contractor* (including any Subcontractor), receives:

- from a Data Subject (or third party on their behalf):
  - a Subject Access Request (or purported Subject Access Request),
  - a request to rectify, block or erase any Employer Personal Data or
  - any other request, complaint or communication relating to the Employer's obligations under Data Protection Legislation;
- any communication from the Information Commissioner or any other regulatory authority in connection with Employer Personal Data; or
- a request from any third party for disclosure of Employer Personal Data where compliance with such request is required or purported to be required by law;

(l) provides the *Employer* with full cooperation and assistance (within the timescales reasonably required by the *Employer*) in relation to any complaint, communication or request made as referred to in clause Z2.17.3(k), including by promptly providing:

- the Employer with full details and copies of the complaint, communication or request;
- where applicable, such assistance as is reasonably requested by the Employer to enable it to comply with the Subject Access Request within the relevant timescales set out in Data Protection Legislation; and
- where applicable, such assistance as is reasonably required by the Employer to enable it to comply with a request from a Data Subject to rectify, block or erase any Employer Personal Data.

(m) when notified in writing by the *Employer*, supplies a copy of, or information about, any Employer Personal Data. The *Contractor* supplies such information or data to the *Employer* within such time and in such form as specified in the request (such time to be reasonable) or if no period of time is specified in the request, then within two (2) business days from the date of the request;

(n) prepares and securely maintains a record of all categories of Processing activities carried out on behalf of the *Employer* in relation to the Employer Personal Data, as a minimum: (i) its name and contact details and details of a Data Protection Officer (if appointed) or other person with responsibility for data protection compliance; (ii) the categories of Processing it carries out on behalf of the *Employer*; (iii) transfers to Restricted Countries; (iv) a general description of the technical and organisational security measures referred to in this clause Z2.17; and (v) the same information in relation to any Subcontractor, together with its name and contact details and when notified in writing by the *Employer*, complies with any agreement between the *Employer* and any Data Subject in relation to any Processing which causes or is likely to cause substantial and unwarranted damage or distress to such Data Subject, or any court order requiring the rectification, blocking, erasure or destruction of any Employer Personal Data;

(o) if required to do so by Data Protection Legislation, appoints a designated Data Protection Officer; and

(p) makes available to the *Employer* all information necessary to demonstrate compliance with the obligations set out in this clause Z2.17.

Z2.17.4 The *Contractor* does not share Employer Personal Data with any Subcontractor without prior written consent from the *Employer* and only where there is a written contract in place between the *Contractor* and the Subcontractor which requires the Subcontractor to:

(a) only Process Employer Personal Data in accordance with the *Employer's* documented instructions to the *Contractor*; and

(b) comply with the same obligations which the *Contractor* is required to comply with under this clause Z2.17 (and clauses Z2.5 and Z2.9).

The *Contractor* remains responsible and liable to the *Employer* for all acts and omissions of any Subcontractor as if they were its own.

Z2.17.5 The *Contractor* itself, and procures that any Subcontractor:

(a) only Processes Employer Personal Data in accordance with the *Employer's* documented instructions to the *Contractor* and as reasonably necessary to perform this contract in accordance with its terms;

(b) does not Process Employer Personal Data for any other purposes (in whole or part) and specifically, but without limitation, reproduce or refer to it in training materials, training courses, commercial discussions and negotiations with third parties or in relation to proposals or tenders with the *Employer*;

(c) does not Process Employer Personal Data in such a way as to:

- place the *Employer* in breach of Data Protection Legislation,
- expose the *Employer* to the risk of actual or potential liability to the Information Commissioner or Data Subjects,
- expose the *Employer* to reputational damage including adverse publicity;

(d) the *Contractor* does not allow its personnel to access Employer Personal Data unless such access is necessary to Provide the Works;

(e) the *Contractor* takes all reasonable steps to ensure the reliability and integrity of the Connected Persons who can access Employer Personal Data;

(f) the *Contractor* ensures that all Connected Persons who can access Employer Personal Data:

- are informed of its confidential nature,
- are made subject to an explicit duty of confidence,
- understand and comply with any relevant obligations created by either this contract or Data Protection Legislation and
- receive adequate training in relation to the use, care, protection and handling of Personal Data on an annual basis;

(g) does not disclose or transfer Employer Personal Data to any third party without the *Contractor* having obtained the prior written consent of the *Employer* (save where such disclosure or transfer is specifically authorised under this contract);

(h) without prejudice to clause Z2.17.3, wherever the *Contractor* uses any mobile or portable device for the transmission or storage of Employer Personal Data, ensures that each such device encrypts Employer Personal Data; and

(i) complies during the course of this contract with any written retention and/or deletion policy or schedule provided by the *Employer* to the *Contractor* from time to time.

Z2.17.6 The *Contractor* does not, and procures that any Subcontractor does not, Process or otherwise transfer any Employer Personal Data in or to any Restricted Countries without prior written consent from the *Employer* (which consent may be subject to additional conditions imposed by the *Employer*).

Z2.17.7 If, after the Contract Date, the *Contractor (*including any Subcontractor) wishes to Process and/or transfer any Employer Personal Data in or to any Restricted Countries, the following provisions apply:

(a) the *Contractor* submits a written request to the *Employer* setting out details of the following:

- the Employer Personal Data which will be transferred to and/or Processed in any Restricted Countries,
- the Restricted Countries which the Employer Personal Data will be transferred to and/or Processed in,
- any Subcontractor or other third parties who will be Processing and/or receiving Employer Personal Data in Restricted Countries,
- how the *Contractor* ensures an adequate level of protection and adequate safeguards in respect of the Employer Personal Data that will be Processed in and/or transferred to Restricted Countries so as to ensure the *Employer's* compliance with Data Protection Legislation,

(b) in preparing and evaluating such a request, the Parties refer to and comply with applicable policies, procedures, guidance and codes of practice produced by the Parties and/or the Information Commissioner in connection with the Processing of Personal Data in (and/or transfer of Personal Data to) any Restricted Countries;

(c) the *Contractor* complies with any instructions and carries out such actions as the *Employer* may notify in writing when providing its consent to such Processing or transfers, including:

- incorporating standard and/or model clauses (which are approved by the European Commission as offering adequate safeguards under the Data Protection Legislation) into this contract or a separate data processing agreement between the Parties; and
- procuring that any Subcontractor or other third party who will be Processing and/or receiving or accessing the Employer Personal Data in any Restricted Countries enters into a data processing agreement with the Contractor on terms which are equivalent to those agreed between the Employer and the Contractor in connection with the Processing of Employer Personal Data in (and/or transfer of Employer Personal Data to) any Restricted Countries, and which may include the incorporation of the clauses referred to in the bullet point above.

Z2.17.8 The *Contractor* and any Subcontractor (if any), acknowledges:

(a) the importance to Data Subjects and the *Employer* of safeguarding Employer Personal Data and Processing it only in accordance with the *Employer's* instructions and this contract;

(b) the loss and damage the *Employer* is likely to suffer in the event of a breach of this contract or negligence in relation to Employer Personal Data;

(c) any breach of any obligation in relation to Employer Personal Data and/or negligence in relation to performance or non-performance of such obligation is deemed a material breach of this contract and

a substantial failure by the *Contractor* to comply with his obligations;

(d) notwithstanding clause 91.2, if the *Contractor* has committed a material breach under clause Z2.17.8(c) on two or more separate occasions, the *Employer* may at its option:

- withdraw authorisation for Processing by a specific Subcontractor by immediate written notice; or
- terminate the *Contractor's* obligation to Provide the Works in whole or part with immediate written notice to the *Contractor*.

Z2.17.9 Compliance by the *Contractor* with this clause Z2.17 is without additional charge to the *Employer* and compliance with this clause is not a compensation event.

Z2.17.10 Following termination or expiry of this contract or termination of the *Contractor's* obligation to Provide the Works, in each case howsoever arising, the *Contractor*:

(a) may Process the Employer Personal Data only for so long and to the extent as is necessary to properly comply with its non-contractual obligations arising under law (and will then comply with clause Z2.17.10(b));

(b) subject to clause Z2.17.10(a)

- on written instructions from the *Employer* either securely destroys or securely and promptly returns to the *Employer* or a recipient nominated by the *Employer* (in such usable format as and to the extent the *Employer* may reasonably require) the Employer Personal Data or
- in the absence of instructions from the *Employer* after 12 months from the expiry or termination of this contract or termination of the *Contractor's* obligation to Provide the Works securely destroys the Employer Personal Data.

Z2.17.11 Employer Personal Data may not be Processed following termination or expiry of this contract or termination of the *Contractor's* obligation to Provide the Works save as permitted by clause Z2.17.10.

Z2.17.12 For the avoidance of doubt, and without prejudice to clause Z2.17.10, the obligations in this clause Z2.17 apply following termination or expiry of this contract or termination of the *Contractor's* obligation to Provide the Works to the extent the Party concerned retains or Processes Employer Personal Data.

Z2.17.13 The *Contractor* takes reasonable precautions to preserve the integrity of the Employer Data and to prevent any corruption or loss of the Employer Data.

Z2.17.14 The *Contractor* indemnifies the *Employer* and members of the TfL Group from and against all Losses resulting from any breach by the *Contractor* or any Subcontractor of the Data Protection Legislation or clause Z2.17. The *Contractor's* liability in respect of any breach of this clause Z2.17 insofar as they relate to fines, court awards, settlements and legal costs is limited to a total of £10,000,000.

Conflict of Interest
Z2.18

Z2.18.1 The *Contractor* acknowledges and agrees that he does not have any interest in any matter where there is or is reasonably likely to be a conflict of interest

with Providing the Works or any member of the TfL Group, save to the extent fully disclosed to and approved in writing by the *Employer*.

Z2.18.2 The *Contractor* undertakes ongoing and regular conflict of interest checks throughout the duration of the contract and in any event not less than once in every six months and notifies the *Employer* in writing immediately on becoming aware of any actual or potential conflict of interest with Providing the Works or any member of the TfL Group and works with the *Employer* to do whatever is necessary (including the separation of staff working and/or data relating to the *works* from the matter in question) to manage such conflict to the *Employer's* satisfaction and provided that, where the *Employer* is not so satisfied (in his absolute discretion), the *Employer* is entitled to terminate the contract.

Freedom of Information

Z2.19

Z2.19.1 The *Contractor* acknowledges that the *Employer*:

- is subject to FOI Legislation and agrees to assist and co-operate with the *Employer* to enable the *Employer* to comply with his obligations under the FOI Legislation, and
- may be obliged under the FOI Legislation to disclose Information without consulting and/or obtaining consent from the *Contractor*.

Z2.19.2 Without prejudice to the generality of Clause Z2.19.1, the *Contractor* agrees and procures that his Subcontractors will agree to:

- transfer to the *Employer* or such other persons as may be notified by the *Employer* to the *Contractor* each Information Request relevant to this contract, the *works* or any member of the TfL Group that the *Contractor* or his Subcontractor (as the case may be) receive as soon as practicable and in any event within 3 days of receiving such Information Request; and
- in relation to Information held by the *Contractor* on behalf of the *Employer*, provide the *Employer* with details about and/or copies of all such Information that the *Employer* requests and such details and/or copies are provided within 6 days of a request from the *Employer* (or such other period as the *Employer* may reasonably specify), and in such forms as the *Employer* may reasonably specify.

Z2.19.3 The *Employer* (as may be directed by TfL) is responsible for determining whether Information is exempt or excepted information under the FOI Legislation and for determining what Information (if any) will be disclosed in response to an Information Request in accordance with the FOI Legislation. The *Contractor* does not himself respond to any person making an Information Request, save to acknowledge receipt, unless expressly authorised to do so in writing by the *Employer*.

Z2.19.4 The *Contractor* acknowledges that the *Employer* (as may be directed by TfL) may be obliged under FOI Legislation to disclose Information without consulting or obtaining consent from the *Contractor*.

Criminal Record Declarations

Z2.20

Z2.20.1 The *Contractor* procures from each Relevant Individual (as the case may be) a declaration that he has no Relevant Convictions (**"Declaration"**) or disclosure of any Relevant Convictions he has committed. A Declaration is procured prior to a Relevant Individual carrying out any aspect of the *works.* The *Contractor* confirms to the *Employer* in writing on request and in any event not less than once in every year that each Relevant Individual has provided a

Declaration. The *Contractor* procures that a Relevant Individual notifies the *Contractor* immediately if he commits a Relevant Conviction throughout the duration of this contract and the *Contractor* notifies the *Employer* in writing immediately on becoming aware that a Relevant Individual has committed a Relevant Conviction.

Z2.20.2 The *Contractor* is not permitted to engage or allowed to act on behalf of the *Contractor* or any Subcontractor in the performance of any aspect of the *works* any Relevant Individual who has disclosed a Relevant Conviction.

Z2.20.3 The *Employer* may in accordance with the audit rights set out or referred to in Clause Z2.5 audit and check any and all such records as are necessary or referred to in order to monitor compliance with this Clause at any time during performance of this contract.

Z2.20.4 If the *Contractor* fails to comply with the requirements under Clauses Z2.20.1 and/or Z2.20.2, the *Employer* may, without prejudice to his rights under Clause 91.8, serve notice on the *Contractor* requiring the *Contractor* to immediately remove or procure the removal of (as the case may be) any Relevant Individual who has not provided a Declaration from the Site with immediate effect and take such steps as are necessary to ensure that such Relevant Individual has no further involvement with the carrying out of the *works* unless (in the case of non-compliance with Clause Z2.20.1) within 7 days of receipt of the notice the *Contractor* confirms to the *Employer* he has procured all of the Declarations required under Clause Z2.20.1.

Z2.20.5 A persistent breach of Clause Z2.20.1 and/or Z2.20.2 by the *Contractor* constitutes a material breach of this contract and entitles the *Employer* to terminate the contract in whole or in part with immediate effect in accordance with Clause 91.8.

Z2.20.6 If either Party becomes aware that a Relevant Individual has committed a Relevant Conviction, the *Contractor* removes or procures the removal (as the case may be) of such Relevant Individual from the Site with immediate effect and take such steps as are necessary to ensure that such Relevant Individual has no further involvement with the carrying out of the *works*.

Z2.20.7 Nothing in this Clause Z2.20 in any way waives, limits or amends any obligation of the *Contractor* to the *Employer* arising under this contract and the *Contractor's* obligation to Provide the Works remain in full force and effect and the *Contractor* cannot claim any extra costs or time as a result of any actions under this Clause Z2.20.

Best Value

Z2.21

Z2.21.1 The *Contractor* acknowledges that TfL is a best value authority for the purposes of the Local Government Act 1999 and as such TfL and the *Employer* are required to make arrangements to secure continuous improvement in the way they exercise their functions, having regard to a combination of economy, efficiency and effectiveness. The *Contractor* assists the *Employer* (and, where appropriate, TfL) to discharge this duty and agrees to negotiate in good faith any changes to this contract in order for the *Employer* (and, where appropriate, TfL) to achieve best value.

Prohibited Acts

Z2.22

Z2.22.1 The *Contractor* does not and uses his reasonable endeavours to procure that his Subcontractors (and sub-subcontractors of any tier) do not commit any Prohibited Act.

Z2.22.2 Without prejudice to his rights under Clause Z2.5 the *Employer* may audit and check any and all such records as are necessary in order to monitor compliance with this clause at any time during performance of this contract and during the 12 years thereafter.

Z2.22.3 If the *Contractor*, any of his shareholders or any Subcontractor or anyone employed by or acting on behalf of the *Contractor* or any of his agents commits any Prohibited Act, this constitutes a material breach of this contract and entitles the *Employer* to terminate the contract in whole or in part with immediate effect in accordance with clause 91.8.

Z2.22.4 If a Prohibited Act is committed by an employee of the *Contractor* or by any Subcontractor (or employee or agent of such Subcontractor) then the *Employer* may (at his sole discretion) choose to serve a warning notice upon the *Contractor* instead of exercising his right to terminate with immediate effect and unless, within thirty (30) days of receipt of such warning notice, the *Contractor* removes or procures the removal of the relevant employee or Subcontractor (as the case may be) from the Site and (if necessary) procures the provision of the affected *works* by another person or Subcontractor this constitutes a material breach of this contract and entitles the *Employer* to terminate the contract in whole or in part with immediate effect in accordance with clause 91.8.

CDM Regulations

Z2.23

Z2.23.1 The *Employer* appoints the *Contractor* to be the principal contractor and (if so specified within the Contract Data) Principal Designer for the purposes of the *works*.

Z2.23.2 Each Party undertakes to the other that it has complied and will comply with its statutory duties under the CDM Regulations in relation to the *works*.

Z2.23.3 Before the date of Completion of each *section* the *Contractor* is to provide:

- (where the *Contractor* is appointed as the Principal Designer) to the *Employer* two paper copies and two electronic copies of the health and safety file (updated for each *section* of the *works*) conforming to the requirements of the CDM Regulations; or
- (where the *Contractor* is not appointed as the Principal Designer) to the Principal Designer such information as the Principal Designer reasonably requires the *Contractor* to provide for inclusion in the health and safety file.

Not used

Z2.24

Not used

Z2.25

As-builts etc.

Z2.25

Z2.25.1 At or before (and as a condition of) Completion of the *works* or any *section*, the *Contractor* shall without charge provide to the *Project Manager* all requisite:

- as-built documentation and final issue drawings and specifications; and
- operation and maintenance manuals,

as are specified in the Standards (including without limitation the *Employer's* Category 1 Standard S1900 (Quality Inspection Completion Certificate)) and any and all additional requirements of the Works Information.

Site conditions

Z2.26

Z2.26.1 The *Employer* gives no warranty or representation as to the condition of the Site, any existing structures, plant or assets or any adjoining property or any services in or under the Site or as to the accuracy or sufficiency of any soils or survey data or other data contained in the Works Information or otherwise made available to the *Contractor* by the *Employer*, or as to any recommendations or conclusions made or reached in any such document.

Approvals / consents etc.

Z2.27

Z2.27.1 Subject to clause Z2.27.2, the *Contractor* obtains any and all approvals, licences and consents required from Others, and complies with their lawful requirements, for or in connection with Providing the Works.

Z2.27.2 The *Employer* shall be responsible for obtaining any and all approvals, licences or consents which are stated in the Works Information or in any relevant Standards as being for the *Employer* to obtain.

Where the *Employer* is so responsible, the *Contractor* shall provide the *Employer* with all information, drawings or other documents as and when reasonably requested by the *Employer* which are necessary for the *Employer* to obtain the requisite approvals, licences and consents.

Z2.27.3 The *Contractor* is not entitled to a compensation event as a result of its compliance with the requirements of this clause Z2.27.

Part 3 - Option Clauses

DISPUTE RESOLUTION

Option W1 - Not used

Option W2 – Not used (see Z2.10 and Z2.11, and Schedule 7 of the Framework Contract)

SECONDARY OPTION CLAUSES

Option X1: Price adjustment for inflation

Defined terms **X1**

X1.1 (a) The Base Date Index (B) is the latest available index before the *base date*.

(b) The Latest Index (L) is the latest available index before the date of assessment of an amount due.

(c) The Price Adjustment Factor is the total of the products of each of the proportions stated in the Contract Data multiplied by (L – B)/B for the index linked to it.

Price Adjustment Factor

X1.2 If an index is changed after it has been used in calculating a Price Adjustment Factor, the calculation is repeated and a correction included in the next assessment of the amount due.

The Price Adjustment Factor calculated at the Completion Date for the whole of the *works* is used for calculating price adjustment after this date.

Compensation events

X1.3 The Defined Cost for compensation events is assessed using the

- Defined Cost current at the time of assessing the compensation event adjusted to *base date* by dividing by one plus the Price Adjustment Factor for the last assessment of the amount due and
- Defined Cost at *base date* levels for amounts calculated from rates stated in the Contract Data for employees and Equipment.

X1.4 Not used as not Option A

Price adjustment Option C

X1.5

Each time the amount due is assessed, an amount for price adjustment is added to or deducted from the total of the Prices which is the sum of

- the change in the Price for Work Done to Date since the last assessment of the amount due multiplied by (PAF/(1 + PAF)) where PAF is the Price Adjustment Factor for the date of the current assessment and
- correcting amounts, not included elsewhere, which arise from changes to indices used for assessing previous amounts for price adjustment.

Option X2: Changes in the law

Changes in the law **X2**

Z1.40A.1

X2.1 A change in the law of the country in which the Site is located is a compensation event if it occurs after the Contract Date. The *Project Manager* may notify the *Contractor* of a compensation event for such a change in the law and instruct him to submit quotations. If the effect of a compensation event which is a change in the law is to reduce the total Defined Cost, the Prices are reduced.

X2.2 A change in guidance of the country in which the Site is located and issued by Public Health England (or any successor body) in connection with the

Coronavirus Pandemic is a compensation event if it occurs after the Effective Date. The *Project Manager* may notify the *Contractor* of a compensation event for such a change in the law and instruct him to submit quotations. If the effect of a compensation event which is a change in such guidance is to reduce the total Defined Cost, the Prices are reduced.

For the purpose of this clause X2.2, "Effective Date" shall mean 1 August 2021.

Option X3 - Not used

Option X4 - Not used

Option X5: Sectional Completion

Sectional Completion **X5**

X5.1 In these *conditions of contract*, unless stated as the whole of the *works*, each reference and clause relevant to

- the *works*,
- Completion and
- Completion Date

applies, as the case may be, to either the whole of the *works* or any *section* of the *works*.

Option X6: Bonus for early Completion

Bonus for early Completion **X6**

X6.1 The *Contractor* is paid a bonus calculated at the rate stated in the Contract Data for each day from the earlier of

- Completion and
- the date on which the *Employer* takes over the *works*

until the Completion Date.

Option X7: Delay damages

Delay damages **X7**

X7.1 The *Contractor* pays delay damages at the rate stated in the Contract Data from the Completion Date for each day until the earlier of

- Completion and
- the date on which the *Employer* takes over the *works* and
- the date on which the *Project Manager* issues a termination certificate or the date on which the contract is otherwise terminated for any reason.

X7.2 If the Completion Date is changed to a later date after delay damages have been paid, the *Employer* repays the overpayment of damages with interest. Interest is assessed from the date of payment to the date of repayment and the date of repayment is an assessment date.

X7.3 If the *Employer* takes over a part of the *works* before Completion, the delay damages are reduced from the date on which the part is taken over. The *Project Manager* assesses the benefit to the *Employer* of taking over the part of the *works* as a proportion of the benefit to the *Employer* of taking over the whole of the *works* not previously taken over. The delay damages are reduced in this proportion.

Option X12 - Not used

Option X13: Performance bond

Performance bond **X13**

X13.1

Z1.43.1 X13.1 The *Contractor* gives the *Employer* a performance bond, provided by a bank or insurer which the *Project Manager* has accepted, for the amount stated in the Contract Data and in the form set out in Annex 2 . A reason for not accepting the bank or insurer is that it is not licensed to carry out surety business in the United Kingdom or that its commercial position is not strong enough to carry the bond. Its commercial position will not (unless the *Project Manager* agrees otherwise) be strong enough if it is rated less than 'A+' (Standard & Poors) (or its equivalent from each of the ratings agencies which rate the bond provider). The bond is at the Contract Date unless the *Employer* (in its sole discretion) gives its prior written consent to the bond being given by a later date.

Z1.43.2 X13.2 If a performance bond expires in accordance with its terms prior to the issue of the Defects Certificate or the provider of a performance bond no longer holds a long-term credit rating of at least 'A' (Standard & Poors) (or its equivalent from each of the ratings agencies which rate the bond provider) and if the *Employer* so requests, the *Contractor* provides to the *Employer* a bond in the same form and amount (net of any claims previously made on the bond) as that originally provided and from a bank or insurer which the *Project Manager* has accepted:

- in the case of an expired bond, not later than 7 days before the expiry of the original bond; or
- in the case of a downgraded credit rating, within 35 days of the *Employer's* request for a replacement bond.

Failure by the *Contractor* to provide to the *Employer* a replacement bond will constitute default under the contract sufficient to enable the *Employer* to make a demand under the original bond or terminate the contract.

Option X14 - Not used

Option X15 - Limitation of the *Contractor's* liability for his design to reasonable skill and care

The *Contractor's* design **X15**

Z1.44.1 X15.1 The *Contractor* is not liable for Defects in the works due to his design so far as he proves that he used all the reasonable skill care and diligence normally used by an appropriate and competent professional designer experienced in carrying out design works similar to those included in the works in connection with projects of a similar size, scope and complexity to the Project to ensure that his design complied with the Works Information.

X15.2 If the *Contractor* corrects a Defect for which he is not liable under this contract it is a compensation event.

Option X16 - Not used

Option X17 - Not used

Option X18: Limitation of liability

Limitation of liability **X18**

Z1.46.1 X18.1 Without prejudice to the *Employer's* entitlement to delay damages (Option X7), or liquidated damages for disruption pursuant to Z2.12, the *Contractor*'s liability to the *Employer* for the *Employer*'s indirect or consequential loss is limited to the amount stated in the Contract Data.

X18.2 For any one event, the liability of the *Contractor* to the *Employer* for loss of or damage to the *Employer*'s property is limited to the amount stated in the Contract Data.

Z1.46.2 X18.3 The *Contractor*'s liability to the *Employer* for Defects due to his design which are not listed on the Defects Certificate is not limited by the issue of the Defects

Certificate and is in addition to any damages stated in this contract for delay or disruption. The Defects Certificate is not evidence of the *Contractor's* having complied with core clause 2 (the *Contractor's* main obligations) or core clause 4 (Testing and Defects).

Z1.46.3 X18.4 The *Contractor*'s total liability to the *Employer* for all matters arising under or in connection with this contract, other than the excluded matters, is limited to the amount stated in the Contract Data and applies in contract, tort or delict and otherwise to the extent allowed under the *law of the contract*.

The excluded matters are amounts payable by the *Contractor* as stated in this contract for

- loss of or damage to the *Employer*'s property,
- liquidated damages for disruption (Z2.12),
- delay damages if Option X7 applies,
-
- *Contractor's* share if Option C applies and
- the matters listed in X18.6.

Z1.46.4 X18.5 Not used.

Z1.46.5 X18.6 The limitations in X18.1, X18.2 and X18.4 do not apply to any liability for:

- death or bodily injury;
- Losses caused by fraudulent acts or acts of a criminal nature;
- Losses against which the *Employer* or any member of the TfL Group is entitled to an indemnity under clause 51.6;
- Losses against which the *Contractor* is entitled to an indemnity under any policy of insurance other than professional indemnity insurance;
- any other Losses against which the *Employer* or any member of the TfL Group is entitled to an indemnity under clause 83.1, in respect of;
    - any infringement of intellectual property right of any third party (including a Subcontractor) arising out of the design, construction or use of the works or the project;
    - any Losses from the *Contractor's* failure to account for or to pay any VAT relating to payments made to the *Contractor* under this contract in accordance with clause 51.6,
    - any Losses arising from any nuisance or interference referred to in clause Z2.6 and which could have been avoided by the *Contractor* using all reasonable and practical means;
    - Losses caused by the *Contractor* breaching any of clauses 27.4, Z2.8 (Assignment and novation), Z2.9 (Confidentiality) or Z2.22 (Prohibited Acts); or
    - Losses arising from a Change of Control by the *Contractor* to which the *Employer* has not consented;
- Losses caused by the *Contractor's* breach of Clause Z2.17;
- costs in any proceedings; or
- interest on any debt or damages.

Option X20: Key Performance Indicators

Incentives X20.1 A Key Performance Indicator is an aspect of performance by the *Contractor* for which a target is stated in the Incentive Schedule. The Incentive Schedule is the *incentive schedule* unless later changed in accordance with this contract.

X20.2 From the *starting date* until the Defects Certificate has been issued, the *Contractor* reports to the *Project Manager* his performance against each of the

Key Performance Indicators. Reports are provided at the intervals stated in the Contract Data and include the forecast final measurement against each indicator.

X20.3 If the *Contractor*'s forecast final measurement against a Key Performance Indicator will not achieve the target stated in the Incentive Schedule, he submits to the *Project Manager* his proposals for improving performance.

X20.4 Not used.

X20.5 The *Employer* may add a Key Performance Indicator to the Incentive Schedule or revise any existing Key Performance Indicator, by mutual agreement.

Single Point Design Responsibility **X21**

Z1.47

X21.1 In this Option, "***Employer's* Design Information**" means any drawings, proposals, specifications, method statements, designs, plans, schemes or other documents, or concepts prepared or developed by the *Employer* and included in the Works Information.

X21.2 The *Contractor* is deemed to have scrutinized, prior to the Contract Date, the *Employer's* Design Information. The *Contractor* is responsible for the design of the *works* and for the accuracy of such *Employer's* Design Information except as stated in clauses X21.3 and X21.4 below.

X21.3 Save as provided in clause X21.4, the *Employer* is not responsible for any error, inaccuracy or omission of any kind in the *Employer's* Design Information as originally included in the contract, and does not give any representation or warranty as to the accuracy, status or completeness of the *Employer's* Design Information.

X21.4 The *Employer* is responsible for the correctness of the following elements of the *Employer's* Design Information:

(a) Plant and Materials, and data and information, which are stated in the Works Information as being the responsibility of the *Employer*,

(b) definitions of intended purposes of the *works* or any part thereof, and

(c) criteria for the testing and performance of the completed *works*.

X21.5 Save where the Works Information specifies otherwise, insofar as there is a dependency, interconnection (structural or otherwise) or any other design, aesthetic, performance, life cycle or physical connection / relationship as between (i) any *Employer's* Design Information for which the *Employer* is responsible pursuant to clause X21.4 and (ii) any part of the *works* for which the *Contractor* has design responsibility, the *Contractor* checks such *Employer's* Design Information and co-ordinates and integrates its design accordingly, such that the *works* are (upon Completion) fully functioning and co-ordinated, and in conformance will all relevant requirements of this contract.

X21.6 Where there is a mistake, inaccuracy or discrepancy in or omission from the *Employer's* Design Information, or the Works Information provided by the *Contractor*, the *Contractor* informs the *Project Manager* in writing of his proposed amendment to remove the mistake, inaccuracy, discrepancy or omission. Within two weeks, the *Project Manager* may consent to the *Contractor's* proposed amendment or comment in writing on such an amendment provided that the *Project Manager* does not unreasonably withhold his consent to a proposed amendment. The *Contractor* takes account of such comments and resubmits his proposed amendment to the *Project Manager*. Such process is repeated until the *Project Manager* accepts the *Contractor's* proposed amendment.

X21.7 The following do not give rise to a compensation event:

- anything which is the *Contractor's* responsibility as set out in this Option X21;
- any comment, failure to comment or delay in commenting by the *Project Manager* in connection with this Option X21 (which is also not treated as an act of prevention or breach of contract by the *Employer*);
- any discrepancy, mistake, inaccuracy in, or omission from, the *Contractor's* design and/or the *Employer's* Design Information; or
- any change made to the *Employer's* Design Information at the *Contractor's* instigation or so as to enable the *Contractor* to Provide the Works or made to comply with other Works Information.

X21.8 The *Contractor* pays (and the *Employer* is entitled to recover from the *Contractor*) the *Employer's* reasonably and necessarily incurred costs of making any change to any Employer's Design Information which is required / made at the *Contractor's* instigation or so as to enable the *Contractor* to Provide the Works or to comply with other Works Information or by reason of any Defect or any breach of this contract on the part of the *Contractor*.

Novation of Associated Contracts **X22** **Not used**

Key Person Succession Plan **X23**

Z1.49

X23.1 If a key person succession plan is stated in the Works Information to be applicable to the *works*, then the *Contractor* complies with the provisions set out in the Works Information regarding the appointment and replacement of key persons in accordance with the key person succession plan.

X23.2 The *Contractor* submits his key person succession plan to the *Project Manager* for acceptance in accordance with the Works Information. A reason for not accepting a key person succession plan is that it does not contain the information required by the Works Information and/or a key person named in the key person succession plan does not have acceptable competency, qualifications or experience.

X23.3 Save where a key person is removed pursuant to sub-clause 24.2 or for other reasons which the *Project Manager* considers are outside the *Contractor's* reasonable control, if a key person:

- ceases to be employed to do the job stated in the Contract Data; and/or
- the *Contractor* fails to comply with an accepted key person succession plan,

the salary and expense costs associated with the replacement key person during the relevant *handover period* are treated as Disallowed Cost, unless the *Project Manager* decides to reduce or waive this requirement.

OPTION Y

Option Y(UK)1: Project Bank Account

Definitions	**Y(UK)1**	
	Y1.1	(1) The Authorisation is a document authorising the *project bank* to make payments to the *Contractor* and Named Suppliers. (2) Named Suppliers are *named suppliers* and other Suppliers who have signed the Joining Deed. (3) Project Bank Account is the account used to receive payments from the *Employer* and the *Contractor* and make payments to the *Contractor* and Named Suppliers. (4) A Supplier is a person or organisation who has a contract to • construct or install part of the *works*, • provide a service necessary to Provide the Works or • supply Plant and Materials for the *works*. (5) Trust Deed is an agreement in the form set out in the contract which contains provisions for administering the Project Bank Account. (6) Joining Deed is an agreement in the form set out in the contract under which the Supplier joins the Trust Deed.
Project Bank Account	Y1.2	The *Contractor* establishes the Project Bank Account with the *project bank* within three weeks of the Contract Date.
	Y1.3	Unless stated otherwise in the Contract Data, the *Contractor* pays any charges made and is paid any interest paid by the *project bank*. The charges and interest by the *project bank* are not included in Defined Cost.
	Y1.4	The *Contractor* submits to the *Project Manager* for acceptance details of the banking arrangements for the Project Bank Account. A reason for not accepting the banking arrangements is that they do not provide for payments to be made in accordance with this contract. The *Contractor* provides to the *Project Manager* copies of communications with the *project bank* in connection with the Project Bank Account.
Named Suppliers	Y1.5	The *Contractor* includes in his contracts with Named Suppliers the arrangements in this contract for the operation of the Project Bank Account and Trust Deed. The *Contractor* notifies the Named Suppliers of the details of the Project Bank Account and the arrangements for payment of amounts due under their contracts.
	Y1.6	The *Contractor* submits proposals for adding a Supplier to the Named Suppliers to the *Project Manager* for acceptance. A reason for not accepting is that the addition of the Supplier does not comply with the Works Information. The *Employer*, the *Contractor* and the Supplier sign the Joining Deed after acceptance.
Payments	Y1.7	On or before each assessment date, the *Contractor* submits to the *Project Manager* an application for payment, and shows in the application the amounts due to Named Suppliers in accordance with their contracts.

	Y1.8	Within the time set out in the banking arrangements to allow the *project bank* to make payment to the *Contractor* and Named Suppliers in accordance with the contract, • the *Employer* makes payment to the Project Bank Account of the amount which is due to be paid under the contract and • the *Contractor* makes payment to the Project Bank Account of any amount which the *Employer* has notified the *Contractor* he intends to withhold from the certified amount and which is required to make payment to Named Suppliers.
	Y1.9	The *Contractor* prepares the Authorisation, setting out the sums due to Named Suppliers as assessed by the *Contractor* and to the *Contractor* for the balance of the payment due under the contract. After signing the Authorisation, the *Contractor* submits it to the *Project Manager* no later than four days before the final date for payment. The *Employer* signs the Authorisation and submits it to the *project bank* no later than one day before the final date for payment.
	Y1.10	The *Contractor* and Named Suppliers receive payment from the Project Bank Account of the sums set out in the Authorisation as soon as practicable after the Project Bank Account receives payment.
	Y1.11	A payment which is due from the *Contractor* to the *Employer* is not made through the Project Bank Account.
Effect of payment	Y1.12	Payments made from the Project Bank Account are treated as payments from the *Employer* to the *Contractor* in accordance with this contract or from the *Contractor* or *Subcontractor* to Named Suppliers in accordance with their contracts as applicable. A delay in payment due to a failure of the *Contractor* to comply with the requirements of this clause is not treated as late payment under this contract.
Trust Deed	Y1.13	The *Employer*, the *Contractor* and *named suppliers* sign the Trust Deed before the first assessment date.
Termination	Y1.14	If the *Project Manager* issues a termination certificate, no further payment is made into the Project Bank Account.

Trust Deed

This agreement is made between the *Employer*, the *Contractor* and the Named Suppliers.

Terms in this deed have the meanings given to them in the contract between . . . . . and
. . . . . for . . . . . (the *works*).

Background

The *Employer* and the *Contractor* have entered into a contract for the *works.*

The Named Suppliers have entered into contracts with the *Contractor* or a Subcontractor in connection with the *works*.

The *Contractor* has established a Project Bank Account to make provision for payment to the *Contractor* and the Named Suppliers.

Agreement

The parties to this deed agree that

- sums due to the *Contractor* and Named Suppliers and set out in the Authorisation are held in trust in the Project Bank Account by the *Contractor* for distribution to the *Contractor* and Named Suppliers in accordance with the banking arrangements applicable to the Project Bank Account,
- further Named Suppliers may be added as parties to this deed with the agreement of the *Employer* and *Contractor.* The agreement of the *Employer* and *Contractor* is treated as agreement by the Named Suppliers who are parties to this deed,
- this deed is subject to the law of the contract for the *works*,
- the benefits under this deed may not be assigned.

Executed as a deed on . . . . . .

by

. . . . . (*Employer*)
. . . . . (*Contractor*)
. . . . . .
. . . . . .
. . . . . .
. . . . . .
(Named Suppliers)

Joining Deed

This agreement is made between the *Employer*, the *Contractor* and . . . . . (the Additional Supplier).

Terms in this deed have the meanings given to them in the contract between . . . . . and . . . . . for . . . . . (the *works*).

Background

The *Employer* and the *Contractor* have entered into a contract for the *works.*

The Named Suppliers have entered into contracts with the *Contractor* or a Subcontractor in connection with the *works*.

The *Contractor* has established a Project Bank Account to make provision for payment to the *Contractor* and the Named Suppliers.

The *Employer*, the *Contractor* and the Named Suppliers have entered into a deed as set out in Annex 1 (the Trust Deed), and have agreed that the Additional Supplier may join that deed.

Agreement

The Parties to this deed agree that

- the Additional Supplier becomes a party to the Trust Deed from the date set out below,
- this deed is subject to the law of the contract for the *works*,
- the benefits under this deed may not be assigned.

Executed as a deed on . . . . . .

by

. . . . . (*Employer*)

. . . . . (*Contractor*)

. . . . . (Additional Supplier)

Option Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

Definitions	**Y(UK)2**	
Z1.54.	Y2.1	(1) The Act is The Housing Grants, Construction and Regeneration Act 1996 as amended by the Local Democracy, Economic Development and Construction Act 2009. (2) A period of time stated in days is a period calculated in accordance with Section 116 of the Act.
Suspension of performance	Y2.4	If the *Contractor* exercises his right under the Act to suspend performance, it is a compensation event.

Option Y(UK)3: The Contracts (Rights of Third Parties) Act 1999

	Y(UK)3	
Third Party Rights	**Y3.1**	**A person or organisation who is not one of the Parties may enforce a term of this contract under the Contracts (Rights of Third Parties) Act 1999 only if the term and the person or organisation are stated in the Contract Data.**

Option Z: *Additional conditions of contract*

Additional conditions of contract	The *additional conditions of contract* stated in the Contract Data are part of this contract and incorporated into these consolidated conditions of contract.
Z1.55.1	

Part 4 - Schedules of Cost Components

SCHEDULE OF COST COMPONENTS

Z1.56.1 In this schedule the *Contractor* means the *Contractor* and not his Subcontractors. An amount is included only in one cost component and only if it is incurred in order to Provide the Works.

People **1** The following components of the cost of

- people who are directly employed by the *Contractor,* and whose normal place of working is within the Working Areas and
- people who are directly employed by the *Contractor*, and whose normal place of working is not within the Working Areas but who are working in the Working Areas.

11 Wages, salaries and amounts paid by the *Contractor* for people paid according to the time worked while they are within the Working Areas.

12 Payments to people for

(a) bonuses and incentives (contract specific)
(b) Overtime
(c) working in special circumstances
(d) special allowances
(e) absence due to sickness and holidays
(f) severance related to work on this contract where such cost arises from a compensation event and has been authorised in writing by the *Project Manager*

13 Payments made in relation to people for

(a) Travel
(b) subsistence and lodging where such costs are incurred wholly and necessarily in connection with the *works* and are agreed in advance by the *Project Manager*
(c) Relocation
(d) medical examinations
(e) passports and visas
(f) travel insurance
(g) items (a) to (f) for dependants
(h) protective clothing
(i) meeting the requirements of the law (save for employer's liability insurance)
(j) pensions and life assurance
(k) death benefit
(l) occupational accident benefits
(m) medical aid
(n) a vehicle
(o) safety training.

14 The following components of the cost of people who are not directly employed by the *Contractor* but are paid for by him according to the time worked while they are within the Working Areas.

Amounts paid by the *Contractor*.

Equipment **2** The following components of the cost of Equipment which is used within the Working Areas (including the cost of accommodation).

21 Payments for the hire or rent of Equipment not owned by

- the *Contractor*,
- his parent company or

- by a company with the same parent company

at the hire or rental rate multiplied by the time for which the Equipment is required.

22 Payments for Equipment which is not listed in the Contract Data but is

- owned by the *Contractor*,
- purchased by the *Contractor* under a hire purchase or lease agreement or
- hired by the *Contractor* from the *Contractor*'s parent company or from a company with the same parent company

at open market rates, multiplied by the time for which the Equipment is required.

23 Payments for Equipment purchased for work included in this contract listed with a time-related on cost charge, in the Contract Data, of

- the change in value over the period for which the Equipment is required and
- the time-related on cost charge stated in the Contract Data for the period for which the Equipment is required.

The change in value is the difference between the purchase price and either the sale price or the open market sale price at the end of the period for which the Equipment is required. Interim payments of the change in value are made at each assessment date. A final payment is made in the next assessment after the change in value has been determined.

If the *Project Manager* agrees, an additional item of Equipment may be assessed as if it had been listed in the Contract Data.

24 Payments for special Equipment listed in the Contract Data. These amounts are the rates stated in the Contract Data multiplied by the time for which the Equipment is required.

If the *Project Manager* agrees, an additional item of special Equipment may be assessed as if it had been listed in the Contract Data.

25 Payments for the purchase price of Equipment which is consumed.

26 Unless included in the hire or rental rates, payments for

- transporting Equipment to and from the Working Areas other than for repair and maintenance,
- erecting and dismantling Equipment and
- constructing, fabricating or modifying Equipment as a result of a compensation event.

27 Payments for purchase of materials used to construct or fabricate Equipment.

28 Unless included in the hire rates, the cost of operatives is included in the cost of people.

Plant and Materials **3** The following components of the cost of Plant and Materials.

31 Payments for

- purchasing Plant and Materials,
- delivery to and removal from the Working Areas,
- providing and removing packaging and
- samples and tests.

32 Cost is credited with payments received for disposal of Plant and Materials unless the cost is disallowed.

Charges **4** The following components of the cost of charges paid by the *Contractor*.

41 Payments for provision and use in the Working Areas of

- water,

- gas and
- electricity.

42 Payments to public authorities and other properly constituted authorities of charges which they are authorised to make in respect of the *works*.

43 Payments for

(a) cancellation charges arising from a compensation event
(b) buying or leasing land
(c) compensation for loss of crops or buildings
(d) Royalties
(e) inspection certificates
(f) charges for access to the Working Areas
(g) facilities for visits to the Working Areas by Others
(h) specialist services
(i) consumables and equipment provided by the *Contractor* for the *Project Manager*'s and *Supervisor*'s offices.

44 Not used.

45 Payments to a surety for the provision of any performance bond required under Option X13 if Option X13 is used.

Manufacture and fabrication **5** The following components of the cost of manufacture and fabrication of Plant and Materials which are

- wholly or partly designed specifically for the *works* and
- manufactured or fabricated outside the Working Areas.

51 The total of the hours worked by employees multiplied by the hourly rates stated in the Contract Data for the categories of employees listed.

52 An amount for overheads calculated by multiplying this total by the percentage for manufacturing and fabrication overheads stated in the Contract Data.

Design **6** The following components of the cost of design of the *works* and Equipment done outside the Working Areas.

61 The total of the hours worked by employees multiplied by the hourly rates stated in the Contract Data for the categories of employees listed.

62 An amount for overheads calculated by multiplying this total by the percentage for design overheads stated in the Contract Data.

63 The cost of travel to and from the Working Areas for the categories of design employees listed in the Contract Data.

Insurance **7** The following are deducted from cost

- the cost of events for which this contract requires the *Contractor* to insure
- other costs paid to the *Contractor* by insurers and
- the cost of excess payments or deductibles.

SHORTER SCHEDULE OF COST COMPONENTS

Z1.57.1 This schedule is used by agreement for assessing compensation events. In this schedule the *Contractor* means the *Contractor* and not his Subcontractors.

An amount is included only in one cost component and only if it is incurred in order to Provide the Works.

People **1** The following components of the cost of

- people who are directly employed by the *Contractor,* and whose normal place of working is within the Working Areas,
- people who are directly employed by the *Contractor,* and whose normal place of working is not within the Working Areas but who are working in the Working Areas and
- people who are not directly employed by the *Contractor* but are paid for by him according to the time worked while they are within the Working Areas.

11 Amounts paid by the *Contractor* including those for meeting the requirements of the law (save for employer's liability insurance) and for pension provision.

Equipment **2** The following components of the cost of Equipment which is used within the Working Areas (including the cost of accommodation but excluding Equipment cost covered by the percentage for people overheads).

21 Amounts for Equipment which is in the published list stated in the Contract Data. These amounts are calculated by applying the percentage adjustment for listed Equipment stated in the Contract Data to the rates in the published list and by multiplying the resulting rate by the time for which the Equipment is required.

22 Amounts for Equipment listed in the Contract Data which is not in the published list stated in the Contract Data. These amounts are the rates stated in the Contract Data multiplied by the time for which the Equipment is required.

23 The time required is expressed in hours, days, weeks or months consistently with the list of items of Equipment in the Contract Data or with the published list stated in the Contract Data.

24 Unless the item is in the published list and the rate includes the cost component, payments for

- transporting Equipment to and from the Working Areas other than for repair and maintenance,
- erecting and dismantling Equipment and
- constructing, fabricating or modifying Equipment as a result of a compensation event.

25 Unless the item is in the published list and the rate includes the cost component, the purchase price of Equipment which is consumed.

26 Unless included in the rate in the published list, the cost of operatives is included in the cost of people.

27 Amounts for Equipment which is neither in the published list stated in the Contract Data nor listed in the Contract Data, at competitively tendered or open market rates, multiplied by the time for which the Equipment is required.

Plant and Materials **3** The following components of the cost of Plant and Materials.

31 Payments for

- purchasing Plant and Materials,
- delivery to and removal from the Working Areas,
- providing and removing packaging and
- samples and tests.

32 Cost is credited with payments received for disposal of Plant and Materials unless the cost is disallowed.

Charges **4** The following components of the cost of charges paid by the *Contractor*.

41 A charge calculated by applying the percentage for people overheads stated in the Contract Data to people item 11 to cover the costs of

- payments for the provision and use in the Working Areas of water, gas and electricity,

- payments for buying or leasing land, compensation for loss of crops or buildings, royalties, inspection certificates, charges for access to the Working Areas, facilities for visits to the Working Areas by Others and
- payments for the provision and use of equipment, supplies and services (excluding accommodation) for catering, medical facilities and first aid, recreation, sanitation, security, copying, telephone, telex, fax, radio, CCTV, surveying and setting out, computing, and hand tools not powered by compressed air.

42 Payments for cancellation charges arising from a compensation event.

43 Payments to public authorities and other properly constituted authorities of charges which they are authorised to make in respect of the *works*.

44 Consumables and equipment provided by the *Contractor* for the *Project Manager*'s and *Supervisor*'s office.

45 Specialist services.

46 Payments to a surety for the provision of any performance bond required under Option X13 if Option X13 is used.

Manufacture and fabrication

5 The following components of the cost of manufacture and fabrication of Plant and Materials, which are

- wholly or partly designed specifically for the *works* and
- manufactured or fabricated outside the Working Areas.

51 Amounts paid by the *Contractor*.

Design

6 The following components of the cost of design of the *works* and Equipment done outside the Working Areas.

61 The total of the hours worked by employees multiplied by the hourly rates stated in the Contract Data for the categories of employees listed.

62 An amount for overheads calculated by multiplying this total by the percentage for design overheads stated in the Contract Data.

63 The cost of travel to and from the Working Areas for the categories of design employees listed in the Contract Data.

Insurance

7 The following are deducted from cost

- costs against which this contract required the *Contractor* to insure
- other costs paid to the *Contractor* by insurers and
- the cost of excess payments or deductibles.

Part 5 – Supplementary Notes

SUPPLEMENTARY NOTES TO THE SCHEDULE OF COST COMPONENTS AND THE SHORTER SCHEDULE OF COST COMPONENTS

The following notes should be read in conjunction with the relevant definitions of Defined Cost and Disallowed Cost and the Schedule of Cost Components/Shorter Schedule of Cost Components. Without prejudice to the effect of clause 52.1 (by virtue of which all items not included in the Defined Cost are deemed to be included in the Fee):

- **Part A** of the notes provides some additional clarification as to what will be considered Defined Cost.
- **Part B** contains notes applicable to all cost components including requirements in relation to the presentation of costs by the *Contractor*, pre-conditions for costs reasonably incurred and requirements for the verification and payment of costs by the *Employer*.

Part A Notes

Section 1: People

Wages, salaries and amounts paid by the *Contractor*

Amounts paid by the Contractor do not include any overheads or profit paid with respect to people employed or seconded from group companies.

Payments made to people for bonuses and incentives:

Only those bonuses and incentive payments which have been made in relation to performance in Providing the Works will be considered to be Defined Cost. There must be clear identification that any bonus and incentive payments made are related to the achievement of pre-agreed performance criteria.

Any bonus or incentive payment which has been made in respect of the following is not included in the Defined Cost:

- bonus or incentive payment which is not linked to Providing the Works
- any bonus or incentive payment which exceeds 10% of the base salary cost.

Payments made to people for overtime:

In the absence of express agreement to the contrary, only hours worked:

- in excess of 9.5 hours per day (up to a maximum of 47.5 hours per week) by an individual carrying out physical construction works; or
- in excess of 8 hours per day (up to a maximum of 50 hours per week) by an individual carrying out any other activity

will be deemed to be overtime. Only overtime payments which have been authorised in advance in accordance with these Supplementary Notes will be considered Defined Cost.

Payments made to people for absence due to sickness or holidays:

Any payments made to people in respect of sickness or holidays will only be considered Defined Cost if the people have worked continually within the Working Areas in excess of a three month time period. Payments to people in respect of absence arising from sickness or holidays lasting for a continuous period in excess of 3 weeks are not included in Defined Cost.

Payments made to people for severance related to work on this contact:

Only payments made to people representing a genuine pro-rata of time spent on the *works* against total time spent within the employ of the company will be considered Defined Cost. An example of what is considered an acceptable severance payment cost for a person employed on the *works* for one year but employed by the *Contractor* for ten years would be 10% of total severance payment cost.

Payments made to people for non-productive time

Only payments made to people for time spent working on this contract will be considered Defined Cost. Any payments made to people for attending internal company briefings, personnel meetings, appraisals, staff meetings, personal development training or the like is deemed to be included within the Fee.

Payments made to people for training

Only payments made to people for providing or attending training as a direct requirement of this contract will be considered Defined Cost. Any costs incurred providing training for purposes of personal or company development is deemed to be included within the Fee. Any costs incurred for time receiving or providing personal or company development training is considered allocated within the Fee.

The following components of the cost of people who are not directly employed by the *Contractor* but paid by the *Contractor* according to the time worked whilst they are within the Working Areas.

Only those people who are paid by the *Contractor* on a time only basis are included within this cost component, for example specialist consultants, agency staff, consultant or labour only subcontract staff.

Payments made for People working from home:

Only payments made to people working directly on this contract will be considered Defined Cost

Section 2: Equipment

Payments made for overhead to group companies for Equipment

Only the reasonable equipment overhead cost of group companies subcontracted under this contract will be considered Defined Cost.

Section 3: Plant and Materials

Payments made for overhead to group companies for Plant and Materials

Only the reasonable plant and materials overhead cost of group companies subcontracted under this contract will be considered Defined Cost.

Section 4: Charges

Any costs relating to the provision by the *Contractor* of a parent company guarantee are deemed to be included in the Fee. Any costs relating to the provision of a replacement retention bond and/or provision of any replacement performance bond and/or replacement advance payment bond are deemed to be included in the Fee and are not admissible as Defined Cost.

Section 5: Manufacture and Fabrication

Payments made for overhead to group companies

Hourly rates for categories of employee represent the cost of employment, exclusive of any overheads and the percentage for manufacture and fabrication overhead represent the reasonable cost of local manufacture and fabrication related overheads only on a percentage basis as anticipated from the associated business plan for the facility.

Section 6: Design

Payments made for overhead to group companies for design:

Hourly rates for categories of employee represent the cost of employment, exclusive of any local and corporate overhead and the percentage for design overhead represent the reasonable cost of local design related overheads only on a percentage basis as anticipated from the associated business plan for the facility.

Design consultants – overhead charge

Only design undertaken outside the Working Areas by employees of the *Contractor* will attract the design overhead percentage. Design undertaken outside the Working Areas by consultants/Subcontractors or the like will not attract the design overhead percentage.

Section 7: Insurance

Insurance premiums:

Excess payments or deductibles on all insurance policies relating to this contract are not included in Defined Cost.

Part B Notes

Part B contains notes applicable to all cost components including requirements in relation to the presentation of costs by the *Contractor*, pre-conditions for costs reasonably incurred and requirements for the verification and payment of costs by the *Employer.*

Where the *Contractor* is unable to demonstrate that costs have been reasonably incurred by either the *Contractor* or his Subcontractors, such costs are Disallowed Costs and not payable as Defined Cost.

1 - Reasonably Incurred Costs

Costs are only considered reasonably incurred if they meet the following criteria:

- the *Contractor* can demonstrate that they represent competitive market rates;
- they do not fall within the definition of Disallowed Costs;
- they are not included within the *Contractor's* Fee or overhead percentages;
- they have been captured within systems for the collection of data either accepted by the *Project Manager* or stated in the Works Information.

2 - Cost Verification

An audit of the *Contractor's* financial controls and compliance procedures specified in this contract will be carried out by the *Employer* or his representatives to ensure the controls are operating effectively.

Without prejudice to the requirement of clause Z2.5, the *Employer* or his representatives will carry out a range of reviews and detailed open-book audits to verify and provide internal assurances that all costs have been reasonably incurred by the *Contractor* and his Subcontractors and that they accord with the Schedule of Cost Components (or Shorter Schedule of Cost Components) and these Supplementary Notes.

The *Contractor* is required to replicate a similar cost verification regime when dealing with the costs of his Subcontractors and other related parties and ensures that the *Employer* has rights of access to all Subcontractors and suppliers (including at lower tier levels) and their accounts to audit/verify Defined Cost.

Schedule 5c

Annex 1 – Additional definitions

In this contract (in each case, where relevant and where the context allows) the following terms shall have the following meanings:

The **Act** is The Housing Grants, Construction and Regeneration Act 1996 as amended by the Local Democracy, Economic Development and Construction Act 2009.

Adjudicator has the meaning given to that term in the Framework Contract.

Background IPR means IPR owned by the *Contractor* or a Subcontractor or other third party and which is not assigned to the *Employer* pursuant to clause Z2.7.1.

BCV Contract means the contract between Metronet Rail BCV Limited and the *Employer* for the provision of infrastructure maintenance services dated 4 April 2003 as subsequently transferred to LUL Nominee BCV on 27 May 2008 and as amended from time to time in accordance with its terms.

CCSL means the Centre for Civil Society Limited or any relevant replacement organisation as notified by the *Employer* from time to time.

Change of Control means a change of ownership of the *Contractor* (or *parent company* if applicable) where such change relates to fifty percent or more of the issued share capital of the *Contractor* (or *parent company* as the case may be).

Conflict Avoidance Panel has the meaning given to that term in the Framework Contract.

Connected Persons means all and any of the *Contractor's* employees, directors, contractors, agents, Subcontractors, suppliers, shareholders, professional advisers (including lawyers, auditors, financial advisers, accountants and technical consultants) or underwriters.

Construction Industry Scheme means the provisions of Chapter 3 of Part 3 of the Finance Act 2004 and the Income Tax (Construction Industry Scheme Regulations) 2005/2045.

Coronavirus Pandemic means the severe acute respiratory syndrome coronavirus 2 (SARS-CoV2) pandemic designated as such by the World Health Organization on 11 March 2020 and which causes the disease known as “COVID-19”.

Corporate IPRs are those trade marks, trade names and other IPRs belonging to the *Employer* of the TfL Group, as amended from time to time by the *Employer* to (i) add further IPRs or (ii) remove or otherwise amend IPRs as a result of changes in the Standards.

Data Controller has the meaning given to it in Data Protection Legislation, noting that under the General Data Protection Regulation this would be using the definition of “Controller”.

Data Processor has the meaning given to it in Data Protection Legislation, noting that under the General Data Protection Regulation this would be using the definition of “Processor”.

Data Protection Impact Assessment means a process used to identify and mitigate the privacy and data protection risks associated with an activity involving the Processing of Personal Data.

Data Protection Legislation means:

(a) any legislation in force from time to time in the United Kingdom relating to privacy and/or the Processing of Personal Data including but not limited to the Data Protection Act 1998;

(b) any statutory codes of practice issued by the Information Commissioner in relation to such legislation; and

(c) the Privacy and Electronic Communications (EC Directive) Regulations 2003.

Data Subject has the meaning given to it in Data Protection Legislation.

Dispute has the meaning given to that term in the Framework Contract.

Dispute Resolution Procedure has the meaning given to that term in the Framework Contract.

Documentation has the meaning given to that term in the Framework Contract.

Employer Data means all data, text, drawings, diagrams, images or sounds (together with any database made up of any of these) which are embodied in any media (including without limitation electronic, magnetic, optical and tangible media) and which are supplied to the *Contractor* by or on behalf of the *Employer* and any IPR relating to the same which are vested in the *Employer.*

Employer Personal Data means Personal Data and/or Sensitive Personal Data Processed by the *Contractor* (including any Subcontractor) on behalf of the *Employer*, pursuant to or in connection with this contract as set out in the Processing Statement.

End User has the meaning given to it in Article 2 of the Value Added Tax (Section 55A) (Specified Services and Excepted Supplies) Order 2019.

European Standards means those standards ratified by the European Committee for Standardization (CEN) of Avenue Marnix 17, B-1000 Brussels, Belgium.

FOI Legislation means the Freedom of Information Act 2000, all regulations made under it and the Environmental Information Regulations 2004 and any amendment or re-enactment of any of them; and any guidance issued by the Information Commissioner, the Department of Constitutional Affairs, or the Department for Environment Food and Rural Affairs (including in each case its successors or assigns) in relation to such legislation.

GLA Act means the Greater London Authority Act 1999.

Greater London means that term as it is used in the GLA Act.

Information means information recorded in any form held by or on behalf of the *Employer*.

Information Request means a request for any Information under the FOI Legislation.

Infraco means any of or all of LUL Nominee BCV, LUL Nominee SSL and TLL and their respective successors in title and assigns.

Infrastructure Manager has the meaning as ascribed to it in the Railways and Other Guided Transport Systems (Safety) Regulations 2006.

International Standards means those Standards produced by the International Standards Organisation (IS) 1, ch. De la Voie-Creuse, CP 56, CH-1211 Geneva 20 Switzerland.

IPR means intellectual property rights including patents, trade marks, service marks, trade names, design rights, copyright (including rights in computer software and databases), moral rights, rights in know-how, rights in domain names and other intellectual property rights, (including any professional, manufacturer's or supplier's warranties and/or indemnities) in each case whether registered or unregistered, and including applications for the grant of any such rights and all rights or forms of protection having equivalent or similar effect anywhere in the world.

JNP Contract means the contract between Tube Lines Limited and the *Employer* for the provision of infrastructure maintenance services dated 31 December 2002 as amended from time to time in accordance with its terms.

London Living Wage means the basic hourly wage current at the date of this contract (before tax, other deductions and any increase for overtime) as may be revised from time to time by the Mayor or any other body or agency whose directives, decisions, instructions, rulings, laws, or regulations are directly enforceable against the *Employer.*

Losses means any expenses, liability, losses, claims, proceedings, compensation and costs whatsoever or howsoever arising.

LUL means London Underground Limited (No. 1900907) or its successor in title or assignee.

LUL Nominee BCV means LUL Nominee BCV Limited (No. 06221959) or its successor in title or assignee.

LUL Nominee SSL means LUL Nominee SSL Limited (No. 06242508) or its successor in title or assignee.

LUL Standards means the individual LUL standards as specified in section WI 200 of the Works Information.

Management Plans mean any management plans (including any plans relating to key person succession (if Option X23 applies), the Subcontractor Procurement Plan, the Risk Management Plan and the Quality Plan) identified as such in the Works Information.

Mayor means the person from time to time holding the office of Mayor of London as established by the GLA Act.

Minimum Records means:

(a) all necessary information for the evaluation of claims or compensation events, whether or not relating to the *Contractor* or to any Subcontractors (or sub-sub-contractors of any tier);

(b) management accounts, information from management information systems and any other management records;

(c) accounting records (in hard copy as well as computer readable data);

(d) contract and subcontract files (including proposals of successful and unsuccessful bidders, bids, rebids, etc.);

(e) original estimates;

(f) estimating worksheets;

(g) correspondence;

(h) compensation event files (including documentation covering negotiated settlements);

(i) schedules including capital works costs, timetable and progress towards Completion;

(j) general ledger entries detailing cash and trade discounts and rebates;

(k) commitments (agreements and leases) greater than £5,000 (five thousand pounds);

(l) detailed inspection records;

(m) such materials prepared in relation to the invitation to tender and subsequent tendering process relating to cost breakdowns, in each case which have not already been provided to the *Employer*,

(n) accounts and records of the Price for Work Done to Date and all other amounts to be paid to the *Contractor* under this contract, and

(o) test and commissioning results.

Operator means a person with statutory duties to provide or secure the provision for Greater London of public passenger services by railway.

Oversite Developer means a developer who has an interest in, over or above the whole or part of the *works.*[24]

Oversite Development means an overstation development above the *works.*[25]

Pay Less Notice means the notice referred to in clause 51.2B.

Personal Data has the meaning given to it in Data Protection Legislation.

PFI Contract means, in each case, the main project contract entered into or to be entered into by the *Employer* and/or TfL and the relevant private sector partner in respect of a project undertaken under the Private Finance Initiative (as referred to in the Construction Contract (England and Wales) Exclusion order 1998 (SI 1998 No 648) and any replacement scheme for the public procurement of the capital assets which is similar in nature).

PFI Contractors means those contractors who have entered into or will enter into PFI Contracts and as further referred to in the Works Information.

[26] Select appropriate recital depending on whether the Beneficiary is (i) a PFI Contractor; (ii) funder; (iii) purchaser/tenant; (iv) developer, (v) member of the TfL Group or (vi) Oversite Developer or funder/purchaser/tenant of an Oversite Development.

[26] Select appropriate recital depending on whether the Beneficiary is (i) a PFI Contractor; (ii) funder; (iii) purchaser/tenant; (iv) developer, (v) member of the TfL Group or (vi) Oversite Developer or funder/purchaser/tenant of an Oversite Development.

PPP Contracts means the BCV Contract, the JNP Contract and the SSL Contract and **PPP Contract** means any one of them or, as the context requires, a particular one of them.

Processing has the meaning given to it in Data Protection Legislation and "**Process**", "**Processes**" and **"Processed**" will be construed accordingly.

Processing Statement is in the form set out in Annex 7 of this contract.

Prohibited Act has the meaning given to that term in the Framework Contract.

Relevant Individual means, for the purposes of clause Z2.20, any servant, employee, officer, consultant or agent of the *Contractor* or any Subcontractor carrying out, or intended to carry out, any aspects of the *works.*

Relevant Conviction means, for the purposes of clause Z2.20, any unspent criminal conviction relating to actual or potential acts of terrorism or acts which threaten national security.

Restricted Countries means any country outside the European Economic Area as may be constituted from time to time or the UK.

Reverse Charge Order means the Value Added Tax (Section 55A) (Specified Services and Excepted Supplies) Order 2019/892.

Safety Breach means a material breach of the contract caused by the gross incompetence, wilful default or reckless disregard to safety of the *Contractor* or any Subcontractor (or anyone employed or acting on behalf of the *Contractor* or any Subcontractor) which has materially affected (or which had the potential to materially affect) the safe provision of the *works*, the safe operation of the Underground Network and/or the safety of the *Employer's* Customers, staff or any other person.

Sensitive Personal Data means sensitive or special categories of Personal Data including criminal allegations, offences and outcomes data (as defined in Data Protection Legislation) which is Processed pursuant to or in connection with this contract.

SSL Contract means the contract between Metronet Rail SSL Limited and the *Employer* for the provision of infrastructure maintenance services dated 4 April 2003 as subsequently transferred to LUL Nominee SSL on 27 May 2008 and as amended from time to time in accordance with its terms.

Standard on Electronic Invoicing means the European standard and any of the syntaxes published in Commission Implementing Decision (EU) 2017/1870.

Standards means the following standards listed in order of priority with a lower ranking standard only applicable where a higher ranking standard is not applicable:

- First: LUL Standards;
- Second: European Standards:
- Third: International Standards and associated codes of practice,

in each case as amended, re-issued, replaced and/or added to from time to time in accordance with (and subject to) this contract (as the case may be).

Statutory Undertaker means any governmental or local authority or statutory undertaker:

- which has any jurisdiction with regard to the *works* and/or the Project including any jurisdiction to control development of the Site or any part of it;
- with whose requirements the *Employer* is accustomed to comply; or
- with whose systems and/or utilities the Project and/or the *works* will be connected.

Subcontractor Procurement Plan means a plan for the procurement and appointment of Subcontractors by the *Contractor* containing the information stated in the Works Information and which is submitted and accepted in accordance with the provisions of the Works Information.

Subject Access Request means a request made by a Data Subject to access his or her own Personal Data in accordance with rights granted in Data Protection Legislation.

VAT means value added tax.

VATA means the Value Added Tax Act 1994.

Annex 2 – Form of Performance Bond

To: London Underground Limited (the "**Beneficiary**")

Performance Bond No [ ]

1. We have been informed that our customer, [ ] of [ ] (the "**Contractor**"), and you, the Beneficiary have entered into a contract dated […] for the […] ("**Contract**").

2. The terms of the Contract require that the obligations of the Contractor under the Contract are supported by this Performance Bond in your favour.

3. In consideration of the aforesaid, we, […], hereby irrevocably undertake as a primary obligation to pay to you any amount you may claim from us upon receipt of your first demand in writing and substantially in the form set out in Annex 1 ("**Demand**") but not exceeding £ […] (the "**Guaranteed Amount**") and provided that:

   (a) our liability under this Performance Bond is limited to an amount or amounts in aggregate not exceeding the Guaranteed Amount;

   (b) any claim hereunder shall be accompanied by your statement that the amount claimed is due by reason of any breach by the Contractor of the terms of the Contract, or any event of insolvency of the Contractor (as defined in clause 91.1 of the Contract), the termination or expiry of the Contract or any non-payment by the Contractor of sums due to the Beneficiary under the terms of the Contract;

   [[(c) the Guaranteed Amount shall on the date of Completion of the whole of the *works* (as defined in the Contract) reduce to [£] being an amount equivalent to [2.5%] of the tendered total of the Prices.]]

4. This Performance Bond shall be valid for Demands received in accordance with this Performance Bond until […] (the "**Expiry Date**") whereupon you shall return this Performance Bond to the Contractor. After the Expiry Date, our undertaking will become automatically null and void if no claim has been received by us on or before that date, whether or not this Performance Bond is returned to us.

5. It is a condition of this Performance Bond that the Contractor shall provide a replacement Performance Bond to you in the amount equal to the Guaranteed Amount by no later than 7 banking days prior to the Expiry Date. This Performance Bond shall be returned to the Contractor upon receipt by the Beneficiary of the replacement Performance Bond. In the event that the Contractor fails to provide the aforementioned replacement Performance Bond by no later than 7 banking days prior the Expiry Date, we hereby irrevocably undertake to pay you any amount you may claim up to the Guaranteed Amount upon receipt of your first demand in writing made within 7 banking days prior to the Expiry Date stating that the Contractor has failed to provide the replacement Performance Bond.

6. We shall make payment to you within 5 banking days upon service of your Demand:

   (a) without regard to any information or instructions which we may then have received or may thereafter receive from any other source and we shall not be entitled to inquire into or require

proof of the facts stated in the Demand which, as between ourselves and you, shall be conclusive; and

(b) notwithstanding any dispute between the Contractor and you; it being the intention of the parties hereto that the event upon which payment must be made hereunder is the service of your Demand without any rights on our part to raise any objections, irrespective of the validity and/or the effectiveness of the Contract and the obligations arising there under and irrespective of the underlying facts or their significance under the Contract.

7. All sums payable under this Performance Bond shall be paid in pounds sterling to such bank account as may be specified in your Demand in immediately available funds, free of any restriction or condition and free and clear of and without any deduction or withholding whether for or on account of tax, by way of set-off, or otherwise, except to the extent required by law.

8. This Performance Bond shall not be affected by:

(i) any change in the constitution of the Contractor and/or you and/or ourselves; and/or

(ii) the granting of any time by you to the Contractor and/or any forbearance or

(iii) indulgence on any account shown by you to the Contractor; and/or

(iv) any change in the terms and conditions of the Contract; and/or

(v) any other circumstances which might operate to release a guarantor at law or in equity.

9. This Performance Bond may be assigned or charged without our consent to any member of the TfL Group. Any other assignment of this Performance Bond shall require our consent, which consent not to be unreasonably withheld or delayed.

10. Until the full Guaranteed Amount and all amounts which may be or become due and payable in respect of the Guaranteed Amount have been unconditionally and irrevocably paid in full and unless the Beneficiary otherwise directs, we shall not exercise any rights which we may have by reason of performance by us of this Performance Bond or by reason of any amount being payable, or liability arising, under this Performance Bond to:

(a) be indemnified by the Contractor;

(b) claim any contribution from any other guarantor of the Contractor's obligations;

(c) take the benefit (in whole or in part and whether by way of subrogation or otherwise) of any rights of the Beneficiary or of any other guarantee or security taken by the Beneficiary; and/or

(d) claim, rank, prove or vote as a creditor of the Contractor or in its estate in competition with the Beneficiary

and if we receive any benefit, payment or distribution in relation to such rights, we shall hold that benefit, payment or distribution to the extent necessary to enable all the Guaranteed Amounts to be paid in full on trust for the Beneficiary and shall promptly pay or transfer the same to the Beneficiary or as the Beneficiary may direct for application.

11. Words and phrases defined in the Contract shall have the same meanings in this Performance Bond unless inconsistent with the context.

12. This Performance Bond shall be governed and construed in accordance with the laws of England and Wales and the English Courts shall have exclusive jurisdiction in relation to any claim, dispute or difference concerning this Performance Bond and any matter arising from it.

Executed as a deed by the parties and delivered on the date of this Performance Bond.

EXECUTED AND DELIVERED AS
A DEED for and on behalf of
[THE GUARANTOR]

acting by:

Signature of Authorised Signatory .....

Print name of Authorised Signatory .....

Signature of Authorised Signatory .....

Print name of Authorised Signatory .....

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of
London Underground Limited
In the presence of:

Authorised Signatory _____
.

Annex 1

Form of Demand from the Employer to [*insert name of Guarantor*]

Dear Sirs

[Contract No [*insert contract number*]] or [Contract dated [*insert contract date*]] with [*insert name of Contractor*] in respect of [*insert brief description of Works*]

We refer to the Performance Bond given by you to us dated [*insert Performance Bond date*].

We hereby demand from you the sum of £[*insert demand amount – up to maximum amount of the Performance Bond*] under your Performance Bond. The amount claimed is due by reason of [*insert details*].

Please make payment by transferring funds in sterling to [*insert name of Employer*] at the following account:

[●] Bank plc

Address:

Account Number:

Sort Code:

Account Name:

Yours faithfully

On behalf of [*insert name of Employer]*

Annex 3 – Form of Warranty from *Contractor*

THIS DEED is made on ● 202●

BETWEEN:

(1) ● whose registered office is situate at ● (the **"Beneficiary"**); and

(2) ● whose registered office is situate at ● (the **"*Contractor*"**).

WHEREAS:

(A) By a contract dated ● (the "**Framework Contract**") London Underground Limited whose registered office is at 5 Endeavour Square, London E20 1JN ("the ***Employer***", which expression shall include its successors in title and assigns) appointed the *Contractor* to provide high voltage power works and services as described therein.

(B) Pursuant to the Framework Contract, by a contract dated ● (the **"Call-Off Contract"**) the *Employer,* appointed the *Contractor* to design, carry out and complete certain **[Works and/or Services]** at ● (the **"*works*"**).

(C) [The Beneficiary has entered into a contract with the *Employer* under the private finance initiative for ●.]/[[The Beneficiary [intends to enter into] [has entered into] an agreement to provide finance for the carrying out and completion of the *works*.] [The Beneficiary [intends to enter into] [has entered into] an agreement with the *Employer* under which it will agree that on or following Completion of the *works* it will [purchase] [take a lease of] the whole or part of the *works*.] [The Beneficiary has an interest in the whole or part of the *works* as a developer and [intends to enter into] [has entered into] an agreement with the *Employer* in respect of [ ].]/[the Beneficiary is a member of the TfL Group and has an interest in the works as ● .][The Beneficiary is the Oversite Developer]./[The Beneficiary is the [funder/purchaser/tenant] of the Oversite Development.][26]

NOW IT IS AGREED:

1. Terms and expressions defined in the Call-Off Contract shall where the context so permits have the same meanings in this Deed.

2. The *Contractor* warrants and undertakes to the Beneficiary that:

[26] Select appropriate recital depending on whether the Beneficiary is (i) a PFI Contractor; (ii) funder; (iii) purchaser/tenant; (iv) developer, (v) member of the TfL Group or (vi) Oversite Developer or funder/purchaser/tenant of an Oversite Development.

(a) it has exercised and will continue to exercise all the reasonable skill, care and diligence to be expected of a competent contractor experienced in carrying out works of a similar scope, size and complexity to the *works*; and

(b) it has complied with and will continue to comply with the terms of the Call-Off Contract.

3. The *Contractor* warrants and undertakes to the Beneficiary that it has not selected or specified for use, and that it will not select or specify for use or allow to be used any substance or material which are not in accordance with the Standards, general good building and engineering practice and the requirements of the Works Information.

4. Provided that nothing in this Clause 4 shall impose a greater duty on the *Contractor* than that owed under Clause 2(a) of this Deed, [the][27] [The *Contractor* further warrants and undertakes to the Beneficiary that:

(a) the *works* will on Completion satisfy all performance or output specifications and other requirements contained or referred to in the Call-Off Contract;

(b) the *works* and all materials comprised in them will correspond as to description, quality and condition with the requirements of the Call-Off Contract and will be of sound manufacture and workmanship;

(c) the *works* are integrated with the designs of Others as specified in the Call-Off Contract;

(d) the *works* will on Completion comply with all applicable law and all relevant Standards; and

(e) the *works* will be carried out and completed timeously in accordance with the Accepted Programme.

5. The *Contractor* warrants and undertakes to the Beneficiary that it has maintained and will continue to maintain all insurances required to be maintained pursuant to the terms of the Call-Off Contract and that it has professional indemnity insurance with a limit of indemnity of not less than £[ ][28] in respect of each and every claim which may be made against the *Contractor* in relation to the *works*. The *Contractor* shall maintain such professional indemnity insurance for a period of 12 years from Completion of the whole of the *works* provided such insurance remains available at commercially reasonable rates and shall notify the Beneficiary forthwith if such insurance ceases to be so available. When deciding whether such insurances are available at commercially reasonable rates, no account shall be taken of any increase in the

[27] Use shaded text on all forms of warranty where Beneficiary is not a PFI contractor or a member of the TfL Group. The shaded text should also be used when X15 is selected.

[28] The PI figure should be the same as the figure inserted in the Contract Data.

premium or imposition of terms which arise as a result of the *Contractor's* insurance claims record.

6. As and when reasonably requested by the Beneficiary, the *Contractor* shall produce for inspection documentary evidence that the insurance referred to in Clause 5 is being properly maintained and that payment has been made of the last premium due in respect of such insurance.

7. To the extent that the intellectual property rights in any and all documents, items of information, data, reports, drawings, specifications, plans, software, designs, inventions and any other materials provided by or on behalf of the *Contractor* in connection with the *works* (whether in existence or to be made) ("Documents") have not already vested in the *Employer*, the *Contractor* grants to the Beneficiary an irrevocable, non-exclusive, non-terminable, royalty-free licence to copy and make full use of any and all Documents and all amendments and additions to them and any works, designs or inventions of the *Contractor* incorporated or referred to in them for the following purposes:

    1. understanding the *works*;

    2. operating, maintaining, repairing, modifying, altering, enhancing, re-figuring, correcting and replacing the works, any Equipment or Plant and Materials;

    3. extending, interfacing with, integrating with, connection into and adjusting the works and/or the works of Others;

    4. enabling the *Employer* to carry out the operation, maintenance, repair, renewal and enhancement of the Underground Network;

    5. enabling the *Employer* to perform his function and duties as Infrastructure Manager and Operator of the Underground Network;

    6. executing and completing the *works;* and

    7. designing, testing and commissioning the *works*

    provided always that the *Contractor* shall not be liable for the consequences of any use of the Documents as aforesaid for any other purpose. Such licence shall carry the right to grant sub-licences and shall be transferable to third parties without the prior consent of the *Contractor*.

8. The *Contractor* agrees:

    (a) on request at any time to give the Beneficiary or any persons authorised by the Beneficiary access to the material referred to in Clause 7 and at the Beneficiary's expense to provide copies of any such material; and

(b) at the *Contractor's* expense to provide the Beneficiary with a set of all such material on Completion of the *works*.

9. If called upon to do so by the Beneficiary, the *Contractor* shall provide the Beneficiary with such information relating to the *works* as the Beneficiary may reasonably require including without limitation, copies of and extracts from Documents prepared or provided by the *Contractor* for the purposes of the *works* provided that neither the provision of such information nor any inspection of the *works* by the Beneficiary or its agents nor the approval by the Beneficiary or its agents of any material shall limit or discharge, or be deemed to limit or discharge the obligations of the *Contractor* under the Call-Off Contract or relieve the *Contractor* from any liability which it has in relation to the *works*.

10. This Deed may be assigned by the Beneficiary [to any person providing finance to the Beneficiary for the purpose specified in Recital (C), or][29] to any member of the TfL Group without limitation and otherwise to any other person on two occasions without the consent of the *Contractor* being required and the *Contractor* shall do all such acts, deeds and things as may be reasonably necessary to give effect to any such assignment. No further assignment shall be permitted without the consent of the *Contractor*. For the purposes of this clause, "TfL Group" means Transport for London, a statutory body set up by the Greater London Authority Act 1999 and any of its subsidiaries and their subsidiaries. The *Employer* is a member of the TfL Group.

11. The *Contractor* shall not be entitled to contend that any person to whom this Deed is assigned in accordance with Clause 10 is precluded from recovering under this Deed any loss incurred by such assignee resulting from any breach of this Deed (whenever happening) by reason that such person is an assignee and not a named promisee under this Deed.

12. The liability of the *Contractor* under this Deed shall cease 12 years following Completion of the whole of the *works*.

13. The rights and benefits conferred upon the Beneficiary by this Deed are in addition to any other rights and remedies the Beneficiary may have against the *Contractor* including without limitation any remedies in negligence.

14. [The *Contractor* shall not be liable to the Beneficiary under this Deed for any delay to Completion of the *works*.][30]

15.

[29] Use shaded text if a PFI Contractor is the Beneficiary.

[30] Consider for use on PFI Contractor form of warranty. On other forms insert "Not Used".

15.1 Notwithstanding any other provision of this Deed, the *Contractor* shall owe no greater obligations to the Beneficiary than he owes to the *Employer* under the Call-Off Contract as if the Beneficiary was named in the Call-Off Contract as a joint employer with the *Employer*.

15.2 The *Contractor* shall be entitled in any actions or proceedings by the Beneficiary to rely on any limitation in the Call-Off Contract and to raise the equivalent rights in defence of liability as he would have against the *Employer* thereunder.

16. Any notice to be given hereunder shall be deemed to be duly given if it is in writing and delivered by hand at or sent by registered post to the registered office or principle place of business in the United Kingdom for the time being of the party to be served and in the case of any such notice sent by registered post shall be deemed to have been received 48 hours after being posted.

17.

17.1 Any dispute or difference arising out of or in connection with this Deed may be referred to adjudication in accordance with paragraphs W2.1 to W2.26 of the Dispute Resolution Procedure in the Call-Off Contract which shall be deemed to be included in this Deed as if they were recited herein in full (with the necessary changes).

17.2 The Adjudicator's decision shall be binding on the parties until the dispute or difference is finally determined by the Courts in accordance with Clause 17.3.

17.3 The Courts of England and Wales shall have jurisdiction over any dispute or difference arising out of or in connection with this Deed. The Law of England and Wales shall be the proper law of this Deed.

18. Nothing in this Deed confers or is intended to confer on any third party any benefit or the right to enforce any term of this Deed pursuant to the Contracts (Rights of Third Parties) Act 1999.

IN WITNESS whereof this Deed has been executed and unconditionally delivered as a Deed by the parties the day and year first above written.

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of
London Underground Limited
In the presence of:

Authorised Signatory _____

[EXECUTED AND DELIVERED AS A DEED by

[THE BENEFICIARY]

acting by:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

[EXECUTED AND DELIVERED AS A DEED by
[THE CONTRACTOR]

acting by:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

Annex 4 – Forms of Warranty from Subcontractor

Part A: Form of Warranty from Subcontractor to Employer

THIS DEED is made on ● 202●

BETWEEN:

(1) **London Underground Limited** whose registered office is 5 Endeavour Square, London E20 1JN (the **"*Employer*"** which expression shall include its successors and assigns);

(2) ● whose registered office is situate at ● (the **"Subcontractor"**); and

(3) ● whose registered office is situate at ● (the **"*Contractor*"**).

WHEREAS:

(A) The *Contractor* has entered into a contract dated ● (the "**Framework Contract**") with the *Employer* for the provision of high voltage power works and services as described therein.

(B) Pursuant to the Framework Contract, the *Contractor* has entered into a contract dated ● (the **"Call-Off Contract"**) with the *Employer* for the design and carrying out of certain [**Works and/ or Services**] at ● (the **"*works*"**).

(C) The Subcontractor **[has entered] [will shortly enter]** into a subcontract (the **"Subcontract"**) with the *Contractor* for the design and carrying out of certain parts (the **"*subcontract works*"**) of the *works* more particularly defined in *Annex* ● hereto[31].

NOW IT IS AGREED:

1. Terms and expressions defined in the Subcontract shall where the context so permits have the same meanings in this Deed. The following expressions have the meanings set out herein:

   (a) "Connected Persons" means of any of the Subcontractor's employees, directors, consultants, agents, subcontractors, subconsultants, suppliers, shareholders, professional advisers (including lawyers, auditors, financial advisers, accountants and technical consultants) or underwriters;

   (b) "Documents" means documents, items of information, data, reports, drawings, specifications, plans, software, designs, inventions and any other materials provided by or on behalf of the Subcontractor in connection with the *subcontract works* (whether in existence or to be made);

   (c) "Minimum Records" means all records relating to the Subcontractor's operations, method statements, costs and expenses, subcontracts, claims relating to compensation

[31] A description of the works should be provided in the Annex.

events and financial arrangements and any document referred to therein or relating thereto and any similar records which the *Employer* may reasonably request.

(d) "PFI Contractor(s)" means any and all of those contractors who have or will enter into contracts with the *Employer* under the private finance initiative and any replacement scheme for the public procurement of capital assets which is similar in nature;

(e) "Prohibited Act" means:

(i) offering or agreeing to give to any servant, employee, officer or agent of the *Employer* or the *Contractor* any grant, gift or consideration of any kind as an inducement or reward for doing or not doing (or for having done or not having done) any act in relation to the obtaining or performance of the Subcontract or any other contract with the *Employer* or the *Contractor* or for showing or not showing favour or disfavour to any person in relation to the Subcontract or any other contract with the *Employer* or the *Contractor;*

(ii) entering into the Subcontract or any other contract with the *Employer* or the *Contractor* in connection with which commission has been paid or has been agreed to be paid by the Subcontractor or on his behalf or to his knowledge unless, before the relevant contract or document is entered into, particulars of any such commission and the terms and conditions of any such contract or document for the payment thereof have been disclosed in writing to the *Employer* or the *Contractor*;

(iii) committing any offence under the Prevention of Corruption Acts 1889-1916 and/or the Bribery Act 2010, under any law or legislation creating offences in respect of fraudulent acts, or at common law in respect of fraudulent acts in relation to the Subcontract or any other contract with the *Employer* or the *Contractor*; or

(iv) defrauding or attempting to defraud the *Employer* or the *Contractor*.

(f) "Safety Breach" means a material breach of the Subcontract caused by the gross incompetence, wilful default or reckless disregard to safety of the Subcontractor (or anyone employed or acting on behalf of the Subcontractor) which has materially affected (or which had the potential to materially affect) the safe provision of the *subcontract works,* the safe operation of the Underground Network and/or the safety of the *Employer's* employees, or the public or any other persons.

(g) "TfL Group" means Transport for London, a statutory body set up by the Greater London Authority Act 1999 and any of its subsidiaries and their subsidiaries.

(h) "Underground Network" means the stations and depots (wherever situate), assets, systems, track and other buildings, which are used in the maintenance and provision of the underground service known as the "London Underground".

2. The Subcontractor warrants and undertakes to the *Employer* that:

(a) he has exercised and will continue to exercise all the reasonable skill, care and diligence to be expected of a competent Subcontractor experienced in carrying out works of a similar scope, size and complexity to the *subcontract works*; and

(b) he has complied with and will continue to comply with the terms of the Subcontract.

3. The Subcontractor warrants and undertakes to the *Employer* that it has not selected or specified for use, and that it will not select or specify for use or allow to be used any substance or material which are not in accordance with the Standards, general good building and engineering practice and the requirements of the Works Information.

4. The Subcontractor further warrants and undertakes to the *Employer* that:

(a) the *subcontract works* will on Completion satisfy all performance or output specifications and other requirements contained or referred to in the Subcontract;

(b) the *subcontract works* and all materials comprised in them will correspond as to description, quality and condition with the requirements of the Subcontract and will be of sound manufacture and workmanship;

(c) the *subcontract works* are integrated with the designs of the *Employer*, the *Contractor* and others as specified in the Subcontract;

(d) he has exercised and will continue to exercise all reasonable skill, care and diligence in the design of the *subcontract works* insofar as they have been or will be designed by or on behalf of the Subcontractor:

(e) the *subcontract works* will on Completion comply with all applicable law and all relevant Standards;

(f) he shall not commit a Prohibited Act and/or Safety Breach; and

(g) the *subcontract works* will be carried out and completed timeously in accordance with the time constraints set out in the Subcontract.

5. The Subcontractor warrants and undertakes to the *Employer* that he has maintained and will continue to maintain all insurances required to be maintained pursuant to the terms of the Subcontract and that insofar as he is responsible for the design of the *subcontract works*, he

has professional indemnity insurance with a limit of indemnity of not less than £[...][32] in respect of each and every claim which may be made against the Subcontractor in relation to the *subcontract works*. The Subcontractor shall maintain such professional indemnity insurance for a period of 12 years from Completion of the whole of the *works* provided such insurance remains available at commercially reasonable rates and shall notify the *Employer* forthwith if such insurance ceases to be so available. When deciding whether such insurances are available at commercially reasonable rates, no account shall be taken of any increase in the premium or imposition of terms which arise as a result of the Subcontractor's insurance claims record.

6. As and when reasonably requested by the *Employer*, the Subcontractor shall produce for inspection documentary evidence that the insurances referred to in Clause 5 are being properly maintained and that payment has been made of the last premiums due in respect of such insurances.

7. To the extent that the intellectual property rights in any and all Documents have not already vested in the *Employer* or the *Contractor*, the Subcontractor grants to the *Employer* an irrevocable non-exclusive, non-terminable, royalty-free licence to copy and make full use of any and all Documents and all amendments and additions to them and any works, designs or inventions of the Subcontractor incorporated or referred to in them for the following purposes:

    1. understanding the *works*;

    2. operating, maintaining, repairing, modifying, altering, enhancing, re-figuring, correcting and replacing the works, any Equipment or Plant and Materials;

    3. extending, interfacing with, integrating with, connection into and adjusting the works and/or the works of Others;

    4. enabling the *Employer* to carry out the operation, maintenance, repair, renewal and enhancement of the Underground Network;

    5. enabling the *Employer* to perform his function and duties as Infrastructure Manager and Operator of the Underground Network;

    6. executing and completing the *works;* and

    7. designing, testing and commissioning the *works*

    provided always that the *Contractor* shall not be liable for the consequences of any use of the Documents as aforesaid for any other purpose. Such licence shall carry the right to grant sub-licences and shall be transferable to third parties without the prior consent of the Subcontractor.

[32] The PI figure should be the same as the figure inserted in the Contract Data.

8. The Subcontractor agrees:

(a) on request at any time to give the *Employer* or any persons authorised by the *Employer* access to the material referred to in Clause 7 and at the *Employer*'s expense to provide copies of any such material; and

(b) at the Subcontractor's expense to provide the *Employer* with a set of all such material on Completion of the *subcontract works*.

9. If called upon to do so by the *Employer*, the Subcontractor shall provide the *Employer* with such information relating to the *subcontract works* as it may reasonably require including without limitation copies of and extracts from Documents prepared or provided by the Subcontractor for the purposes of the *works* provided that neither the provision of such information nor any inspection of the *works* by the *Employer* nor the approval by the *Employer* of any material shall limit or discharge, or be deemed to limit or discharge the obligations of the Subcontractor under the Subcontract or relieve the Subcontractor from any liability which he has in relation to the *subcontract works*.

10. The Subcontractor warrants and undertakes to the *Employer* that he shall maintain and retain the Minimum Records for a minimum of twelve (12) years from Completion of the *works* with respect to all matters for which the Subcontractor is responsible under the Subcontract. The Subcontractor further warrants and undertakes to the *Employer* that the Subcontract contains open-book audit rights in favour of the *Employer* and its authorised representatives and that he shall undertake his obligations and exercise his rights under the Subcontract on an open-book basis. The *Employer* and his authorised representatives may from time to time audit on an open-book basis and check and take copies of and extracts from any document or record of the Subcontractor including, without limitation the Minimum Records. The Subcontractor further warrants that it shall promptly provide all reasonable co-operation in relation to any audit or checking including, without limitation, granting access to premises, equipment, systems and senior personnel and making documents available. Without prejudice to the foregoing, the Subcontractor acknowledges and agrees that the *Employer* may audit and check any and all records as are necessary in order to monitor compliance with the Subcontractor's obligations under the Subcontract with respect to Prohibited Acts and Safety Breaches at any time during performance of the Subcontract and during the 12 years thereafter.

11. The Subcontractor shall provide such assistance to the *Employer* as it may reasonably require in connection with the *subcontract works*.

12. In the event that the Call-Off Contract or the employment of the *Contractor* thereunder is determined for any reason whatsoever including but not limited to the insolvency or winding-up of the *Contractor* (voluntary or otherwise), the Subcontractor shall without allowing any break or intermission to occur in the performance of his duties:

8. continue to observe and carry out his obligations under the Subcontract and this Deed;

(a) if so required by notice in writing from the *Employer* treat the *Employer* as *Employer* under the Subcontract to the exclusion of the *Contractor* whereupon all rights and obligations of the *Contractor* under the Subcontract shall thereafter be exercisable and performed by the *Employer*; and

(b) accept and enter into any deeds or other documents as are required to put into legal effect any further novation of the Subcontract reasonably required by the *Employer*.

13.

13.1 The Subcontractor warrants and undertakes to the *Employer* that he will promptly inform the *Employer* of any default by the *Contractor* under the Subcontract and that he will not, without first giving the *Employer* at least 21 days' notice in writing, exercise any right he may have to terminate the Subcontract or to treat the same as having been repudiated by the *Contractor* or to suspend performance of his obligations under the Subcontract.

13.2 The Subcontractor's right to terminate the Subcontract or to treat the same as having been repudiated or to suspend performance of his obligations thereunder shall cease if within the period of the aforesaid notice and subject to Clause 14 hereof the *Employer* shall have given notice in writing to the Subcontractor requiring the Subcontractor to accept the instructions of the *Employer* or its appointee to the exclusion of the *Contractor* in respect of the carrying out and completion of the *subcontract works* upon the terms of the Subcontract.

14. The provisions of Clauses 12 and 13 hereof are conditional upon any notice given by the *Employer* pursuant thereto stating that the *Employer* or its appointee accepts liability for payment of the last unpaid invoice submitted by the Subcontractor. Upon the issue of any such notice by the *Employer*, the Subcontract shall continue in full force and effect as if no right of termination on the part of the Subcontractor had arisen and the Subcontractor shall be liable to the *Employer* or its appointee under the Subcontract in lieu of its liability to the *Contractor*. If any notice given by the *Employer* under Clauses 12 or 13 requires the Subcontractor to accept the instructions of the *Employer*'s appointee, the *Employer* shall be liable to the Subcontractor as guarantor for the payment of all sums from time to time due to the Subcontractor from the *Employer*'s appointee. For the avoidance of doubt neither the *Employer* nor his appointee shall be liable for any work carried out prior to the date of the *Employer*'s notice.

15. The *Contractor* has agreed to be a party to this Deed for the purposes of acknowledging that the Subcontractor shall not be in breach of the Subcontract by complying with the obligations imposed on it by Clauses 12 or 13 hereof.

16. This Deed may be assigned by the *Employer* to any member of the TfL Group without limitation and otherwise to any other person on two occasions without the consent of the Subcontractor being required and the Subcontractor shall do all such acts, deeds and things as may be reasonably necessary to give effect to any such assignment. No further assignment shall be permitted without the consent of the Subcontractor.

TfL CONFIDENTIAL

17. The Subcontractor shall not be entitled to contend that any person to whom this Deed is assigned in accordance with Clause 16 is precluded from recovering under this Deed any loss incurred by such assignee resulting from any breach of this Deed (whenever happening) by reason that such person is an assignee and not a named promisee under this Deed.

18. The liability of the Subcontractor under this Deed shall cease 12 years following Completion of the whole of the *works*.

19. The Subcontractor hereby covenants that if required by the *Employer* it will enter into further deeds of warranty with all and each of such persons who shall acquire or agree to acquire an interest in the whole or any part of the *subcontract works* and/or the PFI Contractor(s). Each such deed of warranty shall be in the same form mutatis mutandis as this Deed or in such substantially similar form as may reasonably be required by the *Employer*.

20.

20.1 Without limitation to Clause 2 above, the Subcontractor hereby warrants to the *Employer* that:

(a) except as provided under deeds of warranty required pursuant to the Subcontract, it shall not, without the prior written approval of the *Employer*, at any time for any reason disclose to any person or publish or make any statement concerning the Subcontract, this Deed or the project to which the *subcontract works* relate;

(b) he shall treat all information obtained under, arising from or in connection with the Subcontract, this Deed and the project as confidential, and that other than for the purpose of providing the *subcontract works*, it shall not disclose any information or documents concerning the Subcontract to any other person; and

(c) he shall not, without the prior written consent of the *Employer*, disclose any information obtained by him concerning the *Employer* or the TfL Group to any other person.

20.2 The *Employer* may require as a precondition to the granting of such consent that any such third party provides a confidentiality undertaking in terms satisfactory to the *Employer*.

20.3 Clause 20.1 does not apply to the disclosure of:

(a) any information which is already in the public domain at the time of its disclosure other than by breach of these provisions,

(b) any information disclosed by the Subcontractor to any Connected Persons provided that such recipients agree in writing to be bound by the terms of this confidentiality provision; and

(c) any information which is required to be disclosed by any applicable law or statutory requirement, the regulations of any stock exchange, any taxation authorities or by an

order of a court or other tribunal of competent jurisdiction or any relevant regulatory body.

20.4 The Subcontractor shall procure that the Connected Persons comply with the provisions of this Clause 20 and is responsible to the *Employer* for any act or omission of any Connected Person in breach of such obligations.

20.5 The Subcontractor shall notify the *Employer* promptly if the Subcontractor becomes aware of any breach of confidence by a Connected Person and shall give the *Employer* all assistance the *Employer* may reasonably require in connection with any proceedings the *Employer* may bring or other steps the *Employer* may take against that Connected Person or any other person for such breach of confidence.

20.6 The Subcontractor acknowledges that damages would not be an adequate remedy for any breach of this Clause 20 by the Subcontractor and that (without prejudice to all other remedies to which the *Employer* may be entitled to as a matter of law) the *Employer* shall be entitled to any form of equitable relief to enforce the provisions of this Clause 20.

20.7 At the *Employer's* request and in any event upon the termination or expiry of the Subcontract, the Subcontractor shall promptly deliver to the *Employer* or destroy as the *Employer* may direct all documents and other materials in the possession, custody or control of the Subcontractor (or the relevant parts of such materials) that bear or incorporate the whole or any part of the confidential information and if instructed by the *Employer* in writing, remove all electronically held confidential information, including the purging of all disk-based confidential information and the reformatting of all disks.

21.

21.1 The Subcontractor shall owe no greater obligations to the *Employer* than he owes to the *Contractor* under the Subcontract.

21.2 The Subcontractor shall be entitled in any action or proceedings by the *Employer* to rely on any limitation in the Subcontract and to raise the equivalent rights in defence of liability as he would have against the *Contractor* thereunder.

22. The rights and benefits conferred upon the *Employer* by this Deed are in addition to any other rights and remedies the *Employer* may have against the Subcontractor including without limitation any remedies in negligence.

23. The *Contractor* agrees that he will not take any steps which would prevent or hinder the *Employer* from exercising his rights under this Deed and confirms that the rights of the *Employer* in Clauses 12 and 13 override any obligations of the Subcontractor to the *Contractor* under the Subcontract.

24. Any notice to be given hereunder shall be deemed to be duly given if it is in writing and delivered by hand at or sent by registered post to the registered office or principal place of business in the United Kingdom for the time being of the party to be served and in the case of any such notice sent by registered post shall be deemed to have been received 48 hours after being posted.

25.

25.1 Any dispute or difference arising out of or in connection with this Deed may be referred to adjudication in accordance with paragraphs W2.1 to W2.26 of the Dispute Resolution Procedure in the Call-Off Contract which shall be deemed to be included in this Deed as if they were recited herein in full (with the necessary changes).

25.2 The Adjudicator's decision shall be binding on the parties until the dispute or difference is finally determined by the Courts in accordance with Clause 25.3.

25.3 The Courts of England and Wales shall have jurisdiction over any dispute or difference arising out of or in connection with this Deed. The Law of England and Wales shall be the proper law of this Deed.

26. Nothing in this Deed confers or is intended to confer on any third party any benefit or the right to enforce any term of this Deed pursuant to the Contracts (Rights of Third Parties) Act 1999.

IN WITNESS whereof this Deed has been executed and unconditionally delivered as a Deed by the parties the day and year first above written.

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of
London Underground Limited
In the presence of:

Authorised Signatory _____

THE COMMON SEAL of
[THE SUB-CONTRACTOR]
was affixed to **THIS DEED**
in the presence of:

Signature of Director .....

Print name of Director .....

Signature of Director/Secretary .....

Print name of Director/Secretary .....

[EXECUTED AND DELIVERED AS
A DEED by
[THE CONTRACTOR]

acting by:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

ANNEX

(*subcontract works*)

PART B: Form of Warranty from Subcontractor to Beneficiary

THIS DEED is made on ● 202●

BETWEEN:

(1) ● whose registered office is situate at ● (the "**Beneficiary**")

(2) ● whose registered office is situate at ● (the **"Subcontractor"**); and

(3) ● whose registered office is situate at ● (the **"*Contractor*"**).

WHEREAS:

(A) The *Contractor* has entered into a contract dated ● (the "**Framework Contract**") with London Underground Limited whose registered office is situate at 5 Endeavour Square, London, E20 1JN (the "***Employer***" which expression shall include its successors and assigns) for the provision of high voltage power works and services as described therein.

(B) Pursuant to the Framework Contract, the *Contractor* has entered into a contract dated ● (the **"Call-Off Contract"**) with the *Employer* for the design and carrying out of certain [**Works and/ or Services**] at ● (the **"*works*"**).

(C) The Subcontractor **[has entered] [will shortly enter]** into a subcontract (the **"Subcontract"**) with the *Contractor* for the design and carrying out of certain parts (the **"*subcontract works*"**) of the *works* more particularly defined in *Annex* ● hereto[33].

(D) [The Beneficiary has entered into a contract with the *Employer* under the private finance initiative for ●.]/[The Beneficiary [intends to enter into] / [has entered into] an agreement to provide finance for the carrying out and completion of the *works*]. [The Beneficiary intends to enter into an agreement with the *Employer* under which it will agree that on or following Completion of the *works* it will [purchase] / [take a lease of] the whole or part of the *works*.] [The Beneficiary has an interest in the whole or part of the *works* as a developer and [intends to enter into] / [has entered into] an agreement with the *Employer* in respect of [●]]/[The Beneficiary is a member of the TfL Group and has an interest in the *works* as ●][The Beneficiary is the Oversite Developer]./[The Beneficiary is the [funder/purchaser/tenant] of the Oversite Development.][34]

NOW IT IS AGREED:

1. Terms and expressions defined in the Subcontract shall where the context so permits have the same meanings in this Deed. The following expressions have the meanings set out herein:

[33] A description of the works should be provided in the Annex.

[34] Select appropriate recital depending on whether the Beneficiary is (i) a PFI Contractor; (ii) funder; (iii) purchaser/tenant; (iv) developer, (v) member of the TfL Group or (vi) Oversite Developer or funder/purchaser/tenant of an Oversite Development.

(a) "Documents" means documents, items of information, data, reports, drawings, specifications, plans, software, designs, inventions and any other materials provided by or on behalf of the Subcontractor in connection with the *subcontract works* (whether in existence or to be made);

(b) "PFI Contractor(s)" means any and all of those contractors who have or will enter into contracts with the *Employer* under the private finance initiative and any replacement scheme for the public procurement of capital assets which is similar in nature;

(c) "TfL Group" means Transport for London, a statutory body set up by the Greater London Authority Act 1999 and any of its subsidiaries and their subsidiaries.

(d) "Underground Network" means the stations and depots (wherever situate), assets, systems, track and other buildings, which are used in the maintenance and provision of the underground service known as the "London Underground".

2. The Subcontractor warrants and undertakes to the Beneficiary that:

(a) he has exercised and will continue to exercise all the reasonable skill, care and diligence to be expected of a competent Subcontractor experienced in carrying out works of a similar scope, size and complexity to the *subcontract works*; and

(b) he has complied with and will continue to comply with the terms of the Subcontract.

3. The Subcontractor warrants and undertakes to the Beneficiary that it has not selected or specified for use, and that it will not select or specify for use or allow to be used any substance or material which are not in accordance with the Standards, general good building and engineering practice and the requirements of the Works Information.

4. [Provided that nothing in this Clause 4 shall impose a greater duty on the *Contractor* than that owed under Clause 2(a) of this Deed [the]][35] [The] Subcontractor further warrants and undertakes to the Beneficiary that:

(a) the *subcontract works* will on Completion satisfy all performance or output specifications and other requirements contained or referred to in the Subcontract;

(b) the *subcontract works* and all materials comprised in them will correspond as to description, quality and condition with the requirements of the Subcontract and will be of sound manufacture and workmanship;

(c) the *subcontract works* are integrated with the designs of the *Employer*, the *Contractor* and others as specified in the Subcontract;

[35] Use shaded text on all forms of warranty where Beneficiary is not a PFI Contractor.

(d) the *subcontract works* will on Completion comply with all applicable law and all relevant Standards; and

(e) the *subcontract works* will be carried out and completed timeously in accordance with the time constraints set out in the Subcontract.

5. The Subcontractor warrants and undertakes to the Beneficiary that he has maintained and will continue to maintain all insurances required to be maintained pursuant to the terms of the Subcontract and that insofar as he is responsible for the design of the *subcontract works*, he has professional indemnity insurance with a limit of indemnity of not less than £[…][36] in respect of each and every claim which may be made against the Subcontractor in relation to the *subcontract works*. The Subcontractor shall maintain such professional indemnity insurance for a period of 12 years from Completion of the whole of the *works* provided such insurance remains available at commercially reasonable rates and shall notify the Beneficiary forthwith if such insurance ceases to be so available. When deciding whether such insurances are available at commercially reasonable rates, no account shall be taken of any increase in the premium or imposition of terms which arise as a result of the Subcontractor's insurance claims record.

6. As and when reasonably requested by the Beneficiary, the Subcontractor shall produce for inspection documentary evidence that the insurances referred to in Clause 5 are being properly maintained and that payment has been made of the last premiums due in respect of such insurances.

7. To the extent that the intellectual property rights in any and all Documents have not already vested in the *Employer* or the *Contractor*, the Subcontractor grants to the Beneficiary an irrevocable non-exclusive, non-terminable, royalty-free licence to copy and make full use of any and all Documents and all amendments and additions to them and any works, designs or inventions of the Subcontractor incorporated or referred to in them for the following purposes:

(a) understanding the *works*;

(b) operating, maintaining, repairing, modifying, altering, enhancing, re-figuring, correcting and replacing the works, any Equipment or Plant and Materials;

(c) extending, interfacing with, integrating with, connection into and adjusting the works and/or the works of Others;

(d) enabling the *Employer* to carry out the operation, maintenance, repair, renewal and enhancement of the Underground Network;

(e) enabling the *Employer* to perform his function and duties as Infrastructure Manager and Operator of the Underground Network;

[36] The PI figure should be the same as the figure inserted in the Contract Data.

(f) executing and completing the *works;* and

(g) designing, testing and commissioning the *works*

provided always that the *Contractor* shall not be liable for the consequences of any use of the Documents as aforesaid for any other purpose. Such licence shall carry the right to grant sub-licences and shall be transferable to third parties without the prior consent of the Subcontractor.

8. The Subcontractor agrees:

(a) on request at any time to give the Beneficiary or any persons authorised by the Beneficiary access to the material referred to in Clause 7 and at the Beneficiary's expense to provide copies of any such material; and

(b) at the Subcontractor's expense to provide the Beneficiary with a set of all such material on Completion of the *subcontract works*.

9. If called upon to do so by the Beneficiary, the Subcontractor shall provide the Beneficiary with such information relating to the *subcontract works* as it may reasonably require including without limitation copies of and extracts from Documents prepared or provided by the Subcontractor for the purposes of the *works* provided that neither the provision of such information nor any inspection of the *works* by the Beneficiary nor the approval by the Beneficiary of any material shall limit or discharge, or be deemed to limit or discharge the obligations of the Subcontractor under the Subcontract or relieve the Subcontractor from any liability which he has in relation to the *subcontract works*.

10. This Deed may be assigned by the Beneficiary [to any person providing finance to the Beneficiary for the purpose specified in Recital D, or][37] to any member of the TfL Group without limitation and otherwise to any other person on two occasions without the consent of the Subcontractor being required and the Subcontractor shall do all such acts, deeds and things as may be reasonably necessary to give effect to any such assignment. No further assignment shall be permitted without the consent of the Subcontractor.

11. The Subcontractor shall not be entitled to contend that any person to whom this Deed is assigned in accordance with Clause 10 is precluded from recovering under this Deed any loss incurred by such assignee resulting from any breach of this Deed (whenever happening) by reason that such person is an assignee and not a named promisee under this Deed.

12. The liability of the Subcontractor under this Deed shall cease 12 years following Completion of the whole of the *works*.

[37] Only use shaded text if Beneficiary is a PFI Contractor.

13.1 The Subcontractor shall owe no greater obligations to the Beneficiary than he owes to the *Contractor* under the Subcontract.

13.2 The Subcontractor shall be entitled in any action or proceedings by the Beneficiary to rely on any limitation in the Subcontract and to raise the equivalent rights in defence of liability as he would have against the *Contractor* thereunder.

14. The rights and benefits conferred upon the Beneficiary by this Deed are in addition to any other rights and remedies the Beneficiary may have against the Subcontractor including without limitation any remedies in negligence.

15. The *Employer* and *Contractor* agree that they will not take any steps which would prevent or hinder the Beneficiary from exercising his rights under this Deed.

16. Any notice to be given hereunder shall be deemed to be duly given if it is in writing and delivered by hand at or sent by registered post to the registered office or principal place of business in the United Kingdom for the time being of the party to be served and in the case of any such notice sent by registered post shall be deemed to have been received 48 hours after being posted.

17.1 Any dispute or difference arising out of or in connection with this Deed may be referred to adjudication in accordance with paragraphs W2.1 - W2.26 of the Dispute Resolution Procedure in the Call-Off Contract which shall be deemed to be included in this Deed as if they were recited herein in full (with the necessary changes).

17.2 The Adjudicator's decision shall be binding on the parties until the dispute or difference is finally determined by the Courts in accordance with Clause 17.3.

17.3 The Courts of England and Wales shall have jurisdiction over any dispute or difference arising out of or in connection with this Deed. The Law of England and Wales shall be the proper law of this Deed.

18. Nothing in this Deed confers or is intended to confer on any third party any benefit or the right to enforce any term of this Deed pursuant to the Contracts (Rights of Third Parties) Act 1999.

IN WITNESS whereof this Deed has been executed and unconditionally delivered as a Deed by the parties the day and year first above written.

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of
London Underground Limited
In the presence of:

Authorised Signatory _____

[EXECUTED AND DELIVERED AS
A DEED by
[THE BENEFICIARY]

acting by:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary]

THE COMMON SEAL of
[THE SUB-CONTRACTOR]
was affixed to **THIS DEED**
in the presence of:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

THE COMMON/CORPORATE SEAL of
[THE CONTRACTOR]
was affixed to **THIS DEED**
in the presence of:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

ANNEX

(*subcontract works*)

PART C: Form of warranty from Subcontractor to Employer (where Subcontractor is providing consulting services)

THIS DEED is made on ● 202●

BETWEEN:

(1) **London Underground Limited** whose registered office is at 5 Endeavour Square, London E20 1JN ("the ***Employer***" which expression shall include its successors and assigns);

(2) ● whose registered office is situate at ● (the **"Subconsultant"**); and

(3) ● whose registered office is situate at ● (the **"*Contractor*"**).

WHEREAS:

(A) The *Contractor* has entered into a contract dated ● (the "**Framework Contract**") with the *Employer* for the provision of high voltage power works and services as described therein.

(B) Pursuant to the Framework Contract, the *Contractor* has entered into a contract dated ● (the **"Call-Off Contract"**) with the *Employer* for the carrying out of certain **[Works and/or Services]** at ● (the **"*works*"**).

(C) The Subconsultant has been invited to design certain parts (the **"*design works*"**) of the *works* and [has entered] [will shortly enter] into a deed of appointment with the *Contractor* (the **"Appointment"**) for the *design works*.

NOW IT IS AGREED:

1. Terms and expressions defined in the Appointment shall where the context so permits have the same meanings in this Deed. The following expressions have the meanings set out herein:

   (a) "Connected Persons" means of any of the Subconsultant's employees, directors, consultants, agents, subcontractors, subconsultants, suppliers, shareholders, professional advisers (including lawyers, auditors, financial advisers, accountants and technical consultants) or underwriters;

   (b) "Documents" means documents, items of information, data, reports, drawings, specifications, plans, software, designs, inventions and any other materials provided by or on behalf of the Subconsultant in connection with the *design works* (whether in existence or to be made);

   (c) "Minimum Records" means all records relating to the Subconsultant's operations, method statements, costs and expenses, subcontracts, claims relating to compensation events and financial arrangements and any document referred to therein or relating thereto and any similar records which the *Employer* may reasonably request.

(d) "PFI Contractor(s)" means any and all of those contractors who have or will enter into contracts with the *Employer* under the private finance initiative and any replacement scheme for the public procurement of capital assets which is similar in nature;

(e) "Prohibited Act" means:

(i) offering or agreeing to give to any servant, employee, officer or agent of the *Employer* or the *Contractor* any grant, gift or consideration of any kind as an inducement or reward for doing or not doing (or for having done or not having done) any act in relation to the obtaining or performance of the Appointment or any other contract with the *Employer* or the *Contractor* or for showing or not showing favour or disfavour to any person in relation to the Appointment or any other contract with the *Employer* or the *Contractor;*

(ii) entering into the Appointment or any other contract with the *Employer* or the *Contractor* in connection with which commission has been paid or has been agreed to be paid by the Subconsultant or on his behalf or to his knowledge unless, before the relevant contract or document is entered into, particulars of any such commission and the terms and conditions of any such contract or document for the payment thereof have been disclosed in writing to the *Employer* or the *Contractor*;

(iii) committing any offence under the Prevention of Corruption Acts 1889-1916 and/or the Bribery Act 2010, under any law or legislation creating offences in respect of fraudulent acts, or at common law in respect of fraudulent acts in relation to the Appointment or any other contract with the *Employer* or the *Contractor*; or

(iv) defrauding or attempting to defraud the *Employer* or the *Contractor*.

(f) "Safety Breach" means a material breach of the Appointment caused by the gross incompetence, wilful default or reckless disregard to safety of the Subconsultant (or anyone employed or acting on behalf of the Subconsultant) which has materially affected (or which had the potential to materially effect) the safe provision of the *design works*, the safe operation of the Underground Network and/or the safety of the *Employer's* employees, or the public or any other persons.

(g) "TfL Group" means Transport for London, a statutory body set up by the Greater London Authority Act 1999 and any of its subsidiaries and their subsidiaries.

(h) "Underground Network" means the stations and depots (wherever situate), assets, systems, track and other buildings, which are used in the maintenance and provision of the underground service known as the "London Underground".

2. The Subconsultant warrants and undertakes to the *Employer* that;

(a) he has exercised and will continue to exercise all the reasonable skill, care and diligence required by the Appointment in the performance of his duties to the *Contractor* under the Appointment; and

(b) he has complied with and will continue to comply with the terms of the Appointment.

3. The Subconsultant warrants to the *Employer* that he has not selected or specified for use, and that he will not select or specify for use or allow to be used any substance or material which are not in accordance with the Standards, general good building and engineering practice and the requirements of the Works Information.

4. The Subconsultant further warrants and undertakes to the *Employer* that:

(a) the *design works* will on Completion satisfy all performance or output specifications and other requirements contained or referred to in the Appointment;

(b) he has exercised and will continue to exercise all reasonable skill, care and diligence in the selection of goods and materials for the *design works* in so far as such goods and materials have been or will be selected by or on behalf of the Subconsultant;

(c) the *design works* are integrated with the designs of the *Employer*, the *Contractor* and others as specified in the Appointment;

(d) the *design works* will on Completion comply with all applicable law and all relevant Standards;

(e) he shall not commit a Prohibited Act and/or Safety Breach; and

(f) the *design works* will be carried out and completed timeously in accordance with the time constraints set out in the Appointment.

5. The Subconsultant warrants and undertakes to the *Employer* that he has maintained and will continue to maintain all insurances required to be maintained pursuant to the terms of the Appointment and that he has professional indemnity insurance with a limit of indemnity of not less than £[…] [38] in respect of each and every claim which may be made against the Subconsultant in relation to the *design works*. The Subconsultant shall maintain such professional indemnity insurance for a period of 12 years from Completion of the whole of the *works* provided that such insurance remains available at commercially reasonable rates and shall notify the *Employer* forthwith if such insurance ceases to be so available. When deciding whether such insurances are available at commercially reasonable rates, no account shall be

[38] The PI figure should be the same as the figure inserted in the Contract Data.

taken of any increase in the premium or imposition of terms which arise as a result of the Subconsultant's insurance claims record.

6. As and when reasonably requested by the *Employer*, the Subconsultant shall produce for inspection documentary evidence that the insurances referred to in Clause 5 are being properly maintained and that payment has been made of the last premiums due in respect of such insurances.

7. To the extent that the intellectual property rights in any and all Documents have not already vested in the *Employer* or the *Contractor*, the Subconsultant grants to the *Employer* an irrevocable, non-exclusive, non-terminable, royalty-free licence to copy and make full use of any and all Documents and all amendments and additions to them and any works, designs or inventions of the Subconsultant incorporated or referred to in them for the following purposes:

   (a) understanding the *works*;

   (b) operating, maintaining, repairing, modifying, altering, enhancing, re-figuring, correcting and replacing the works, any Equipment or Plant and Materials;

   (c) extending, interfacing with, integrating with, connection into and adjusting the works and/or the works of Others;

   (d) enabling the *Employer* to carry out the operation, maintenance, repair, renewal and enhancement of the Underground Network;

   (e) enabling the *Employer* to perform his function and duties as Infrastructure Manager and Operator of the Underground Network;

   (f) executing and completing the *works;* and

   (g) designing, testing and commissioning the *works*

   provided always that the Subconsultant shall not be liable for the consequences of any use of the Documents as aforesaid for any other purpose. Such licence shall carry the right to grant sub-licences and shall be freely transferable to third parties without the prior consent of the Subconsultant.

8. The Subconsultant agrees:

   (a) on request at any time to give the *Employer* or any persons authorised by the *Employer* access to the material referred to in Clause 7 and at the *Employer*'s expense to provide copies of any such material; and

   (b) at the Subconsultant's expense to provide the *Employer* with a set of all such material on Completion of the *design works*.

9. If called upon to do so by the *Employer*, the Subconsultant shall provide the *Employer* with such information relating to the *design works* as the *Employer* may reasonably require including without limitation copies of and extracts from Documents prepared or provided by the Subconsultant for the purposes of the *works* provided that neither the provision of such information nor any inspection of the *works* by the *Employer* or its agents nor the approval by the *Employer* or its agents of any material shall limit or discharge, or be deemed to limit or discharge the obligations of the Subconsultant under the Appointment or relieve the Subconsultant from any liability which he has in relation to the *design works*.

10. The Subconsultant warrants and undertakes to the *Employer* that he shall maintain and retain the Minimum Records for a minimum of twelve (12) years from Completion of the *works* with respect to all matters for which the Subconsultant is responsible under the Appointment. The Subconsultant further warrants and undertakes to the *Employer* that the Appointment contains open-book audit rights in favour of the *Employer* and its authorised representatives and that he shall undertake his obligations and exercise his rights under the Appointment on an open-book basis. The *Employer* and his authorised representatives may from time to time audit on an open-book basis and check and take copies of and extracts from any document or record of the Subconsultant including, without limitation the Minimum Records. The Subconsultant further warrants that it shall promptly provide all reasonable co-operation in relation to any audit or checking including, without limitation, granting access to premises, equipment, systems or senior personnel and making documents available. Without prejudice to the foregoing, the Subconsultant acknowledges and agrees that the *Employer* may audit and check any and all records as are necessary in order to monitor compliance with the Subconsultant's obligations under the Appointment with respect to Prohibited Acts and Safety Breaches at any time during performance of the Appointment and during the 12 years thereafter.

11. The Subconsultant shall provide such assistance to the *Employer* as it may reasonably require in connection with the *design works*.

12. In the event that the Call-Off Contract or the employment of the *Contractor* thereunder is determined for any reason whatsoever including but not limited to the insolvency or winding-up of the *Contractor* (voluntary or otherwise), the Subconsultant shall without allowing any break or intermission to occur in the performance of his duties:

    (a) continue to observe and carry out his obligations under the Appointment and this Deed;

    (b) if so required by notice in writing from the *Employer* treat the *Employer* as client under the Appointment to the exclusion of the *Contractor* whereupon all rights and obligations of the *Contractor* under the Appointment shall thereafter be exercisable and performed by the *Employer*; and

    (c) accept and enter into any deeds or other documents as are required to put into legal effect any further novation of the Appointment reasonably required by the *Employer*.

13.1 The Subconsultant warrants and undertakes to the *Employer* that he will promptly inform the *Employer* of any default by the *Contractor* under the Appointment and that he will not, without first giving the *Employer* at least 21 days' notice in writing, exercise any right he may have to terminate the Appointment or to treat the same as having been repudiated by the *Contractor* or to suspend performance of his obligations under the Appointment.

13.2 The Subconsultant's right to terminate the Appointment or to treat it as having been repudiated or to suspend performance of his obligations thereunder shall cease if within the period of the aforesaid notice and subject to Clause 14 hereof the *Employer* shall have given notice in writing to the Subconsultant requiring the Subconsultant to accept the instructions of the *Employer* or its appointee to the exclusion of the *Contractor* in respect of the carrying out and Completion of the *design works* upon the terms of the Appointment.

14. The provisions of Clauses 12 and 13 hereof are conditional upon any notice given by the *Employer* pursuant thereto stating that the *Employer* or its appointee accepts liability for payment of the last unpaid invoice submitted by the Subconsultant. Upon the issue of any such notice by the *Employer*, the Appointment shall continue in full force and effect as if no right of termination on the part of the Subconsultant had arisen and the Subconsultant shall be liable to the *Employer* or its appointee under the Appointment in lieu of its liability to the *Contractor*. If any notice given by the *Employer* under Clauses 12 or 13 requires the Subconsultant to accept the instructions of the *Employer*'s appointee, the *Employer* shall be liable to the Subconsultant as guarantor for the payment of all sums from time to time due to the Subconsultant from the *Employer*'s appointee. For the avoidance of doubt neither the *Employer* nor his appointee shall be liable for any work carried out prior to the date of the *Employer*'s notice.

15. The *Contractor* has agreed to be a party to this Deed for the purposes of acknowledging that the Subconsultant shall not be in breach of the Appointment by complying with the obligations imposed on the Subconsultant by Clauses 12 or 13.

16. This Deed may be assigned by the *Employer* to any member of the TfL Group without limitation and otherwise to any other person on two occasions without the consent of the Subconsultant being required and the Subconsultant shall do all such acts, deeds and things as may be reasonably necessary to give effect to any such assignment. No further assignment shall be permitted without the consent of the Subconsultant.

17. The Subconsultant shall not be entitled to contend that any person to whom this Deed is assigned in accordance with Clause 16 is precluded from recovering under this Deed any loss incurred by such assignee resulting from any breach of this Deed (whenever happening) by reason that such person is an assignee and not a named promisee under this Deed.

18. The liability of the Subconsultant under this Deed shall cease 12 years following Completion of the whole of the *works*.

19.1 Without limitation to Clause 2 above, the Subconsultant hereby warrants to the *Employer* that:

(d) except as provided under deeds of warranty required pursuant to the Appointment, it shall not, without the prior written approval of the *Employer*, at any time for any reason disclose to any person or publish or make any statement concerning the Appointment, this Deed or the project to which the *design works* relate;

(e) he shall treat all information obtained under, arising from or in connection with the Appointment, this Deed and the project as confidential, and that other than for the purpose of providing the *design works*, it shall not disclose any information or documents concerning the Appointment to any other person; and

(f) he shall not, without the prior written consent of the *Employer*, disclose any information obtained by him concerning the *Employer* or the TfL Group to any other person.

19.2 The *Employer* may require as a precondition to the granting of such consent that any such third party provides a confidentiality undertaking in terms satisfactory to the *Employer*.

19.3 Clause 19.1 does not apply to the disclosure of:

(a) any information which is already in the public domain at the time of its disclosure other than by breach of these provisions,

(b) any information disclosed by the Subconsultant to any Connected Persons provided that such recipients agree in writing to be bound by the terms of this confidentiality provision; and

(c) any information which is required to be disclosed by any applicable law or statutory requirement, the regulations of any stock exchange, any taxation authorities or by an order of a court or other tribunal of competent jurisdiction or any relevant regulatory body.

19.4 The Subconsultant shall procure that the Connected Persons comply with the provisions of this Clause 19 and is responsible to the *Employer* for any act or omission of any Connected Person in breach of such obligations.

19.5 The Subconsultant shall notify the *Employer* promptly if the Subconsultant becomes aware of any breach of confidence by a Connected Person and shall give the *Employer* all assistance the *Employer* may reasonably require in connection with any proceedings the *Employer* may bring or other steps the *Employer* may take against that Connected Person or any other person for such breach of confidence.

19.6 The Subconsultant acknowledges that damages would not be an adequate remedy for any breach of this Clause 19 by the Subconsultant and that (without prejudice to all other remedies to which the *Employer* may be entitled to as a matter of law) the *Employer* shall be entitled to any form of equitable relief to enforce the provisions of this Clause 19.

19.7 At the *Employer's* request and in any event upon the termination or expiry of the Appointment, the Subconsultant shall promptly deliver to the *Employer* or destroy as the *Employer* may direct all documents and other materials in the possession, custody or control of the Subconsultant (or the relevant parts of such materials) that bear or incorporate the whole or any part of the confidential information and if instructed by the *Employer* in writing, remove all electronically held confidential information, including the purging of all disk-based confidential information and the reformatting of all disks.

20.1 The Subconsultant shall owe no greater obligations to the *Employer* than he owes to the *Contractor* under the Appointment.

20.2 The Subconsultant shall be entitled in any action or proceedings by the *Employer* to rely on any limitation in the Appointment and to raise the equivalent rights in defence of liability as he would have against the *Contractor* thereunder.

21. The rights and benefits conferred upon the *Employer* by this Deed are in addition to any other rights and remedies the *Employer* may have against the Subconsultant including without limitation any remedies in negligence.

22. The *Contractor* agrees that he will not take any steps which would prevent or hinder the *Employer* from exercising his rights under this Deed and confirms that the rights of the *Employer* in Clauses 12 and 13 override any obligations of the Subconsultant to the *Contractor* under the Appointment.

23. Any notice to be given hereunder shall be deemed to be duly given if it is in writing and delivered by hand at or sent by registered post to the registered office or principal place of business in the United Kingdom for the time being of the party to be served and in the case of any such notice sent by registered post shall be deemed to have been received 48 hours after being posted.

23.1 Any dispute or difference arising out of or in connection with this Deed may be referred to adjudication in accordance with paragraphs W2.1 - W2.26 of the Dispute Resolution Procedure in the Call-Off Contract which shall be deemed to be included in this Deed as if they were recited herein in full (with the necessary changes).

23.2 The Adjudicator's decision shall be binding on the parties until the dispute or difference is finally determined by the Courts in accordance with Clause 23.3.

23.3 The Courts of England and Wales shall have jurisdiction over any dispute or difference arising out of or in connection with this Deed. The law of England and Wales shall be the proper law of this Deed.

24. Nothing in this Deed confers or is intended to confer on any third party any benefit or the right to enforce any term of this Deed pursuant to the Contracts (Rights of Third Parties) Act 1999.

IN WITNESS whereof this Deed has been executed and unconditionally delivered as a Deed by the parties the day and year first above written.

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of
London Underground Limited
In the presence of:

Authorised Signatory _____

THE COMMON SEAL of
[THE SUBCONSULTANT]
was affixed to **THIS DEED**
in the presence of:

Signature of Director .....

Print name of Director .....

Signature of Director/Secretary .....

Print name of Director/Secretary .....

[EXECUTED AND DELIVERED AS
A DEED by
[THE CONTRACTOR]

acting by:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

PART D: (Form of Warranty from Subcontractor to Beneficiary (where Subcontractor is providing consulting services)

THIS DEED is made on ● 202●

BETWEEN:

(1) ● whose registered office is situate at ● (the "**Beneficiary**");

(2) ● whose registered office is situate at ● (the **"Subconsultant"**); and

(3) ● whose registered office is situate at ● (the **"*Contractor*"**).

WHEREAS:

(A) The *Contractor* has entered into a contract dated ● (the "**Framework Contract**") with London Underground Limited whose registered office is situate at 5 Endeavour Square, London, E20 1JN (the "***Employer***" which expression shall include its successors and assigns) for the provision of high voltage power works and services as described therein.

(B) Pursuant to the Framework Contract, the *Contractor* has entered into a contract dated ● (the **"Call-Off Contract"**) the *Employer* for the carrying out of certain **[Works and/or Services]** at ● (the **"*works*"**).

(C) The Subconsultant has been invited to design certain parts (the **"*design works*"**) of the *works* and [has entered] [will shortly enter] into a deed of appointment with the *Contractor* (the **"Appointment"**) for the *design works*.

(D) [The Beneficiary has entered into a contract with the *Employer* under the private finance initiative for ●.]/[The Beneficiary [intends to enter into] / [has entered into] an agreement to provide finance for the carrying out and completion of the *works*]. [The Beneficiary intends to enter into an agreement with the *Employer* under which it will agree that on or following Completion of the *works* it will [purchase] / [take a lease of] the whole or part of the *works*.] [The Beneficiary has an interest in the whole or part of the *works* as a developer and [intends to enter into] / [has entered into] an agreement with the *Employer* in respect of [●]]/[The Beneficiary is a member of the TfL Group and has an interest in the *works* as ●][The Beneficiary is the Oversite Developer]./[The Beneficiary is the [funder/purchaser/tenant] of the Oversite Development.][39]

NOW IT IS AGREED:

1. Terms and expressions defined in the Appointment shall where the context so permits have the same meanings in this Deed. The following expressions have the meanings set out herein:

[39] Select appropriate recital depending on whether the Beneficiary is (i) a PFI Contractor; (ii) funder; (iii) purchaser/tenant; (iv) developer, (v) member of the TfL Group or (vi) Oversite Developer or funder/purchaser/tenant of an Oversite Development.

(a) "Documents" means documents, items of information, data, reports, drawings, specifications, plans, software, designs, inventions and any other materials provided by or on behalf of the Subconsultant in connection with the *design works* (whether in existence or to be made);

(b) "PFI Contractor(s)" means any and all of those contractors who have or will enter into contracts with the *Employer* under the private finance initiative and any replacement scheme for the public procurement of capital assets which is similar in nature;

(c) "TfL Group" means Transport for London, a statutory body set up by the Greater London Authority Act 1999 and any of its subsidiaries and their subsidiaries.

(d) "Underground Network" means the stations and depots (wherever situate), assets, systems, track and other buildings, which are used in the maintenance and provision of the underground service known as the "London Underground".

2. The Subconsultant warrants and undertakes to the Beneficiary that;

(a) he has exercised and will continue to exercise all the reasonable skill, care and diligence required by the Appointment in the performance of his duties to the *Contractor* under the Appointment; and

(b) he has complied with and will continue to comply with the terms of the Appointment.

3. The Subconsultant warrants to the Beneficiary that he has not selected or specified for use, and that he will not select or specify for use or allow to be used any substance or material which are not in accordance with the Standards, general good building and engineering practice and the requirements of the Works Information.

4. [Provided that nothing in this clause 4 shall impose a greater duty on the *Contractor* than that owed under Clause 2(a) of this Deed [the]][40] [The] Subconsultant further warrants and undertakes to the Beneficiary that:

(a) the *design works* will on Completion satisfy all performance or output specifications and other requirements contained or referred to in the Appointment;

(b) he has exercised and will continue to exercise all reasonable skill, care and diligence in the selection of goods and materials for the *design works* in so far as such goods and materials have been or will be selected by or on behalf of the Subconsultant;

(c) the *design works* are integrated with the designs of the *Employer*, the *Contractor* and others as specified in the Appointment;

[40] Use shaded text on all forms of warranty where Beneficiary is not a PFI Contractor.

(d) the *design works* will on Completion comply with all applicable law and all relevant Standards; and

(e) the *design works* will be carried out and completed timeously in accordance with the time constraints set out in the Appointment.

5. The Subconsultant warrants and undertakes to the Beneficiary that he has maintained and will continue to maintain all insurances required to be maintained pursuant to the terms of the Appointment and that he has professional indemnity insurance with a limit of indemnity of not less than £[…] [41] in respect of each and every claim which may be made against the Subconsultant in relation to the *design works*. The Subconsultant shall maintain such professional indemnity insurance for a period of 12 years from Completion of the whole of the *works* provided that such insurance remains available at commercially reasonable rates and shall notify the Beneficiary forthwith if such insurance ceases to be so available. When deciding whether such insurances are available at commercially reasonable rates, no account shall be taken of any increase in the premium or imposition of terms which arise as a result of the Subconsultant's insurance claims record.

6. As and when reasonably requested by the Beneficiary, the Subconsultant shall produce for inspection documentary evidence that the insurances referred to in Clause 5 are being properly maintained and that payment has been made of the last premiums due in respect of such insurances.

7. To the extent that the intellectual property rights in any and all Documents have not already vested in the *Employer* or the *Contractor*, the Subconsultant grants to the Beneficiary an irrevocable, non-exclusive, non-terminable, royalty-free licence to copy and make full use of any and all Documents and all amendments and additions to them and any works, designs or inventions of the Subconsultant incorporated or referred to in them for the following purposes:

(a) understanding the *works*;

(b) operating, maintaining, repairing, modifying, altering, enhancing, re-figuring, correcting and replacing the works, any Equipment or Plant and Materials;

(c) extending, interfacing with, integrating with, connection into and adjusting the works and/or the works of Others;

(d) enabling the *Employer* to carry out the operation, maintenance, repair, renewal and enhancement of the Underground Network;

(e) enabling the *Employer* to perform his function and duties as Infrastructure Manager and Operator of the Underground Network;

[41] The PI figure should be the same as the figure inserted in the Contract Data.

(f) executing and completing the *works;* and

(g) designing, testing and commissioning the *works*

provided always that the Subconsultant shall not be liable for the consequences of any use of the Documents as aforesaid for any other purpose. Such licence shall carry the right to grant sub-licences and shall be freely transferable to third parties without the prior consent of the Subconsultant.

8. The Subconsultant agrees:

(a) on request at any time to give the Beneficiary or any persons authorised by the *Employer* access to the material referred to in Clause 7 and at the Beneficiary's expense to provide copies of any such material; and

(b) at the Subconsultant's expense to provide the Beneficiary with a set of all such material on Completion of the *design works*.

9. If called upon to do so by the Beneficiary, the Subconsultant shall provide the Beneficiary with such information relating to the *design works* as the Beneficiary may reasonably require including without limitation copies of and extracts from Documents prepared or provided by the Subconsultant for the purposes of the *works* provided that neither the provision of such information nor any inspection of the *works* by the Beneficiary or its agents nor the approval by the Beneficiary or its agents of any material shall limit or discharge, or be deemed to limit or discharge the obligations of the Subconsultant under the Appointment or relieve the Subconsultant from any liability which he has in relation to the *design works*.

10. This Deed may be assigned by the Beneficiary [to any person providing finance to the Beneficiary for the purpose specified in Recital (D), or][42] to any member of the TfL Group without limitation and otherwise to any other person on two occasions without the consent of the Subconsultant being required and the Subconsultant shall do all such acts, deeds and things as may be reasonably necessary to give effect to any such assignment. No further assignment shall be permitted without the consent of the Subconsultant.

11. The Subconsultant shall not be entitled to contend that any person to whom this Deed is assigned in accordance with Clause 10 is precluded from recovering under this Deed any loss incurred by such assignee resulting from any breach of this Deed (whenever happening) by reason that such person is an assignee and not a named promisee under this Deed.

12. The liability of the Subconsultant under this Deed shall cease 12 years following Completion of the whole of the *works*.

[42] Only use shaded text if Beneficiary is a PFI Contractor.

13. The Subconsultant shall owe no greater obligations to the Beneficiary than he owes to the Contractor under the Appointment.

13.1 The Subconsultant shall be entitled in any action or proceedings by the Beneficiary to rely on any limitation in the Appointment and to raise the equivalent rights in defence of liability as he would have against the *Contractor* thereunder.

14. The rights and benefits conferred upon the Beneficiary by this Deed are in addition to any other rights and remedies the Beneficiary may have against the Subconsultant including without limitation any remedies in negligence.

15. The *Employer* and *Contractor* agree that they will not take any steps which would prevent or hinder the Beneficiary from exercising his rights under this Deed.

16. Any notice to be given hereunder shall be deemed to be duly given if it is in writing and delivered by hand at or sent by registered post to the registered office or principal place of business in the United Kingdom for the time being of the party to be served and in the case of any such notice sent by registered post shall be deemed to have been received 48 hours after being posted.

16.1 Any dispute or difference arising out of or in connection with this Deed may be referred to adjudication in accordance with paragraphs W2.1 - W2.26 of the Dispute Resolution Procedure in the Call-Off Contract which shall be deemed to be included in this Deed as if they were recited herein in full (with the necessary changes).

16.2 The Adjudicator's decision shall be binding on the parties until the dispute or difference is finally determined by the Courts in accordance with Clause 16.3.

16.3 The Courts of England and Wales shall have jurisdiction over any dispute or difference arising out of or in connection with this Deed. The law of England and Wales shall be the proper law of this Deed.

17. Nothing in this Deed confers or is intended to confer on any third party any benefit or the right to enforce any term of this Deed pursuant to the Contracts (Rights of Third Parties) Act 1999.

IN WITNESS whereof this Deed has been executed and unconditionally delivered as a Deed by the parties the day and year first above written.

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of
London Underground Limited
In the presence of:

Authorised Signatory _____

[EXECUTED AND DELIVERED AS
A DEED by
[THE BENEFICIARTY]

acting by:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

THE COMMON SEAL of
[THE SUBCONSULTANT]
was affixed to **THIS DEED**
in the presence of:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

[EXECUTED AND DELIVERED AS
A DEED by
[THE CONTRACTOR]

acting by:

Signature of Director

Print name of Director

Signature of Director/Secretary

Print name of Director/Secretary

TfL CONFIDENTIAL

Annex 5 – Not used

Annex 6 – Disruption Damages

1. In this Annex, the following terms have the following meanings:

   (a) "**LCH**" or "**Lost Customer Hours**" means the total additional journey time measured in hours, applying planned or unplanned NACHs as appropriate, experienced by Customers as a result of a planned or unplanned Service Disruption.

   (b) "**NACHs**" or "**Nominally Accumulated Customer Hours**" means the system of weights used to estimate the cumulative additional perceived journey time encountered by Customers as a result of planned or unplanned Service Disruptions, as the case may be, as the same is set out in the NACHs Tables 2014 contained in the Works Information.

   (c) "**Service Disruption**" means any disruption to customer services on the Underground Network comprising an interruption to train services or station services including train service disruptions, speed restrictions, full line suspensions, full or partial station closures, platform closures, escalator failures (either partial or total failures, that add to each passengers' overall journey time) and lift downtimes.

2. In the event of a Service Disruption resulting from a failure on the part of the *Contractor* to comply with its obligations under this contract the *Contractor* shall pay on demand and/or the *Employer* may deduct as liquidated damages such sums as may be calculated in accordance with this Annex 6. The duration of any Service Disruption is measured using a network-based database known as CuPID (Contract Performance Information Database).

3. The amount to which the *Employer* is entitled in respect of any Service Disruption shall be calculated by multiplying (a) the relevant Lost Customer Hours attributable to the applicable Service Disruption by (b) X

   where:

   (i) "X" equals £3.55 (three pounds fifty-five pence sterling) indexed as provided for in paragraph 4; and

   (ii) the applicable NACHs table is the unplanned NACHs Tables 2014 for the first seven (7) days of such Service Disruption and the planned NACHS Tables 2014 for any subsequent days of the same Service Disruption.

4. The value of 'X' (as defined in paragraph 3) is revised as at 1 April in each year according to the following calculation:

$$X_{cy} = \frac{r_n}{r_o} \times X$$

   where:

   X_{cy} = value of X for the year commencing on the applicable 1 April;

   r_n = RPIX published for the month of August immediately preceding the applicable 1 April; and

   r_o = RPIX published for February 2012.

   .

5. These liquidated damages are a genuine pre-estimate of the *Employer's* loss in the event of a Service Disruption and are in addition to any delay damages payable by the *Contractor* pursuant to Option X7. They are not intended to relieve the *Contractor* from any of its obligations or liabilities under the contract including liability for costs in respect of the rectification of Defects caused by the *Contractor*.

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Annex 7 – Data Processing Statement

1.1 The Employer Personal Data to be Processed by the *Contractor* (if any) concerns the following categories of Data Subject:

[List the relevant categories of Data Subject, e.g. staff, customers, members of the public.]

1.2 The Employer Personal Data to be Processed includes the following types of Personal Data and/or Sensitive Personal Data:

[List the relevant types of Personal Data, e.g. names, email or postal addresses, telephone numbers, images, other unique identifiers.]

1.3 The Employer Personal Data is to be Processed for the following purpose(s):

[List and summarise the relevant purpose(s).]

1.4 The Employer Personal Data is to be Processed in the following Restricted Countries:

[List if applicable]

Schedule 6

General Criteria

Weighting applicable to technical criteria: [50%-70%]

Weighting applicable to commercial criteria [30%-50%]

The following General Criteria, that were applied to determine the award of the Batch A Call-off Contract and the Batch B Call-off Contract, shall be applied, with call-off specific amendments as applicable.

Technical Criteria	
Technical Solution	A1. Design Management
	A2. Installation, Testing and Commissioning Methodology
	B. Site Specific Question(s)
	C. Cable Route Design and Installation
Project Deliverability	D. Project Execution Plan (PEP)
	E. Schedule of Works – Programme
	F. Supply Chain Management
	G. Health, Safety and Environment
	H. Quality Management
	I. BIM
	J. Responsible Procurement
	K. Key People
Commercial Criteria	
L. The sum of the Activity Schedule (excluding Fee)	
M. The Fee (percentage inclusive of direct and subcontract fees)	

Schedule 7

Dispute Resolution Procedure

Without prejudice to any right(s) of either Party to refer a Dispute to adjudication at any time pursuant to the Act, the Employer, Contractor and the Project Manager follow the procedures set out in this Schedule 7 for the avoidance and resolution of Disputes.

Part 1 - Conflict Avoidance Panel

1.1 Any Dispute may in the first instance be referred to a Conflict Avoidance Panel by notice in writing from the referring party to the other party. The parties to the Dispute endeavour to agree upon (a) the person(s) whom they would consider suitable to act as the member(s) of the Conflict Avoidance Panel and (b) the number of member(s) of the Conflict Avoidance Panel (which as a general principle depends upon the issues in dispute but is always an odd number). In the event of the parties to the Dispute failing to reach such agreement within 14 days of receipt by the responding party of notice pursuant to this paragraph 1.1, either party to the Dispute may request the Royal Institution of Chartered Surveyors (**RICS**) to nominate the member(s) of the Conflict Avoidance Panel to do so (including the number of member(s) of the Conflict Avoidance Panel, which as a general principle depends upon the issues in dispute but is always an odd number). Any person selected to act as a member of the Conflict Avoidance Panel (a) is a natural person acting in his personal capacity and (b) is not an employee of any of the parties to the Dispute and declares any interest, financial or otherwise, in any matter relating to the Dispute.

1.2 Within 7 days of the appointment of the member(s) of the Conflict Avoidance Panel in accordance with paragraph 1.1, the referring party refers the Dispute in writing to the Conflict Avoidance Panel. The referral gives brief written particulars of the Dispute, the relief sought and the basis for claiming the relief sought, including the provisions of the Contract that are relevant to the Dispute. The referral may include copies of, or relevant extracts from, the Contract and any other documents on which he relies. The referring party provides the responding party with a copy of any documents which he provides to the Conflict Avoidance Panel at the same time as he provides them to the Conflict Avoidance Panel.

1.3 Within 7 days of receipt of the referral of the Dispute to the member(s) of the Conflict Avoidance Panel pursuant to paragraph 1.2, the responding party provides the Conflict Avoidance Panel with a brief written response. The responding party may at the same time provide the Conflict Avoidance Panel with any documents on which he relies. The responding party provides the referring party with a copy of any documents which he provides to the Conflict Avoidance Panel at the same time as he provides them to the Conflict Avoidance Panel.

1.4 Within 7 days of receipt of the response pursuant to paragraph 1.3 (or such longer period as may be agreed by the parties to the Dispute), the Conflict Avoidance Panel notifies the parties to the Dispute of its recommendation(s) for avoiding or resolving the Dispute. The notice is in writing and includes a summary of the Conflict Avoidance Panel's findings and a statement of its reasons for the recommendation(s). The recommendation(s) is (are) not binding on the parties to the Dispute.

1.5 If a party to the Dispute is dissatisfied with the recommendation(s) notified by the Conflict Avoidance Panel pursuant to paragraph 1.4, it notifies the other party to the Dispute in writing, within 7 days of notification by the Conflict Avoidance Panel pursuant to paragraph 1.4, of the reasons why it is dissatisfied with the recommendation(s).

1.6 Each party to the Dispute (a) bears its own costs and expenses in relation to any reference of a Dispute to the Conflict Avoidance Panel and (b) bears in equal shares the remuneration and expenses of the member(s) of the Conflict Avoidance Panel and the fees of the professional body or association requested to propose the member(s) of the Conflict Avoidance Panel.

1.7 Save as required by law, the Parties and the member(s) of the Conflict Avoidance Panel keep confidential all information of whatever nature provided by or on behalf of the parties to the Dispute pursuant to procedure set out in this Schedule 7 Part 1 and the Conflict Avoidance Panel's recommendation(s) (including its findings and its reasons for the recommendation(s)). The Parties do not make use of or rely upon any such information or the Conflict Avoidance Panel's recommendation(s) (including its findings and its reasons for the recommendation(s)), which are without prejudice.

Part 2 – Dispute Resolution Procedure

1 Defined terms

1.1 For the purposes of the Dispute Resolution Procedure set out in this Part 2, the following terms have the meanings set out below:

(a) **Adjudicator** means an independent person appointed to act as an adjudicator in accordance with paragraph W2.2.

(b) **Nominating Authority** means the President or Vice President or other duly authorised officer of the London Court of International Arbitration;

(c) **Notice of Adjudication** means any notice given by a party to the Dispute to the other party or parties thereto requiring reference of a Dispute to the Adjudicator in accordance with paragraph W2.1. The Notice of Adjudication includes:

(i) the nature and a brief description of the Dispute;

(ii) details of where and when the Dispute arose; and

(iii) the nature of the redress which is sought.

(d) **Referral Notice** means a notice referring a Dispute to the Adjudicator in accordance with paragraph W2.5; and

(e) **Senior Representative** means a representative of a Party at senior executive level;

2 Senior Representatives' meeting

W2.B.1 Subject to clause W2.1, any Dispute may be referred in writing from the referring party to the Senior Representatives by notice in writing to the other party. The written notice from the referring party gives brief written particulars of the Dispute, the relief sought and the basis for claiming the relief sought (including the provisions of this contract that are relevant to the Dispute). The written notice also identifies the referring party's Senior Representative.

W2.B.2 Within 14 days of receipt of the notice pursuant to clause W2.B.1, the responding party provides the referring party with a brief written response. The response includes identification of the responding party's Senior Representative.

W2.B.3 The Senior Representatives meet and try to reach agreement to resolve the Dispute referred to them pursuant to clause W2.B.2.

W2.B.4 If the Senior Representatives are unable to, or fail to, reach agreement to resolve the Dispute within 14 days after the date of the response under clause W2.B.2, court proceedings are not commenced unless and until the Dispute has first been referred to adjudication (and an Adjudicator's decision has been obtained) in accordance with the procedure in clauses W2.1-W2.24 and notice has been given in accordance with clause W2.26.

W2.B.5 Each Party bears its own costs and expenses in relation to any reference of a Dispute to the Senior Representatives. Discussions amongst the Senior Representatives and any documents prepared or exchanged in relation to the reference of the Dispute to the Senior Representatives (including, for the avoidance of doubt, the notice under clause W2.B.1 and any response under

clause W2.B.2) are without prejudice and the Parties do not make use of or rely upon any without prejudice statements in any proceedings.

3 Adjudication

W2.1 Notwithstanding the provisions of clause Z2.10 of the Call-off Contract and W2.B, either Party may give notice at any time of its intention to refer a Dispute to adjudication under the procedure set out in this clause W2 by giving a Notice of Adjudication to the other parties to the Dispute.

W2.2 Should either Party give a Notice of Adjudication then immediately thereafter the parties to the Dispute endeavour to agree upon a person whom they would consider suitable to act as the Adjudicator.

In the event of the parties to the Dispute failing to agree upon a suitable person who is able to act as the Adjudicator the referring party requests the Nominating Authority to select a person to act as the Adjudicator.

The Nominating Authority communicates the selection of the Adjudicator to the Parties within 4 days of receiving a request to do so.

W2.3 Any person requested or selected to act as the Adjudicator in accordance with clause W2.2:

(a) is a natural person acting in his personal capacity; and

(b) is not an employee of any of the parties to the Dispute and declares any interest, financial or otherwise, in any matter relating to the Dispute.

W2.4 The terms of remuneration of the Adjudicator are agreed by the parties to the Dispute and the Adjudicator with the object of securing the appointment of the Adjudicator within 7 days of the Notice of Adjudication. If any party to the Dispute (but not all parties to the Dispute) rejects the terms of the remuneration of the Adjudicator the same are settled (and binding upon the parties to the Dispute) by agreement between the Nominating Authority and the Adjudicator (provided that the level of the Adjudicator's remuneration does not exceed the level originally proposed to the parties to the Dispute by the Adjudicator). If all the parties to the Dispute reject the terms of remuneration proposed by an Adjudicator another person is selected as an Adjudicator in accordance with clause W2.2.

W2.5 Where the Adjudicator has been selected in accordance with clause W2.2 the referring party refers the Dispute in writing to the Adjudicator by the Referral Notice in accordance with clause W2.6 within 7 days of the date of the Notice of Adjudication. Upon receipt of the Referral Notice, the Adjudicator must inform every Party to the dispute of the date that it was received.

W2.6 The Referral Notice includes:

(c) the facts relied upon by the referring party in support of its claim(s);

(d) a statement of the contractual and/or other basis relied upon by the referring party in support of its claim(s);

(e) a calculation of the specific monetary amount (if any) that the referring party is seeking to recover in relation to each and every claim that is the subject matter of the Dispute; and

(f) is accompanied by copies of, or relevant extracts from, this contract and such other documents on which the referring party relies.

W2.7 If a matter disputed by the Contractor under or in connection with a subcontract is also a matter disputed under or in connection with this contract, the Contractor may, with the consent of the Employer, refer the subcontract dispute to the Adjudicator at the same time as the main contract referral. The Adjudicator then decides the disputes together and references to the parties for the purposes of the Dispute are interpreted as including the Subcontractor. The parties to the Dispute agree to consider and endeavour to agree in good faith and in accordance with the general obligation under clause 10.1 of the conditions of contract any reasonable request by the Adjudicator for additional time to decide the main contract and subcontract disputes.

W2.8 The parties to the Dispute may jointly terminate the Adjudicator's appointment at any time. In such a case, or if the Adjudicator fails to give notice of his decision within the period referred to in clause W2.11, or if that period is extended in accordance with clause W2.12 or by agreement by the parties to the Dispute within such extended period, and the parties to the Dispute do not jointly extend time for his decision to be made in accordance with clause W2.11, or if at any time the Adjudicator declines to act or is unable to act as a result of his death, disability, resignation or otherwise, a person is appointed to replace the Adjudicator in accordance with the provisions of clause W2.2. In the event of the parties to the Dispute failing to jointly appoint a person willing and suitable to act as replacement Adjudicator within 3 days, any party to the Dispute may apply to the Nominating Authority to appoint a replacement Adjudicator.

W2.8A The Nominating Authority and its employees and agents are not liable to any Party for any act or omission unless the act or omission is in bad faith. The Parties also agree that any employee or agent of the Nominating Authority is similarly protected from liability.

W2.9 The referring party sends copies of the Referral Notice and the documents referred to in clause W2.6 to the other Party at the same time as he sends them to the Adjudicator.

W2.10 The Party not making the referral may send to the Adjudicator within 14 days of the date of the referral, with a copy to the other Party, a written statement of the contentions on which it relies and any materials it wishes the Adjudicator to consider.

W2.11 The Adjudicator reaches his decision and gives notice of the decision to the parties to the Dispute within 28 days of the date of receipt of the Referral Notice mentioned in clause W2.5, or such longer period as is agreed by the parties to the Dispute after the Dispute has been referred to him.

W2.12 The Adjudicator may extend the period of 28 days referred to in clause W2.11 by up to 14 days, with the consent of the Party by whom the Dispute was referred.

W2.13 The Adjudicator's decision is binding upon the parties to the Dispute and the Adjudicator unless and until the Dispute is finally determined by legal proceedings, by arbitration (if the parties otherwise agree to arbitration) or by agreement. The Adjudicator may on his own initiative or on the application of a Party correct his decision so as to remove a clerical or typographical error arising by accident or omission. Any correction of a decision must be made within five days of the delivery of the decision to the Parties. As soon as possible after correcting a decision in accordance with this paragraph, the Adjudicator must deliver a copy of the corrected decision to each of the Parties to the contract. Any correction of a decision forms part of the decision. The Adjudicator may in his decision allocate his remuneration and expenses between the Parties in accordance with W2.22. If the Adjudicator's decision changes an amount notified as

due, payment of the sum decided by the Adjudicator is due not later than seven days from the date of the decision or the final date for payment of the notified amount whichever is the later.

W2.14 The Adjudicator:

(a) acts impartially and as an expert (not as an arbitrator) in the conduct of the reference and in reaching his decision;

(b) considers any relevant information submitted to him by any of the parties to the Dispute and makes available to them any information to be taken into account in reaching his decision provided in accordance with the procedure (if any) which the Adjudicator may decide;

(c) reaches his decision in accordance with the law of the contract;

(d) may take the initiative in ascertaining the facts and the law in relation to the Dispute;

(e) may review and revise any action or inaction of the *Project Manager* or *Supervisor* related to the Dispute and/or alter a quotation which has been treated as having been accepted; and

(f) may with the consent of the parties to the Dispute seek legal or technical advice from consultants whose appointment by the Adjudicator (including terms of remuneration) is subject to the approval of the parties to the Dispute.

W2.15 The Adjudicator decides in his discretion on the procedure to be followed in the adjudication. In particular he may, but is not obliged to:

(a) convene meetings upon reasonable notice to the parties to the Dispute at which such parties and their representatives are entitled to be present;

(b) submit lists of questions to the parties to the Dispute to be answered in such meetings or in writing within such reasonable time as he requires;

(c) require the parties to the Dispute to provide him with such information and other facilities as he reasonably requires for the determination of the Dispute;

(d) otherwise take such action and adopt such procedures as do not conflict with any of the provisions of the contract and are reasonable and proper for the just, expeditious and economical determination of the Dispute;

(e) inspect any part of the Underground Network.

W2.16 The Adjudicator shall not be liable for anything done or omitted in the discharge or purported discharge of his functions as adjudicator unless the act or omission is in bad faith. The Parties also agree that any employee or agent of the Adjudicator is similarly protected from liability.

W2.17 All meetings are private and save as required by law the Adjudicator and the Parties keep confidential the Dispute, all information of whatever nature provided to him by or on behalf of any Party and his decision.

W2.18 Notice of the Adjudicator's decision (stating that it is given under clause W2) is in writing and includes a summary of the Adjudicator's findings and a statement of the reasons for his decision.

W2.19 The Parties to a contract to which the Dispute relates continue to observe and perform all the obligations contained in such contract, notwithstanding any reference to the Adjudicator, and insofar as the same is consistent with any safety review procedures to which the parties to the Dispute are bound, give effect forthwith to the Adjudicator's decision in every respect unless and until as hereinafter provided the Dispute is finally determined by a court in any legal proceedings, by arbitration (if the parties otherwise agree to arbitration) or by agreement. Any party to the Dispute may apply to any appropriate court for enforcement of the Adjudicator's decision. Neither any form of enforcement of the Adjudicator's decision nor any form of challenge to the enforcement of the Adjudicator's decision nor any dispute arising out of or in connection with such enforcement or challenge are regarded and treated as a Dispute for the purposes of this Dispute Resolution Procedure.

W2.20 In any case where the Adjudicator is appointed as a replacement pursuant to clause W2.8, the parties to the Dispute each send to the Adjudicator, as soon as reasonably practicable, copies of all documents supplied by them to the Adjudicator he replaces.

W2.21 After the giving of a Notice of Adjudication, the Parties may seek to agree how the Adjudicator allocates the costs and fees excluding his remuneration and expenses which are dealt with in paragraph W2.22 below of the adjudication as between the Parties. If such an agreement is reached between the Parties, they notify the Adjudicator who allocates costs and fees in accordance with such agreement. The Parties agree to be bound by the Adjudicator's allocation of costs and fees and to pay such costs and fees in accordance with the Adjudicator's direction unless and until the direction of the Adjudicator is set aside or revised by a court pursuant to any legal proceedings.

W2.22 Subject to any agreement of the Parties, the Adjudicator allocates payment of his remuneration and expenses as between the Parties. Unless the Parties otherwise agree, the Adjudicator awards the payment of his remuneration and expenses on the general principle that costs should follow the event, except where it appears to the Adjudicator that in the circumstances this is not appropriate in relation to the whole or part of his remuneration or expenses. The Parties agree to be bound by the Adjudicator's allocation of payment of his remuneration and expenses and pay such remuneration and expenses in accordance with the Adjudicator's direction unless and until the direction of the Adjudicator is set aside or revised by a court pursuant to any legal proceedings.

W2.23 All notices, written submissions and any other written communications between the parties to the Dispute and the Adjudicator are either delivered by hand, sent by facsimile or sent by first class pre-paid post or recorded delivery and in each case are copied simultaneously (delivered or sent as aforesaid) to the other Parties. Copies by way of confirmation of all communications by facsimile between the parties to the Dispute and the Adjudicator are also sent by first class post not later than the business day next following the date of the original facsimile transmission.

W2.24 All information of whatever nature provided to the Adjudicator by any party to the Dispute is copied to the other parties simultaneously.

W2.25 Any court or the Adjudicator takes into account any failure to comply with clause 10.1 of the conditions of contract when making any award (including an award of costs and/or expenses).

W2.26 If any Party to a Dispute is dissatisfied with the Adjudicator's decision, then any party may, within three (3) months after the date on which it received notice of such decision, commence court proceedings for the final determination of the Dispute. Court proceedings may not be

commenced unless commenced within three (3) months after receipt of the Adjudicator's decision.

Appendix 1

Generic Works Information

Appendix 2

Not used

Appendix 3

Form of Agreement

THIS AGREEMENT is made the ● day of ● 202●

BETWEEN:

(1) **London Underground Limited** whose registered office is at 5 Endeavour Square, London, E20 1JN ("the *Employer"* which expression shall include its successors in title and assigns); and

(2) ● whose registered office is at ● [and ● whose registered office is at ● (jointly and severally, "the *Contractor*")].[43]

WHEREAS:

(A) The *Employer* and the *Contractor* entered into a framework agreement dated ● 202● for the provision of high voltage power works and services as described therein (the "**Framework Contract**").

(B) The *Employer* has accepted a Proposal Response by the *Contractor* pursuant to, and in accordance with, the Framework Contract for the [design and][44] construction of the *works* and correction of Defects therein in accordance with the *conditions of contract* (as amended).

NOW IT IS AGREED THAT:

1. Terms and expressions defined in the *conditions of contract* (as amended) have the same meanings herein.

2. The *Contractor* Provides the Works in accordance with the *conditions of contract* (as amended).

3. The *Employer* pays the *Contractor* the amount due in accordance with the *conditions of contract* (as amended).

4. The documents forming the contract are:

   (a) this Form of Agreement duly executed by the Parties as a deed and included in section […] of this contract;

   (b) to the extent they are relevant, clauses 1-36 (inclusive) of the Framework Contract;

   (c) the NEC Engineering and Construction Contract *conditions of contract* Third Edition April 2013 core clauses and main and secondary option clauses as amended by the

[43] Delete these words if the *Contractor* is not a joint venture
[44] Delete if the contract does not include design

additional conditions of contract (Z1 and Z2 clauses) and as shown in the consolidated conditions of contract included in section […] of this contract;

(d) Annexes 1-7 (inclusive) to the *conditions of contract* included in section […] of this contract;

(e) the completed Contract Data Part 1 included in section […] of this contract;

(f) the completed Contract Data Part 2 included in section […] of this contract;

(g) the Works Information (comprising of the Generic Works Information (to the extent relevant to the *works*) [,] [and] the Employer's Works Information [and the Contractor's Works Information)][45] included in section […] of this contract;

(h) the Site Information included in section […] of this contract; and

(i) any other documents forming part of this contract.

5. Where there is any discrepancy or conflict within or between the documents forming the contract the order of priority shall be as follows:

First	:	This Form of Agreement
Second	:	To the extent they are relevant, clauses 1-36 (inclusive) of the Framework Contract
Third	:	The consolidated *conditions of contract* described in clause 4(c) of this Form of Agreement and including Annexes 1 - 7 inclusive attached to the consolidated *conditions of contract*
Fourth	:	Contract Data Part 1
Fifth	:	The Works Information provided by the *Employer* (other than the Generic Works Information) and any other documents provided by the *Employer* included in this contract
Sixth	:	To the extent it is relevant to the *works*, the Generic Works Information
Seventh	:	Contract Data Part 2

[45] Select appropriate text depending on whether Contractor's Works Information is to be included in the contract.

Eighth : The Works Information (if any) provided by the *Contractor*

Ninth : The Site Information.

6. [The liability of each party comprising the *Contractor* is joint and several and each such party shall be responsible for any failure of the other party to meet its liabilities and obligations under this contract. Any such failure shall not relieve the remaining party comprising the *Contractor* of any of the liabilities and obligations of the *Contractor* under this contract.] [46]

IN WITNESS whereof this Agreement has been executed and unconditionally delivered as a deed the day and year first above written.

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of
London Underground Limited
In the presence of:

Authorised Signatory _____

EXECUTED AND DELIVERED AS A DEED
by **[THE CONTRACTOR]**
acting by:

Signature of Director .....

Print name of Director .....

Signature of Director/Secretary .....

Print name of Director/Secretary .....

[EXECUTED AND DELIVERED AS A DEED
by **[THE CONTRACTOR]**
acting by:

Signature of Director .....

Print name of Director .....

Signature of Director/Secretary .....

[46] Delete if the *Contractor* is not a joint venture

Print name of Director/Secretary [47]

[47] Delete if the *Contractor* is not a joint venture

Appendix 4

Form of parent company guarantee

THIS DEED OF GUARANTEE is effective as of the _____ day of _____202[ ]

BETWEEN:

(1) [●], a company incorporated in [●] with registered number [●] and having its registered office at [●] (the **"Guarantor"**);

(2) [●], a company incorporated in [●] [(the "**Contractor**")]/[the "**JV member**")];

(3) **LONDON UNDERGROUND LIMITED**, a company incorporated in England with registered number 01900907 and having its registered office at 5 Endeavour Square, London E20 1JN (the **"Company"**).

WHEREAS:

(A) The Company and [ ]/[the joint venture comprising [ ] and [ ]] (the "**Contractor**"), entered into a framework agreement dated [●] for the provision of high voltage power works and services as described therein (the "**Framework Contract**").

(B) Pursuant to the Framework Contract, an agreement dated [●] was entered into between the Company and Contractor to carry out the Batch [A][B] works and services (the "**Batch** [A] [B] **Call-off Contract**").

(C) It is a condition of the entering into of the Framework Contract that the Guarantor enters into and delivers this Guarantee in favour of the Company to guarantee the due performance of each of the Framework Contract, the Batch [A][B] Call-off Contract and any other contract that may be entered into by the Company and the Contractor pursuant to the Framework Contract at any time during its Term (and each such contract being a "**Call-off Contract**") by [the Contractor[48]]/[JV member] comprising one part of the Contractor][49], in the manner hereinafter described.

NOW IT IS HEREBY AGREED as follows:

1. Definitions and Interpretations

1.1 In this Guarantee:

1.1.1 **"Contractor's Obligations":** shall mean (i) all liabilities and each and all of the obligations, warranties, duties and undertakings of the Contractor to the Company under or in connection with each of the Framework Contract, the Batch [A][B] Call-off Contract and any Call-off Contract as applicable; and (ii) the payment and discharge of all sums of money and liabilities due, owing or incurred or payable, actual and contingent, by the Contractor to the Company under or in connection with the Framework Contract, the Batch [A][B] Call-off Contract and any Call-off Contract as applicable or as a result of any breach thereof including, without limitation, all expenses (including legal fees and taxes) incurred by the Company in connection with the Company seeking to enforce any of the above;

[48] In the case of an incorporated joint venture, the *Guarantor* will guarantee the performance of the *Contractor*.

[49] In the case of an unincorporated joint venture, the *Guarantor* will guarantee the performance of the relevant Joint Venture member of the *Contractor*.

1.1.2 references to Clauses are, unless otherwise stated, to clauses of this Guarantee;

1.1.3 references to **"Contractor"**, **"Guarantor"** and/or **"Company"** shall include their respective transferees, successors and assigns whether immediate or derivative;

1.1.4 the headings to Clauses are for convenience only and have no legal effect;

1.1.5 references herein to any agreement or document shall be construed as referring to such agreement or document as the same may have been, or may from time to time be, varied, amended, supplemented, substituted, novated or assigned;

1.1.6 the expression **"person"** shall be construed to include reference to any person, firm, company, partnership, corporation or unincorporated body of persons or any state or government or any agency thereof; and

1.1.7 unless the context otherwise requires, words denoting the singular number only shall include the plural and vice versa.

1.2 The parties to this Guarantee intend it to be a deed.

2. Guarantee and Indemnity

2.1 The Guarantor irrevocably and unconditionally:

2.1.1 guarantees to the Company the prompt performance or discharge by the [Contractor/JV member] of the Contractor's Obligations;

2.1.2 undertakes with the Company that whenever the [Contractor/JV member]:

(a) does not pay any amount in respect of the Contractor's Obligations when due, it shall forthwith on written demand by the Company stating that the [Contractor/JV member]has failed to pay such amount pay the relevant amount; and

(b) does not perform or discharge any obligation in respect of the Contractor's Obligations when due, it shall within five (5) Working Days of written demand by the Company stating that the [Contractor/JV member] has failed to perform the Contractor's Obligations perform or cause to have performed or discharge such obligation,

in each case as if it, instead of the [Contractor/JV member], were expressed to be the principal obligor; and

2.1.3 as principal obligor agrees to indemnify the Company on written demand against any loss or liability suffered by it if any Contractor's Obligation guaranteed by the Guarantor is or becomes unenforceable, invalid or illegal.

2.2 The Guarantor's liability under this Guarantee shall be no greater than the liability of the Contractor under or pursuant to the Framework Contract, the Batch [A][B] Call-off Contract or any Call-off Contract as applicable or what would have been the liability of the Contractor [with joint and several obligations and liability] under or pursuant to the Framework Contract, the Batch [A][B] Call-off Contract or any Call-off Contract as applicable were it not for the unenforceability, invalidity or illegality of the Framework Contract, the Batch [A][B] Call-off Contract or any Call-off Contract as applicable and, accordingly, the Guarantor shall be entitled to raise the same defences as those which the Contractor is entitled to raise (save as to the unenforceability, invalidity or illegality of the Contracts) or would have been entitled to raise were it not for the unenforceability, invalidity or illegality of the Framework Contract, the Batch [A][B] Call-off Contract or any Call-off Contract as applicable (but so that the same defence shall not be raised more than once).

2.3 [As between the Guarantor and the Company, the Guarantor shall remain liable under clause 2.1 as if it was the sole principal obligor and not merely a guarantor provided that nothing in this Guarantee set out herein shall render the Guarantor liable in respect of any provision of the Framework Contract, the Batch [A][B] Call-off Contract and any Call-off Contract that is illegal, invalid or unenforceable.]

3. Continuing Guarantee

This Guarantee is a continuing guarantee and, accordingly, shall remain in operation and in full force and effect (notwithstanding any intermediate satisfaction of the obligations and liabilities guaranteed hereunder by the [Contractor/JV member], the Guarantor or any other person) until all obligations (whether actual or contingent), warranties, duties and undertakings now or hereafter to be carried out or performed by the [Contractor/JV member] and the Company under the Framework Contract, the Batch [A][B] Call-off Contract and any Call-off Contract as applicable and all the obligations (whether actual or contingent) of the Guarantor under this Guarantee have been satisfied or performed in full and will extend to the ultimate balance of all sums payable by the Contractor in respect of the Contractor's Obligations, regardless of any intermediate payment or discharge thereof in whole or in part.

4. Reinstatement

4.1 Where any discharge (whether in respect of the Contractor's Obligations or any security for such obligations or otherwise) is made in whole or in part or any arrangement is made on the faith of any payment, security or other disposition which is avoided or must be restored on insolvency, liquidation or otherwise without limitation, the liability of the Guarantor under this Guarantee shall continue as if the discharge or arrangement had not occurred.

4.2 The Company may concede or compromise any claim that any payment, security or other disposition is liable to avoidance or restoration.

5. Waiver of Defences

5.1 The obligations of the Guarantor under this Guarantee will not be affected by any act, omission, matter or thing which, but for this provision, would reduce, release or prejudice any of its obligations under this Guarantee or prejudice or diminish those obligations in whole or in part, including (whether or not known to it or to the Company):

5.1.1 any time or waiver granted to, or composition with, the Contractor or any other person;

5.1.2 any delay or forbearance by the Company in exercising its rights or remedies under this Guarantee;

5.1.3 the taking, variation, compromise, exchange, renewal or release of, or refusal or neglect to perfect, take up or enforce, any rights against, or security over assets of, the Contractor or any other person or any non-presentation or non-observance of any formality or other requirement in respect of any instrument or any failure to realise the full value of any security;

5.1.4 any incapacity or lack of powers, authority or legal personality of, or dissolution or change in the members or status of, the Contractor or any other person;

5.1.5 any variation (however fundamental) or replacement of the Framework Contract, the Batch [A][B] Call-off Contract or any Call-off Contract or any other document or security so that references to such documents in this Guarantee shall include each variation or replacement;

5.1.6 any unenforceability, illegality or invalidity of any obligation of any person under the Framework Contract, the Batch [A][B] Call-off Contract or any Call-off Contract or any other document or security, to the intent that the Guarantor's obligations under

this Guarantee shall remain in full force and its guarantee be construed accordingly, as if there were no such unenforceability, illegality or invalidity; or

5.1.7 any postponement, discharge, reduction, non-provability or other similar circumstance affecting any of the Contractor's Obligations or any other document or security resulting from any insolvency, liquidation or dissolution proceedings or from any law, regulation or order so that each such obligation shall for the purposes of the Guarantor's obligations under this Guarantee be construed as if there were no such circumstance.

6. Immediate Recourse

6.1 The Guarantor:

6.1.1 gives the guarantee contained in this Guarantee as principal obligor and not merely as surety; and

6.1.2 waives any right it may have of first requiring the Company to proceed against, or enforce any other rights or security or claim payment from, any person before claiming from the Guarantor under this Guarantee.

7. Appropriations

Until all amounts which may be or become payable in respect of the Contractor's Obligations have been irrevocably paid in full, the Company may:

7.1 refrain from applying or enforcing any other moneys, security or rights held or received by the Company in respect of those amounts, or apply and enforce the same in such manner and order as it sees fit (whether against those amounts or otherwise) and the Guarantor shall not be entitled to the benefit of the same; and

7.2 hold in a suspense account any moneys received from the Contractor on account of the Contractor's Obligations or on account of the Guarantor's liability under this Guarantee.

8. Non-Competition

8.1 Until all amounts which may be or become payable and all liabilities, obligations, warranties, duties and undertakings in respect of the Contractor's Obligations have been irrevocably paid, performed or discharged in full, the Guarantor shall not, after a claim has been made or by virtue of any payment, performance or discharge by it under this Guarantee:

8.1.1 be subrogated to any rights, security or moneys held, received or receivable by the Company or be entitled to any right of contribution or indemnity in respect of any payment made or moneys received on account of the Guarantor's liability under this Guarantee;

8.1.2 claim, rank, prove or vote as a creditor of the Contractor or its estate in competition with the Company unless the Company so directs in which case it shall; or

8.1.3 receive, claim or have the benefit of any payment, distribution or security from or on account of the Contractor, or exercise any right of set-off as against the Contractor unless the Company so directs in which case it shall.

8.2 The Guarantor shall hold in trust for and forthwith pay or transfer to the Company any payment or distribution or benefit of security received by it either contrary to this Clause 8 (Non-Competition) or as a result of a direction of the Company under Clause 8.1.2 or 8.1.3.

9. Additional Security

This Guarantee is in addition to and is not in any way prejudiced by any other security now or subsequently held by the Company.

10. Assignment

The Company may assign, charge or transfer any of its rights under this Guarantee without the consent of the Guarantor, provided that the Company shall give a written notice to the Guarantor to that effect.

11. Notices

Any notice to be given under this Guarantee shall be in writing and delivered by hand and/or sent by post (first class recorded delivery) or facsimile (in the case of facsimile to be confirmed in writing within 24 hours of being sent by such notice being delivered or sent by first class recorded delivery as aforesaid). The address for service of each party shall be as follows:

Guarantor:

Address:

Attention:

Company:

Address: [London Underground Limited, 5 Endeavour Square, London E20 1JN]

Attention: [ ]

with a copy to

Address: Transport for London, 5 Endeavour Square, London E20 1JN

12. Miscellaneous

12.1 The Company is entitled to make any number of demands under this Guarantee.

12.2 The invalidity, illegality or unenforceability in whole of in part of any of the provisions of this Guarantee shall not affect the validity, legality and enforceability of the remaining part or provisions of this Guarantee.

12.3 Nothing in this Guarantee is intended to confer on any person any right to enforce any provision of this Guarantee which that person would not have had but for the Contracts (Rights of Third Parties) Act 1999.

12.4 The Company acknowledges and agrees that it will notify the Guarantor within five (5) Working Days of any claim made against the performance bond provided pursuant to the Framework Contract, Batch [A][B] Call-Off Contract and any Call-Off Contract.

13. Counterparts

This Guarantee may be executed in any number of counterparts each of which shall be an original and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

14. Governing Law and Jurisdiction

14.1 This Guarantee and any non-contractual obligations arising out of or in connection with it are governed by English law.

14.2 If any dispute or difference arises between the Guarantor and the Company in connection with this Guarantee or any non-contractual obligation arising out of or in connection with this

Guarantee which cannot be resolved by mutual agreement, it shall be referred to the jurisdiction of the English Courts.

15. Legal Opinion

15.1 If the Guarantor is not a company registered in England and Wales, the Guarantor provides to the Company a legal opinion in the form appended at Appendix 5 of the Framework Contract on the Guarantor's execution of this Guarantee.

IN WITNESS whereof this Guarantee has been executed as a deed and delivered by the Guarantor and the Company the day and year first before written.

EXECUTED AS A DEED by	)	
[●]	)	….....
on being signed by two	)	(duly authorised officer)
duly authorised officers	)	
	)	.....
		(duly authorised officer)

Date:_____

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of
London Underground Limited
In the presence of:

Authorised Signatory _____

Appendix 5

Form of legal opinion for use with Parent Company Guarantee

TO: [insert recipient details]

Dear Sirs

I am the legal adviser to [ ] and I am giving this legal opinion in connection with the making by [ ] of the Document (as defined below) in your favour.

1. I have examined the Deed of Guarantee (the "**Document**") dated [ ] made between the [ ] (the "**Guarantor**"), [ ] (the "**Contractor**") and London Underground Limited (the "**Company**"). Terms defined in or for the purpose of the Document have the same meanings in this opinion.

2. Having considered the Document and any other document, resolution or certificate I deemed necessary to enable me to give the opinion contained herein and having regard to all applicable laws of [ ] I am pleased to advise that in my opinion:

   (a) the Guarantor was incorporated in [ ] on [ ] for an indefinite period as *[a limited company]* and is a separate legal entity, is subject to suit in its own name, and, to the best of my knowledge, no steps have been, or are being, taken to appoint a receiver or liquidator (or similar encumbrancer or officer) over, or to wind up, the Guarantor;

   (b) the Guarantor has the necessary power and authority, and all necessary corporate and other action (including approvals and consents of members, stockholders, debenture holders or governmental or other regulatory authorities) in [ ] has been taken to enable the Guarantor to:

      (i) sign and deliver the Document and perform the obligations undertaken by it thereunder;

      (ii) guarantee the Company in respect of the obligations to the Guarantor under the Documents;

   and implementation by the Guarantor of the foregoing will not cause:

      (iii) any limit on the Guarantor or its directors (whether imposed by the documents constituting the Guarantor, statute or regulation or, to the best of my knowledge, agreement or otherwise) to be exceeded;

      (iv) any law or order to be contravened;

(v) any default under, or give rise to an obligation to create any security interest of any nature whatsoever pursuant to, any agreement or other instrument or any judgment or other requirement known to us to which the Guarantor is a party or by which it or any of its assets is bound;

(c) the Document has been properly signed and delivered on behalf of the Guarantor and the obligations on the part of the Guarantor contained in the Document, assuming them to be valid and binding according to English law by which they are expressed to be governed, are valid and legally binding on and enforceable against the Guarantor under the laws of [ ] and in the courts of [ ];

(e) it is not necessary or advisable under the laws of [ ] in order to ensure the validity, enforceability and priority of the obligations of the Guarantor or the rights of the Company under the Document that the Document be filed, registered, recorded or notarised in any public office or elsewhere or that any other instrument relating thereto be signed, delivered, filed, registered or recorded, that any tax or duty be paid or that any other action whatsoever be taken;

(f) the obligations of the Guarantor under the Document rank at least equally and rateably (pari passu) in point of priority and security with all other unsecured obligations of the Guarantor;

(g) there is no withholding in respect of duties, taxes or charges to be deducted from any payment, whether of principal, interest, fees or otherwise, to be made by the Guarantor pursuant to the Document, and the arrangements contemplated by the Document do not give rise to any charge whatsoever to taxes in [ ];

(h) there are no registration, stamp or other taxes or duties of any kind payable in [ ] in connection with the signature, performance or enforcement by legal proceedings of the Document;

(i) the Company will not violate any law or regulation in [ ] nor become liable to tax in [ ] by reason of entering into the Document or performing its obligations thereunder. It is not necessary to establish a place of business in [ ] in order to enforce any provisions of the Document;

(j) to the best of my knowledge, information and belief and after having made due enquiry the choice of English law to govern the Document will be upheld as a valid choice of law in any action in the [ ] Courts;

(k) the consent to the jurisdiction by the Guarantor contained in the Document is valid and binding on the Guarantor and not subject to revocation;

(l) to the best of my knowledge, information and belief and after having made due enquiry any judgment for a definite sum given by the High Court of Justice in England against the Guarantor would be recognised and accepted by the [ ] Courts without re-trial or examination of the merits of the case.

3. I do not purport to be expert on and do not purport to be generally familiar with or qualified to express legal opinions based on any law other than the laws of [ ] and accordingly express no legal opinion herein based upon any law other than the laws of [ ].

Signed [ ]

……

Name and position

Appendix 6

Form of legal opinion for use where the Contractor is not a company registered in England and Wales

TO: [insert recipient details]

Dear Sirs

I am the legal adviser to [ ] and I am giving this legal opinion in connection with the making by [ ] of the Document (as defined below) in your favour.

1. I have examined the Contract (the "**Document**") dated [ ] made between [ ] (the "**Contractor**") and London Underground Limited (the "**Company**"). Terms defined in or for the purpose of the Document have the same meanings in this opinion.

2. Having considered the Document and any other document, resolution or certificate I deemed necessary to enable me to give the opinion contained herein and having regard to all applicable laws of [ ] I am pleased to advise that in my opinion:

   (a) the Contractor was incorporated in [ ] on [ ] for an indefinite period as *[a limited company]* and is a separate legal entity, is subject to suit in its own name, and, to the best of my knowledge, no steps have been, or are being, taken to appoint a receiver or liquidator (or similar encumbrancer or officer) over, or to wind up, the Contractor;

   (b) the Contractor has the necessary power and authority, and all necessary corporate and other action (including approvals and consents of members, stockholders, debenture holders or governmental or other regulatory authorities) in [ ] has been taken to enable the Contractor to:

      (i) sign and deliver the Document and perform the obligations undertaken by it thereunder;

      (ii) guarantee the Company in respect of the obligations to the Contractor under the Documents;

   and implementation by the Contractor of the foregoing will not cause:

      (iii) any limit on the Contractor or its directors (whether imposed by the documents constituting the Contractor, statute or regulation or, to the best of my knowledge, agreement or otherwise) to be exceeded;

(iv) any law or order to be contravened;

(v) any default under, or give rise to an obligation to create any security interest of any nature whatsoever pursuant to, any agreement or other instrument or any judgment or other requirement known to us to which the Contractor is a party or by which it or any of its assets is bound;

(c) the Document has been properly signed and delivered on behalf of the Contractor and the obligations on the part of the Contractor contained in the Document, assuming them to be valid and binding according to English law by which they are expressed to be governed, are valid and legally binding on and enforceable against the Contractor under the laws of [ ] and in the courts of [ ];

(d) it is not necessary or advisable under the laws of [ ] in order to ensure the validity, enforceability and priority of the obligations of the Contractor or the rights of the Company under the Document that the Document be filed, registered, recorded or notarised in any public office or elsewhere or that any other instrument relating thereto be signed, delivered, filed, registered or recorded, that any tax or duty be paid or that any other action whatsoever be taken;

(e) the obligations of the Contractor under the Document rank at least equally and rateably (pari passu) in point of priority and security with all other unsecured obligations of the Contractor;

(f) there is no withholding in respect of duties, taxes or charges to be deducted from any payment, whether of principal, interest, fees or otherwise, to be made by the Contractor pursuant to the Document, and the arrangements contemplated by the Document do not give rise to any charge whatsoever to taxes in [ ];

(g) there are no registration, stamp or other taxes or duties of any kind payable in [ ] in connection with the signature, performance or enforcement by legal proceedings of the Document;

(h) the Company will not violate any law or regulation in [ ] nor become liable to tax in [ ] by reason of entering into the Document or performing its obligations thereunder. It is not necessary to establish a place of business in [ ] in order to enforce any provisions of the Document;

(i) to the best of my knowledge, information and belief and after having made due enquiry the choice of English law to govern the Document will be upheld as a valid choice of law in any action in the [ ] Courts;

(j) the consent to the jurisdiction by the Contractor contained in the Document is valid and binding on the Contractor and not subject to revocation;

(k) to the best of my knowledge, information and belief and after having made due enquiry any judgment for a definite sum given by the High Court of Justice in England against the Contractor would be recognised and accepted by the [ ] Courts without re-trial or examination of the merits of the case.

3. I do not purport to be an expert on and do not purport to be generally familiar with or qualified to express legal opinions based on any law other than the laws of [ ] and accordingly express no legal opinion herein based upon any law other than the laws of [ ].

Signed [ ]

……

Name and position

Appendix 7

Form of Contractor's Bond

To: London Underground Limited (the "**Beneficiary**")

Performance Bond No [ ]

1. We have been informed that our customer, [ ] of [ ] (the "**Contractor**"), and you, the Beneficiary have entered into a contract dated […] for the […] ("**Framework Contract**").

2. The terms of the Framework Contract require that the obligations of the Contractor under the Framework Contract and relevant Call-off Contracts (as such term is defined in the Framework Contract) are supported by this Performance Bond in your favour.

3. In consideration of the aforesaid, we, […], hereby irrevocably undertake as a primary obligation to pay to you any amount you may claim from us upon receipt of your first demand in writing and substantially in the form set out in Annex 1 ("**Demand**") but not exceeding [a fixed amount to be determined by the Employer provided it shall not exceed 10% of the Relevant Prices (as such term is defined in the Framework Contract) as at the date when provision of a bond becomes a contractual requirement under Clause 22.7 of the Framework Contract] (the "**Guaranteed Amount**") and provided that:

   (a) our liability under this Performance Bond is limited to an amount or amounts in aggregate not exceeding the Guaranteed Amount;

   (b) any claim hereunder shall be accompanied by your statement that the amount claimed is due by reason of any breach by the Contractor of the terms of the Framework Contract or relevant Call-off Contract, or any event of insolvency of the Contractor (as defined in clause 24.3 of the Framework Contract), the termination or expiry of the Framework Contract or relevant Call-off Contract or any non-payment by the Contractor of sums due to the Beneficiary under the terms of the Framework Contract or Call-off Contract;

   [[(c) the Guaranteed Amount shall on the date of Completion of the whole of the PLUP Works and Other Works (as defined in the Framework Contract) reduce to [£] being an amount equivalent to [2.5%] of the tendered total of the Relevant Prices.]]

4. This Performance Bond shall be valid for Demands received in accordance with this Performance Bond until the earlier of

   (a) 12 months after:
      i) Completion of the Call-off Contract which has the latest Completion of each of the Call-off Contracts made under the Framework Contract or if earlier,

      ii) the date of termination of the Framework Contract; or

   (b) the date on which the credit rating of the Contractor's Parent Company has met or exceeded, for a continuous period of 2 months, the Minimum Acceptable credit rating (but without prejudice to the Contractor's obligation to provide a further Contractor's Bond, if, on any subsequent occasion, such credit rating again falls below the Minimum Acceptable Credit Rating).

(the "**Expiry Date**") whereupon you shall return this Performance Bond to the Contractor. After the Expiry Date, our undertaking will become automatically null and void if no claim has been received by us on or before that date, whether or not this Performance Bond is returned to us.

5. It is a condition of this Performance Bond that the Contractor shall provide a replacement Performance Bond to you in the amount equal to the Guaranteed Amount by no later than 7 banking days prior to the Expiry Date. This Performance Bond shall be returned to the Contractor upon receipt by the Beneficiary of the replacement Performance Bond. In the event that the Contractor fails to provide the aforementioned replacement Performance Bond by no later than 7 banking days prior the Expiry Date, we hereby irrevocably undertake to pay you any amount you may claim up to the Guaranteed Amount upon receipt of your first demand in writing made within 7 banking days prior to the Expiry Date stating that the Contractor has failed to provide the replacement Performance Bond.

6. We shall make payment to you within 5 banking days upon service of your Demand:

   (a) without regard to any information or instructions which we may then have received or may thereafter receive from any other source and we shall not be entitled to inquire into or require proof of the facts stated in the Demand which, as between ourselves and you, shall be conclusive; and

   (b) notwithstanding any dispute between the Contractor and you; it being the intention of the parties hereto that the event upon which payment must be made hereunder is the service of your Demand without any rights on our part to raise any objections, irrespective of the validity and/or the effectiveness of the Framework Contract or relevant Call-off Contract and the obligations arising there under and irrespective of the underlying facts or their significance under the Framework Contract or relevant Call-off Contract.

7. All sums payable under this Performance Bond shall be paid in pounds sterling to such bank account as may be specified in your Demand in immediately available funds, free of any restriction or condition and free and clear of and without any deduction or withholding whether for or on account of tax, by way of set-off, or otherwise, except to the extent required by law.

8. This Performance Bond shall not be affected by:

   (i) any change in the constitution of the Contractor and/or you and/or ourselves; and/or

   (ii) the granting of any time by you to the Contractor and/or any forbearance or

   (iii) indulgence on any account shown by you to the Contractor; and/or

   (iv) any change in the terms and conditions of the Framework Contract or relevant Call-off Contract; and/or

   (v) any other circumstances which might operate to release a guarantor at law or in equity.

9. This Performance Bond may be assigned or charged without our consent to any member of TfL Group. Any other assignment of this Performance Bond shall require our consent, which consent not to be unreasonably withheld or delayed.

10. Until the full Guaranteed Amount and all amounts which may be or become due and payable in respect of the Guaranteed Amount have been unconditionally and irrevocably paid in full and unless the Beneficiary otherwise directs, we shall not exercise any rights which we may have by reason of performance by us of this Performance Bond or by reason of any amount being payable, or liability arising, under this Performance Bond to:

    (a) be indemnified by the Contractor;

    (b) claim any contribution from any other guarantor of the Contractor's obligations;

    (c) take the benefit (in whole or in part and whether by way of subrogation or otherwise) of any rights of the Beneficiary or of any other guarantee or security taken by the Beneficiary; and/or

    (d) claim, rank, prove or vote as a creditor of the Contractor or in its estate in competition with the Beneficiary

    and if we receive any benefit, payment or distribution in relation to such rights, we shall hold that benefit, payment or distribution to the extent necessary to enable all the Guaranteed Amounts to be paid in full on trust for the Beneficiary and shall promptly pay or transfer the same to the Beneficiary or as the Beneficiary may direct for application.

11. Words and phrases defined in the Framework Contract shall have the same meanings in this Performance Bond unless inconsistent with the context.

12. This Performance Bond shall be governed and construed in accordance with the laws of England and Wales and the English Courts shall have exclusive jurisdiction in relation to any claim, dispute or difference concerning this Performance Bond and any matter arising from it.

Executed as a deed by the parties and delivered on the date of this Performance Bond.

EXECUTED AND DELIVERED AS
A DEED for and on behalf of
[THE GUARANTOR]

acting by:

Signature of Authorised Signatory .....

Print name of Authorised Signatory .....

Signature of Authorised Signatory .....

Print name of Authorised Signatory .....

EXECUTED AND DELIVERED AS A DEED
by affixing the Common Seal of

[ ][50]
In the presence of:

Authorised Signatory _____
.

[50] Insert name of member of TfL Group

Annex 1

Form of Demand from the Employer to [*insert name of Guarantor*]

Dear Sirs

Framework Contract dated [*insert contract date*]] with [*insert name of Contractor*] in respect of [*insert brief description of Works*]

We refer to the Performance Bond given by you to us dated [*insert Performance Bond date*].

We hereby demand from you the sum of £[*insert demand amount – up to maximum amount of the Performance Bond*] under your Performance Bond. The amount claimed is due by reason of [*insert details*].

Please make payment by transferring funds in sterling to [*insert name of Employer*] at the following account:

[●] Bank plc

Address:

Account Number:

Sort Code:

Account Name:

Yours faithfully

On behalf of London Underground Limited

London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 100

DESCRIPTION OF THE *WORKS*

Document History: **Version:**	**Prepared by**		**Quality Checked by**		**Legal Review**		**Peer Review**	
	Name	Date	Name	Date	Tick	Date	Name	Date
1.0								
2.0					☐			
3.0					☐			
4.0					☐			
5.0					☐			

	Final Sign-off	
	Commercial Line Manager	**Senior Project Manager**
Name		
Signature		
Date		

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GWI 105	Description of the *works*
GWI 110	Project Objectives and Philosophy
GWI 115	Site Location
GWI 120	The *Contractor's* Design Responsibilities
GWI 125	General Statement of any Constraints on how the *Contractor* Provides the Works
GWI 130	*Contractor's* Site inspection
GWI 135	Settlement
Abbreviations	
Appendices	

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GWI 105 Description of the *works*

GWI 105.1 General

(1) The *Employer's* Generic Works Information details the requirements common to both the Piccadilly Line Upgrade Programme (phases 1 and 2) (PLUP Works), and Other Works, as defined by the Framework Contract.

The PLUP Works are required to support the Piccadilly Line Upgrade Programme (phases 1 and 2). Increased traction power is required to operate the forthcoming new Piccadilly line tube stock (24TS) and to permit faster station to station run times and higher train service frequencies than those currently provided. Broadly the scope entails the provision of a detailed system design and build consisting of the procurement, supply, construction, installation, terminating, testing and commissioning and handover of the assets and structures necessary to facilitate implementation of the HV Power network upgrade. The substation and HV cable works required to deliver these upgrades are split into two phases, as follows:

- Phase 1: all infrastructure upgrade works required to support introduction of the 24TS, and to increase peak Piccadilly line service to 27 trains per hour (TPH);
- Phase 2: all infrastructure upgrade works required to support the new Piccadilly line signalling system, and the subsequent increase peak Piccadilly line service to 36TPH.

The Phase 1 scope comprises of 15 substation and switch house upgrades as well as extensive cable upgrades across the power network. Phase 2 comprises seven substation upgrades, cable upgrades, as well as associated works to increase the nominal voltage from 630V to 750V.

The PLUP Works scope has been grouped into eight 'work packages', the boundaries of which have been drawn based on the relative interdependency of scope, technical interfaces, and/or geographical proximity of the works. The substation, switch house, and cable updates within each work package are detailed in Appendix 12.

Other Works are not necessarily dependent on, or linked to, the PLUP Works. Call-off Contracts under definition of Other Works may take place across the entire London Underground network, and are to generally comprise:

- Item replacement or additional equipment in substations
- New or upgrades to substations
- New or upgraded transformer rooms
- Decommissioning of transformer rooms and substations
  Installation of new cable routes

GWI 105.2 Overview of the *works* under PLUP Works

(1) The *Employer* shall, in accordance with the terms of the Framework Contract, provide Specific Works Information (SWI) for each Call-off Contract, the SWI forms part of the Works Information. A detailed description of the works included in each respective Call-off Contract shall be provided in the SWI 100.
All of the requirements stated in the SWI 100s are the responsibility of the Employer for the purposes of clause X21.4(a). This statement shall apply and take precedence, notwithstanding that any such requirements are described in the concept design statement/s to which the SWI 100 relates.

(2) The scope at each substation varies from site to site; however, the general scope of work at each substation (Phase 1 and Phase 2) will entail the detailed design and installation of:

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- Replacement of existing transformer rectifiers with new and provision of additional Class VI - 630/750V transformer rectifiers to enhance network capacity.
- Replacement of existing life-expired auxiliary transformers, and installation of additional auxiliary transformers to enhance network capacity and resilience.
- Replacement of SCADA marshalling cabinets and Remote Terminal Units (RTU).
- New fibre optic cabinets.
- Existing DC, 11kV and LVAC switchboards replaced with new to meet rating, functionality and safety requirements of upgrades.
- New LV and DC metering schemes.
- Replacement of ancillary equipment to facilitate the installation and operation of the substation such as lighting, small power, ventilation, fire alarm and detection systems.
- New bleed resistors.
- New 50V and 110V DC battery and supply systems.
- New and replacement LV, DC and HV cabling.
- New Cable Management System (CMS) and/or modification of the existing CMS.
- Earthing and bonding.
- Structural strengthening works to facilitate the installation of new power assets, including extensions to existing buildings.
- Modifications to existing structures, including related steel works, brick, concrete and other building material type strengthening and structural works.
- New Plant, including cranes, lifting beams, and hoists.
- New fencing, handrails, ladders and staircases, shutter doors, fire doors, weather proofing, cladding and building finishes.
- New and modified drainage systems.
- Temporary works and enabling works necessary to deliver the works

(3) Each substation will also have a corresponding general set of upgrades to the 11kV and fibre optic cable network. This will entail the detailed design and installation of:

- Replacement 11kV cables.
- New 11kV cables.
- New fibre optic cables.
- Remote end modifications.
- New Cable Route Management System (CRMS) and/or modification to existing CRMS.
- Assessments of existing structures utilised to support the CRMS and strengthening or additional structures installed as required.

The cable network works will also include, but are not limited to: concept and detailed design of cable route posts and hangers; cable pulling (including the organisation and use of engineering trains); procurement of various types of *Employer* approved HV and low voltage (LV) cable; installation of exterior and interior CRMS; termination and jointing of cables; testing of cables; and the commissioning and delivery in service of all of the above.

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(4) Other power upgrades required as part of the PLUP Works are:

- Installation of new coupling transformers and blast proof pens.
- Replacement of existing 22kV switchboard with new 22kV switchboard to meet rating, functionality and safety requirements of upgrades.
- Installation of new 22kV cables and required CRMS.

Items in GWI 105.2(4) are not general requirements for all sites, and will only apply Cobourg St, Manor House and Mansell Street sites.

GWI 105.3 Overview of the *works* under Other Works

(1)

(2) Other Works may be at site locations anywhere on the London Underground network. Other Works may be included in the works of any future Call-off Contract at the discretion of the *Employer* - such works to be instructed and provided subject to and in accordance with the terms of this Framework Contract. Other Works will include scope from (3), (4) and/or (5) below.

(3) Detailed design and/or installation of new substation assets, including any combination of the below scope items:

- Replacement of existing transformer rectifiers with new and provision of additional Class VI - 630/750V transformer rectifiers to enhance network capacity.
- Replacement of existing life-expired auxiliary transformers, and installation of additional auxiliary transformers to enhance network capacity and resilience.
- Replacement of SCADA marshalling cabinets and Remote Terminal Units (RTU).
- New fibre optic cabinets.
- Existing DC, 11kV and LVAC switchboards replaced with new to meet rating, functionality and safety requirements of upgrades.
- New LV and DC metering schemes.
- Replacement of ancillary equipment to facilitate the installation and operation of the substation such as lighting, small power, ventilation, fire alarm and detection systems.
- New bleed resistors.
- New 50V and 110V DC battery and supply systems.
- New and replacement LV, DC and HV cabling.
- New Cable Management System (CMS) and/or modification of the existing CMS.
- Earthing and bonding.
- Structural strengthening works to facilitate the installation of new power assets, including extensions to existing buildings.
- Modifications to existing structures, including related steel works, brick, concrete and other building material type strengthening and structural works.
- New Plant, including cranes, lifting beams, and hoists.
- New fencing, handrails, ladders and staircases, shutter doors, fire doors, weather proofing, cladding and building finishes.
- New and modified drainage systems.

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- Temporary works and enabling works necessary to deliver the works.

(4) Detailed design and/or installation work for new/upgraded transformer rooms, including any combination of the below scope items:

- New 11kV/433V Auxiliary transformers
- LVAC switchgear and LV metering
- RTU (slave)
- 110V DC battery charger and distribution
- Fibre optic cabinets and cables
- HV and LV cables
- Earthing and bonding.
- Ancillary equipment to facilitate the installation and operation of the substation such as lighting, small power, ventilation, fire alarm and detection systems.
- Construction of new transformer rooms
- Structural strengthening works to facilitate the installation of new power assets
- Modifications to existing structures, including related steel works, brick, concrete and other building material type strengthening and structural works.
- New Plant, including cranes, lifting beams, and hoists.
- New fencing, handrails, ladders and staircases, shutter doors, fire doors, weather proofing and building finishes.
- New and modified drainage systems.
- Temporary works and enabling works necessary to deliver the works

(5) Detailed design and/or installation of new/upgraded cable works, including any combination of the below scope items:

- Replacement 11kV cables.
- New 11kV cables.
- New fibre optic cables.
- Remote end modifications.
- New Cable Route Management System (CRMS) and/or modification to existing CRMS.

GWI 105.4 Optimised Contractor Involvement

GWI 105.4.1 Introduction

(1) The *Contractor* shall work with the *Employer* to undertake the Optimised Contractor Involvement ("**OCI**") phase immediately following the *starting date* of each Call off-Contract.

(2) The objectives of OCI are:

- To promote the *Contractor's* understanding of the *Employer's* Works Information and encourage open dialogue between the *Contractor and Employer* before the *Contractor* commences detailed design; and
- To provide a dedicated early phase for the *Contractor* to jointly review the Works Information with the *Employer*, and to propose options and mutually beneficial opportunities to the *Employer* for acceptance.

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(3) OCI shall be a collaborative phase between the *Employer* and *Contractor;* however, it is to be led by the *Project Manager.*

GWI 105.4.2 Process of OCI

(1) The OCI phase comprises the following sequential activities*:*

1. Within 10 Working Days of the *starting date* the *Contractor* shall hold an initial OCI kick-off meeting with the *Employer*, the objective of which is for the *Employer* to guide the *Contractor* as to areas of scope where focus should be placed by the *Contractor* during the OCI phase, as well as for the *Contractor* to advise the *Employer* of any site visits which are required during the OCI phase. The *Contractor* shall start submitting Requests for Information (RFIs) to the *Employer* which are relevant to the OCI phase from this point.
2. Within 15 Working Days of the initial kick-off meeting , the *Contractor* shall: (i) hold one OCI Site Visit with the *Employer* to each site at which OCI is required and (ii) review, produce and issue to the *Employer* an initial report describing which – if any – clauses within the Generic Works Information or Specific Works Information could be changed to provide mutual benefit to the project. Each item within the initial report should contain the *Contractor's* outline assessment of likely impact to Prices, Key Dates, and Completion Date of the *works,* should any of the suggested changes be implemented*.* Following receipt of the initial report, the *Employer* reviews and provides indicative direction to the *Contractor* as to which items should (and which should not) be progressed by the *Contractor* within 10 Working Days.

   The indicative direction given by the *Employer* following review of the initial report does not indicate or constitute in any way the *Employer's* commitment or intention to accept any such formal request to change the *Employer's* requirements.
3. Within 15 Working Days following receipt by the *Contractor* of the *Employer's* reply to the initial report, the *Contractor* is to submit their proposals to change the Works Information in accordance with GWI 830.
4. The *Employer* shall review and respond to the *Contractor's* proposals to change the Works Information in accordance with GWI 830.

GWI 105.4.3 Management of the OCI phase

(1) The *Contractor* is to schedule, manage, report on, and deliver OCI activities at a Call-off Contract level, not an individual site level. Each Call-off Contract will utilise an OCI phase for all sites contained within that specific Call off Contract.

(2) The *Contractor* is to include all OCI activities on each programme submitted for acceptance by the *Employer*, as defined by GWI 500.

(3) The *Contractor* is to provide a weekly progress report to the *Employer,* detailing*:*

1. Planned dates for each OCI Site Visit, Initial OCI Presentation, and OCI Report submission date;
2. Risks to the planned dates;
3. A list of proposals for change being considered by the *Contractor*

GWI 105.4.4 Constraints to OCI

(1) OCI is to be undertaken for each site unless otherwise specified in the relevant SWI 100.

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(2) Unless the *Employer* specifies otherwise in SWI 100, the *Contractor is to* allow a twelve-week duration to complete the OCI phase for each Call-off Contract.

(3) The *Contractor* is to schedule the OCI phase concurrent to all other mobilisation and early design activities and contractual responsibilities, including without limitation any of its obligations pursuant to clause X21.

(4) The *Contractor* identifies any site visits which are required during the OCI phase and shall notify the *Project Manager* at the OCI kick-off meeting. The *Employer* will endeavour to arrange access as requested by the *Contractor.* The *Employer* shall not arrange access to cable routes or London Underground stations during the OCI phase; site visits during the OCI phase will be limited to substation and switch house locations only.

(5) Owing to the access requirements and timescales defined in GWI 200, intrusive surveys will not be undertaken during the OCI process as defined by GWI 105.2.2; however, this does not prevent the *Contractor* from planning and/or undertaking any surveys required as part of their mobilisation or detailed design activities.

GWI 110 Project Objectives and Philosophy

(1) Not used.

GWI 115 Site location and Working Areas

(1) The site locations for the PLUP Works are detailed in Appendix 12.

Specific working areas within each site will be detailed in the relevant SWI and Site Information documentation.

GWI 120 Contractor's design responsibilities

(1) The *Contractor's* design responsibilities are stated in GWI 300, with supplementary requirements provided in the respective SWI for each Call-off Contract.

GWI 125 General statement of any constraints on how the *Contractor* Provides the Works

The generic constraints of how the *Contractor p*rovides the Works are set out in GWI 200, with supplementary details provided in each relevant SWI; however, the *Contractor* notes the following constraints with respect to Providing the Works:

- The *Contractor* complies and Provides the Works, inter alia, in accordance with the Standards. Generic Works Information 200 sets out the Standards with which the *Contractor* must comply (GWI 200 Appendix 3). The *Contractor* familiarises itself with these Standards and ensures that he has taken them into consideration in his planning, pricing and programming.
- The Standards applicable to the *works* include QUENSH (1-552) which in itself refers to a significant number of other Standards for the control of health, safety, quality and environmental risks when working in, on and around the *Employer's* assets.

GWI 130 The *Contractor's* Site inspection

The *Contractor* is deemed to have visited the Site and inspected and examined the Site and its surroundings to:

- understand the access to the Site

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- assess the services, plant and accommodation available, and
- assess the condition and layout of the Site.

If the *Contractor* considers that there are inadequacies in the information that pose potential risk to progressing the *works*, then the *Contractor* must notify the *Project Manager* at the earliest opportunity.

GWI 135 **Settlement**

GWI 135.1 **Control of Ground Movements and Effects on LU Infrastructure**

The *Contractor's* responsibilities for monitoring and control of ground movements including mitigation measures, responsibilities and remedies in respect of the existing Station and tunnels and infrastructure are to be described in the respective Call-Off Contract SWI if required by the *Employer.*

GWI 135.2 **Control of Ground Movements and Effects on Adjoining Properties**

The *Contractor's* responsibilities for monitoring and control of ground movements, including mitigation measures, responsibilities and remedies in respect of adjoining properties and their foundations and service infrastructure is described in the respective Call-Off Contract SWI if required by the *Employer.*

GWI 135.3 **Control of Ground Movements and Effects on Highways and Near Surface Statutory Undertaker's Utilities**

The *Contractor's* responsibilities for monitoring and control of ground movements, including mitigation measures, responsibilities and remedies in respect of highways and near surface public utilities infrastructure are to be described in the respective Call-Off Contract SWI if required by the *Employer.*

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Abbreviations used throughout all GWIs

AC	Alternating Current
ACB	Air Circuit Breaker
ADB	Approved Document B of the Building Regulations – Fire Safety
AIR	Asset Information Requirements
AMIS	Asset Management Information System
ANSI	American National Standards Institute
CAP	Cable Approval Panel
CDS	Conceptual Design Statement
CER	Communication Equipment Room
CFS	Combination Fuse Switch
CMS	Cable Management System
COP	Correction Operation Protection
CT	Current Transformer
CTAS	Change To Approved Submission
DAOL	Direct Acting Overload
DC	Direct Current
Di/dt	Instantaneous rate of change of current over time
DMP	Design Management Plan
DNO	Distribution Network Operator
DRP	Design Review Panel
DTUP	Deep Tube Upgrade Programme
EAP	Equipment Approval Panel
ELV	Extra Low Voltage
EMC	Electromagnetic Compatibility
EPO	Emergency Power Off
ETFP	Enhanced Track Feeder Protection
FACP	Fire Alarm Control Panel
FODF	Fibre Optic Distribution Frame
FOSE	Fibre Optic Splicing Enclosure
HFIL	Human Factors Issues Log
HMI	Human Machine Interface
HV	High Voltage
IED	Intelligent electronic device
IDMT	Inverse Definite Minimum Time
I/O or IO	Input/Output
IMR	Interlocking Machine Room
ITP	Inspection and Test Plan
kWh	Kilo Watt Hours
LCP	Local Control Panel
LED	Light Emitting Diode
LPCB	Loss Prevention Certification Board
LU or LUL	London Underground
LV	Low Voltage
LVAC	Low Voltage Alternating Current
MCCB	Moulded Case Circuit Breaker
MES	Major Equipment Schedule
MITS	Multiplex Intertrip System
MPCC	Main Power Control Centre
NGT	New Generation Train
OCEF	Overcurrent & Earth Fault

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PAP	Project Assurance Plan
PIR	Passive Infra Red
PLC	Programmable Logic Control
QICC	Quality, Inspection, Completion Certificate
RFI	Request For Information
RLV	Reduced Low Voltage
RTU	Remote Terminal Unit
SAD	Systems Architecture Diagram
SAT	Site Acceptance Test
SCADA	Supervisory Control and Data Acquisition
SER	Signal Equipment Room
SLD	Single Line Diagram
SSE	Shift Supply Engineer
SuDS	Sustainable Drainage Systems
T&C	Testing and Commissioning
TP&N	Three Phase and Neutral
TPH	Trains per Hour
TVR	Traction Voltage Recorder

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Outline of PLUP Works and Other Works scope

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London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 200

CONSTRAINTS ON HOW THE *CONTRACTOR* PROVIDES THE WORKS

Document History: **Version:**	**Prepared by**		**Quality Checked by**		**Legal Review**		**Peer Review**	
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4.0					☐			
5.0					☐			

	Final Sign-off	
	Commercial Line Manager	**Project Manager**
Name		
Signature		
Date		

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GWI 205 **Overriding Constraints and Requirements**

The *Contractor* notes and takes cognisance of the following constraints present during the *works*:

- Noise, vibration and night lighting; some of the Sites where the works will be ongoing are within close proximity to residential housing; the *Contractor* takes mitigating action to minimise the effect of noise, vibration and/or night lighting.
- Working in substations; subject to the prevailing Substation Access Procedure (see procedure reference PR0241) and any LUL operational restrictions the *Contractor*'s works can be undertaken both in Traffic Hours and Engineering Hours.
- Working outside of substations; working will be restricted to Engineering Hours from the commencement of Engineering Hours on a Sunday night to the end of Engineering Hours on a Thursday night unless otherwise agreed with the *Project Manager*. Engineering Trains are only available from Monday night to Thursday night.
- Night Tube operation; there is continuous service on the Central, Jubilee, Northern, Piccadilly and Victoria Lines from commencement of Traffic Hours on a Friday morning to end of Traffic Hours on a Sunday evening.
- Parking; no Site car parking is available; the *Contractor* makes his own arrangements for vehicles and informs the Project Manager accordingly.
- Deliveries; the *Contractor* will be responsible for all deliveries in accordance with the requirements outlined in Standard S1552 QUENSH.
- Confined Space; the *Contractor* is responsible for the arrangements and safety of working within enclosed spaces such as a chamber, a pit or station invert.

(1) The *Contractor* complies with Standard 1-552 QUENSH. The *Contractor* notes that within QUENSH there are multiple references to additional Standards and other requirements which apply to the *works*. However, the *Contractor* should note that they may or may not be applicable dependent upon the requirements and inclusion within the Call-off Contract QUENSH Menu.

Note: QUENSH is written in generic terminology to suit the *Employer's* business, therefore when the *Contractor* is determining his obligations under the Call-off Contract he interprets the document accordingly, as the context requires, and the following:

- Client means *Employer* or *Project Manager*
- Supplier means *Contractor* which includes his Subcontractors

(2) LU Standards that apply to the *works* are included in Appendix 3. Should any further specific LU Standards apply for a specific Call-off Contract, these will be detailed in the SWI for that Call-off Contract.

(3) Where reference is made to the *Contractor*'s staff and / or personnel throughout the Generic Works Information, this includes and applies to all management, operatives, servants or agents carrying out the *works* in performance of the Call-off Contract on behalf of the *Contractor*, including whether directly employed by the *Contractor*, self-employed, agency, labour-only, or equivalent through any sub-*Contractor* or sub-consultant.

(4) The parties utilise a web-based contract administration management system for the project as more particularly described in GWI870 ("CAMS"). All communications provided for in the Call-off Contract are to be made exclusively through the CAMS ("CAMS Communications") except for any categories of communications which the *Project Manager* notifies the *Contractor* from time to time are not to be made exclusively through CAMS.

Unless the *Project Manager* gives an instruction suspending the operation of the CAMS, CAMS Communications are only effective if made through the CAMS and by the parties following any procedure necessary to give effect to the CAMS. Any communications issued contrary to these requirements are deemed not to give effect to any provisions in

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the Call-off Contract.

Other than signed documents which have been electronically scanned, notifications, instructions and quotations for compensation events under this contract are not effective if made by electronic format ('for information' copies of notifications may however be issued electronically).

(5) The *Contractor* undertakes the *works* in accordance with good industry practice. Where and to the extent that materials, products and workmanship are not fully detailed or specified they are to be of a standard appropriate to the *works* and suitable for the functions stated in or reasonably to be inferred from the Generic Works Information, and in accordance with good industry practice.

(6) Space allocation approval for the *works* described in the CDSs has been obtained via the *Employer*'s design review panel (DRP) review of the *works* within substations and via the *Employer*'s space allocation approval process. The *Contractor* submits space allocation requests for the detailed design if the scheme requires new space not covered in the *Employer*'s Design Information.

GWI 210 General Constraints

GWI 210.1 Health and Safety

(1) The *Contractor* procures that each Subcontractor complies fully with the requirements of the CDM Regulations 2015.

(2) The *Contractor* is, and complies with its duties as, the Principal *Contractor*, as defined in the CDM Regulations 2015 for:

- all worksites defined by the *Contractor*; and
- all worksites established in public highways and footways, permitted pathways, Local Authority areas, Underground Network and Network Rail property, whether or not forming part of the main worksite.

(3) The *Contractor* will take over the worksites on the *access dates* contained within the Contract Data Part 1 (if *access dates* are stated in the Contract Data Part 1). The *Contractor* is appointed as Principal *Contractor*, as per the CDM Regulations 2015 for the Site from the *starting date*.

(4) As specified in the Specific Works Information, there may be requirements for shared access; however, this Principal *Contractor* designation remains, unless otherwise specified by the *Project Manager*.

(5) The *Contractor* is also Principal *Contractor* for any lorry holding areas and additional *working areas* accepted by the *Project Manager* in accordance with the *conditions of contract*.

(6) The *Contractor*, as Principal *Contractor*, consults and engages with workers in accordance with the CDM Regulations 2015.

(7) The *Contractor*, as Principal *Contractor*, ensures that each *Contractor* follows the construction phase plan.

(8) The *Contractor* leaves the Site in a safe and clean condition at the end of each working shift; the latter especially applies when carrying out premises modifications to ensure that dust does not affect the operational equipment in the substation.

GWI 210.2 Use of the Site

(1) Across all Call-off Contracts, the *Contractor* does not have exclusive use of the Site.

(2) The Specific Works Information (SWI) detail any additional site-specific constraints.

GWI 210.3 Transport & Works Act Order and Consents

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(1) Not used

GWI 210.4 Planning Permission

(1) Where site specific constraints regarding Planning Permission (or any other consent regarding the appearance of existing structures) are detailed in a SWI the *Contractor's* design must either:

- Have no impact on the external appearance of the *works* or affected existing assets, or
- Be submitted for review and approval of the Local Authority, via the *Project Manager*, and limited to the necessary plans and elevations, or otherwise, as required to illustrate the external appearance of the *works*.

GWI 210.5 Construction

(1) The *Contractor* is responsible for constructing and making Available the *works* required in accordance with the requirements of *Employer*'s Design Requirements, and the Generic and Specific Works Information, including but not limited to:

- Preparation of all working areas, to include erection of hoarding, provision of temporary power, general and task lighting
- Any enabling works, including cable diversions and temporary relocation of assets
- Any temporary works or false work, including design and supporting calculations
- All permanent works, including building, civil engineering, fire, M&E and communication works.
- Planning, managing and coordinating of the above and any other site activity required to complete the *works* in a safe, timely manner, to the acceptance of the *Project Manager*, and, reasonably, any other stakeholder with vested interests, and with minimal disruption to the station operations.

(2) Where *works* affect directly or indirectly any structures owned by Network Rail, the *Contractor* will comply with any relevant Network Rail or railway group standard that may apply.

(3) The *Contractor* carries out all construction *works* in accordance with the Standards, British standards and in a way which minimises the impact on the operational station.

GWI 210.6 Consent under Section 61 of Control of Pollution Act

(1) It is the responsibility of the *Contractor* to obtain Section 61 consents from the local authority for his proposed works and comply with any consent granted.

GWI 210.7 Car Parking

(1) Car parking on the Site is not available. The *Contractor* makes his own arrangements and informs the *Project Manager* accordingly.

GWI 210.8 Deliveries

(1) The *Contractor* identifies the appropriate access and delivery routes to any site area, working within the constraints of Section 61 notices, any applicable standard or legislation, and ensuring safe access is maintained to the station at all times for staff, customers and the emergency services.

(2) All deliveries and collections are to be via road and be arranged and managed by the *Contractor*.

(3) The *Contractor* is responsible for providing any personnel and equipment (temporary

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signs, cones and traffic management), to manage deliveries, collections and lorry or train movements as necessary to complete the *works*, including setting up of any temporary traffic management arrangements and its removal and making good on completion. The *Contractor* makes good any damage to the road surface, or other road or pavement assets and buildings, damaged in the course of a delivery. Any damage thus caused is notified to the *Project Manager* and treated as a Defect in accordance with the *conditions of contract*.

(4) Laydown areas for deliveries of Plant, Materials and Equipment to be used by the *Contractor* are to be specified within the *Contractor's* Construction Phase Plan. Any specific constraints regarding deliveries and setting down areas are detailed in SWI 200 for each respective site.

GWI 210.9 Hoardings

(1) The *Contractor* is responsible for erecting hoardings necessary to ensure the safety of all staff, public and passengers during the execution of the *works*.

(2) The *Contractor* removes immediately all other notices, advertisements or similar, posted on Site by unauthorised persons. Additionally, the *Contractor* removes or obscures graffiti or any other form of defacement on any hoarding within 24hrs of reporting. Any graffiti containing offensive, abusive or racist words or images is removed within 1hr of being notified or becoming aware of such a circumstance.

GWI 210.10 Temporary Works

(1) The *Contractor* complies with Standard S1552 QUENSH, Section 48 and the *Employer*'s Standard S1062 Temporary Works.

(2) Any site-specific requirements beyond GWI 210.10 (1) are to be detailed in the Specific Works Information (SWI) for each Call-off Contract.

GWI 210.11 Plant and Materials, Equipment and Storage

(1) The *Contractor* complies with Standard S1552 QUENSH, Sections 44 and 45.

(2) Unless otherwise stated elsewhere in this Generic Works Information, the *Employer* has made no explicit provision for storage of Materials, Plant and Equipment on the Site.

(3) Should the *Contractor* identify and secure storage area space on site, the *Contractor* is to comply with all due process and site protocol including hoarding approvals, storage licence approvals and amendments of fire compliance plans where required.

(4) The *Contractor* maintains records of all materials, plant and equipment stored on site and are made available to the *Project Manager* upon request.

(5) Any additional requirements are to be detailed in the Specific Works Information for each Call-off Contract.

GWI 210.12 *Employer's* Secondary Revenue Assets

Not used

GWI 210.13 Lifts and Escalators

Not used

GWI 210.14 Materials and Product Approval

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(1) All products provided for the *works* will be new unless otherwise specified by the *Employer*.

(2) Should any existing equipment need to be relocated and the *Contractor* can demonstrate to the *Project Manager* that it is more economic / practical to replace it rather than retain it then the *Contractor* replaces such equipment at its own cost and will ensure that such replacement equipment complies with the *Employer's* Standards.

(3) For products specified to a British or European Standard the *Contractor* obtains and provides certificates of compliance from manufacturers where required by the Generic or Specific Works Information, or in addition when requested by the *Project Manager*.

(4) The *Contractor* ensures that the whole quantity of each product required to complete the *works* is of consistent type, size, quality and overall appearance.

(5) Consistency of appearance is required by the *Employer*. As such the *Contractor* ensures consistency of supply from the same source. Unless otherwise approved the *Contractor* will not use different colour batches where they can be seen together.

(6) If products are prone to deterioration or have a limited shelf life, the *Contractor* orders in suitable quantities to a programme and use in appropriate sequence. The *Contractor* will not use products or materials if there are any signs of deterioration, setting or other unsatisfactory condition.

(7) Products and Materials provided for the *works* will be of a type approved by the *Project Manager*. Product approval for all Plant and Materials will be undertaken in accordance with the *Employer's* Standards and procedures. The product approval process for any products that are not already LU approved will be undertaken as part of the *works* by the *Contractor*.

(8) Equipment proposed for use in sub-surface substation and station areas will comply with the Fire Precautions (Sub-surface Railway Stations) (England) Regulations 2009.

(9) The *Employer's* Equipment Approval Panel (EAP) approval process will be detailed in the Accepted Programme for all Plant proposed by the *Contractor*.

(10) All type tests and routine tests specified in the *Employer's* Standards will be performed by the *Contractor*. Where type tests have been performed previously on identical equipment the *Employer* may accept copies of test certificates issued by a competent authority, which confirm compliance with the applicable Standards.

(11) The content of the technical dossier will be agreed with the *Project Manager* during the mobilisation period and will depend upon the nature of the equipment offered. Typically the technical dossier will contain as a minimum a detailed compliance matrix against the relevant LU Standards and specifications, draft copies of all necessary concession requests, copies of type test certification, and any supporting product information such as drawings and O&M documentation.

(12) The *Contractor* seeks any clarification required in respect of the applicable standards and specifications via the Request for Information (RFI) process.

GWI 210.15 Standards, Statutes, Guidance, Specifications and Procedures

(1) The *works* will be undertaken in accordance with all applicable laws, statutory requirements and applicable standards, guidance, specifications and procedures, except where applicable standards and specifications have been modified by the Contract including this Generic Works Information.

(2) In the absence of a suitable LU Standard and/or specification, the *works* will be carried out in accordance with the relevant European Standards and International Standards.

(3) If the *Contractor* considers that there is a conflict between LU Standards and Specifications this will be brought to the attention of the *Project Manager* who will give a written instruction as to which standard should take precedence.

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(4) Copies of LU Standards and specifications and relevant procedures referred to in this Generic Works Information are available through LU's website, to which the *Contractor* will be deemed to have access through tender and contract periods.

GWI 210.16 Delivery into Service of new or modified fire assets

(1) The *Contractor* must ensure that a suitable representative from the *Employer's* encumbant fire maintainer (i.e., the organisation responsible for maintaining and operating all existing and newly installed fire assets on the Underground Network) is present when the final system connections are made and during testing and commissioning. This is done through written request from the *Contractor* to the *Employer* 20 working days each time before Delivery into Service of the fire system (or component of the fire system) is due to take place.

GWI 215 Access Arrangements

GWI 215.1 Purpose

(1) The purpose of this Generic Works Information is to outline the processes and provisions as regards to the securing of access in order to deliver the *works*.

GWI 215.2 Definitions

(1) The terms used in the Generic and Specific Works Information in regard to access have the following meanings:

Access Subcategories has the meaning defined by Generic Works Information paragraph 215.4.1.i.

Applicant means the *Contractor*

Access Manager is the person designated by the Head of Access as the manager for access requests for particular works and who will act as the single point of contact for all access related matters.

Accepted Access Plan is the latest Access Plan applied for by the Applicant and accepted by the *Employer* within Railsys and supersedes any Access Plans previously accepted in RailSys.

Access Plan means the access plan prepared by the Applicant within RailSys detailing the access required to deliver the *Works*.

Application to Work Form means the form contained in Appendix 4 to this section of the Generic Works Information

Emergency Access has the meaning defined by Generic Works Information paragraph 215.4.1.e.

Engineering Hours means the term applying to the running line and is described as being when traction current is switched off (as published in the Guide to Switching Current On and Off subject to variance as published in an Engineering Notice) and trains are not running (ref LU Rule Book 17 for the definition of Engineering Hours).

Engineering Notice means a publication produced and circulated within LUL at short notice containing details of engineering works, special current arrangements, engineers' possessions and engineers' trains and similar activities not included in the Traffic Circular.

Engineering Notice Look Ahead means a draft publication produced and circulated by LUL providing a week-view of items that, at that time, are planned to be published on the Engineering Notice for a specific shift.

Exclusive Access has the meaning defined by Generic Works Information paragraph 215.4.1.d.

Head of Access means the person responsible for managing access to the LUL infrastructure for works. This role includes but is not limited to the responsibility for the

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publication of safety documentation.

Incident Officer means the senior LUL operating officer responsible for managing an incident.

Latest Request Date means the last date an access request can be made in line with a given timescale.

L&E Closures has the meaning defined by Generic Works Information paragraph 215.4.1.h.

Local Station Access Arrangement Reference Files means the files published by the Head of Access detailing where *works* may potentially be undertaken on Stations in Traffic Hours including details of possible locations for the storage of materials and equipment and Station opening and closing hours.

LUL Rule Book are the rule books covering the operation of trains and Stations and accessing the Track published by the *Employer*.

Major Closure has the meaning defined by Generic Works Information paragraph 215.4.1.f.

Minor Closure has the meaning defined by Generic Works Information paragraph 215.4.1.g.

Network Rail means Network Rail Infrastructure Limited company nr 02904587

Network Rail Interface Locations means the locations on the LU Network where Network Rail infrastructure interfaces with LU infrastructure including but not limited to the location identified in Appendix 9.

Nightly Engineering Protection Arrangements (NEPA) means the publication produced and circulated within LUL at short notice containing details of safety related material for engineering works and engineer's trains and vehicles

Night Tube means the provision a 24-hour revenue service commencing from the Night Tube Start Date.

Night Tube Running Period means nominally the period between 21:00hrs Friday night and 06:00hrs Sunday morning

Night Tube Sections means the sections of the Underground Network which provide Night Tube. The applicable sections of the Underground Network are:

a) The Central Line route between and including Hainault, Loughton and Ealing Broadway stations (no Night Tube outside of this route)

b) The Jubilee Line entire network

c) The Northern Line route between and including High Barnet, Edgware and Morden Stations via the Charring Cross Branch (no Night Tube outside of this route)

d) The Piccadilly Line route between and including Cockfosters and Heathrow Terminal 5 stations (no Night Tube outside of this route)

e) The Victoria Line entire network

Non-Restrictive/Exclusive Access has the meaning defined by Generic Works Information paragraph 215.4.1.b.

Operational Managers are Station Area Managers and Train Operations Managers.

Operational Assurance means an Operational Assurance Notification made to LUL in accordance with the requirements of Standard 1-538 (A11) and is incorporated into an access request made in RailSys.

Pathway is the TfL project planning process.

Pre-Closure Request Meeting means a meeting to discuss the viability of a proposed closure request.

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Possession Meeting means a meeting to discuss the viability of a proposed Track possession.

Published means:

(i) in respect of Restrictive and Exclusive Track access, that the *works* need to be notified in the Engineering Look Ahead Notice, the Engineering Notice and the Nightly Engineering Protection Arrangements (NEPA) Notice and

(ii) in respect of Restrictive and Exclusive Stations access, the *works* need to be notified in the Station Works Plan.

Self Service Access has the meaning defined by Generic Works Information paragraph 215.4.1.a.

Specialist Protection means all protection arrangements in addition to the *Contractors* SPC (with dual protection qualifications) including but not limited to possession masters; protection resources to implement possession protection arrangements; staff to isolate traction current, technical officers to implement a set of protection arrangements and protection on Network Rail Infrastructure.

Stage Gates are the project control gates defined by Pathway and as listed below:

Stage 1 – Outcome definition

Stage 2 – Feasibility

Stage 3 – Concept Design

Stage 4 – Detail Design

Stage 5 - Delivery

Stage 6 – Project Close

Stations means areas to which LUL Rule Book 10 applies including buildings, equipment or facilities designed to be used by customers to access or leave a train.

RailSys means the access booking system for all engineering work on the stations and track. RailSys is a geographical interface where Access Plans and Track access requests are made.

Restrictive Access has the meaning defined by Generic Works Information paragraph 215.4.1.c.

Track means the areas to which LUL Rule Book 17 applies including track, tunnels, embankments and other line side infrastructure.

Traffic Circular means the weekly Traffic Circular which contains diverse information such as, infrastructure changes, train service changes, events affecting LUL, notification of restrictions to LU operations and operational communications.

Traffic Hours means the term applying to the running line and is described as being when traction current is switched on (as published in the Guide to Switching Current On and Off subject to variance as published in an Engineering Notice) and trains are running (ref LU Rule Book 17 for the definition of Traffic Hours).

Work Request Form means the e-Form provided on the *Employers*' access booking portal and which is completed by the Applicant to reflect the Access Plan and requirements for plant and equipment (including engineering trains) and specialist protection.

Working Time means the period of agreed access (including closures) in either Traffic or Engineering Hours.

GWI 215.3 The Access Plan

(1) The *Contractor* prepares an Access Plan with the objective to maximise the efficient use of the available Working Time and takes account of the following in the access planning process:

- the information provided in the Local Station Access Arrangement Reference Files (the use of any potential storage areas identified by the Local Station Access

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Arrangement Reference Files remains subject to the *Contractor* obtaining the appropriate storage licences);

- the optimisation of Working Time if the *works* can be carried out in Traffic Hours;
- the minimisation of the number and duration of closures;
- the utilisation and extension of existing planned closures;
- the hours/shifts/days in the week required to be worked in order to comply with the Accepted Programme;
- the timescales for booking access and closures defined in GWI 215.5;
- the sharing of access with Others and the minimisation of disruption of the work of Others;
- the completion of the clearance of workers, materials tools and equipment tools in Traffic hours and supports plans with Method Statements detailing appropriate measures for the protection of the public. If the productivity of Engineering Hours working can be increased safely.
- the maximisation of working time during Engineering Hours when accessing the Track through a Station (where it is safe to do so, all persons, plant and equipment may be positioned within the Station ready to access the Track immediately on confirmation of traction current being turned off);
- the compliance to the minimum call back time of 20 (twenty) minutes for Track access before the expiry of each shift of Engineering Hours (to allow for the safe removal of all workers, materials, tools, equipment and the like) unless a shorter period is stated in Appendix 2;.
- any limitation on Engineering Hours specific to the *works* stated by the *Employer* in Appendix 2; and.
- the time required for the *Contractor* to ensure the worksite is left clean and safe; and
- Night Tube

(2) The *Contractor* submits an Access Plan to the *Project Manager* for acceptance. Within two weeks of the *Contractor* submitting an Access Plan for acceptance the *Project Manager* either accepts the Access Plan or notifies the *Contractor* of his reasons for not accepting it. A reason for not accepting an Access Plan is that:

- It does not take into account the information provided in the Local Station Access Arrangement Reference Files
- It does not optimise the Working Time
- It proposes an excessive number or duration of closures
- It does not adequately make use of existing planned closures
- It is not compatible with the Accepted Programme
- It does not comply with the timescales for booking Access and Closures defined in GWI 215.5
- It assumes the use of an existing closure for which an Application to Work Form has not been approved by the Access Manager.
- It assumes an extension to an existing planned closure which has not had the prior approval of the Access Manager
- It requests an access or closure type which is not appropriate for the *works*.
- It does not adequately provide for the work of Others
- It does not maximise the use of available access

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- It does not allow for minimum call back periods or other working constraints detailed by the *Employer*
- It does not allow sufficient time for worksites and the Site as a whole to be left clean and safe.
- It does not allow for the operation of Night Tube

The *Contractor* submits a revised Access Plan for acceptance in the following circumstances:

- if the Accepted Access Plan is no longer applicable in all the circumstances;
- when a change is required to align with the Accepted Programme and
- within the *period for reply* after the *Project Manager* has instructed the *Contractor* to do so. For the avoidance of doubt such instruction does not entitle the *Contractor* to apply for a compensation event.

(3) Should the *Contractor* need to work hours additional to those stated in the Accepted Access Plan (within the constraint of the maximum working hours available within the booked access types), the *Contractor* gives at least seven (7) days' notice and obtains the *Project Manager's* prior written acceptance.

(4) The Applicant shall be responsible for checking for clashes (Clash Checking) in respect of access booked by Others and the *Employer* by means of the graphical interface provided in RailSys. The *Contractor* shall also monitor the following publications:

(a) Engineering Look Ahead Notice
(b) Engineering Notice
(c) Nightly Engineering Protection Arrangements (NEPA)
(d) Traffic Circular

In the event of clashes the *Contractor* shall notify the *Project Manager*. The indicative publication timescales (in advance of proposed works) for the above notices are as provided in Appendix 6.

(5) In the event that the *Contractor* attends the Site and access is not provided by the *Employer* in accordance with the Accepted Access Plan, the *Contractor* shall complete the Cancelled or Delayed/Curtailed Access Form contained in Appendix 7.

(6) Clash Checking by the *Contractor* and the completion of a Cancelled or Delayed/Curtailed Access Form in full (including the obtaining of all necessary signatures) and the identification of the period access in question on the Accepted Access Plan (with the relevant RailSys number) are all condition precedents in respect of any entitlement to apply for a compensation event.

GWI 215.4 Types of Access

(1) Summarised below are the types of access that the *Contractor's* Access Plan shall be based upon. In preparing the Access Plan the *Contractor* selects the type of access required for the *works*. The Applicant consults with the Access Manager as to the appropriateness of the selection as set out in the Access Plan. The Access Manager's decision as to the types of access and closures which can be used in the formulation of the Access Plan is final and binding.

a. <u>Self Service Access</u>

Self Service Access is a category of access for undertaking non-exclusive and non-restrictive works on the Underground Network, using all necessary tools and equipment. It is valid for both Station and Track. RailSys number is instantly raised without need for approval.

Self Service Access does not need to be Published.

b. <u>Non-Restrictive/Exclusive Access</u>

Non-Restrictive/Exclusive Access is a category of access for undertaking non-restrictive and non-exclusive works on the Underground Network, using all necessary tools and

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equipment. It is valid for both Station and Track.

The *Contractor* clearly defines the area covered by a Non-Restrictive/Exclusive Access request and limits the area to the minimum required to deliver the *works.*

Non-Restrictive/Exclusive Access does not need to be Published.

c. Restrictive Access

Restrictive Access is a category of access that places a restriction on what can take place within a particular worksite and where the restriction will apply to all parties attempting to work that particular shift.

The *Contractor* demonstrates that this is the most appropriate form of access and takes account of the impact that the granting of Restrictive Access would have on the network and other work streams. Restrictive Access will not typically be permitted to cover a protracted number of shifts or consecutive shifts, across the same geographical area.

The *Contractor* clearly defines the area covered by a Restrictive Access request and restricts the area to the minimum required to deliver the *works* and avoids unduly impeding the works of Others.

Restrictive Access will need to be Published.

d. Exclusive Access

Exclusive Access is a category of access that prohibits any party not directly involved in the works (for which Exclusive Access has been booked) from working in that worksite.

The *Contractor* demonstrates that this is the most appropriate form of access and takes account of the impact that granting Exclusive Access would have on the Underground Network and other work streams. Exclusive Access will not typically be permitted to cover a protracted number of shifts or consecutive shifts, across the same geographical area.

The *Contractor* clearly defines the area covered by an Exclusive Access request and restricts it to the minimum area required to deliver the *works* and to avoid unduly impeding the works of others.

Exclusive Access will need to be Published.

e. Emergency Access

Emergency Access is access required to deal with an Incident as defined in Rule Book 2 or is required to rectify the failure of an asset which, if not rectified, would have a material adverse impact on passenger services. **Emergency Access takes precedence over any other booking or request as directed by the Incident Officer.**

f. Major Closures

A Major Closure can be classified as any planned disruptive work which results in any LU service being unavailable between 0600 and 2100 on a weekday (excluding Bank Holidays).

g. Minor Closures

A Minor Closure can be classified as any planned disruptive work, apart from L&E Closures (defined below) which results in any LUL services being unavailable outside the hours of 0600 and 2100 on a weekday (excluding Bank Holidays) or at any other time at Weekends and Bank Holidays (including the Night Tube Period for *work* with the Night Tube Sections).

h. L&E Closures

Lift & Escalator Closures are closures of lifts, escalators, travellators, fixed stairways, routeways or cross-passageways which can be accommodated without requiring a Station or platform to be closed. The Applicant will liaise with the Access Manager to review the impact of the requested L&E Closure in the context of any other concurrent Underground Network closures. Where the Applicant is the *Contractor*, the *Project Manager* may also participate in such liaison.

i. Access Subcategories

Within the above access types there are a number of access subcategories which are used in the booking system. The subcategories are detailed in Appendix 8 hereto and a

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description of the typical work to which they apply, such as track possession, is also provided in order to assist the Applicant in identifying the type of access applicable to particular works.

(2) For all closure requests the Applicant attends a Pre-Closure Request Meeting or Possession Meeting with the Access Manager before a Work Request is submitted by the Applicant for approval. Where the Applicant is the *Contractor*, The *Project Manager* may attend such Meetings.

(3) Where the *Project Manager* and *Contractor* agree a proposed closure has business justification the Applicant confirms with the Access Manager the acceptability of the proposed closure. Where the Access Manager confirms that the proposed closure dates are not acceptable the Applicant will liaise with the Access Manager to identify alternative closures that are as near as possible and equivalent to, the closures originally proposed by the *Contractor*. Where the Applicant is the *Contractor*, the *Project Manager* may also participate is such liaison. The Access Manager's decision as to acceptability of a proposed closure or proposed alternative closures is final and binding.

(4) The Access Manager may reject proposed closures on; including (without limitation) the grounds that if granted it would unduly limit journey opportunities. By way of guidance, and without limitation, examples of such a limitation of journey opportunities would be:

- A closure of a central London Station during a seasonal event,
- A closure of key Station for access to a popular one-off event during the period of the event,
- A closure of a key branch for access to airport terminals during a peak travel weekend, or
- A closure on a part of a line when there is a concurrent closure on the only alternate line during an abnormally busy period.
- Similarly, a closure request may be rejected where it is considered that the level of disruption caused is not justifiable given the nature and the scope of the *works*.

GWI 215.5 Time Scales for booking Access and Closures

In preparing an Access Plan the *Contractor* makes allowance for the minimum booking periods for the applicable access and closure types, as listed in the following table

Type	Applicable to:			
	Station Access	Track Access	Working Time in	
			Engineering Hours	Traffic Hours
Self Service Access	Yes (0)	Yes (0)	Yes	Yes
Non-Restrictive/ Exclusive Access	Yes (14)	Yes (14)	Yes	Yes
Restrictive Access Exclusive Access	Yes (21)	Yes (56)	Yes	Yes
Major Closures	Yes (540)	Yes (540)	No	Yes
Minor Closure	Yes (222)	Yes (222)	No (ii)	Yes
L&E Closure	Yes (90)	N/A	Yes	Yes

Notes

i. The above table gives the T- date in brackets by which planning must be completed (the Latest Request Date). The *Contractor* must allow for sufficient time for adequate access planning. The *Contractor* shall note that there is approximately a 30-minute delay between making a Self-Service Access request and the number appearing on the track access control system. During this period the *Contractor* will not have

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access.

ii. A Minor Closure may be applicable to Engineering Hours if a vehicle is being outstabled. Where no more than two vehicles are being outstabled at any single location the timescale for booking may subject to the agreement of the Access Manager be reduced to 90 days

iii. A Closure in respect of a depot or siding may be required if the proposed works affects the operational railway

At specific locations the minimum booking period for Closures stated in the above table may be able to be reduced. Where a reduced period applies this is stated in Appendix 2.

The *Contractor* plans access as early as possible and in no event applies for access or closures after the Latest Request Date past.

Where access is required to Network Rail infrastructure at the Network Rail Interface Locations the minimum booking period for all access types is 294 days access except for Major Closures which remains unchanged.

GWI 215.6 Utilising Existing Closures

The *Contractor* actively seeks to utilise the *Employers* existing closure programme to progress the *works*. A list of existing planned closures relevant to the *works* shall be provided by the *Employer* to the *Contractor* at the *starting date* of each Call-off Contract, as well as at regular intervals agreed between the *Project Manager* and the *Contractor.*

The *Contractor* identifies all possible opportunities to use the *Employer's* existing closure programme and provides the information necessary to complete the Application to Work Form. The Applicant completes the Application to Work Form and submits this to the Access Manager and the *Project Manager* for approval. Such Form shall be submitted a minimum of 15 (fifteen) weeks prior to the relevant closure start date. The Applicant attends the planning meetings for the relevant closure and the *Contractor* prepares for submission by the Applicant any information as may be requested by the Access Manager as part of this planning process. Where the Applicant is the *Contractor*, The *Project Manager* may attend such Meetings.

The *Contractor* may also propose an extension to an existing planned closure. The *Project Manager* considers the proposal and where the business benefits more than offsets the increased customer disruption, authorises the Applicant to seek endorsement by the Access Manager. The Access Manager determines whether the request should be taken forward as a formal application and advises the Applicant accordingly. Where such application has been approved by the *Project Manager*, the *Contractor* submits an updated Access Plan, to reflect such application, to the *Project Manager* for approval.

The *Contractor* recognises the level of disruption and limitation of journey opportunities which result from closures and where the *Contactor* plans any change to the scope or type of works to be undertaken under an existing closure, seeks the approval of the *Project Manager* accordingly. The Applicant seeks consent for the change from the Access Manager. The *Contractor* accepts that if the Access Manager or the *Project Manager* considers that changes in scope are such that the business benefit of the *works* to be carried out is no longer commensurate with the disruption caused, that the closure may be cancelled. For the avoidance of doubt where a closure is cancelled in these circumstances it is not a compensation event and the *Contractor* submits a revised Access Plan for acceptance by the *Project Manager*.

GWI 215.7 Booking and Arranging Access

(1) The Applicant books and co-ordinates access to the Site with the Access Manager in accordance with the Work Request/RailSys process and the Accepted Access Plan. The *Contractor* accepts that access to the Site will be refused without a valid RailSys number and the *Contractor* checks that it is in possession of a valid RailSys number for all access requirements detailed on the Accepted Access Plan. If the *Contractor* is not in possession of the same it advises the *Project Manager* accordingly.

(2) The *Contractor*'s attention is also drawn to the requirements of section GWI 225.4 Security, in connection with restricted access to the *works.*

(3) The *Contractor* complies with the requirements of the use of Sentinel (Network Rail's Access and Competency System), particularly in the context of access control at the

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point of site entry. The *Contractor* shall note that individuals will be refused access to Sites without a valid Sentinel Card.

GWI 215.8 Training, Certificates, Identity Cards and Entry Permits

(1) The *Contractor* is responsible for ensuring that all staff and personnel are suitably trained, competent and carry the appropriate and requisite certification for performing the roles required of them in carrying out the *works*.

(2) The Standards, and in particular QUENSH and the Rule Book(s) set out the training and certifications required to be met by the *Contractor*.

(3) The *Contractor* is responsible for arranging, booking, and paying for all requisite medicals, training and certification of its staff and / or personnel. Details of the cost and process for booking LUL arranged training / certification courses can be obtained upon request from the *Employer*.

(4) The *Contractor* allows a minimum of 56 days notice period for all *Employer* provided training and certification courses, except HV1 and LV1 training. A minimum 182 days notice period should be provided for *Employer* provided HV1 and LV1 training. In addition, the *Contractor* allows a 6-month period for nominated personnel to complete HV1 and/or LV1 training provided by the *Employer*. These periods must be included on the programme for acceptance. Any time period less than this cannot be guaranteed, and although efforts may be made to facilitate wherever possible, the *Contractor* does not rely on such reduced time periods being accommodated.

(5) At the *starting date* of the Call-off Contract, the *Contractor* must produce a competency matrix for all *Contractor's* staff or personnel involved in Providing the Works detailing the training, certification and other competency information held on record. The *Contractor* updates the matrix throughout the Call-off Contract duration maintaining current records and make available on request of the *Project Manager.*

GWI 215.9 London Underground Access control

(1) All *Contractor* personnel require a Sentinel smartcard endorsed with the Industry Common Induction (ICI) competence plus the LU-ICI endorsement in order to access the Site and carry out works on London Underground operational infrastructure.

(2) The *Contractor* registers to become a Sentinel Sponsor via the Rail Industry Supplier Qualification Scheme (RISQS). Further details can be found at the following RISQS website address https://www.risqs.org/

(3) All Sponsors and Sponsored individuals must abide by the Sentinel Scheme Rules, the latest version of these can be found at the following Sentinel website address: https://www.railsentinel.co.uk/Content/Downloads/SentinelSchemeRules.pdf

(4) The Smartcard is specific to an individual and is not transferable

(5) The *Contractor's* personnel carry their Smartcard at all times when working on operational underground network property and present them to any authorised representative of the *Employer* for inspection when requested to do so. Failure to produce a valid Smartcard, or requisite certification, for inspection may result in the individual being instructed to leave site. A Smartcard is not required when working solely on non-operational underground network property.

(6) The Smartcard does not entitle the *Contractor*'s staff or personnel to any benefits other than permitting access to the Site for the purpose of carrying out *works* during the agreed hours of work. The Smartcard remains the property of the *Employer* and is required to be returned immediately upon request.

(7) Details of required courses and medicals are detailed in QUENSH.

(8) Exceptions to the Smartcard process;

For certain exceptional access circumstances, it may not always be practical or cost effective to enrol the suppliers or Others onto the Sentinel Scheme.

Such scenarios whereby temporary LUA-LU paper certificates are issued would be:

- Specialised contractors requiring limited access

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- Survey work requiring limited access

If the *Project Manager* decides to permit exceptional access to site or *working areas*, the *Contractor* must obtain the *Project Manager's* written acceptance regarding the personnel and work activities prior to commencement on site.

(9) Any person attempting to gain access to the site or working areas who is not in possession of a valid Sentinel Smartcard is treated as a visitor. All visitors, except for authorised collection or delivery drivers, are always escorted or supervised by an authorised member of staff whilst on site.

The *Contractor* maintains a register of all visitors including:-

- Name;
- Employer;
- Nature of business / persons being visited;
- Time in;
- Time out;
- Supervisor/escort name including signature.

The *Contractor* provides a health and safety site briefing to the visitor who signs a form to confirm that they have received the briefing and understand the site rules and their respective responsibilities as a visitor.

The *Contractor* issues the visitor a temporary pass that is valid for a maximum 24 hours and the expiry date and time is clearly indicated.

The *Contractor* ensures the temporary pass is returned when the visitor leaves the site and that a list of lost any passes is maintained.

Lost electronic visitor passes are de-activated immediately on the *Contractor* being made aware of the loss.

(10) When booking in and out of the Site, the *Contractor*'s staff and personnel report in, record entry and exit, and present their Smartcards when and where required, in accordance with the local access control arrangements.

(11) Where a Smartcard reader is installed on Site as part of the local access control arrangements, then all *Contractor* staff and personnel as a mandatory requirement swipe their Smartcard on entry and egress from the Site. Any individuals found on site where such a card-reading system is in place who have not followed such a procedure may be instructed to leave site for the duration of the associated shift, regardless of whether they may hold the appropriate Smartcard. The *Employer* takes no responsibility for any abortive costs or impact to schedule of any such instruction to any member of the *Contractor*'s staff under such circumstances.

GWI 215.11 Works Affecting the Operational Railway

No modifications to existing assets affecting the Underground Network may be undertaken without the *Project Manager's* prior written acceptance and / or the relevant asset steward e.g. Power & Electrical (Asset Operations), previously called Power Delivery APD.

The *Contractor* makes provision for the *Employer's* and/or the asset steward representation during the carrying out of *works* affecting existing assets.

The *Contractor*, wherever possible, undertakes disruptive works during possessions and closures planned by Others which are agreed on the Underground Network from time to time. To the extent that the *works* cannot be carried out during a possession or closure the *Contractor* ensures that:

- traction power supplies are only switched off during Engineering Hours except where otherwise expressly agreed with the Project Manager
- invasive works in operational areas (including substations and track) will only be undertaken during Engineering Hours (except where prior written

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acceptance is provided by the *Project Manager)*;

- substation equipment changeovers may only be undertaken during Engineering Hours;
- non-invasive *works* in sub-stations may be undertaken during Engineering Hours and Traffic Hours by agreement with the *Project Manager*;
- plant outages in existing substations are only permitted during Traffic Hours to the extent that they do not impact on the *Employer's* ability to operate a full train service and full depot operations. During the upgrade and/or replacement of existing plant items it may be necessary to operate the substation(s) with a reduced redundancy, however such periods will be minimised;
- traction power to depots must remain switched on at all times; and

simultaneous plant outages will not be permitted in adjacent substations.

GWI 220 Security and Identification of Workpeople

GWI 220.1 Security Pass

Not used.

GWI 225 Security and Protection of the Site

The *Contractor* is responsible for all Site security and on-site housekeeping in accordance with section 32 of the Standard S1552 QUENSH.

GWI 225.1 General Matters

(1) The *Contractor* must not hinder or prevent authorised access to the Site or adjacent areas by authorised users.

(2) Gates provided for the passage of People, Plant and Materials and Equipment must be kept locked when not in use and all boundary fences must be kept secure to prevent unauthorised access.

GWI 225.2 Site Security – General

(1) The *Contractor* develops effective professional relationships with the Metropolitan Police, British Transport Police, the LFEPA, the Group Station Manager, and the Duty Station Managers.

(2) The *Contractor* advises the *Project Manager* of all incidents of increased security alert communicated by those bodies.

(3) Should a Call-of Contract SWI define the requirement for the *Contractor* to provide a Security Manager on site, the requirements for this role will be stated in SWI 200.

GWI 225.3 Serious Security Incident

(1) In the event that a serious security incident occurs, the *Contractor* promptly advises the *Project Manager* and agrees and implements all actions requested by the Metropolitan Police, British Transport Police LFEPA, and Others or instructed by the *Project Manager*.

(2) The *Contractor* records and logs all steps taken and resources used as a consequence of or arising out of the serious security incident.

(3) In the event of a serious security incident, or other emergency, occurring outside normal working hours, it may be necessary for the *Contractor* to immediately recall senior responsible personnel to the Site. The *Contractor* identifies senior responsible personnel

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within the emergency call out procedure and ensures that suitable senior responsible personnel are available at all times.

GWI 225.4 Reporting of Crimes or Security Related Incidents

(1) The *Contractor* records and brings to the immediate attention of the *Project Manager* all allegations of crimes and other security related incidents (e.g. trespass).

(2) These reports are used to assess and monitor the efficacy of security management and standards.

(3) The *Contractor* immediately reports urgent and major issues of security breach to the *Project Manager*.

GWI 225.5 Signage

(1) The *Contractor* supplies and installs suitable signage relating to access, security and safety requirements.

GWI 225.6 Delivery or Collection Vehicles

(1) Written logs of all delivery and collection vehicles entering and leaving the Site are kept by the *Contractor* and made available to the *Project Manager* on request.

The delivery and collection logs include:

- Name of haulier;
- Vehicle registration number;
- Description of Plant and Materials and Equipment being collected or delivered;
- Driver's name and signature;
- *Contractor*'s or Subcontractor's order number;
- Instructions for collection or delivery;
- Collection / delivery note number;
- Date;
- Time of entry and departure (to be recorded by the security guard).

(2) The *Contractor* ensures that only authorised vehicles are admitted to the Site.

(3) Delivery vehicles must be accepted, unloaded and despatched to minimise congestion on adjacent roads. Off-site holding areas are to be managed to ensure that vehicles do not stand and obstruct the highways.

GWI 230 Protection of Existing Structures and Services

The *Contractor* is to protect the existing equipment, structures and services on all Sites. Any damage caused by the *Contractor* will be notified to the *Project Manager* at the earliest opportunity and repaired by the *Contractor* at no additional cost to the *Employer*. The *Contractor* advises his proposed repair to the *Project Manager* for approval and the repair will be undertaken by the *Contractor*. All existing services will remain operational at the Sites unless by prior written agreement from the *Employer.*

GWI 230.1 Utility Supplies

(1) The *Contractor* is responsible for the protection of existing utilities on or adjacent to the site in connection with providing the *works*. Should the *Contractor* become aware of any damage to utilities during the works, the *Contractor* must notify the *Project Manager* as soon as practicable.

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(2) Should the *Contractor* require existing utilities to be enabled, disabled or relocated then it is the *Contractor's* responsibility to make the arrangements directly with the utility company. The *Contractor* is to notify the *Project Manager* of any such arrangements made with utility companies as soon as practicable.

GWI 230.2 Damage to Works and Protection to Adjoining Structures

(1) The *Contractor* does not carry out any works liable to damage the stability of the *works* and adjoining buildings. No cutting through floors, roofs or walls will be permitted except as shown on the design drawings and accepted by the *Project Manager*.

(2) The *Contractor* protects from damage the adjoining buildings and premises and is responsible for and making good as soon as practicable all damage done through the carrying out of the *works*.

(3) The *Contractor* is responsible for bearing the cost of any making good required following damage to the structures, services, or finishes of the *Employer's* or Other's premises.

(4) Any site-specific requirements beyond GWI 230.2 (1),(2),(3) are to be detailed in the Specific Works Information (SWI) for each Call-off Contract.

GWI 235 Protection of the *Works*

(1) Unless expressly stated otherwise in the Generic or Specific Works Information, the *Contractor* is responsible for protecting his elements of the *works*.

(2) The *Contractor* protects the *works* from inclement weather, public or staff access, accidental damage by third parties or its own operatives, in whichever form is required to ensure the *works* are made Available in "as new" condition, regardless of when the elements of *works* were completed.

GWI 240 Traffic Management

GWI 240.1 Traffic Management – General

(1) The *Contractor* ensures that his vehicles, those of his Subcontractors and his staff and personnel do not obstruct the use by the public or Others of adjacent premises or roads.

(2) The *Contractor* ensures that the access to and from the Site is clear of all Plant and Materials and Equipment on Completion of the *works*.

(3) The *Contractor* ensures that trafficked areas are clean and fit for public use to the acceptance of the *Project Manager*.

(4) The *Contractor*'s undertakes the *works* without danger to or interference with the *Employer's* operations and Others using the highway and adjacent properties.

(5) The *Contractor* ensures that all construction traffic outside the Site boundary follow only those routes on highways, public and other roads and bridges which are prescribed by the Highway Authority or Authorities concerned. The *Contractor* makes arrangements and agrees these routes with the appropriate Highway Authority or Authorities.

(6) Where the *Contractor* undertakes work or makes deliveries to the Site which impacts on public or private highways, including access to the Site and to other premises/establishments, the *Contractor* supplies, erects, maintains and removes prior to Completion, such traffic signs and barriers as may be necessary by the Code of Practice for New Road and Street Works (1997) to guide and warn traffic and to protect pedestrians and to prevent danger thereto.

(7) The *Contractor* ensures the *works* are appropriately lit and guarded in the hours of darkness and that traffic signs and barriers are removed as soon as they cease to be required for the purposes of Providing the Works. The size and positioning of all such

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signs and the wording thereon is to be as approved before erection with the *Project Manager* and Highways Authority or Authorities. The signs are to be reflective or adequately illuminated at night by approved means.

GWI 240.2 Damage (to Highways etc)

(1) The *Contractor* is responsible for making good any damage to roads and footpaths and services underneath or adjoining, whether public or private, if caused by or attributable in any way to the cartage of equipment or materials by either the *Contractor* or any Sub-*Contractor* under the Contract. This includes but not limited to claims from local authorities and/or Others for damage to highway road, other route or footway by reason of the *Contractor's* operations.

GWI 240.3 Cleanliness of Highways

(1) The *Contractor* is responsible for keeping public and private roads free from mud, dust or rubbish in connection with providing the *works.* The *Contractor* makes provision for ensuring that all vehicles whether his own or those of any Subcontractor supplier or any other person coming to or leaving the Site are clean so as to ensure that such vehicles do not cause mud, dirt or other materials to be deposited upon any highway road or other route being used by such vehicles.

GWI 245 Surveys

GWI 245.1 Condition Survey

(1) The *Contractor* undertakes a condition survey of the areas affected by the *works* and agrees it with the *Project Manager*. The *Contractor* is to reinstate all areas disturbed by the works or any of his activities back to the condition recorded in the survey and agreed with the *Project Manager* and in accordance with all relevant statutes and Local Authority / *Employer* requirements.

(2) The *Contractor* shall produce and submit to the *Project Manager* for his approval a survey plan within 28 days of the *starting date*. The purpose of this plan is to identify and describe the *Contractor's* strategy and approach to the advance surveying of the area of the *works* prior to any physical change to the built environment as a result of the *works.* The plan shall address the requirements of this section, include a survey schedule and all necessary method statements, risk assessments, designs, drawings and other documents required to complete Condition Surveys and Defects Surveys.

(3) Where Ground Movement is predicted by the *Contractor's* design, then the *Contractor* undertakes Defect Surveys on existing structures affected, as described in GWI 135.

GWI 245.2 Intrusive Survey

(1) The *Contractor* carries out comprehensive and intrusive surveys to validate asset location, make up and condition information supplied with each Call-off Contract. The *Contractor* reinstates and or makes good to original state any asset disturbance resulting from these surveys.

(2) All surveys are to enable the *Contractor* or *Project Manager* to utilise the information in the validation and development of the design.

(3) The *Project Manager* does not accept *Contractor* designs that are deficient due to lack of survey information.

(4) The *Contractor* prepares and submits to the *Project Manager* a detailed report of any

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existing services, asset location or obstructions identified by the survey but not identified in the Site Information. The *Contractor* submits an early warning notification if the survey reveals the presence of unexpected services, which if not protected or diverted could affect the progress of the *works* or the works of Others.

(5) Where surveys necessitate the disturbance of an asset, the *Contractor* leaves the asset in a safe and operable condition until such a time as it is affected by the permanent works. If the asset disturbed is not affected by the permanent *works*, the *Contractor* makes it good, leaving it safe, operable and with its appearance commensurate with its immediate surroundings.

(6) Any site-specific requirements beyond GWI 245.2 (1),(2),(3),(4),(5) are to be detailed in the Specific Works Information (SWI) for each Call-off Contract.

GWI 245.3 Asbestos Survey

(1) The *Contractor* complies with Standard S1552 QUENSH, Section 36.

(2) The existing asset Asbestos reports are included in the relevant Site Information for each Call-off Contract.

(3) The *Contractor's* installation and removal sequence will allow for the *Employer* to remove asbestos in operational assets as they become redundant. The *Contractor* identifies when this is required in their programme.

(4) The *Contractor* notifies the *Employer* if hazardous materials are identified or suspected during the course of design or construction activities by way of Early Warning Notification. Following notification from the *Contractor*, the *Employer* will appoint a Pan TfL Framework UKAS Accredited Consultant to undertake any required sampling and/or surveys, or a Licensed Asbestos removal Contractor to undertake any required removal or remedial works.

The *Contractor* notes that the *Employer* is required to follow the Planning Procedure PR0224 for any intrusive surveys and removal works. The *Contractor* will therefore assume a lead time of 40 Working Days to receive hazardous material survey results (from the point of notification given to the *Employer*) and an additional 40 working day lead time for any associated removal to be completed (from the point of survey results having been given). The *Contractor* is to include the impact of these durations in their initial Early Warning Notification.

(5) The *Contractor* notes that major removal works or works with complex site-specific requirements, may be subject to longer lead times to those stated in (4).

GWI 245.4 Survey Results

(1) The *Contractor*, where it carries out surveys in support of the detailed design, provides copies of the survey results to the *Project Manager* as part of the detailed design submission.

GWI 250 Access within the Railway Environment

GWI 250.1 Working on Network Rail infrastructure

(1) The *Contractor* complies with Standard S1552 QUENSH, Section 16.3.

(2) Where Network Rail is responsible for the operational running of certain assets within a Site, the access required by the *Contractor* in providing the works will be subject to

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additional Network Rail access rules at certain locations. This includes minimum access permits such as PTS and COSS for operatives and site safety supervisors. Any works requiring access to the track or the area near the track requiring possessions of the Railways or isolations, the *Contractor* must make arrangements via the appropriate Network Rail process.

(3) Should it be relevant, the SWI 200 documentation for each Call-off Contract will detail if there are specific constraints or working arrangements to be managed regarding Network Rail infrastructure.

GWI 250.2 Interference with Traffic and Station Operations

(1) The *Contractor* must strictly observe any rules, regulations or instructions which he may from time to time receive from the *Project Manager* for the working and protection of such traffic or for the protection of persons employed on or adjacent to the Site.

(2) Further to clause Z2.12.1, whereby the *Employer* may seek to recover the loss of NACHS (Nominally Accumulated Customer Hours) charges from the *Contractor*, the *Contractor* is referred to table of charges contained within Appendix 10 in connection with Annex 6 – Disruption Damages.

GWI 250.3 Interference with Railway Plant and Track

(1) The *Contractor*'s staff and personnel must not operate or interfere with any railway plant or track in any manner whatsoever except as required by the *works*.

(2) The *Contractor*'s staff and personnel must at no times trespass upon the railway.

(3) During the execution of the *works* the traffic along the Railways of the *Employer* (in this Clause called "The Railways") will be continued and all rules and regulations which may from time to time be issued by the *Employer* for working the traffic must be strictly observed by the *Contractor*.

(4) The *Contractor* Provides the Works in such manner as not to interrupt, endanger or interfere in any way with The Railways of the *Employer* or the traffic thereon or equipment thereon existing. The *Employer* will afford the *Contractor* reasonable facilities to enable him to carry out the *works* but the *Contractor* must strictly observe any rules, regulations or instructions which he may from time to time receive from the *Project Manager* for the working and protection of such traffic and protection of cables, signals, permanent way or other equipment or for the protection of persons employed on or adjacent to the site.

(5) If the *Contractor* obstructs, interrupts or hinders the *Employer's* Railway traffic or the use of the *Employer's* premises without the prior agreement of the *Project Manager* the *Contractor* is responsible for any Losses due to such obstruction, interruption or hindrance to the *Employer*'s Railway traffic or the use of the *Employer*'s premises.

GWI 250.4 Interrupted or Delayed Access

(1) The *Contractor* is reminded of the *Employer's* frequent operational need to run Engineering and Sleet Trains, both planned and unplanned.

(2) The *Contractor* is familiar with and cognisant of such issues and allows for any planned engineering train movements within the planning and programming of the *works*. Notwithstanding that unplanned train movements causing the *Contractor* interrupted or delayed access is an *Employer's* risk event, the *Contractor* is expected to react, redeploy operatives and re-sequence the *works* so as to mitigate the effects in such circumstances where interrupted or delayed access may occur. The *Contractor's* Programme, where possible, allows for and highlights such contingency work operations that can be carried to in the event that interrupted or delayed access occurs.

If the *Contractor* attends the Site and access is not provided by the *Employer* in

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accordance with the accepted Access Plan the *Contractor* will complete and submit to the Project Manager or Client Representative a Cancelled or Delayed Access Form in the form contained in Appendix 7 within four (4) Working Days of the occurrence.

GWI 250.5 Equipment Rooms

(1) The *Contractor* arranges access to Switch, Relay, Machine and other Equipment Rooms by giving the *Project Manager* a minimum of two days' notice of his intention to access these areas.

(2) The *Contractor* ensures that the security of Switch, Relay, Machine and other Equipment Rooms are maintained and that all access doors are securely locked when the work in the room is completed. The *Contractor* is responsible for safe working conditions within the Switch, Relay, Machine and other Equipment Rooms.

(3) All *Contractor* personnel are forbidden from leaving the LU premises in possession of an LUL key and from having a duplicate of any of LUL's keys manufactured.

(4) The *Contractor* complies with Standard S1552 QUENSH, Sections 37, 38, 39, and 40.

GWI 250.6 Access to substations and switch houses

(1) Access into substations and switch houses is controlled by the planning procedures defined by Planning Procedure PR0224.

The document refers to UK Power Network Services and Powerlink who no longer operate and maintain Power assets; however, the procedures have been adopted by the *Employer* and are to be adhered to by the *Contractor*.

Additional access requirements for substations and switch houses which are only accessible through London Underground stations, depots or other buildings are defined in the Works Information.

(2) The *Contractor* is to adhere to PR0241 (previously MSP/SMC/002) Site Entry and Exit and PR0238 (previously MSP/SMC/026)) Substation Access Training R1.

(3) The *Employer* recognises that there may be occasions where temporary authorisation to deviate from the access procedures may be required and the *Contractor* is to adhere to the following procedure:

- Where personnel are undertaking one-off planned activities (non-emergency) for up to a maximum duration of 3 consecutive shifts the *Contractor* submits a request to the *Project Manager* for temporary permission for named personnel to undertake work at that location.
- The request will include the following information:
    - Location
    - Description of works to be undertaken
    - Full Names of those being put forward for dispensation
    - Formal confirmation of employment by employing company
    - Copy of company identification preferably with photograph
    - Proposed start / finish dates
    - Name of the competent Site Person in Charge that will be overseeing the proposed works.
- The competent Site Person in Charge (SPC) will hold a Competent (Unrestricted) substation entry pass (as defined by MSP/SMC/026) and have the necessary supervisory skills and knowledge on the technical, health, safety and

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environmental aspects of the scope of work to be undertaken to act as the SPC.

- Any such requests are approved at the discretion of the *Employer.*

(4) The *Contractor* is to adhere to PR0201- Power Delivery – Method Statements in regard to the preparation and approval of all method statements.

(5) In addition to the review process detailed in PR0201, all method statements submitted by the *Contractor* are to be reviewed and signed by the *Employer's* Construction subject matter experts prior to work commencing on site.

(6) No work can commence until an approved method statement (compliant with PR0201) is in place.

GWI 250.7 Major Projects Integration Centre (MPIC)

(1) The *Contractor* provides the *Employer* with an MPIC 1 Week Works Plan by 10:00am every Tuesday for works taking place the following week on Site. The template 1 Week Works Plan for completion will be provided by the *Employer.*

(2) Any amendments or alterations to the MPIC 1 Week Works Plan will be communicated to the *Employer* by 14:00 for works taking place during that day's Engineering Hours or the following Traffic Hours.

(3) Amendments to Saturday works are permitted up until 14:00 on the Thursday before works are carried out, and amendments to Sunday works are permitted until 14:00 on the Friday before works are carried out. Failure to comply with these timelines could result in works not be allowed to proceed. Such circumstances do not entitle the *Contractor* to apply for a compensation event.

(4) The *Contractor* is to book on and off at the start and finish of every shift with the Major Projects Integration Centre (MPIC), this can be done via phone call or text message to confirm their attendance, number of staff on site, description of works, subsequent completion and any incidents or accidents that may have happened within the shift.

GWI 250.8 HV & LV Safety Rules and provision of HV1 and LV1 Resources

(1) The *Contractor* carries out the *works* in accordance with the LUL HV and LV Safety Rules where required. These are MSP-SRP-025 (HV) and MSP-SRP-020 (LV).

From 29th March 2021 changes to HV and LV Licences are implemented in accordance with Safety Rules Bulletin 14.Copies of these safety rules and Rule Book 24 are provided in Appendix 3.

The *Contractor* confirms that he has read and understood these and agrees to abide with all aspects without exception.

(2) The *Contractor* is responsible for the provision of HV1 and LV1 personnel in order to carry out the *works* in accordance with HV and LV Rules.

(3) The *Contractor* may provide HV1 and LV1 resources from within their own organisation or supply chain.

(4) The *Contractor* may also obtain HV1 and LV1 resources from the *Employer*. The *Contractor* follows Planning Procedure PR0224 (see Appendix 3) to request these resources. The *Employer* confirms if the resource is available following receipt of the *Contractor*'s request. The *Employer* does not guarantee that the resource is available until the booking is confirmed.

(5) The *Contractor* is responsible for the cost of the HV1 and LV1 resources obtained directly from the *Employer*. The rate of £700 per shift is payable to the *Employer* for each shift where this resource is provided.

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GWI 250.9 **Pre-Works Peer Review**

(1) The *Contractor* plans and chairs Pre-Works Peer Reviews for activities which are associated with higher than routine risks. The purpose of a Pre-Works Peer Review is to use experience and lessons learned from previous projects, programmes and staff to ensure the *Contractor* is ready to go on site to start an activity.

Pre-Works Peer Review are to be held four weeks before activities are scheduled to begin for any works proposed by the *Contractor.*

The *Employer* decides and subsequently notifies the *Contractor* whether activities proposed by the *Contractor* warrant a Pre-Works Peer Review.

(2) The format of each Pre-Works Peer Review is to be a review meeting between the *Employer* and the *Contractor*. The specific agenda and format of each Pre-Works Peer Review is to be defined by the *Employer.*

(3) The *Contractor* is to secure approval at the Pre-Works Peer Review from the *Employer* prior to starting any on-site activities within scope of the Pre-Works Peer Review.

(4) The proposed schedule of Pre-Works Peer Reviews for Critical Activities will be included in the *Contractor's* P6 programme. The planning of Pre-Works Peer Review should consider the concurrent requirements and timescales of activities set out in Planning Procedure PR0224.

GWI 250.10 **Engineering Trains**

(1) Engineering trains may be available from the *Employer* for transportation of Plant and Materials and Equipment to and from platforms in Stations together with other specialist mechanised plant for the delivery of the *works*. The Applicant submits a Work Request detailing requirements for engineering trains and mechanised plant to the Access Manager in accordance with the timescales set out in Appendix 5. The *Contractor* shall provide the Applicant with all the information relating to engineering trains and mechanised plant required by the Work Request and where the *Contractor* is the Applicant seeks the approval of the *Project Manager* before the formal submission of the Work Request to the Access Manager.

(2) Where the *Contractor* cancels the booking for an engineering train or other mechanised plant, the *Contractor* shall compensate the *Employer* as follows:

(3)
- Cancellations made at least 56 (fifty-six) days in advance of the date on which the train has been booked to run – no charge will be levied by the *Employer*

(4)
- Cancellations made at less than 56 (fifty-six) days in advance of the date on which the train has been booked to run – the full price will be charged by the *Employer*, in accordance with the prevailing charges detailed in the TransPlant Agreement as set out in Appendix 10.

(5) The *Contractor* directs any requests to amend a booking for engineering trains or mechanised plant to the *Access Manager* and the *Project Manager* in compliance with the minimum timescales set out in Appendix 5. Requests to amend the make up of engineering trains will be subject to availability.

(6) Other mechanised vehicles provided by the *Contractor* must be plant approved and have route clearance for the area involved. This is the responsibility of the *Contractor.* Access for other mechanised vehicles shall be booked by the *Contractor* by directing such booking to the Access Manager and the *Project Manager* in the same manner as for engineering trains or mechanisd plant as described above and is subject to the same minimum timescales as set out in Appendix 5.

(7) Engineering train rolling stock and train/mechanised vehicle paths will be subject to optimisation planning by the Access Manager at 56 (fifty-six) days prior to the week of

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the requested date. The intention of this process is to:

(8)
- Maximise the nightly use of the available resources, trains, rolling stock, loading gangs, crews

(9)
- Maximise train pathing opportunities and time at site

(10)
- Maximise the access to the infrastructure to all parties requiring access

(11)
- Promote opportunities to share engineering trains between requesters in order to optimise available access and/or resources

(12)
- Meet business needs and/or priorities

(13) In the event that it is required to re-schedule a requested engineering train, the Access Manager will use reasonable endeavours to provide an alternative and equivalent booking as close to the original date as possible.

GWI 250.11 Protection

(1) The *Contractor* consults and agrees all protection arrangements (including provision of additional Specialist Protection resources) with the *Project Manager* and the Access Manager. The Applicant seeks formal approval for the agreed protection arrangements (including provision of agreed Specialist Protection resources) by submitting a Work Request.

The *Contractor* provides a minimum of 1 qualified Site Person in Charge (SPC) for each work party.

The *Contractor's* SPC (who work on the track) shall hold a dual qualification enabling them to provide protection as well as provide work site supervision and shall work as part of the protection detail. If works are planned to take place during Engineering Hours, the SPC shall hold a dual qualification enabling them to provide protection during Engineering Hours and shall be familiar with the area that they will be working in and safe routes to / from the worksite, as such there should be no need for additional protection staff to be employed.

In the event of additional Specialist Protection staff being required, the *Contractor* shall advise the *Project Manager* accordingly and the Applicant requests the additional Specialist Protection resources from the Access Manager a minimum of 21 days before the Specialist Protection is required. Where the *Contractor* is the Applicant it will seek the approval of the *Project Manager* before the submission of such request. The Access Manager will review the protection arrangements and determine the number and qualifications of any Specialist Protection staff that may be required. This will be done in consultation with the Applicant and where the Applicant is the *Contractor,* in consultation with the Applicant and the *Project Manager.* Any Specialist Protection will be arranged by the Access Manager and provided by the *Employer*

(2) The cost of Specialist Protection staff will be charged back to the *Contractor* in the event of cancellation (or non-utilisation) on the following basis:

(3)
- Cancellations made 96 hours or more in advance of the activity start date – no charge will be levied by the *Employer*;

(4)
- Cancellations made less than 96 before the job start date – the full cost will be charged to the *Contractor.*

The above durations are subject to the cancellation being made before 12:00hrs on a weekday (Monday to Friday inclusive). Where a cancellation notice is received after 12:00hrs, the 96hour cancellation period will be calculated from 09:00hrs on the next weekday.

GWI 255 Consideration of Others

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(1) The *Contractor* shall obtain Considerate Constructors accreditation for the Sites.

(2) The *Contractor* shall operate a 'good neighbour' policy for residents and Others adjacent to or impacted by the *works*.

GWI 260 Site Cleanliness

The *Contractor* is responsible for keeping the Site tidy during the *works*.

GWI 260.1 Site Clearance and Cleaning

(1) On completion of each shift within the Underground Network, all Equipment, building appliances, apparatus or tools, surplus materials, together with all rubbish and debris of every description is to be removed as quickly as possible and conveyed away from the Site. All barriers, scaffolding are to be dismantled, taken down and removed when no longer needed and in any event upon Completion. The premises are left clean and tidy. A daily or more frequent clean is carried out to ensure passenger areas are free of dust and nuisance. The *Contractor* agrees a formal handover procedure with the *Project Manager* when working within the Underground Network.

(2) The Station Bin store is not to be used by the *Contractor*.

(3) The *Contractor* ensures that high standards of cleanliness and hygiene are maintained in all areas of the site, in line with good industry practice. If the *Project Manager* notifies the *Contractor* that he has failed to comply with the required levels of cleanliness and hygiene, the *Contractor* resolves the problem within the agreed timescales to the acceptance of the *Project Manager*. Failure to rectify and maintain, may result in the *Project Manager* arranging additional cleaning to be carried out for which the *Contractor* will be liable for the cost thereof.

(4) On completion of the *works* the *Contractor* clears the working areas made available to him of all surplus materials, stores, equipment, spoil, and rubbish and reinstates the areas to their condition existing prior to the *Contractor*'s occupation of those areas. GWI 400 provides further details regarding Completion.

(5) Delivery and removal of materials to and from the site by road are subject to the restrictions as detailed elsewhere within the Generic and Specific Works information. Should the *Contractor* require delivery or removal of materials at times other than those detailed in the Access Plan he submits proposals to, and obtains acceptance of, the *Project Manager* prior to carrying out works.

(6) The *Contractor* ensures that the enabling works particularly the removal of walls does not impact the existing, operational substation equipment by protecting it from dust, vibration and physical damage. The *Contractor* ensures that adequate dust protection is installed before the *works* commence and that all the existing and new plant affected by dust will be cleaned as appropriate at the end of a shift.

GWI 265 Waste Materials

GWI 265.1 Control of waste on site

(1) The *Contractor* is responsible for the removal of waste materials from the Site.

(2) The *Contractor* attention is drawn to section GWI 11105 that details the *Contractor's* main requirements in relation to waste management, waste reporting and re-cycling.

GWI 270 Emergency Preparedness Plan

(1) Prior to the commencement of any *works* on the Site, the *Contractor* is responsible for obtaining acceptance of an Emergency Preparedness Plan from the *Project Manager*.

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This will reference the *Contractor's* Construction Phase Plan, and includes:

- A brief description of the *works*
- A brief plan of areas affected
- An assessment of the main risks posed by the construction *works* on the operation of the station and safety of staff and customers
- The key mitigations to address the above
- The means of communicating between *Contractor* and operator, in case of an emergency, including a list of contact details for the *Contractor's* site and office management

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Appendix 1: Accepted Access Plan

Not used: The *Employer* is not providing an Accepted Access Plan.

Appendix 2: Limits on the time period of Engineering Hours

1. The call- back period is 20] minutes unless a different period is stated in the SWI 200.

Appendix 3: LU Standards that apply to the *works*

See standalone document provided.

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Appendix 4 – Application to Work Form

Multi-Worksite Possession Team
Application to Work Form

Date of Application			Week No.		**Equivalent Engineering hours shifts**		
Date of Possession			Week No.				
Responsible manager for work	Name						
	Organisation			**Cost Centre**			
	Contact number			E mail:			
Scope of work: Brief Description							

Chainage	**Line(s) Affected**	**Times Reqd.**	**Limits**
Worksite Location			
Lines Affected Including EB – WB – IR – OR –NB - SB Limits 1 No. Form For Each Respective Worksite			

Is it Possible to Pass Engineering Trains through your worksite. Ensure all information is correctly entered.	**Yes** **If Yes, how much notice reqd. to clear site**	**No** **If No, enter justification below**

Engineering Trains

Are Engineering trains working in your worksite	**Yes**		**If Yes, how many and which type:**
	No		

Road Rail Vehicles (RRVs)

Are EHs Possessions required to Outstable RRVs prior to Closure	**Yes**		**Are EHs Possession required to return RRVs following Closure**	**Yes**	
	No			**No**	
Comments					

On Track Plant / machinery

Are any On Track Plant / machinery Working in your worksite	**Yes**		**If yes ensure you enter all information correctly in the respective boxes below**
	No		

Line(s) Affected	**Access**	**Egress**

Resources

Are any specific resources required for your worksite	Yes		**If yes ensure you enter all information correctly in the respective boxes below**
	No		

Are all staff on site Track Accustomed certificated?	**Yes**		
	No		**If no ensure, adequate time is allocated to clear line(s) of all non cert. staff to allow passage of Engineering train if applicable**
Anticipated No of staff in worksite			
Control measures for access to worksite			
Is station Access required	**Yes**	**No**	
Worksite Notification: Date Worksite Notification accessible for review.			

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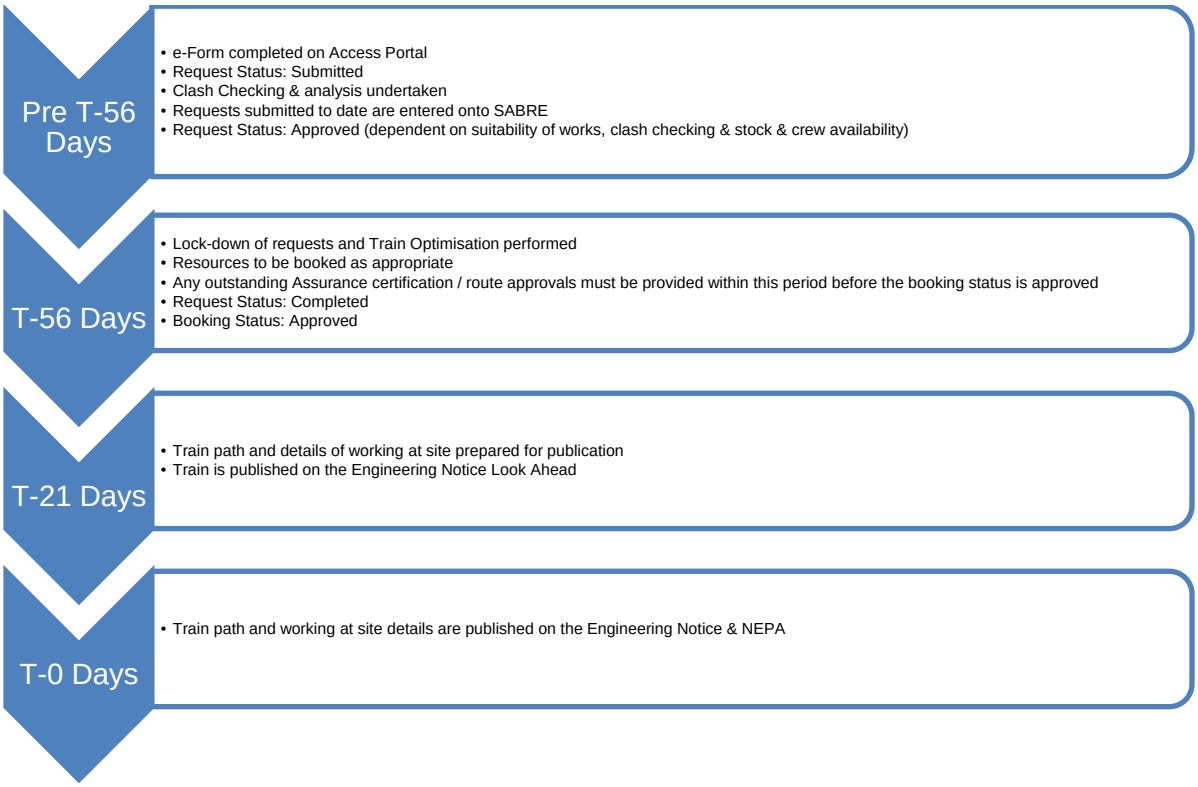
Appendix 5 – Request Lifecycle for a Train or Motorised Vehicle Request

The timescales for booking an engineering train or other mechanised vehicle is described the in following flow chart.



Note: 'T' indicates the Monday of the week that the train or vehicle is booked to work in.

The process at each stage is summarised as follows:

a. Pre T-56 Days

A Work Request for a train can be submitted by a Manager at any time prior to T-56 days. All requests will be made by the Manager comprehensively completing all the requisite screens of the Work Request. The Work Request is the sole means by which TransPlant engineering vehicles can be booked and requested and there is provision on the Work Request to provide specific details as to the make-up of each train (if the consist is known). The Access Manager will assist the Manager as necessary in planning and requesting trains or access for mechanised vehicles.

b. T-56 Days

All planning for engineering trains, train paths or mechanised vehicles must be completed & received by T-56 days, after which train optimisation will be carried out by the Access Manager.

From T-56 days onwards the requested access for an engineering train or mechanised vehicle will be entered onto SABRE and a check for any clashes can be carried out. The Access Manager will update the request's status to 'Completed' if there are no clashes or impediments pertaining to the request at that time. If there is a clash at this stage, the Access Manager will assess whether the clash is likely to be resolvable by the train optimisation process and will work with the Manager to identify potential alternative dates.

c. The Access Manager and Manager will agree the engineering train paths, confirm the engineering train's method of working at site; access and egress to the worksite for mechanised vehicles and/or personnel, and carry out protection planning.

d. The Access Manager will update the Booking status to 'Approved'.

e. T-21 Days

f. At this time the train path, and details of the train or mechanised vehicle's working at site, will be prepared for publication. These details will be included on the Engineering Notice Look Ahead

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g. T-0 Day of the Works

h. The Engineering Notice is published with full details of the train or mechanised vehicle's path and it's working at site.

Network Rail Infrastructure

Notwithstanding the timescales stated above, where engineering trains or other mechanised vehicles are required and which need to be positioned on Network Rail infrastructure in order to deliver the *works*, a Work Request for the provision of such vehicles shall be submitted to the Access Manager before T-365. The Access Manager will advise the applicable timescales for confirmation of booking following consultant with Network Rail.

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Appendix 6 – Indicative timescales for the publication of Engineering Look Ahead Notice and Engineering Notices

T - 4 weeks							T - 3 weeks							T - 2 weeks							T - 1 week							Work due this week						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
				Closing date for draft ELAN						Draft ELAN published for requesters comments					Closing date for Final ELAN comments 17:00hrs									Final ELAN Published							Planned work, anytime this week						
																							Publication deadline for changes. EN and NEPA							Planned work due to start - EN / NEPA published by 15:00hrs						
																								Publication deadline for changes. EN and NEPA							Planned work due to start - EN / NEPA published by 15:00hrs					
																									Publication deadline for changes. EN and NEPA							Planned work due to start - EN / NEPA published by 15:00hrs				
																												Publication deadline for changes. EN and NEPA			Planned work due to start - EN / NEPA published by 15:00hrs			
																													Publication deadline for changes. EN and NEPA			Planned work due to start - Engineering Notice / NEPA published by 15:00hrs on Friday		

Notes
ELAN = Engineering Look Ahead Notice
EN = Engineering Notice
NEPA = Nightly Engineering Protection Arrangements

NB. Timings are likely to change over Public Holidays.

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Appendix 7 – Curtailed or Delayed/Curtained Access Form

London Underground

Frustrated Access (Cancelled / Delayed / Curtailed) Form FAC-001 v1

Directorate:	Upgrade / Asset Group:
Project / Work Title:	Project Id / Work Order / Job Ref:

Line: _____ Unique Ref.: _____

Access Affected: (tick one) Cancelled: ☐ Delayed / Curtailed: ☐

Date: (shift start) Day: ____/____/____ Night: (start) _____ - (end) ____/____/____

Access Authority Details: (must be valid)

Booking Ref. (1): ☐☐☐☐☐☐☐☐☐☐ PICER Ref (copy required) _____

Booking Ref. (2): ☐☐☐☐☐☐☐☐☐☐ Access Type: TRACK / STATION / OTHER (Circle as applicable)

All details Mandatory

Access Location (or Code):	Work Location or Code (+ SB/NB/EB/WB):
Station Supervisor Name:	Track Current Sections Booked Out (ref required):
Work to be done (brief details)	

Time Booked on Station:	Time Booked on with TAC:	Call Back Time given by TAC:		TAC Ref. No:
Planned Start time:	Actual Start time:	Planned finish time:	Actual finish time:	Total Shift or Time Lost:

Reporters Details: (mandatory)

Name:	Company	Contact No. Email

LU Accountable Manager Details:

Name:	Directorate / delivery Group	Contact No. Email

Contractors / Sub-Contractors affected: (mandatory)

Contractor	Ops in work Party (no.)	Contractor	Ops in work Party (no.)	Contractor	Ops in work Party (no.)

Cause of Lost Time / Shift (mandatory)

Engineers Train Y/N	Train ref. no.	Was train published in ENLA?	If so, which no?	Was Train published in Eng Notice?	If so, which no?
	Reason for late running (if known)				
Passenger Train Y/N	Train ref. no.	Line	Direction (circle one) SB / NB / EB / WB	Destination	
	Reason for late running (if known)				

Other Contractor	☐	Name
LU Supervisor	☐	Name
Late Book on TAC	☐	Details
Early call back TAC	☐	
Other	☐	

Signature of station supervisor	Was further investigation completed by DOE / DOME? Y / N

This form must be faxed to XXXXX or emailed to XXXX

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Appendix 8 – Access Subcategories

Station works			
Access Type	**Booking Description**	**Days**	**Work Type Description**
General Access	General Access (non Track)	14	For undertaking the majority of everyday access needs, using relevant tools and materials. Not to be used for works that imposes a restrictive or exclusive requirement on other access users.
Non Restrictive/ Exclusive Access	Non Restrictive/ Exclusive Access (non Track)	14	For undertaking everyday access needs, using relevant tools and materials within a defined area
Restrictive Access	Restrictive - Asbestos Site	21	Only issued to specialist Asbestos contractors registered with LU for asbestos works. Access for asbestos works e.g. removal for which no other parties can be present on grounds of safety.
	Restrictive - Bright Lights	21	For where access introduces the use of additional lighting that could potential impact other access users. Rarely applied.
	Restrictive - Closure Area	21	To define an area of a station subject to a Closure (i.e. taken out of service for the purposes of engineering works).
	Restrictive - Movement of Materials	21	For where access necessitates the movement of materials either through a station that may impact on other access users. May include craning over of materials.
	Restrictive - Noisy Works	21	For where access will result in particularly noisy works that may have an impact on other access users.
	Restrictive - Plant / Chemicals in a confined space	21	For where access introduces the use of plant and chemicals in a confined space . Rarely used.
	Restrictive - Power Cessation- Power Outages Possible	21	For where access will introduce a cessation of power that may impact other access users (e.g. need for temporary supplies/portable lighting).
Exclusive Access	Exclusive – Asbestos Exclusion Zone	21	Only issued to specialist Asbestos contractors registered with LU for asbestos works. Access for asbestos works e.g. removal for which no other parties can be present on grounds of safety.

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Track			
Booking Description	**Booking Description**	**Booking Description**	**Booking Description**
General Access (Non Exclusive/ Non-Restrictive	General Access (Track)	14	For undertaking the majority of everyday access needs, using relevant tools and materials. Not to be used for works that imposes a restrictive or exclusive requirement on other access users.
Non Restrictive/ Exclusive Access	Non Restrictive/ Exclusive Access (Track)	14	For undertaking everyday access needs, using relevant tools and materials within a defined area
Restrictive	Restrictive - Allied Track	56	To define an area of track used in conjunction with, or subject to impact from, another access booking e.g. unloading of materials from a train booked under an Exclusive Specified Area.
	Restrictive - Asbestos Site	56	Only issued to specialist Asbestos contractors registered with LU for asbestos works. Access for asbestos works e.g. removal for which no other parties can be present on grounds of safety.
	Restrictive - Bright Lights	56	For where access introduces the use of additional lighting that could potential impact other access users. Rarely applied.
	Restrictive - Closure Area	56	To define an area of the LU railway subject to a Closure (i.e. taken out of service for the purposes of engineering works).
	Restrictive - Motorised Trolley	56	For the operation of a motorised track trolley on the railway.
	Restrictive - Movement of Materials	56	For where access necessitates the movement of materials either on, over or adjacent to the LU railway that may impact on other access users. May include craning over of materials.
	Restrictive - Noisy Works	56	For where access will result in particularly noisy works that may have an impact on other access users.
	Restrictive - Out-stabled Trains	56	To define an area of the LU railway where a service train is stabled (normally in platforms/sidings). May restrict the type of works that can be performed adjacent to this location.
	Restrictive - Plant / Chemicals in a confined space	56	For where access introduces the use of plant and chemicals in a confined space (e.g. platform inverts). Rarely used.

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Track			
Booking Description	**Booking Description**	**Booking Description**	**Booking Description**
Restrictive (Published) Cont'd	Restrictive - Power Cessation- Power Outages Possible	56	For where access will introduce a cessation of power (e.g. tunnel lighting, supply points) that may impact other access users (e.g. need for temporary supplies/portable lighting).
	Restrictive - Protection Area	56	To define an area of track used as a protecting or 'buffer' zone. Used in conjunction with another Exclusive booking e.g. Specified Area, Possession.
	Restrictive - Sub Station Works	56	Primarily for the use of LU Power teams requiring access to sub stations supplying power to the LU traction current system.
	Restrictive - Wheels Free Zone	56	For works that require the running rails to be free of electrically conducting plant or equipment e.g. trolleys, trains etc. Usually used for works requiring isolation of the signalling circuits e.g. commissioning.
Exclusive (Published)	Exclusive	56	For works necessitating sole access of the LU railway, and not more appropriately catered for under other categories herein. Only used sparingly and for short durations due to its restrictive nature on other works.
	Exclusive - Asbestos Exclusion Zone	56	Only issued to specialist Asbestos contractors registered with LU for asbestos works. Access for asbestos works e.g. removal for which no other parties can be present on grounds of safety.
	Exclusive - Current Rail Resistance Measurements	56	Primarily for the use of LU Power teams requiring controlled current measurements of the traction current delivery system.
	Exclusive - Engineers' Current Area	56	For the running of engineering vehicles on live traction current in accordance with the Rule Book.
	Exclusive - Possession	56	For the exclusive control of access to a given area of the railway. Traction current may be on or off. May involve the use of engineering trains, RRVs etc. As defined in the Rule Book
	Exclusive - Running on current, moving according to signals	56	For the running of vehicles on live traction current obeying LU signalling systems (e.g. test trains). Often referred to as 'Cancelled Engineering Hours'. As defined in the Rule Book.

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Track			
Booking Description	**Booking Description**	**Booking Description**	**Booking Description**
Exclusive (Published) Cont'd	Exclusive - Specified Area	56	For the running of engineering machines e.g. trains, RRVs on the railway. As defined in the Rule Book
	Exclusive - Traction Current Switching During Eng Hrs	56	For access that requires traction current to be switched on and off intermittently during the engineering hours shift. Primarily used in relation to power supply testing/commissioning etc.

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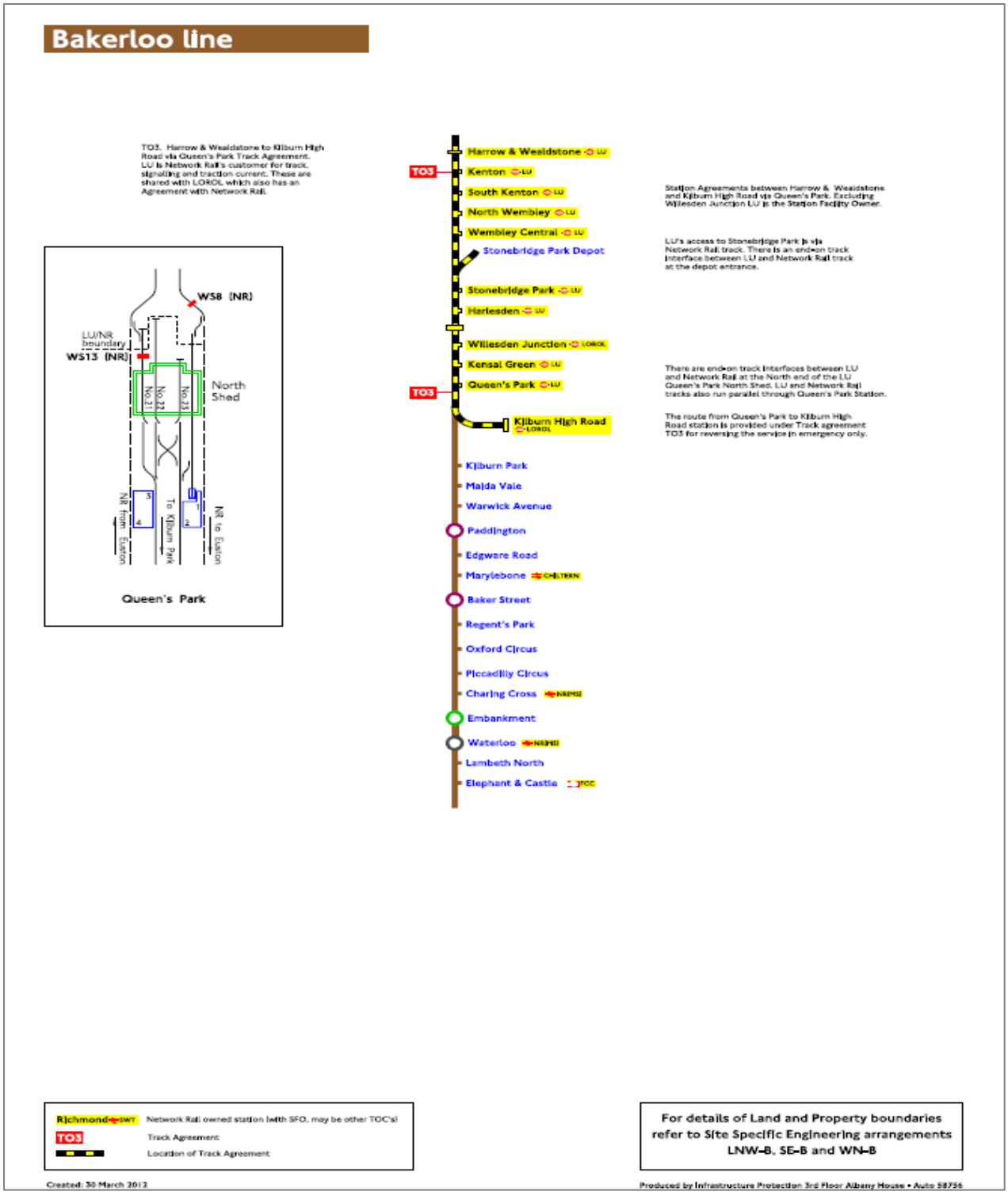
Appendix 9 – Network Rail Interface Locations



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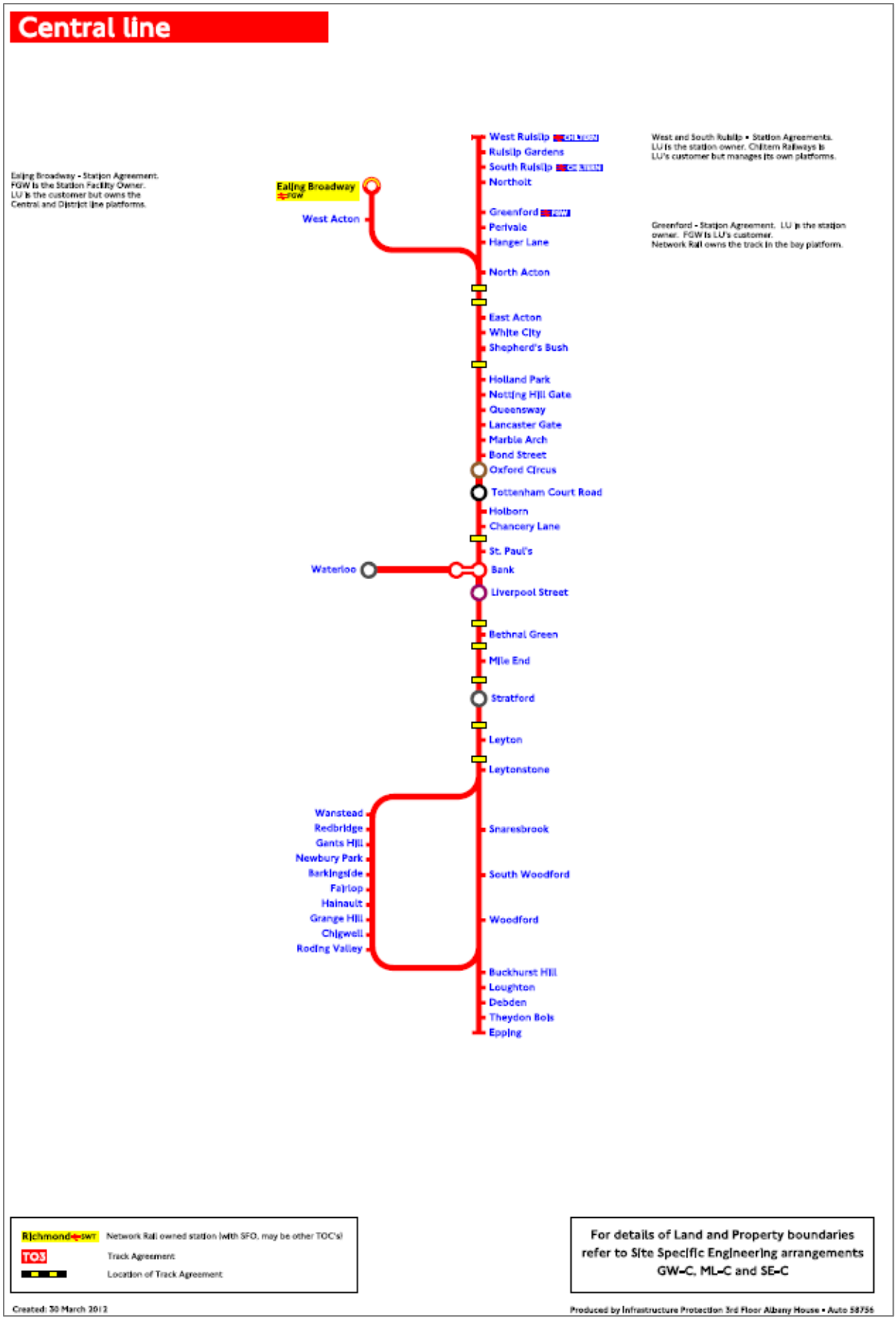

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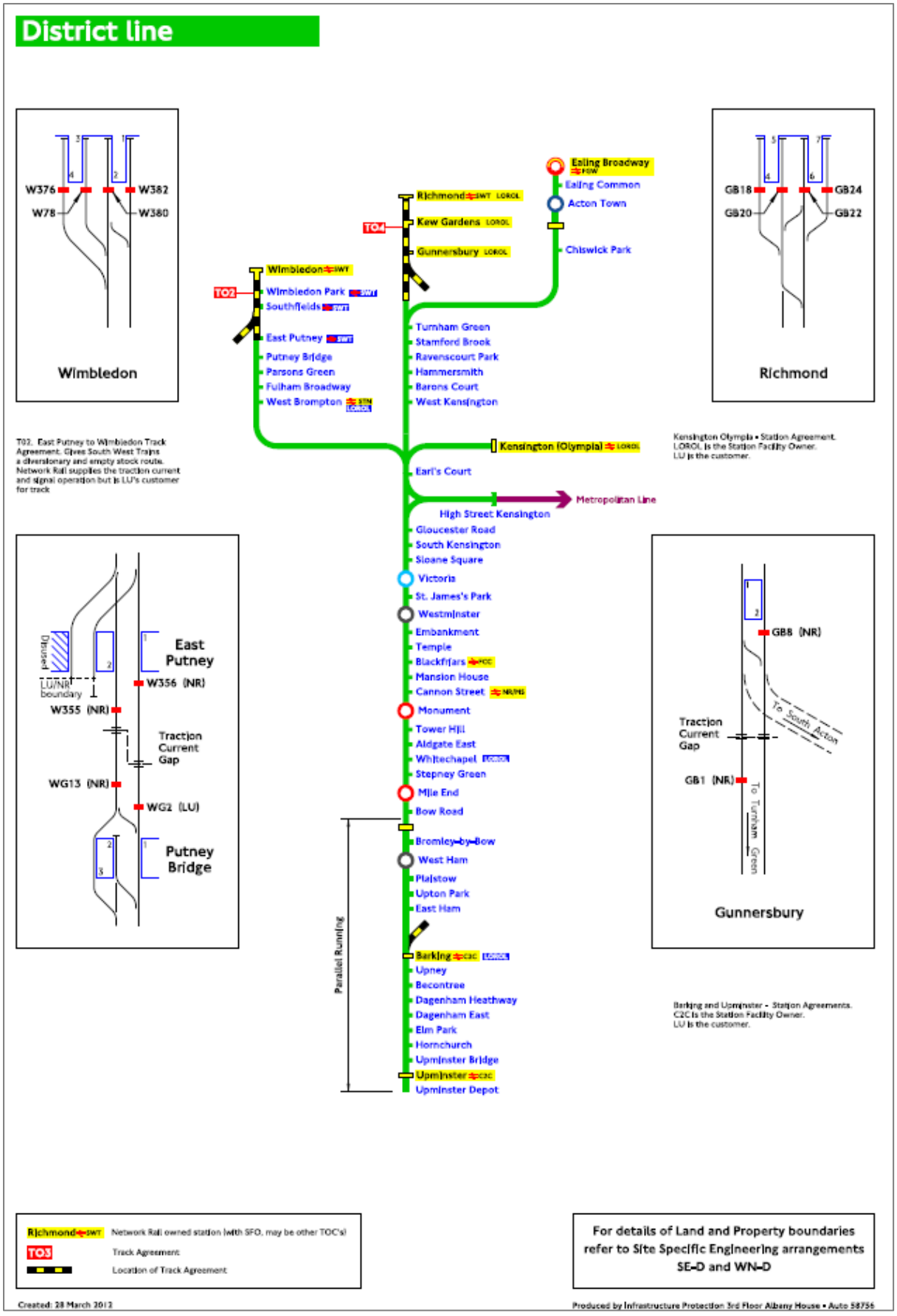

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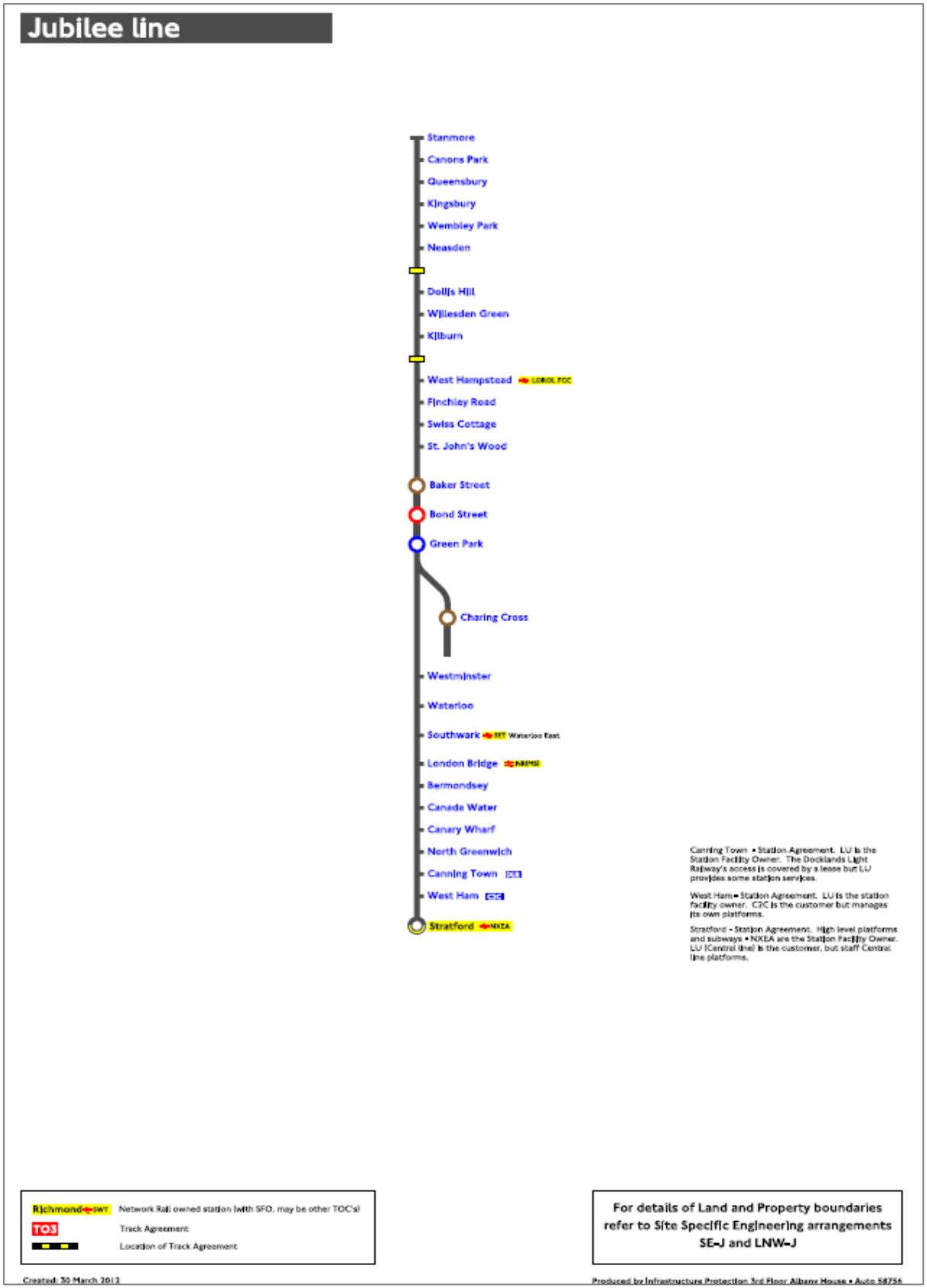

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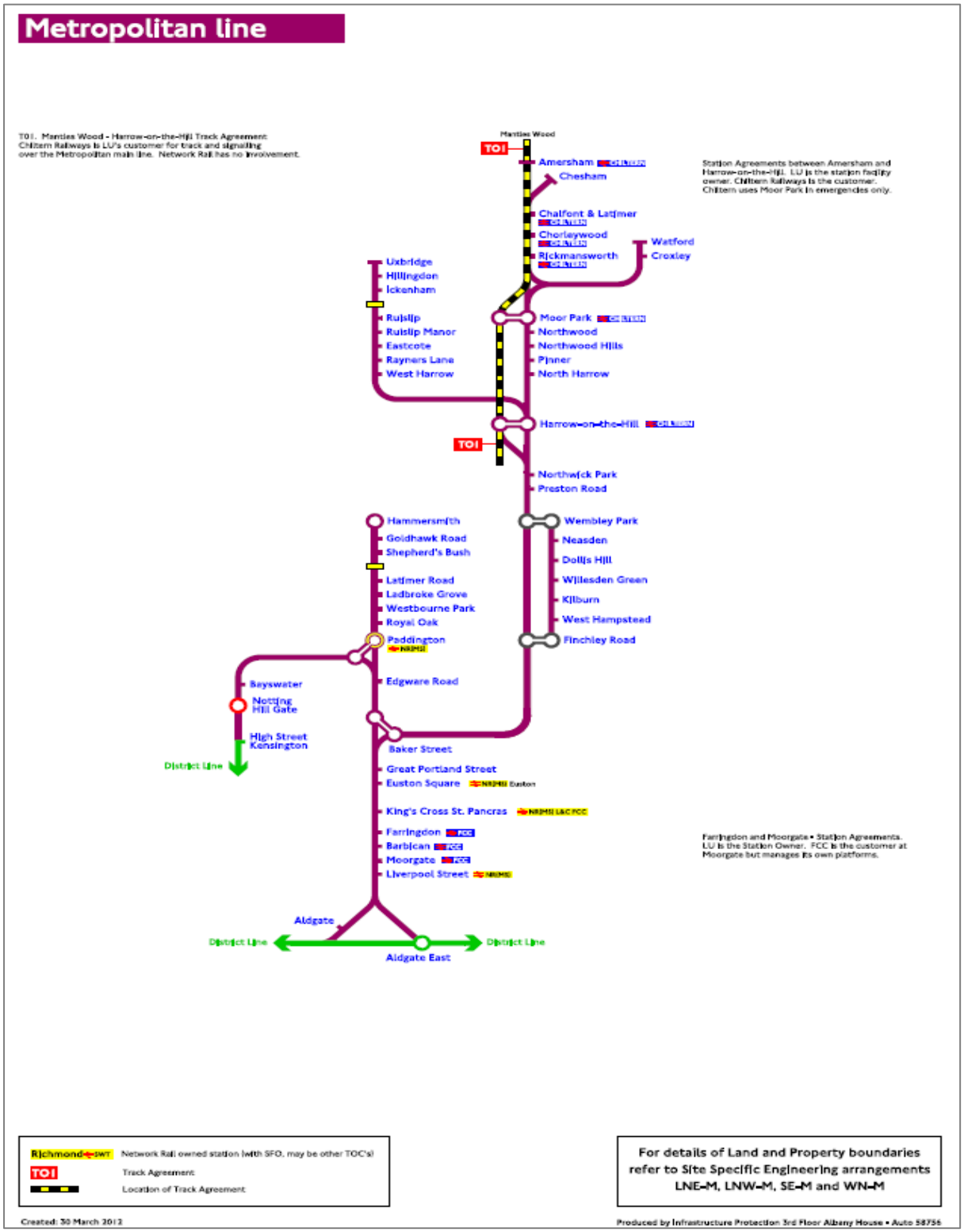

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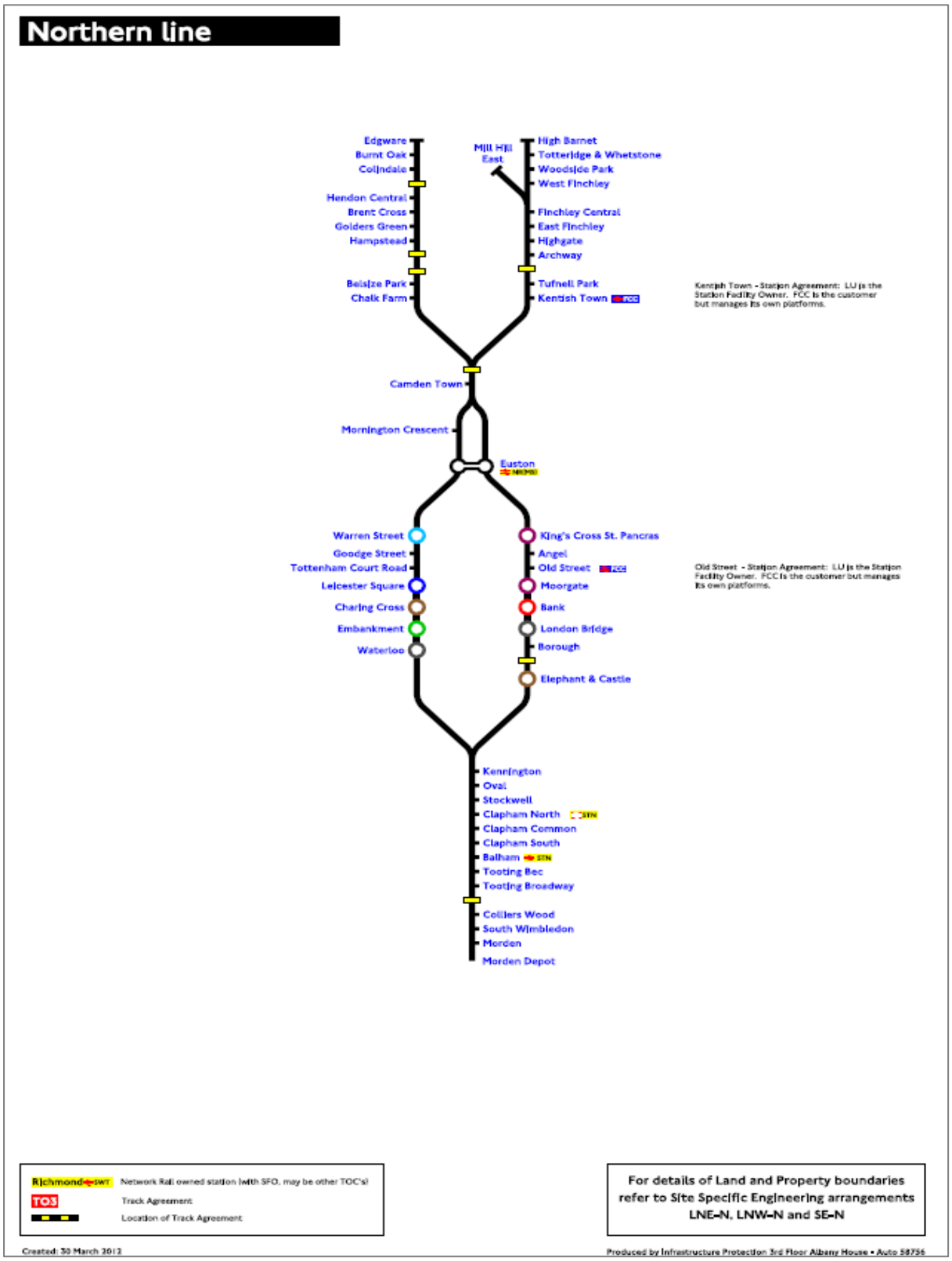

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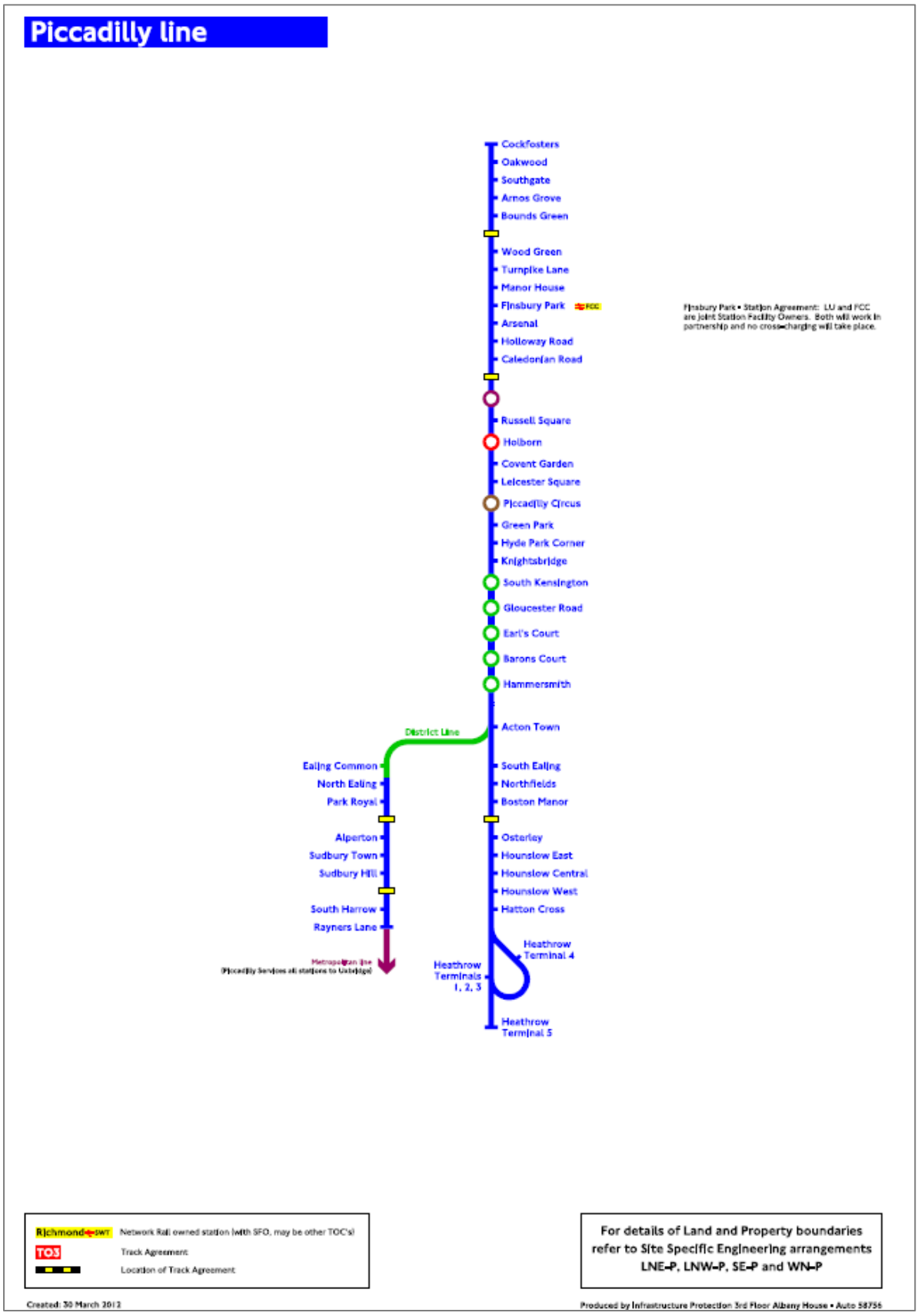

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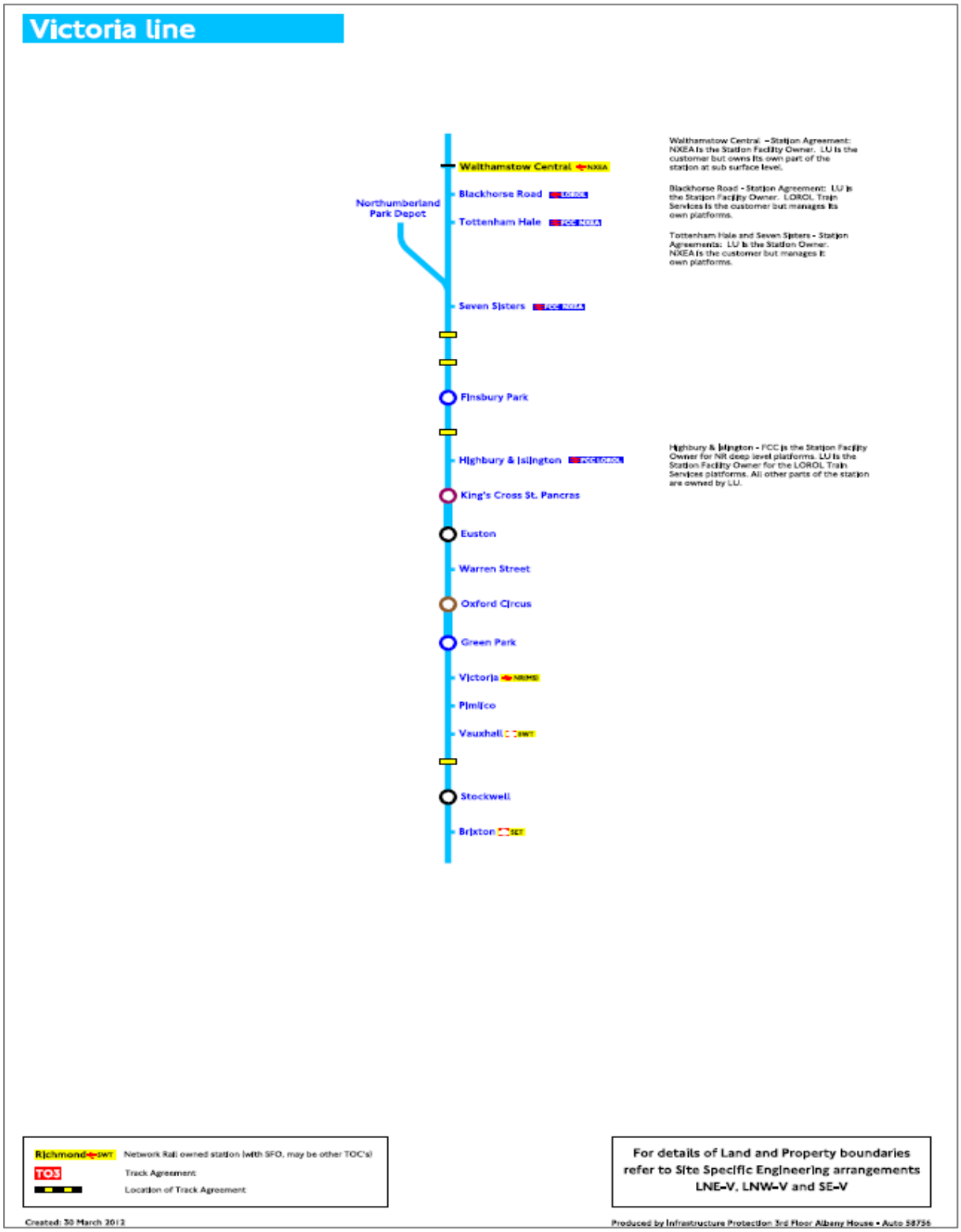

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Appendix 10 – Cancellation Charged for the Company's Engineering Trains[1]

Standard charges for prevailing in financial year 1st April 2018 to 31st March 2019

Latest charges to be provided by the *Project Manager* upon request by the *Contractor.*

Class/ Code	Description	Standard 2018/19 Charge	Unit
A	Class A Non-coupling Train	**REDACTED**	Per 8 hour shift
B	Class B Long Welded Rail Train	**REDACTED**	Per 8 hour shift
C	Class C Uncoupling train with loading gang	**REDACTED**	Per 8 hour shift
D	Class D Uncoupling train without loading gang	**REDACTED**	Per 8 hour shift
E	Class E Ballasted Track Replacement including T3 (price for weekend)	**REDACTED**	Per weekend
H	DISAB (Ballast Sucker) 8 hour shift	**REDACTED**	Per 8 hour shift
L	Technical and Operational Support (8 hour) per person	**REDACTED**	Per person per 8 hour shift
LG	Loading gang 8hr shift (up to 5 operatives)	**REDACTED**	Per 8 hour shift
M	Technical and Operational Support per hour per person	**REDACTED**	Per hour
P	Crane, Roll Loader, Track Relaying Machine	**REDACTED**	Per 8 hour shift
T1	Plain Line/ P&C Tamper 8hr shift	**REDACTED**	Per 8 hour shift
T2	Plain Line/ P&C Tamper 12hr shift	**REDACTED**	Per 12 hour shift
T3	Plain Line/ P&C Tamper 8hr shift in train formation	**REDACTED**	Per 8 hour shift
T4	Plain Line/ P&C Tamper 12hr shift in train formation	**REDACTED**	Per 12 hour shift

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London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 300

THE *CONTRACTOR'S* DESIGN

Document History: **Version:**	**Prepared by**		**Quality Checked by**		**Legal Review**		**Peer Review**	
	Name	Date	Name	Date	Tick	Date	Name	Date
1.0					☐			
2.0					☐			
3.0					☐			
4.0					☐			
5.0					☐			

	Final Sign-off	
	Commercial Line Manager	**Project Manager**
Name		
Signature		
Date		

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GWI 310 Design submission procedure (Clause 21.2)

GWI 315 Design approvals from Others (Clause 27.1)

GWI 320 *Employer*'s requirements

GWI 325 Design co-ordination

GWI 330 Requirements of Others

GWI 350 Building Information Modelling

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GWI 305 Design responsibility (Clause 21.1)

GWI 305.1 General

(1) The *Contractor* is not appointed as Principal Designer but is appointed, and complies with its duties, as Designer in accordance with the CDM Regulations 2015.

The *Contractor*, as Principal *Contractor*, must liaise with the Principal Designer from the *starting date* until the Defects Certificate has been issued and share relevant information with the Principal Designer in accordance with the CDM Regulations 2015.

(2) The *Contractor* is responsible for the design of all of the *works* subject to, and in accordance with, clause X21 (Single Point Design Responsibility) and the information contained within Contract Data Part 1. The *Contractor* accepts the design supplied by the *Employer* as his own, develops and rectifies as required to achieve a construction issue design that is compliant with relevant LUL and British Standards.

(3) The *Contractor* complies with the *Employer's* general design requirements as stated in GWI 320 and the Call-off Contract Specific Works Information (SWI).

(4) The *Contractor* provides Assurance to the *Employer* that the *works* have been designed in accordance with the *Employer's* requirements.

(5) The *Contractor* provides support to obtain QICC certification of the works as detailed in LU Standard S1900.

(6) The *Contractor* undertakes all civil and structural designs required to deliver the works in accordance with LU standards, GWI 100 and each respective SWI 100.

(7) The Contractor provides data to the Employer's Human Factors engineer and supports their task analysis assessments and resolution of Human Factors issues log.

(8) The *Contractor* provides fire engineering reports and assessments and updates the fire engineering strategy at all stages of bringing the facilities into use or changing the fire strategy arrangements during the *works*.

(9) The *Contractor* ensures that construction does not start on any element of the *works* unless the design for that element of the *works* has been submitted as an assured design and accepted by the *Project Manager*. The *Contractor* refers to LU standard S1538 and GWI600 for information on Assurance.

(10) In preparing the design the *Contractor* uses existing information and data made available by the *Employer*. Unless otherwise agreed by the *Project Manager*, the *Contractor's* design is consistent with any outline mitigation proposals included in the environmental impact contained in the *Employer's* Design Information.

(11) The *Contractor* ensures and provides evidence to the *Project Manager* that his designers are suitably qualified and competent to carry out the work.

(12) The *Contractor* appoints a lead designer who is responsible for the coordination of the designs and all systems engineering.

(13) The *Contractor* appoints a design manager (the "*Contractor's* Design Manager") who is responsible for the management, coordination, quality control and Assurance of the design work. The *Contractor's* Design Manager is the primary interface with the *Project Manager* on design matters.

(14) The *Contractor* appoints checkers for all designs in accordance with Assurance requirements, LUL and other relevant Standards.

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(15) The *Project Manager* appoints a design liaison manager (the "Design Liaison Manager") who will be responsible for liaising with the *Contractor* at all stages during the preparation of the *Contractor*'s design .

GWI 305.2 Design Generally

(1) The *Employer's* Design Information has been developed to concept design stage unless otherwise stated in the SWI.

(2) The *Employer* has carried out DC Multi Train Simulation and AC power network studies that have determined the major Plant required at each site for the upgrade, this is provided in the Major Equipment Schedule for each site in the SI 100.

The *Contractor* is not required to validate these studies or the Major Equipment Schedules.

(3) For AC protection of both HV and LV systems, the *Contractor* carries out protection studies for unit protection and provides and implements unit protection settings. Unit protection will include but is not limited to line differential protection (ANSI 87L), busbar differential protection (ANSI 87B), transformer differential protection (ANSI 87T) and restricted earth fault protection (ANSI 64N).

The *Employer* provides settings for backup protection (OCEF) to ensure coordination and discrimination with the rest of the LUL HV and LV power network. The *Contractor* provides protection proformas to the *Employer* for this purpose.

(4) For DC protection the *Contractor* provides all protection design information including protection scheme diagrams as identified in the site specific SWI 100,

The *Employer* provides DC protection settings for the *Contractor* to implement.

(5) The *Employer* updates the SCADA head end including all data engineering and control desk screen changes in Network Manager for all works. The *Employer* will make any changes or terminations onto the existing RTU or networked (IP) connection into the substation network switches or RTU.

(6) For the avoidance of doubt the *Contractor* is responsible for the entire design including provision of Assurance and compliance submission(s) for the whole of the *works*. The *Contractor* is responsible for the design of all equipment, cable and all other necessary elements including its installation, installation methodology and commissioning.

(7) Cable sizes and means of fixing for routes between substations have been selected by the *Employer* and are specified in the *Employer's* Design Information for each Call-off Contract. A cable rating calculation based on the route described within the *Employer's* Design Information is also provided. The *Contractor* is not required to validate this calculation. However, if the *Contractor* wishes to deviate from this route, then the *Contractor* informs the *Project Manager* of the intended deviation. The *Employer* will then decide if further rating calculations are required and if so the *Employer* will carry them out and inform the *Contractor* of any changes that may be required.

(8) The *Contractor* provides expertise at all times during the works to ensure delivery in accordance with the design, and to all relevant Standards.

(9) In accordance with clause X21 the *Contractor* delivers the relevant design, assurance, testing, commissioning and other deliverables as set out in these

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requirements. The *Contractor* prepares the *Contractor*'s Design Management Plan and Project Assurance Plan.

(10) Concept Designs are required for any new structures, permanent or temporary, and for alterations to existing structures. A CDS will be required for each structural design and therefore several civil engineering CDSs may be required at one location. The CDS will be in the format of template reference F-10382. In most cases the *Employer* has produced the CDSs, the *Contractor* is to assess for applicability prior to providing the completed design pack. Refer to the SWI for each Call-off Contract.

GWI 305.3 Design Checks and Approvals

(1) For all design undertaken by the *Contractor*, the *Contractor* submits details of designs carried out in respect of the *works* and the Plant, Materials, and Equipment including relevant design and check certificates, to the *Project Manager* for acceptance.

(2) The *Contractor* prepares all Assurance deliverables to achieve compliance with S1538 for all asset disciplines, and QICC certification as described in LU Standard 1900 for Power assets.

(3) The *Contractor* prepares a complete submission of all deliverables necessary to obtain each "Consent to Operate".

(4) Design checks comply with one of four categories in accordance with the concepts set out in LU Standard S1538 – Assurance Clause 3.16.

(5) The *Contractor* complies with S1062 Temporary Works and provides competent Temporary Works Coordinator, Temporary Works Designer(s) and Temporary Works Supervisor(s). The installation of temporary works will not commence until the assured design has been checked and approved. Temporary works CDS(s) may be required depending on the works, which will be produced by the *Contractor*.

The Contractor manages temporary works in accordance with BS5975 and makes the necessary appointments.

(6) The *Contractor* prepares and submits to the *Project Manager* for acceptance his temporary and enabling works designs for the temporary or permanent diversion, relocation, removal and protection of all existing substation and station services prior to undertaking the *works*. This will include all station and substation systems that will be exposed to risk of damage or increased maintenance requirements during to the *works*.

(7) The *Contractor* prepares and submits to the *Project Manager* for acceptance details of his proposals to temporarily isolate or protect existing substation and station systems.

(8) The *Contractor* provides temporary cooling systems if required during the delivery of the *works* to maintain compliant substation temperatures and include redundancy and alarms to Power SCADA.

(9) The *Contractor* inspects, assesses, tests and certifies any existing lifting equipment, including lifting beams and overhead cranes, within substations prior to use.

(10) The *Contractor* provides concept designs for the design of temporary works relating to civil's works in accordance with clause 3.5.4 of S1062.

GWI 305.4 Consents and Third Party Technical Approvals

(1) The *Contractor* obtains all approvals of the designs and assessments from consenting bodies (e.g. local planning authorities, Environment Agency) and other third parties (e.g. highway authorities, Statutory Undertakers) that may be required.

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(2) The Design Liaison Manager assists the *Contractor* to obtain approvals and consents for designs carried out by the *Contractor* for the *works*.

(3) Formal submissions to consenting bodies are made in accordance with their particular requirements which are to be determined by the *Contractor*.

GWI 305.5 Design for the Works

(1) Within four weeks of the *starting date* the *Contractor's* Design Manager prepares, in consultation with the Design Liaison Manager, the following:

(2) A design assurance plan (component within the *Contractor's* Project Assurance Plan described in GWI 600);

- A detailed design programme consistent with the programme to be submitted for acceptance, showing the planned order and timing of the *Contractor's* design activities including the various stages involved with the preparation of the design documentation for construction through to completion of "as-built" records. This programme includes provision for all reviews required under the contract, for design, design development, design checks, certification, and for obtaining and obtaining design consents and third party technical approvals as appropriate, and providing Assurance and obtaining a “No Objection” to the compliance submission. The *Contractor* allows sufficient time in his Programme for any re-submissions that may be necessary to obtain acceptance or consent or approval as the case may be;
- A schedule of all Assurance deliverables commencing with the design elements of the *Contractor's* Project Assurance Plan, through receipt of the LU “No Objection” and the process culminating in the “Consent to Operate”;
- A list of all design deliverables including all drawings, specifications and other design data which the *Contractor* intends to produce together with the dates by which the *Contractor* plans to complete each deliverable identified in the list;
- A list of the names of the *Contractor's* key design staff and specialist designers and subcontractors, and evidence of their competence to undertake the design work, and identifying those with delegated authority to certify the *Contractor's* design;
- A list of the names of independent checker's key staff and evidence of their competence to undertake the checking, and identifying those with delegated authority to sign-off check certificates; A list of all consents and approvals for the *Contractor's* design required from the *Project Manager* and Others including technical approval bodies;
- The quality plans and procedures applicable to the *Contractor's* design and checking activities, including describing the interfaces between the *Contractor's* designers, the *Contractor's* Design Manager and the Design Liaison Manager; and
- Procedures for design progress monitoring and reporting, design change control and design risk management.

GWI 305.6 Design of Equipment

(1) The *Contractor* submits, to the *Project Manager* for acceptance, the schedule of design interfaces between Equipment used by him to Provide the Works and which the Works Information does not require him to include in the *works* identifying which party within the design organisation is responsible for the design and checking of each aspect of design.

(2) The *Contractor* obtains approval from the *Employer* prior to equipment orders being placed.

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(3) Unless the Project Manager allows it to be left in the works, the *Contractor* removes all Equipment when it is no longer needed, in such manner as to prevent damage to the works. The *Contractor*'s design of Equipment takes account of this requirement.

GWI 310 Design submission procedures (Clause 21.2)

GWI 310.1 Design process

(1) The *Contractor* provides complete supporting information and obtains the *Project Manager's* written acceptance for any concessions from the Generic Works Information, Specific Works Information, and TfL Standards required for the *Contractor's* design of the *works*.

(2) The *Contractor* makes presentations and reviews of the developing design to the *Project Manager*, Design Review Panel and Others, as directed by the *Employer.* For avoidance of doubt, the *Contractor* will be required to make presentations to the *Employer's* Asset Operations and Maintenance teams under this process.

(3) The *Contractor* confirms compliance with, and, as necessary, make cross references to, the Generic Works Information, Specific Works Information, and Standards and any *Employer* requirements.

(4) The *Contractor* provides Assurance packages and a compliance submission in timely fashion to obtain LU "No Objection" statement in respect of the design.

(5) At appropriate intervals and upon request by the *Project Manager* or Principal Designer (as applicable) at any time from the *starting date* until the Defects Certificate has been issued, the *Contractor* (whether or not it is appointed as Principal *Contractor*) must provide information relevant to the health and safety file.

(6) The *Contractor* prepares working drawings, design calculations, specifications, or amendments to LU specifications, method statements and any other relevant information necessary to Provide the Works.

(7) The *Contractor* obtains all required design checks and third-party technical approvals and carries out any reworking of the design necessary in order to obtain these approvals.

(8) The *Contractor* provides design certificates and check certificates.

(9) The *Contractor* is responsible for co-ordination, systems integration and quality control of the *Contractor's* design and its integration with other parts of the *works* whether designed by the *Contractor* or not.

(10) The *Contractor* obtains the acceptance of the *Project Manager* to any changes which arise on Site and vary the *Contractor's* design, which has already been accepted by the *Project Manager,* or vary designs prepared by Others and contained in the *Employer's* Design Information.

(11) The *Contractor* prepares "as-built" drawings and operation and maintenance manuals to suit the progressive completion of the *works*.

(12) The *Contractor* complies with the quality plans and procedures and ensures that the Design Liaison Manager is kept informed of the *Contractor's* progress at all stages during the preparation of *Contractor's* design.

GWI 310.2 Submission of the *Contractor's* Design Data

(1) The *Contractor* submits two copies of the design data to the *Project Manager* for acceptance. The *Contractor* makes a presentation for each package of data

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submitted for review and gives no less than four weeks' notice of the intended submission date.

(2) Unless otherwise agreed between the *Project Manager* and *Contractor*, the *period for reply* for a *Contractor's* design submission is four weeks.

(3) The *Contractor's* design data, submitted for acceptance, comprises:

Initial Design

- Conceptual design statements

During Design development

- Intermediate submissions, including drawings for comment and review, technical reports, surveys, etc. as appropriate, are made by the *Contractor* as the design progresses.

(4) The components of any interim submission of design data are agreed between the *Contractor* and the *Project Manager* through the Design Liaison Manager and are appropriate to keeping the Design Liaison Manager informed and allowing the necessary co-ordination, liaison and review of the design to take place. There is no acceptance/rejection in respect of interim submissions; therefore, the *Project Manager's* response will be in the form of comments only.

GWI 310.2.1 Third Party approvals

(1) The design data to be submitted to consents and third-party technical approval bodies is agreed between the *Contractor* and the *Project Manager* through the Design Liaison Manager and is appropriate to the application made. The *Contractor* is to undertake such design submissions unless advised differently by the *Employer* through the course of undertaking the *works.*

(2) Assets within substations are maintained by various sections of the *Employer*'s organisation, and accordingly the *Contractor*'s design will be reviewed by the relevant members of the *Employer*'s organisation as appropriate, including:

- Power assets and substation lighting: LU AP Power
- SCADA control systems: LU AP Power
- Ventilation and cooling: LU Asset Operations Building Services
- Fire alarm and detection: LU Fire Maintenance
- Pumps and drainage equipment: LU Pumps and Drainage
- Buildings and structures: LU Civil Engineering
- Premises: LU Property Management

GWI 310.2.2 Construction information

(1) Unless the *Project Manager* has notified the *Contractor* otherwise, the *Contractor's* design is advanced to complete and suitable for construction status before submission of the design data to the *Project Manager* for acceptance.

(2) Submissions are staged in accordance with the Accepted Programme. The *Contractor* includes all relevant information in the design particulars, including:

- Drawings
- Equipment data packs
- Specifications
- Changeover sequences
- Safe system of works
- Assessment reports

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- Design certificates
- Check certificates
- Designer's risk assessments
- Design calculations
- Confirmation that the *Contractor* has obtained the third party approvals for which he is responsible.

(3) Unless otherwise agreed between the *Project Manager* and *Contractor*, the period for reply for a *Contractor*'s submission is 20 Working Days.

GWI 310.3 *Project Manager's* Acceptance

(1) The *Contractor* constructs the *works* in accordance with the design which has been accepted by the *Project Manager.* The *Project Manager* reviews the submitted design data for compliance with the Generic Works Information and Specific Works Information.

(2) Any re-working of the design, which is necessary, in order to obtain the *Project Manager's* acceptance is undertaken by the *Contractor* before commencing construction of that element or elements of the *works* affected.

(3) In accordance with the provisions of clause 21 of the *conditions of contract*, the categories of acceptance are as follows:

a) Accepted without comment

The *Contractor* adheres to the design which the *Project Manager* has accepted and construction proceeds.

b) Accepted with comments

The *Contractor* reviews and incorporates the *Project Manager's* comments in his design and construction proceeds.

If the *Contractor* does not incorporate the *Project Manager's* comments, the *Contractor* justifies the reasons for not agreeing, in detail, to the *Project Manager*. The *Contractor* then resubmits the design to the *Project Manager* for acceptance.

Construction does not proceed unless the submission has been accepted by the *Project Manager* in accordance with clause 21 of the *conditions of contract*.

c) Rejected

The *Project Manager* gives reasons for rejecting the design submitted.

Construction does not proceed.

The design is revised by the *Contractor* and resubmitted.

GWI 315 Design approvals from Others (Clause 27.1)

(1) Where design approvals from Others are required, the *Employer* is to undertake the necessary stakeholder engagement and submission process. The *Contractor* is to support the *Employer* in this process through supplying any required information in a timely manner upon request from the *Project Manager*.

GWI 320 *Employer's* requirements

(1) The following are requirements to be delivered across *all* works to be designed by the *Contractor:*

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- All *Employer* Standards given in GWI 200 Appendix 3 [Applicable Standards].
- GWI 100 Generic Appendices:
    - Appendix 1 As Built Drawing Process
    - Appendix 2 Single Line Drawing Examples
    - Appendix 3 Cable Route Drawings Examples
    - Appendix 4 Works Instructions for Plant Operation
    - Appendix 5 Bleed Resistor Requirements
    - Appendix 6 Fibre Optic Cabling and Terminations
    - Appendix 7 Protection Philosophy Clarification
    - Appendix 8 Relay Indications
    - Appendix 9 Ellipse CRF
    - Appendix 10 Reliability, Availability and Maintainability (RAM)
    - Appendix 11 Cyber Security Requirements
    - Appendix 12 Scope of *works* at each Site location

Requirements relating to specific *works* will be detailed in each respective SWI issued under the Call-off Contract process.

GWI 320.1 *Employer*'s design requirements

(1) The *Contractor* develops the design in order to Provide the Works to comply with the *Employer's* requirements. The *Employer's* requirements comprise the terms of the Call-off Contract, General Works Information, Specific Works Information, all applicable associated constraints arising from the particular environment both explicit and implicit, regulations and the *Employer's* and Others relevant Standards.

(2) If the Contractor's design requires any existing substation equipment and materials to be replaced for the works, the specification of all replacement items is to be at least equal to the existing items and compliant with present standards.

GWI 320.1.1 Design Deliverables

(1) The *Contractor* prepares a Project Assurance Plan and a Design Management Plan and delivers the assurance, testing, commissioning and other deliverables set out in these plans.

(2) The *Contractor's* detailed designs will be submitted in a phased manner for acceptance by the *Project Manager* in accordance with the Contract.

(3) Responses to detailed design deliverables will be provided by the *Project Manager* within 20 Working Days of receipt.

(4) Detailed design deliverables not accepted by the *Project Manager* will be revised and resubmitted by the *Contractor*.

(5) Within 30 days of the *starting date* the *Contractor* will agree a definitive list of specific detailed design deliverables for each Site with *Employer*. The *Contractor* reports progress against the agreed list of detailed design deliverables to the *Employer's Project Manager* with each revised programme, as per GWI 500.

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(6) The following non-exhaustive list summarises the *Contractor*'s responsibility regarding the submission and obtaining the *Project Manager's* acceptance of design deliverables:

- Compliance design submissions for each substation's permanent *works*.
- Statement of compliance against all Standards or where a concession(s) will be sought prior to manufacture. Details of any proposed concessions to the applicable Standards will be submitted to the *Project Manager* for review and acceptance. The *Contractor* maintains a concessions register containing details and status of all concessions submitted in respect of the *works*.
- QICC data packs for each element of the *works* in accordance with the Design Management Plan and to suit the *Contractor's* working method, sequence and programme.
- The detail design will, as a minimum, demonstrate that the designs are optimised for:
    - Safety, including CDM, security and environmental;
    - Compliance with all applicable standards;
    - Compliance with technical requirements;
    - Architectural and heritage requirements;
    - Accessibility;
    - Human factors;
    - Whole life cost;
    - Value for money;
    - Buildability and impact on the operational railway;
    - Maintainability;
    - Sustainability; and
    - Reliability

GWI 320.1.2 General Technical Deliverables

(1) The *Contractor* provides the following *works*:

- Determine the requirements for further surveys and provide the Project Manager with survey reports. Intrusive and non-intrusive, as required.
- Determination of invert levels to all existing plant, services, CMS, builder's work openings, etc, that affect the design solution.
- Site Obstructions / Utility Relocation Plan.
- Detailed specifications for all works, Plant and Materials, workmanship, and equipment.
- Verification of all CDS stage and detailed design stage design assumptions and calculations.
- All relevant calculations.
- Detailed design checks in accordance with S1538 and the SWI 100 for each site.
- Plant technical dossiers for each item of Plant proposed to be used as part of the works in support of product approval by the *Employer*'s Equipment Approval Panel or Cable Approval Panel. The content of the technical

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dossier shall be agreed with the *Employer* and will depend upon the nature of the equipment offered. The technical dossier shall contain at least: a detailed compliance matrix against the relevant LUL Standards, draft copies of all necessary concession requests, copies of type test certification and any supporting product information such as drawings, operation and maintenance manuals, reliability data and spares documentation. If Plant or components within Plant or equipment are on the NEDeRS data base then this is to be identified in the Technical Dossier.

- Obtain acceptance of key design submissions from the *Employer*'s Design Review Panel. This will include but is not limited to initial, changeover and final SLDs and layout drawings.
- Final selection of Plant and equipment.
- Mitigation and/or resolution of risks that remain in the *Employer's* designers' risk assessment.
- Interface schedules and management plans
- Detailed staging of the works and operations to demonstrate that normal services will be maintained during traffic hours.
- Develop detailed construction stages, in particular identifying stages involving equipment changeovers and tasks that are restricted to engineering hours or traffic hours working.
- Positioning of the Plant and equipment to ensure that it will be possible to operate, maintain and replace without impairing the performance of the substation or interfere with adjacent items of Equipment.
- Ensuring that decommissioned items of plant are removed from Site with care such that they can be retained by the *Employer* as spares if required.
- Coordination between cable entries to the Equipment and the location of structural beams, supports, adjacent services to be developed and finalised at detailed design stage based upon final Equipment selections and further surveys.
- Fire safety strategy documentation.
- Human factors engineering input.
- Reliability, Availability, Maintainability, (RAM) studies (see GWI 100 Generic Appendix 10).
- Obtain approved concessions from the Project Manager for any departures from standards or codes of practice.
- Concessions Register.
- Output of intermediate and final design reviews.
- Assumptions and Issues Register.
- Support the *Employer* in the submission of Building Control applications.
- Resource & Waste Management Plan (RWMP).
- Evidence that the designs represent best whole life cost and energy

  A schedule evidencing how the *Contractor* has applied the Infrastructure Carbon Review carbon reduction hierarchy (build nothing, build less, build clever and build efficiently) in design development, including:

  - An assessment of how to reduce the extent of new construction required;

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  - How low carbon materials have been considered and incorporated;
  - How delivery processes have been optimised;
  - How resource consumption has been minimised;
  - How new construction technologies have been incorporated;
  - How waste has been reduced or eliminated

- Noise & Vibration Evaluation and Mitigation Plan.
- ITPs, commissioning and verification plans. Test dossiers.
- Schedule of Spares.
- QICC certificates and data packs in accordance with the requirements of the QICC process, S1900.
- Construction Management Plan (CMP).
- Temporary power supply arrangements during Construction
- As fitted documentation.
- As built documentation and drawings.

GWI 320.1.3 General Design Drawing Deliverables

(1) The *Contractor* provides the following *works*:

- Detailed drawing and document register (including vendor drawings and documentation).
- Detailed coordinated design drawings to cover all relevant aspects of the *works*. Drawings will include, but not be limited to:
- Multi and single service coordinated layouts, elevations, cable routing, equipment layouts, equipment arrangements, single line diagrams, sections, schematics, sequence changeover diagrams, and wiring and termination diagrams.
- Sequence changeover drawings will include both layouts and single line diagrams showing clearly the equipment layouts and feeding arrangements for each stage
- The drawing format is to be consistent with the *Employer's* Standard 'S1037 Computer Aided Design Data' and be submitted in 'Bentley Microstation' and PDF formats. Drawings will not be accepted by the *Project Manager* until fully compliant with the *Employer's* CAD Standards and CAD Starter Pack.

(2) The Drawing Register in each Site Information folder provides a list of all drawings available from the Power Drawing Office.

- If the *Contractor* requires any further existing drawings from the register that are not provided in the Site Information these need to be requested by the *Contractor* from the *Project Manager.*
- The record drawings form part of the Site Information. The *Contractor* is to verify the accuracy and validity of the information contained on such record drawings if they are to be used to design and/or deliver the *works*.

The *Contractor* is to review the drawings on the list and update existing drawings where information has changed.

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(3) Existing record drawings that are not compliant with LUL Cat 1 Standard S1037 and where substation or switch house drawings require updating they are to follow the 100 Generic Appendix 1 Update of Record Drawings and Submission of Manufacturers' Drawings which stipulates that the existing drawings do not need to be changed to LU CAD compliant drawings.

If existing drawings require updating the *Contractor* will update them.

Manufacturers' drawings that cannot be obtained in accordance with S1037 will follow GWI 100 Generic Appendix 1 Update of Record Drawings and Submission of Manufacturers' Drawings.

(4) The *Contractor* keeps a set of all drawings used for construction or fabrication in accordance with the requirements in GWI 840 Record Drawings and Test Records.

(5) Cable Route Drawings will be produced in accordance with Generic Appendix 3 Cable Route Drawing Examples.

GWI 320.1.4 General Design Deliverables – Power and Electrical

The *Contractor* provides the following *works*:

- Existing and proposed Single Line Diagrams (SLD).
    - SLDs will show all circuits and all levels of distribution and sub-distribution. Note that this may require intrusive surveys and/or tag and trace cable surveys to confirm the existing installation.
    - SLDs will be of the same style and content as contained in each SWI 100. These will be a single sheet drawing for most SLDs.
    - Manufacturers SLD drawings which spread over many sheets will not be acceptable
- Existing and proposed plant layout drawings.
- General arrangement drawings – plans, elevations and sections.
- Electrical schematic diagrams.
- Interconnection (block) diagrams.
- AC protection studies and calculations. Note that the *Employer* will provide DC track protection settings. The *Contractor* will be responsible for the configuration of the relay for unit protection settings. The *Employer* will provide settings for backup protection to ensure coordination and discrimination with the rest of the network.
- Trip / Protection logic diagrams.
- Cable route drawings including details of proposed cable management systems.
- Power and control cable calculations and schedules.
- LV protection studies
- Power Loading Applications and approvals
- Vendor data sheets.
- Master Equipment schedules.
- Auxiliary load schedules

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- Battery / charger calculations. Battery capacity and nominal charger output current to be confirmed during the detailed design phase by the *Contractor*.
- Proposed plant changeover methodology and staged plant changeover including plant layout drawings and single line diagrams for each stage.
- Earthing Management Plan and bonding diagrams and calculations.
- Lighting level diagrams and calculations for normal and emergency lighting.
- Test certificates / reports.
- Fire detection / protection details and drawings, cause and effect tables.
- Lightning protection risk assessment(s)
- EMC Control Plans, EMC Test Specification/Plan and EMC Technical File.

GWI 320.1.5 General Design Deliverables – Control and Instrumentation

(1) The *Contractor* provides the following works:

- Input / Output schedules.
- General arrangement drawings.
- Schematics and wiring diagrams.
- Commissioning instructions.
- Vendor data sheets.
- Acceptance / type test results.
- Provide marshalling cabinet schedules in an editable format in the *Employer*'s marshalling cabinet schedule template.
- SCADA Equipment changeover procedure.

GWI 320.1.6 General Design Deliverables - Mechanical

(1) The *Contractor* provides the following *works*:

- Report documenting the proposed mechanical design philosophy/basis.
- Mechanical design calculations – hydraulic, thermal and acoustic.
- General arrangement drawings – plans, elevations and sections.
- Cooling system control schematics.
- Fire stopping drawings and schedules.
- Schematics.
- Specifications.
- Test Certificates / reports.

GWI 320.1.7 General Design Deliverables – Civil

(1) The *Contractor* provides the following *works*:

- Civil design philosophy/basis.
- Layout and principal structural elements.
- General arrangement drawings – plans, elevations and sections.

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- Determine the exact position of temporary and permanent structural modifications.
- Detailed drawings and calculations.
- Reinforced concrete drawings / rebar schedules.
- Acceptance test results.
- Safe Load Assessments
- Cutting, Drilling & Fixing Assessments
- Design checks in accordance with S1538 and the SWI 100 for each site.
- Temporary works design drawings and calculations. (temporary works CDS may be required as per S1062)
- Concept Designs in the format of the template reference F-10382. Concept Designs are required for any new structures, permanent or temporary, and for alterations to existing structures. A CDS will be required for each structural design and therefore several civil engineering CDSs may be required at one location.
- Inspection and Test Plan(s) (ITP)
- Snagging list(s)
- As-built/red line drawings

GWI 320.1.8 General Design Deliverables - Fire

(1) The *Contractor* provides the following works:

- Fire detection / protection details and drawings, cause and effect tables.
- Fire stopping drawings and schedules.
- Fire risk assessment
- Warranty information
- Test Certificates / reports
- Fire ITP
- LCP 1014 certificate
- Sound pressure levels certificate
- Print outs from the Fire Control Panel
- Battery calculations
- Software configuration
- EMC certificates
- Vendor data sheets
- Supplied / recommended spares
- Manufacturer certificate for fire doors, and 3rd party accreditation for the fire door installer.
- Fire extinguishers and location log
- Fire stopping log
- As built drawings including and not limited to sounders

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- O&M Manual

GWI 320.1.9 General Design Deliverables - Power, Control and Communication Cable Routes

(1) The *Contractor* provides the following works:

- Detailed cable route design information, including structural assessments of existing CRMS to be used and new CRMS to be installed
- Cutting Drilling and Fixing logs.
- EMC Control Plans ,EMC Test Specification / Plan, EMC Technical File
- Track Clearance Approval

(2) The *Contractor* undertakes the structural and civil *works* to comply with LU standards, including S1050 Civil Engineering Common Requirements, and the following requirements:

(3) Design, check, supply, install and assure the works required to support the new or relocated cable routes for the *works*. The *works* are to be designed and installed for life expectancy as detailed in the LU Standards and Guidance.

(4) Load characteristics of Plant for the System will include, but not be limited to the following:

- Static and dynamic loading calculations;
- Imposed load due to construction, erection and assembly, maintenance and dismantling activities;
- Loads due to weight of architectural finishes;
- Expansion and contraction due to differential temperatures; and
- Fire loads.

(5) Provide strengthening works to support the new or relocated cables for the *works* where required.

(6) Permanently fill structural openings that become redundant due to the *works* with appropriately reinforced, load resistant and fire rated materials.

(7) The structural floor loading capacities identified at detailed design stage by the *Contractor* shall be reviewed and updated as required for the works and must be included in the As Built drawings.

(8) Provide all temporary and permanent structural supports including, but not limited to, fixings and bracketry and secondary support steelwork.

(9) Provide capability for future inspection of structural elements without disruption or damage to other assets.

(10) Consideration and protection of existing drainage, foul, fire main, gas and water supplies.

(11) Provide suitable temporary protection to other structures and properties, equipment and services that are exposed to the construction activities associated with the *works* including but not limited to:

- Noise levels;
- Vibration levels; and

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- Production of dust and exhaust fumes.

(12) Design, check, supply, install and assure any Civil and Structural *works* covered in this document and the documents referenced in SWI 100.

(13) These *works* will be assured in accordance with S1538.

(14) The *Contractor* designs the cable routes in accordance with S1800 Cable Runs and S1063 Civil Engineering - Cutting, Grinding, Drilling, Fixing to and Supporting from Existing Structures.

GWI 320.1.10 Corrosion protection

(1) Unless otherwise specified the *Contractor* will provide all new Plant and Materials with sufficient corrosion protection to satisfy the minimum design life requirements when exposed to the following environmental conditions as specified in BS EN ISO 12944-2:

- Indoor environment: corrosion category C2
- Outdoor environment: corrosion category C3

GWI 320.1.11 Ingress protection (IP) rating

(1) All new Plant and equipment provided by the *Contractor* will be appropriately IP rated for the environment and in compliance with the *Employer*'s Standards.

GWI 320.1.12 Plant layout

(1) The layout of Plant and Materials within or around the existing substation will be in accordance with the *Employer*'s Standards.

(2) The *Contractor*'s design will ensure that the substations are provided with clear main arterial maintenance routes and provide drawings demonstrating equipment movement routes.

GWI 320.1.13 Design life

(1)

The *Contractor* will provide Plant and Materials to comply with the *Employer's* Standards for design life, which are non-exhaustively summarised as follows:		
	Asset	Life Expectancy (Years)
	Coupling transformer	55
	Auxiliary transformer	55
	HV & LV Switchgear	40
	Transformer Rectifier,	50
	Battery Chargers	30
	Batteries	11
	External louvre (including attenuated)	25

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	Control panel	20
	Temperature sensor	8
	Ductwork	40
	Motorised smoke and fire damper	15
	Fire detection and alarm system	20
	Steelwork, brickwork and concrete	120
	Handrails	40
	Lighting	25
	Earthing	40
	Cables and accessories (power)	65
	CMS	65
	Cables (Electric, data and fibre optic)	40

GWI 320.1.14 Human factors

(1) The physical workspaces provided by the *Contractor*'s coordinated design solution will be compliant with the requirements of the *Employer*'s Human Factors Standards.

(2) New Plant and equipment requiring HMIs will provide users with suitable human machine interfaces to complete operational and maintenance tasks.

(3) The *Employer's* Human Factors engineer produces and maintains the human factors task analysis assessments and assurance documentation during the *Contractor's* delivery of the *works*, and will be supported by the *Contractor* as required.

(4) The *Employer's* Human Factors engineer produces and maintains the Human Factors Issues Log and assurance documentation during the *Contractor's* delivery of the *works*, and will be supported by the *Contractor* as required.

GWI 320.1.15 Electromagnetic Compatibility (EMC)

(1) The *Contractor* delivers the *works* in compliance with statutory and LU-specific Standards, a list of which can be found in GWI 200 Appendix 3.

(2) The substations and cable routes between substations are considered fixed installations and the *works* are required to comply with the EMC Directive requirements for fixed installations. New Plant and equipment must be confirmed as capable of operation normally when connected to a BS EN 61000-2-4 Class 3 Industrial grade power supply environment such as the LU supply network. Confirmation must given by the *Employer.*

(3) The *Contractor's* scope of EMC includes the Plant and equipment within the substation building including the cable basement, areas of the substation or switch house and into cable shafts/tunnels and the running tunnels and alongside tracks where new Plant and equipment or cables are to be installed.

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(4) The *Contractor* is responsible for the EMC performance of new Plant and equipment they are supplying.

(5) The *Contractor* writes, obtains acceptance for, and manages a Project EMC Control Plan that may cover more than one site, substation or switch house. Acceptance of the plan is provided by the *Employer*. The plan will detail how EMC is to be managed at all stages of the delivery of *works*. The *Contractor* undertakes all necessary tests and measurements to prove the electromagnetic compatibility of the upgraded substation. Acceptance of the Project EMC Control Plan can only be given by the *Employer.*

(6) The *Contractor* confirms with the *Employer* which electrical apparatus is to be retained, modified, or is new, and describe the main electrical characteristics of both the existing and upgraded substation.

(7) The *Contractor* assesses EMC implications associated with the following:

- The location of the proposed new Plant and equipment within the substation.
- The relocation of any existing equipment.
- The proposed cable types and performance requirements.
- The proposed CMS to be used, including details of the proposed routes.
- The cable segregation policy and guidelines.
- The earthing policy for equipment and CMS.
- The proposed new systems, including but not limited to HV switchgear, DC switchgear, LVAC switchgear, transformer rectifiers, coupling transformers lighting and ventilation systems.

(8) The *Contractor's* detailed design will describe in more detail the proposed cables and cable routes. The design will allow for appropriate segregation of new cables and equipment to maintain acceptable distances between other noisy and/or sensitive cabling or equipment.

(9) The *Contractor* submits an EMC Technical File to evidence compliance of their scope of work with statutory requirements, as well as the *Employer's* Generic and Specific Works Information requirements.

(10) The *Contractor* will supply valid EMC Declarations of Conformity for new or modified electrical/electronic equipment.

GWI 320.2 Change to *Employer*'s design requirements

GWI 320.2.1 *Contractor*'s design change proposals

(1) *Contractor* design change proposals are to be administered through the process detailed in GWI 830: *Contractor*'s Proposals to change the Works Information.

GWI 320.2.2 Process

If the *Contractor* wishes to propose such a change he submits the relevant design data to the *Project Manager* for acceptance, with an explanation of the reasons for

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the proposed change together with an assessment of the cost and programme effects.

Except as may be agreed between the *Project Manager* and *Contractor*, the *period for reply* for the assessment of the *Contractor's* submission to change the design shall be four weeks.

The *Contractor* submits the following Change to Accepted Submission (CTAS) information with any alternative design proposal:

- Outline drawings of his proposed scheme;
- Outline construction safe system of work with safety risk assessment;
- Summary of changes from the *Employer's* Design Information;
- Proposed design check category of the structure;
- List of third party approvals required for the alternative design proposal;
- Outline programme for design, liaison, checking, consents, *Project Manager'*s review and construction; and
- Proposed design and checking bodies.

The *Contractor* is responsible for co-ordination of the design and its integration with other parts of the *works* not designed by the *Contractor*. This may involve regular liaison and formal reviews on all aspects of the design with the *Employer's* other designers.

Design particulars (including drawings and specifications) are subject to formal review by the *Project Manager*.

The *Contractor* takes account of the *Project Manager's* and the *Employer's* costs incurred in review and acceptance of the proposed change. The *Contractor* is also responsible for management of the programme to ensure that the process of revisions to the design does not impact on the Completion Date or on any other Key Date.

The *Project Manager* may agree a phased submission programme to facilitate development of the assured design and to mitigate delays in the construction programme.

GWI 320.2.2 Records

The *Contractor* maintains a log of all proposed design changes sufficient to track the relevant correspondence, design particulars, and cost and programme impacts of each design change.

GWI 325 Design co-ordination

(1) Design Liaison Manager

The Design Liaison Manager is appointed by the *Project Manager* but is not delegated any of the *Project Manager's* powers under the contract unless expressly advised to the *Contractor* in writing. Consequently, the *Contractor* addresses all written communications to the *Project Manager* with a copy to the Design Liaison Manager.

For the avoidance of doubt, any act or omission by the Design Liaison Manager (including but not limited to the acceptance, where applicable, of any communication from the *Contractor*) does not change the *Contractor's* responsibility to Provide the Works or his liability for his design.

For the avoidance of doubt any assistance provided by the Design Liaison Manager does not remove from the *Contractor* the responsibility to obtain relevant design checks, consents and approvals in respect of his design.

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The Design Liaison Manager's duties include:

- Acting as the *Project Manager's* focal point for any design-related queries during preparation of the *Contractor's* design;
- Liaising with the *Contractor* during the preparation of the *Contractor's* design;
- Assisting the *Contractor* to prepare Assurance packages and the compliance submission, including advice on format and content of submissions.
- Assisting the *Contractor* to obtain a*ny consent*s and third party technical approvals required, including advice on format and content of submissions. Assisting with the liaison and reviews that are necessary to integrate *Contractor's* design with other parts of the *works* commissioned directly by the *Employer* from Others;
- Routine monitoring of the *Contractor*'s developing design particulars for compliance with the Generic Works Information and Specific Works Information;
- Routine monitoring of the *Contractor's* progress against the periods allowed for design in the Accepted Programme; and
- Monitoring the preparation and update of the records, including as-built drawings, and the *Contractor's* preparation of data for the Health & Safety File.

(2) *Contractor's* Design Manager

The *Contractor* appoints a design manager (the *Contractor's* Design Manager) who is responsible for the management, coordination, quality control and Assurance of the design work.

The requirements of the *Contractor's* Design Manager is to;

- be the primary interface with the Design Liaison Manager on design matters.
- have the appropriate knowledge, skills and experience to carry out the role.
- act as the single point of contact for design queries for *Contractor*, designers, Design Liaison Manager, *Project Manager* and *Employer*.
- be responsible for managing the exchange of information between the various discipline designers in order to achieve a coordinated design.
- chair design team meetings.
- conduct regular informal interdisciplinary reviews and at least one formal documented interdisciplinary review with appropriate LU Engineers prior to the design being submitted to the *Employer*.
- collate all design information and maintains the official copy of the design.
- be the first point of contact for any design changes, whether requested by the *Employer*, the *Contractor or* necessitated on site.

For the duration of the design phase of the *works* until the submitted design has been accepted by the *Employer*, the *Contractor* must convene a weekly design team meeting. The meeting is to be chaired and recorded by the *Contractor's* Design Manager and will be attended by a competent representative from each design party. A representative of the *Project Manager* and/or the *Employer* may elect to attend. A copy of the recorded minutes is to be submitted to the *Project Manager*, regardless of his attendance or that of one of his agents.

GWI 330 Requirements of Others

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(1) The *Contractor* acknowledges that technical interfaces exist between Plant and Materials and Equipment provided under these works and Others.

(2) The *Contractor's* design is to be compatible with the design, installation and operation of the Other's plant, materials and equipment

GWI 350 Information Modelling & Management

GWI 350.1 Terms and Definitions

(1) The following are terms used in GWI 350:

Building Information Modelling (BIM): The process of designing, constructing or operating a building or infrastructure asset using electronic object orientated information.

BIM Execution Plan (BEP): A plan, provided by the *Contractor* and accepted by the *Project Manager*, detailing how the *Contractor* will comply with requirements as set out in the EIR.

Common Data Environment (CDE): The agreed solution for the production, use and management of Model File(s), Composite Model(s), Non-Graphical Data, Document Definition(s) and Document Rendition(s), as set out in the EIR, BEP and MIDP(s).

CDE Service Level Agreement (SLA): The agreement entered into by the *Employer* and *Contractor* in the form set out at the beginning of the contract and that defines the obligations on the *Contractor* or *Employer* (whichever is responsible for the provision of the Project Data Environment) for the standards to be applied to the provision, maintenance and availability of the Project Data Environment.

Composite Model: Computer Aided Design (CAD) file(s) displaying one or more Model Files (attached as references), for the purpose of performing coordination activities and / or compiling Document Definitions.

Documentation: Native Files and / or Data Files and / or Document Renditions.

Document Definition: Data file produced, containing a view of the Non-Graphical Data and / or Model File(s) and / or Composite Model(s), to derive meaning for a specific purpose.

Document Rendition: A data file in an immutable format, derived from a Document Definition.

***Employer's* Information Requirements (EIR):** Sets out the standards to be used and required details relating to the data and information about the *Employer's* engineered asset's physical and functional characteristics, how these shall be captured, produced, generated, utilised and managed by its suppliers.

Master Information Delivery Plan (MIDP): A forward looking schedule that defines the maturity of the Model File(s), Composite Model(s), Non-Graphical Data, Document Definition(s) and Document Rendition(s) which are to be produced, maintained and delivered as Production Information and Handover Information. The plan specifies the subject matter of each Model, the person who is to produce and deliver each Model and the Level of Definition for each Model at each Stage and is appended to the BIM Protocol.

Model: A digital representation of part of the physical and / or functional characteristics of the Project.

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Model File: Computer Aided Design (CAD) file(s) containing shape(s) with defined origin, orientation and dimensions, communicating the physical characteristics of the *works*. A Model File may also include Non-Graphical Data, associated to the CAD file(s) and / or shape(s), identifying the functional characteristics of the *works*.

Native File: Original graphical data and / or non-graphical data file in its default format, as created in the authoring tool.

Non-Graphical Data: Data file containing alphanumeric characters, communicating the physical and functional characteristics of the *works*.

Project Information Exchange (PIx) Protocol – IT Assessment form: A mechanism for capturing the *Employer's*, *Contractor's*, Sub-contractors and supplier's information exchange capability and IT maturity. The forms are to be used to identify any restrictions or limitations in the production, use and management of the Production Information and Handover Information. The forms also capture the agreed information exchange file formats and versions.

Production Information and Handover Information: The Model File(s), Composite Model(s), Non-Graphical Data, Document Definition(s) and Document Rendition(s) to be produced, updated and maintained in order to Provide the Works and be delivered, during the Project, as set out in the MIDP(s) until the defects certificate is issued. Referred to as the Project Information Model (PIM) within with BS EN ISO 19650.

Project Data Environment: A system which forms part of the Common Data Environment and is accessible to the *Employer*, the *Contractor*, or any employee, subcontractors or supplier of the *Contractor*, the *Project Manager*, the *Supervisor* and Others (as applicable). It is used to manage and exchange the master version of all shared Production Information and Handover Information.

GWI 350.2 Building Information Modelling Responsibilities

(1) The *Contractor* appoints a key person to undertake the role and responsibilities of Project Information Manager in accordance with the EIR, for the duration of the *works* until the later of:

- the Defects Certificate is issued; and / or
- all Production Information and Handover Information has been accepted by the *Project Manager* in accordance with GWI 350.5(2) and the EIR.

(2) The *Employer* provides, manages and maintains the Project Data Environment of the CDE in accordance with the EIR and the CDE SLA in place for the project. The *Employer* ensures accessibility to employees of the *Employer*, the *Contractor*, subcontractors or supplier of the *Contractor*, the *Project Manager*, the *Supervisor* and Others (as applicable) as approved by the *Project Manager* until the requirements of GWI 350.2(5) have been achieved.

(3) The *Contractor* and his subcontractors generate all Production Information and Handover Information within their Task Team Data Environments, configured, managed and maintained in accordance with BS EN ISO 19650-1 & 2. The *Contractor* ensures accessibility for their team, any subcontractor or suppliers of the *Contractor* until the requirements of GWI 350.2(5) have been achieved. The *Contractor,* subcontractor or supplier of the *Contractor* shares all agreed Production Information and Handover Information in accordance with GWI 350.3(1) with the

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Project Manager and *Employer* via the Project Data Environment in accordance with GWI 350.2(9).

(4) The *Contractor* and his subcontractors are responsible for completing, updating and maintaining the MIDP(s) and BEP, to be provided by the *Contractor*, until the requirements of GWI 350.2(5) have been achieved.

(5) The *Contractor* and his subcontractors produce, update and maintain Production Information and Handover Information in accordance with the accepted MIDP(s) and BEP provided by the *Contractor*, until the later of:

- the Defects Certificate is issued; and / or
- all Production Information and Handover Information has been accepted by the *Project Manager* in accordance with GWI 350.5(2).

(6) The *Contractor* and his Sub-contractor(s) produce, use, update and manage Production Information and Handover Information through the Common Data Environment (CDE).

(7) The *Contractor* and his Sub-contractor(s) are responsible for and maintain the integrity and compatibility of the Production Information and Handover Information until the requirements of GWI 350.2(5) have been achieved.

(8) The *Contractor* and his Sub-contractor(s) are responsible for the coordination and integration of the *works* contained within the Model Files and / or included as part of the Non-Graphical Data, across all disciplines, with Others, with existing infrastructure and any adjacent works.

(9) The *Contractor* formally submits all Production Information and Handover Information to the *Employer's Project Manager* for sharing and acceptance through TfL's designated Project Data Environment, Asite and ProjectWise, of the CDE.

(10) The *Contractor* manages production, sharing and handover of Production and Handover Information in accordance with the *Employer's* Common Data Environment Standard S1760.

GWI 350.3 Building Information Modelling Process

***Employer*'s Information Requirements (EIR)**

(1) The *Contractor* delivers the *Project* in accordance with the EIR. Updates to the EIR shall be managed through the Project Change Control process.

Master Information Delivery Plan (MIDP)

(2) The *Contractor* produces, updates and maintains the MIDP in accordance with the EIR.

BIM Execution Plan (BEP)

(3) The *Contractor* delivers the project in accordance with the *Contractor's* BEP.

(4) The *Contractor* produces, updates and maintains the BEP in accordance with the terms set out in the EIR.

Project Information Exchange (PIx) Protocol IT Assessment Form

(5) The *Contractor* and subcontractors complete, update and maintain the PIx IT Assessment Form in accordance with the EIR.

GWI 350.4 Building Information Modelling Coordination Process

(1) The *Contractor* and his subcontractor(s) are responsible for (and provide evidence as part of the Production Information and Handover Information, submitted in

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accordance with GWI 350.5(3) and as required by the *Project Manager*, to verify that) the *works* are fully co-ordinated and integrated across all disciplines, with Others, with existing infrastructure and any adjacent *works*.

(3) The *Contractor* demonstrates the effectiveness of any value engineering using the Production Information.

GWI 350.5 Building Information Modelling Submission Procedures

(1) The *Contractor* submits to the *Project Manager* for acceptance the Production Information and Handover Information as set out in the accepted MIDP(s) provided by the *Contractor*, in accordance with the *Employer's* Common Data Environment Standard S1760, EIR and Accepted Programme.

(2) The *Project Manager* either accepts the submission or notifies the *Contractor* of his reasons for rejection. Reasons for rejection are:

- Production Information and / or Handover Information are not submitted through the CDE in accordance with the EIR and GWI 350.2(6).
- Production Information and / or Handover Information do not comply with Standards.
- Production Information and / or Handover Information are not developed to an appropriate level of maturity such that the acceptance criteria and requisite level of assurance for the works can be achieved.

(3) There is no acceptance/rejection in respect of interim submissions; therefore, the *Project Manager's* response will be in the form of comments only.

GWI 350.6 Priority of Contract

(1) In the event of any conflict or inconsistency between a Model prepared and delivered for the *works* and any document or information extracted from such Model, except where the *Employer*'s Information Requirements states otherwise, the Model shall prevail.

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Appendices

Appendix 01 Exchange Information Requirements (EIR)
Appendix 02 Master Information Delivery Plan (MIDP) Template
Appendix 03 PLU PIx Protocol TfL IT Assessment
Appendix 04 PLU PIx Protocol Contractor to Complete
Appendix 05 PD0238 BIM Execution Plan Contractor to Complete

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London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 400

COMPLETION

Document History: **Version:**	**Prepared by**		**Quality Checked by**		**Legal Review**		**Peer Review**	
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5.0					☐			

	Final Sign-off	
	Commercial Line Manager	**Project Manager**
Name		
Signature		
Date		

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GWI 455	**Maintenance records**

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GWI 405 Completion definition 11.2(2)

GWI 405.1 Works to be Done by the Completion Date

(1) Without limitation to the provisions in the *conditions of contract*, the *Project Manager* will not certify that the Call-off Contract *works* or the whole of the *works* have achieved Completion unless the items below have taken place and therefore the *Contractor* should allow for this in his programme:

- The *Project Manager* has accepted the deliverables planned to be provided in the *Contractor's* Master Information Delivery Plan(s) (MIDP) pertaining to the *works* within the respective Call-off Contract;
    - The MIDPs shall include all information defined in the *Employer's* Asset Information Requirements (AIR) for all assets pertaining to the *works* within the respective Call-off Contract;
    - The MIDPs shall include all information defined in the Exchange Information Requirements (EIR) pertaining to the *works* within the respective Call-off Contract*;*
    - For avoidance of doubt, *Project Manager* acceptance of the MIDP deliverables requires the *Employer* to have approved QICC Part 9 certificates for all QICC data packs pertaining to the *works* within the respective Call-off Contract;

The requirements of the MIDPs are in GWI 350 and the EIR provided in GWI 300 Appendix 01; the AIR is provided in GWI 400 Appendix 1. It is anticipated that there will be more than one MIDP per Call-off Contract to reflect the multiple site locations.

- The *Employer's* assurance processes have been achieved by the *Contractor* in respect of the works, including compliance with *Employer*'s Standards S1900 and S1538;
- The *Contractor* has completed requirements of the *works* and as required within the Generic and Specific Works Information;
- The training of staff who will operate and maintain the *works* has been completed where applicable;
- the Site is clear of all unused Plant and Materials, and Equipment and other items to ensure free and unobstructed access by the *Employer* and *Others*
- all temporary hoardings and/or barriers have been removed by the *Contractor;*
- all strategic maintenance spares and tools are provided to the *Employer* by the *Contractor* for those assets that have a long lead time or are vulnerable and/or susceptible to failure or damage (defined further in GWI 440.5)

(3) The *Contractor* gives no less than four weeks' notice to the *Project Manager* and *Employer* of the date that a *section* of the *works* will achieve Completion. The *Contractor* completes the *works* as per the sequencing per *section* where sections are stated within Contract Data Part 1.

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(4) Power and Electrical Assets refers to all power equipment, systems and assets (both existing and newly installed through the *Contractor* delivering the works) in TfL substations, switch houses and transformer rooms. Power and Electrical Assets also includes new cables installed between such TfL substations, switch houses and transformer rooms.

(5) Non-Power and Electrical Assets refers to all existing and new non-power assets, such as civils, fire, mechanical, and premises assets.

GWI 405.2 Completion documentation - Power and Electrical Assets

(1) For Power and Electrical Assets designed and delivered by the *Contractor* complies with the requirements of LU Standard S1900 regarding completion documentation. The *Contractor* must complete QICC Part 9 (LU Assurance Manager Check) as defined by LU Standard S1900 as a condition of achieving Completion.

(2) For clarity, the documentation required under LU Standard S1900 (QICC data packs) are part of the AIR.

The operation and maintenance manuals provided by the *Contractor* shall include all modifications and amendments applied during the design manufacture, assembly and commissioning of the assets.

The operation and maintenance manual document shall include:

- A description of the assets and the major components, assembly, duty rating and principle of operation.
- The installation movement and lifting plan, which includes assembly/disassembly for the safe and efficient installation and removal of the assets.
- Instructions for the safe operation in compliance with procedures applicable including those contained in Rule Book 24
- Recommended maintenance interventions and intervals between the required maintenance.
- Instructions to safely complete the maintenance interventions.
- Recommended condition monitoring together with the pass/fail indications. Including instruction to carry out the monitoring safely.
- The required intervention activities to correct and remedy abnormal conditions.
- Fault finding procedures and intervention decision tree. Including instruction to carry out the fault finding safely and within the requirements Rule Book 24.
- Settings, setting ranges and adjustments permissible for the safe operation of the assets.
- Component parts and assemblies identified within and parts list for the assets supplied together with sub-assembly drawings and/or diagrams.

The *Contractor* shall provide the operation and maintenance manuals in navigable, indexed and unprotected electronic formats via Asite to the template F5916 provided in GWI 200: Appendix 03 LU Standards & Procedures that apply to the *works*.

In addition to the contents described in the operation and maintenance manual template F5916 the *Contractor* is to provide and identify in “Section 3 Plant, Equipment and Material Data” within the “Manufacture Information Reference” table fields:

- Installation and disassembly instructions
- Parts Lists
- Device Settings (such as protection)

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GWI 405.3 Completion documentation

(1) For all assets designed and delivered by the *Contractor*, the *Contractor* populates Master Information Delivery Plan (MIDP). The *Contractor* details how and when all the items communicated on the MIDP will be met. The MIDP covers information needed during a project, some of which is retained in the project archive. The MIDP shall provide all information required by the Exchange Information Requirements, and the AIR. The *Contractor* will provide all the documentary evidence necessary to permit Delivery into Service of all assets into maintenance. The AIR included in this contract details which information within it is produced by the *Contractor*. All document submissions required under the AIR are provided in accordance with the EIR.

(2) The MIDP shall facilitate the responsibilities of the *Project Manager* and *Employer* by providing for:

a) The *Project Manager*'s *period for reply*

b) Any peaks in submissions for acceptance that exceed more than twice the normal submission rate require acceptance of the *Project Manager* to facilitate resource planning.

c) The number of iterations required to gain acceptance shall be based upon past performance of submissions of the same type unless accepted otherwise by the *Project Manager*.

d) Those items identified in the AIR as forming the Health and Safety File shall be provided and have gained acceptance 4 weeks prior to Delivery into Service of a *section of the works*, asset, or group of assets to facilitate the *Employer* mobilising the maintainer.

e) All remaining items required by the EIR or AIR shall be provided, and where appropriate have gained acceptance by the *Employer*, by Delivery into Service.

(3) In addition to the above requirements, the *Contractor* supplies to the *Project Manager* the following, no less than 8 weeks prior to seeking to hand assets over into maintenance:

- Red lined drawings
- Operations and Maintenance manuals
- Completed asset registers

(4) This information will be used by the *Employe*r to vary existing maintenance contracts, in readiness for Delivery into Service. The *Contractor* will be liable for any delay in the acceptance of assets into maintenance due to non-compliance with this clause.

(5) The *Contractor* provides to the *Project Manager* in navigable, indexed and unprotected electronic formats versions of all operating and maintenance manuals necessary to enable the *Employer* to operate and maintain the *works* via Asite.

(6) The manuals include copy evidence for:

- All new and affected asset certification;

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- The training plan and requirements for further operators/users;
- Training logs/certificates (or cross references to the appropriate document on an asset by asset basis);
- Planned maintenance regime;
- Formal concessions on an asset by asset basis (or cross references to an appropriate separately supplied document/concessions log);
- Warranties where appropriate;
- One copy of the as-built drawings.

GWI 405.4 Available

(1) Available means;

- the works are safe and fit for their intended purpose;
- there are no foreseeable hazards to the use of the works except insofar as a risk assessment has been carried out and any risk is expressly accepted by the *Employer*, and
- the works are readily accessible and operable by the *Employer*.

GWI 405.5 Delivery into Service

(1) Delivery into Service of an asset means;

- the *Contractor* has completed QICC Part 8 (or all Part 8As) for that particular asset (as defined by S1900). Once an asset achieves Delivery into Service it is Delivered into Service.

(2) For avoidance of doubt, once Delivery into Service for an asset has been achieved by the *Contractor*, the maintenance and operational of that asset is the responsibility of the *Employer*.

GWI 405.6 Conditions Procedure for Delivery into Service

(1) Not used

GWI 410 Sectional Completion Option (X5 if used for a Call-Off Contract)

(1) The *Contractor* gives no less than four weeks' notice to the *Employer* of the date that a *works (*or *section* of the *works* if X5 used) will achieve Completion.

(2) The *Contractor* completes the *works* in the *sections* as stated within Contract Data Part 1 for each Call-off Contract.

GWI 415 Training

GWI 415.1 Training of Employer's and /or Others maintenance staff/end users

(1) Prior to Completion (or each *sectional completion* if used on a Call-off Contract*)*, the *Employer* appoints maintenance staff or a maintenance contractor to undertake the operation and maintenance of the *works* following Delivery into Service. The *Contractor* provides any necessary assistance to the *Employer's* staff during the course of the installation to explain the purpose and function of the *works*.

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(2) The *Contractor* provides a minimum period of fourteen (14) days prior to Completion, to instruct *Employer*'s operational staff and maintenance staff in the day to day running of the Plant and Materials, and systems. The *Contractor* submits O&M Manuals to the *Project Manager* for acceptance.

(3) The *Contractor* produces a training plan outlining all training activities and submits a copy of the plan to the *Project Manager*, for acceptance in accordance with the requirements of the Works Information, prior to commencement of training, which includes the following as a minimum:

- Off-Site classroom training;
- On-Site classroom training;
- Hands on training;
- Refresher training; and
- Visits to relevant Sites (where appropriate).

(4) Training is to include operation of the overall system and includes individual Plant and Materials.

(5) Training refers to the relevant sections of the O&M Manuals, Drawings and Specification.

(6) Training is to provide a thorough understanding of the purpose and intent of all Plant and Materials, and systems for the purposes of safe operation, fault finding, maintenance, repair and overhaul, and include but not be limited to the following:

- Plant control functions;
- Plant monitoring and action on alarms;
- Operation of safety systems;
- Operation of set-point adjustment and controls;
- Fault or failure shutdown of main elements of Plant whilst in automatic mode;
- Restarting of Plant and Materials following shutdown;
- Operational function from SCADA;
- Operation of the main elements of plant when the various Programmable Logic Controller (PLC) controls fail;
- Total power failure during normal operation and auto start-up on restoration of power;
- Access to, and removal (as necessary) of Plant and Materials;
- Routine maintenance tasks; and
- Lifting arrangements.

(7) The *Contractor* provides course notes and any visual aid equipment that may be required.

(8) The *Contractor* ensures that only competent trainers deliver sessions.

GWI 420 Final clean

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(1) Prior to Completion the *Contractor* shall undertake a final clean of the Site removing all debris, waste and dust.

GWI 420.1 Final clean of Site

(1) Prior to Completion the *Contractor* ensures that the Site is clear of all Equipment and unused Plant and Materials and other items to permit free and unobstructed access by the *Employer* and Others and that a "builders final clean" has been undertaken

GWI 425 Security

GWI 425.1 Security on Completion

(1) The *Contractor* prepares a plan eight weeks in advance of the Completion Date to enable the *Contractor* to transfer the possession of the Site or part(s) thereof to the *Employer* as part of the EIR and MIDP Handover Plan requirements. This includes:

- a process to ensure compliance with all health and safety requirements (particularly in respect of the CDM Regulations 2015) including the handover of the documents in the AIR which incorporates the health and safety file documentation;
- provisions to ensure adequate emergency egress and access for the *Contractor* and Others;
- boundary details of the relevant area;
- relevant drawings and condition surveys;
- security arrangements;
- handover of general and security asset keys, and;
- confirmation of the completion of the relevant works within the area to be transferred.

Prior to submitting the Handover Plan to the *Project Manager* for acceptance, the *Contractor;*

- carries out a joint inspection (including a photographic survey) of the relevant area in conjunction with the *Project Manager* and the Others to whom the area is to be transferred. The joint inspection and survey report are included in the plan;
- consults with all relevant Others and with the *Project Manager* and takes account of their comments; and
- obtains the agreement of the *Project Manager* and/or Others to whom the relevant area will be transferred. The *Contractor* submits the pla*n (signed by t*he *Contractor* and the relevant Others) to the *Project Manager* for a*cceptance* at least four weeks before the Com*pletion Da*te. *Contractor* to revise and resubmit following *Employer* comments as required.

There is no Completion of t*he Site or part*(s) thereof until the *Project Manager* has accepted the Handover Plan for that Site.

The *Contractor* manages and implements the Handover Plan in conjunction with the

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Project Manager and Others.

GWI 430 Correcting Defects (45.1, 45.2)

GWI 430.1 Access for correcting defects

(1) In complying with the requirements of correcting defects within the *defect correction period* as stated in the *conditions of contract* and Contract Data, the *Contractor* continues to make use of and complies with GWI 200 and its requirements in order to arrange the appropriate access to the Site in order to correct any Defects.

GWI 435 Pre-Completion arrangements

GWI 435.1 Pre-Completion Meeting

(1) The *Contractor* attends a Pre-Completion meeting with the *Employer* to review the *Contractor's* progress and planning twelve (12) weeks prior to planned Completion as shown on the Accepted Programme, or if there is no updated Accepted Programme when the *Project Manager* deems it to be the appropriate time. This enables the *Employer* to consider what action may be required or assistance given in order to achieve Completion.

GWI 440 Contractor's Maintenance Obligations

(1) If the *Employer* uses or permits Others to use any part of the *works* prior to Completion being certified the *Contractor* remains responsible for the care and protection of the *works* and for its maintenance and remains in the role of Principal *Contractor* in accordance with the CDM Regulations.

GWI 440.1 Notice requirements;

(1) The *Contractor* provides the *Project Manager* no less than eight weeks' notice of the date that the *Contractor* believes he will achieve Completion.

GWI 440.2 Draft Operational & Maintenance Data

(1) Not less than sixteen weeks prior to Completion, the *Contractor* submits to the *Project Manager* for acceptance, a draft of the operation and maintenance (O&M) manual, including an outline plan for preventive maintenance, and a recommended list of spare parts holding (together the "O&M data").

(2) The *Project Manager* either accepts the O&M Data or notifies his non acceptance, giving reasons, within four weeks. A reason for not accepting the draft O&M data is that it is not sufficient to enable the *Employer* to accept responsibility for the maintenance of the *section* of the *works*.

(3) The *section* of the *works* which, following take over by the *Employer*, is to be transferred, is not accepted as complete until the O&M data are accepted by the *Project Manager*.

GWI 440.3 Consent to Operate

(1) Not used

GWI 440.4 Maintenance of completed works

(1) The *Contractor* is responsible for routine preventive maintenance and breakdown maintenance of all items of Plant and Materials which have been installed in the *works* and have not been Delivered into Service.

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(2) Responsibility for maintenance of new and altered assets passes from the *Contractor* to the *Employer's* maintainer at Delivery into Service of the asset.

Handback means the process by which the *Contractor* returns into use an altered or unaltered asset where the function of the asset is not changed by the *Contractor's* occupation or alteration. And the responsibility for maintenance after the Handback returns to Others and/or the *Employer*.

GWI 440.5 Spares

(1) In accordance with S1900, the *Contractor* submits a recommended list of operational asset spares to the *Employer* in advance of QICC Part 5A. The list is to include details of the supply chain and lead-time for each component.

(2) Following review of the *Contractor's* recommended list of operational asset spares, the *Employer* informs the *Contractor* which spares (and the quantities) are to be held in readily-available stock by the *Contractor.* The *Employer's* acceptance of the operational spares list is one of the conditions for the *Contractor* to pass QICC Part 5A.

GWI 440.6 Warranties and product guarantees

(1) The *Contractor* is to provide the *Employer* with a warranty and/or product guarantee for each item of Plant procured and installed that is listed on the Major Equipment Schedule (MES) under each SWI 100. The *Contractor* also provides the *Employer* with warranty and/or product guarantees for the following Plant and Materials which are not listed within the MES as standard:

- Remote terminal units (RTUs)
- HV (DC, 11kV, 22kV) cabling
- Fibre optic cabling

GWI 440.7 Maintenance Training

(1) Where the system or item of Plant and Materials is innovative and is not commonly installed elsewhere on the LU network, the *Contractor* provides comprehensive training for maintenance staff for all electronic or electrical and mechanical Plant and systems prior to the Delivery into Service of that part of the *works.*

GWI 445 Lessons learnt pre-Completion

The Contractor's Project delivery teams attends a 'lessons learnt' meeting with the *Employer*'s programme assurance team prior to Completion of the Project, with a view to sharing any lessons learned in the course of the execution of the *works* that have relevance and impacted on the overall capital costs of the *works*.

GWI 450 Planned and Reactive maintenance

The responsibility for maintenance of assets is in accordance with the conditions of contract and includes:

a. The maintenance of new permanent assets brought into use but not Available remains the *Contractor's* responsibility in accordance with

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clause 35.2 of the *conditions of contract.*

b. The maintenance of new temporary assets constructed or installed to enable the ongoing operability of the *Employer's* asset but not forming part of the permanent works remains the *Contractor*'s responsibility.

c. The responsibility for maintenance of existing assets is retained by the *Employer* save where access to such assets is prevented by the *Contractor* or the assets have been significantly modified by him such that a material change to the existing maintenance regime is required. In which case the *Contractor* becomes responsible for the maintenance of the affected assets until Available, where access is prevented, and until such time as they can be accessed.

d. The maintenance of existing assets that are unchanged by the *Contractor* remains the responsibility of the *Employer*.

The *Contractor* is responsible for all planned and reactive maintenance of the works until the Defects Date.

GWI 455 Maintenance records

The *Contractor* submits to the *Project Manager* for acceptance, no less than ten weeks prior to the Defects Date, all maintenance records.

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Appendices

Appendix 01: *Employer*'s Asset Information Requirements (AIR)

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London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 500

PROGRAMME REQUIREMENTS

Document History: **Version:**	**Prepared by**		**Quality Checked by**		**Legal Review**		**Peer Review**	
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	Final Sign-off	
	Commercial Line Manager	**Project Manager**
Name		
Signature		
Date		

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GWI 505 Programme Requirements

(1) If a programme is not identified in the Contract Data, the *Contractor* submits a first programme to the *Project Manager* for acceptance within the period stated in the Contract Data. This programme is to be referred to as the first programme issued for acceptance and its data date will be the Contract Date. No progress will be shown on this programme.

(1A) The 'first programme issued for acceptance', when accepted by the *Project Manager*, will form the basis of future reporting and will become the 'Accepted Programme'.

(1B) The first revised programme cannot be accepted until the 'first programme issued for acceptance' has been accepted. Until there is an Accepted Programme the *Project Manager* may base his payment assessment on assumed progress.

(2) In addition to the information listed in clauses 31 and 32 of the *conditions of contract* as amended, each programme which the *Contractor* submits for acceptance:

- Is in Primavera Enterprise Version 8.2 or later. Primavera Project Planner settings are as advised by the *Project Manager* ;
- Is in logical linked Gantt chart form showing the critical path(s), early start dates, late start dates and float;
- Is structured in accordance with the TfL WBS Structure Guidance [Appendix 1], applied as necessary and agreed with the *Project Manager*;
- Includes strategic milestones as advised by the *Project Manager*. If so required, such milestones will be included in a logical manner;
- Includes Prices loaded by the *Contractor* onto a sufficient quantity of activities, with actual and remaining costs updated each Period to an acceptable level of detail to the *Project Manager*;
- Is used to create the Activity Schedule, the summation of which totals the Prices;
- Includes a sufficient number of activities necessary to allow Earned Value Management to be used during this contract;
- Includes the total of the Prices for the items in the programme, reasonably distributed between the programme activities;
- Is resource loaded with the *Contractor's* supplied main Plant and Materials, all major Equipment and manpower by trade and man hours, including all *Subcontractors*. The level of resources is substantiated by the production rates and manpower details described in the programme narrative and by the sequencing and deployment plan described in the safe system of work;
- Is resource loaded with the *Employer's* and Others' critical resources as required by the *works*;
- Identifies a summary programme for the *works* in linked bar chart format showing the critical path(s), sectional Completion Dates, Key Dates and other major milestones;
- Interfaces to other works controlled by the *Employer* and/or Others are represented as one milestone at the end of a string of activities to be delivered by the *Employer* and/or Others to allow co-ordination and integration with the *Contractor's* works;
- Shows the starting date, access dates, Key Dates, if applicable, and Completion Date taken from the Contract Data part 1 as milestones on the programme which are in a separate 'key milestone' section;
- Shows the planned date for Completion as a milestone on the programme which is logically linked to the programme activities, and is shown in a separate 'key milestone' section;
- Shows the Contract Completion Date as a fixed milestone in a separate 'key milestone' section;

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- Includes all major milestones to Completion of the *works* including certification of Completion by the *Project Manager* in accordance with clause 30.2 and any other dates notified by either the *Employer*, Others or the *Project Manager*;
- Includes the terminal float for the whole project (or individual section where Sectional Completion applies) as a separate activity;
- Includes *Contractor's* time risk allowances which must clearly be identified;
- Except for the first programme issued for acceptance reports and records updated physical progress on each programme activity using physical percentage complete and its effect upon the timing of the remaining works to be performed within the programme;
- Includes the impacts and changes in time, resource and cost of any implemented compensation events on existing and additional activities;
- Monitors progress at the lowest activity level agreed by the *Project Manager* to enable a suitable look-ahead to be generated and identifies the required corrective actions to avoid and mitigate any delay to the Completion Date;
- Includes, without limitation detailed supplier and Subcontractor programmes which represent the *works*;
- Identifies the dates when the *Contractor* plans to submit all deliverables required to ensure timely progress of the *works*, including but not limited to those referenced within GWI 660;
- Includes the agreed dates when documents are submitted, for acceptance by the *Project Manager* and/or Others, in respect of design or third party consents;
- Includes all Engineering Hours access dates;
- Includes all weekend closures, possessions and/or blockades required to undertake the *works*;
- Includes impacts of any *Employer's* weekend closures possessions and/or blockades;
- Includes the dates of submission of any method statements, access requests, planning requests and outage requests;
- Includes the dates of submission of any logistics plan;
- Includes the dates of commencement of all permanent and temporary construction and installation activities;
- Includes the dates of factory and site inspection, tests and sampling that require to be notified and co-ordinated with the *Employer*, *Project Manager*, *Supervisor* and Others;
- Includes all quality hold points and quality control points, including QICC sign off activities for each defined finite element in line with the relevant QICC standard;
- Includes all the dates contained within the *Contractor's* Subcontract Procurement Plan;
- Includes the dates when the *Contractor* consent submissions, if relevant, are required to be submitted and/or accepted;
- Shows activities relating to (but not limited to) the surveys, design, procurement, manufacture, installation, testing and handover of Plant and Materials;
- Identifies the timescales required for the testing and approval of Plant and Materials in accordance with the requirements of this contract;
- Has at least one Critical Path to the Project Completion Date;
- Shows that any duration of data activities is no greater than eight weeks unless

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accepted by the *Project Manager*;

- Only includes constraints accepted by the *Project Manager*,
- Identifies the order and timing of training to be provided by the *Employer* and Others;
- Allows sufficient time for the process of review, revision, resubmission and approval of all deliverables to be submitted to the *Project Manager* so that such process may be completed without delaying the placing of orders and the execution of the *works*;
- Includes the agreed dates when, in order to Provide the Works in accordance with the programme, the *Contractor* requires works, requirements, services, design information or other information to be provided by the *Employer* and Others;
- Includes the dates when the *Contractor* requires the *Project Manager* to issue instructions to undertake, if applicable, any of the Fixed Price Options to ensure the *Contractor* carries them out to achieve Completion on or before Completion and in all instances no later than the Completion Date;
- Is set to use 'retained logic';
- Is fully logic linked;
- Has the percent complete type set to 'Physical' for all activities;
- Identifies the working pattern for any given activity, using a specific calendar as agreed with the *Project Manager*. The programme should be based on calendars including statutory holidays, unless the nature of the works require weekend working and working on statutory holidays.

All programme submissions are clearly titled, numbered and dated, with the programme data date clearly visible within the Gantt chart.
All project programmes adhere to the following naming convention:

- Employer Project ID;
- Contractor;
- Employer Project Name;
- Period;
- Financial Year
- Status, i.e. draft or final revision; and date of issue

(3) All activity IDs are prefixed with the contract portfolio number and package ID. The remainder of the activity ID forms a unique identification. The activity IDs and/or descriptions are not to be amended, changed and/or deleted without the prior approval of the *Project Manager*.

(4) All compensation events are to be clearly identified as separate operations, referenced by the operation ID in the format CE(N)XXX for notified compensation events and CE(I)XXX. for implemented compensation events.
This ID format shall not be used for any other operations other than compensation events.

(5) All requirements identified as *Employer* or *Project Manager's* requirements are to be clearly identified in the operation ID in the format TFLXXX and operation name.

(6) Each operation within the programme is coded to the Mandatory Activity Codes list provided in the Appendix [4].

(7) The *Employer* may require the *Contractor* to apply and maintain additional codes as deemed necessary, in order to facilitate the roll up of the *Contractor's* activities into a Master programme. The codes required against each of the *Contractor's* activities are specified by the *Project Manager* and/or Planning Manager.

(8) In the event the *Contractor* wishes to utilise other activity codes in communication with the *Employer*, the *Contractor* first agrees such activity codes provided that in any case they will be deemed to be domestic to the *Contractor*.

(9) Each programme submitted for acceptance contains a Work Breakdown Structure (WBS)

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which is represented within the Primavera Programme using the WBS development tool contained within Primavera Enterprise Version 8.2 or later.

(10) The level of detail provided by the *Contractor* in each programme (i.e., the programme levels) shall be defined by the agreed WBS structure.

The *Employer* may require the *Contractor* to supply additional and/or provide alternative programme levels (i.e., amend the level of detail provided on programmes issued for acceptance). Any such items shall be communicated via the *Employer's* comments log as described in GWI 510.

(11) Each programme submitted for acceptance may be subject to an *Employer's* risk assessment, the output of which may require further programme revisions and justification from the *Contractor* including, but not limited to, the usage of constraints, leads and lags.

GWI 510 Programme Revisions

(1) The *Contractor* submits to the *Project Manager* for information a:

Draft revised programme in '.xer' as well as PDF format on each Thursday of week 2 of the *Employer's* 4 weekly reporting period with the data date in the programme set to the Sunday (beginning) of week 4 of the current Period.

(2) The *Contractor* submits to the *Project Manager* for acceptance a:

Revised programme in '.xer' as well as PDF format on each Tuesday of Week 4 of the *Employer's* 4 weekly reporting period. The data date in the programme is set to the Sunday (beginning) of week 4 of that Period in line with the data date set in the draft programme.

(3) The *Contractor* may also submit a revised programme to the *Project Manager* for acceptance:

- following the implementation of a compensation event and/or *Project Manager*'s instruction;
- where the *Project Manager* has agreed to a decrease in any extension of time to the Completion Date previously determined;
- where there has been an agreed change of logic, activity durations or scheduling of the *works* which significantly changes the forecasts;

(4) The *Contractor* shall comply with clause 32 of the conditions of contract with regards to programme revisions.

(5) All revised programmes submitted for acceptance include a programme narrative in line with the requirements set out in GWI 515 of this document.

(6) Unless previously agreed with the *Project Manager* the *Contractor* does not amend costs assigned to activities on the Accepted Programme and concomitant Activity Schedule in any of the revised programmes and Activity Schedules submitted for acceptance.

(7) For the purposes of earned value reporting the *Contractor* uses the Accepted Programme and the programme issued for acceptance.

(8) The *Contractor's* planning manager meets regularly (minimum of every four weeks) with the *Project Manager's* planning manager and as necessary with the *Project Manager's* commercial manager where the effects of any compensation events are being incorporated.

(9) The revised programmes in PDF format must as a minimum contain: activity ID, activity name, at completion duration, remaining duration, start and finish dates, total float and time risk allowance as well as the Gantt chart.

(10) The *Project Manager* will issue a comment log each period which captures all review comments of the submitted programme. It will be used as basis for the programme acceptance / rejection. Please refer to GWI 500 [Appendix 02 **-** Programme Comments Sheet].

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GWI 515 Programme Narrative

(1) The *Contractor* submits a programme narrative, together with the first programme issued for acceptance, detailing procedures for the establishment and revision of programmes including the responsibilities for and methods to be used to measure the actual progress achieved. This includes a reference document which defines the Project Work Breakdown Structure (WBS), activity ID numbering system, activity codes and project calendars, including a summary of statutory holidays applied to calendars for each year of the contract. The programme narrative also contains as a minimum all items listed within GWI 515 (3).

(2) In addition to the programme narrative the *Contractor* provides a change log detailing all new, deleted or adjusted activities. This also includes the addition or removal of lags and any changes to the sequence of works applied.

(3) The *Contractor* provides a programme narrative with each programme submitted to explain how the programme has been put together, and includes an explanation of, but not limited to:

- Changes to the programme and explanation of slippage, changed durations and mitigations applied;
- Changes to costs on existing activities and any additional costs added to the programme;
- Description of the critical path;
- Work sequences;
- The time risk allowance against each relevant activity;
- Float and terminal float allowances;
- The deployment of *Contractor's* Equipment and labour and *Employer's* and SP&C supplied items, such as critical resources, access;
- The shifts assumed in determining durations;
- Intended working hours;
- The schedules of quantities used in developing the programme;
- Any calendars used including what statutory holidays and other holidays have been allowed for and any changes to the calendar applied during the course of the project;
- Dependencies and changed dependencies;
- Project specific activity codes used;
- Project specific user defined fields used;
- Key assumptions identified during the development and throughout the course of the programme;
- Programme risks identified during the development and throughout the course of the programme; and
- Any other proposed changes which the *Contractor* proposes to make to the programme.

Please refer to GWI 500 Appendix 03 – Programme Narrative for the programme narrative template.

(4) The programme narrative is in sufficient detail to enable the durations, leads and lags within the programme to be reconciled and substantiated, and to enable the projected levels of labour (by trade) and staff and flows of goods, Plant and Materials, and Equipment identified to be substantiated.

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GWI 520 Work of the *Employer* and Others

(1) The *Contractor* ensures that the programme identifies the interfaces with materials and services supplied by the *Employer* and/or Others.

(2) The *Employer* is to contract directly with Others. Where the works of Others interfaces with the *Contractor's works*, provision is to be made in the *Contractor's* programme for the necessary co-ordination, design interface, operational timescales and access arrangements to enable the implementation of these works.

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Appendices

Appendix 1

WBS Structure

Appendix 2

Programme Comments Sheet

Appendix 3

Programme Narrative

Appendix 4

Mandatory Activity Codes

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London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 600

QUALITY AND ASSURANCE, INSPECTIONS AND TESTS

Document History: **Version:**	**Prepared by**		**Quality Checked by**		**Legal Review**		**Peer Review**	
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	Final Sign-off	
	Commercial Line Manager	**Project Manager**
Name		
Signature		
Date		

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GWI 640	Asset Information Management
GWI 645	Materials and Construction
GWI 650	Inspection and Testing
GWI 655	Notification of Inspections and Tests
GWI 660	Schedule of *Contractor's* Management Plans and Other Procedural Documentation

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GWI 605 **Terminology**

(1) The following are Quality and Assurance System terms used in this section of the Generic Works Information;

Term	Meaning
Assurance	Process of ensuring and providing evidence that the *works* have been designed and constructed in compliance with the *Employer's* Requirements.
Conformity	Fulfilment of specified requirements.
Contractor's Project Quality and Assurance Plan	A document setting out how the quality requirements of the Call-Off Contract will be achieved, controlled, assured, demonstrated and managed.
Corrective Action Request (CAR)	A statement prepared to record a failure to implement a specified process or contractual requirement. Generally identified during an audit.
Employer's Requirements	The output from the *works* in respect of spatial and operational improvements documented in GWI 100, the relevant Specific Works Information, and the Standards and legislation applicable.
Handback	The process by which the *Contractor* returns into use an altered or unaltered asset where the function of the asset is not changed by the *Contractor's* occupation or alteration. And the responsibility for maintenance after the Handback returns to the Infraco or PFI Contractor.
Handover	The process by which a new asset or an existing asset where the function has changed, is handed over to the *Employer* and the responsibility for maintenance after the Handover transfers to the *Employer* and is carried out on the *Employer's* behalf by an Infraco or PFI Contractor. Handover is the same as Completion or take over by the *Employer* (in accordance with clause 35 of the *conditions of contract)*.
Hold Point	A point in time in the construction of an element of the *works* at which the *Project Manager* is invited to inspect the *works* to verify quality or completeness prior to the work progressing. The *Project Manager* will identify these Hold Points during his review of the Inspection and Test Plans.
Inspection & Test Plans (ITPs)	Plans specifying the activities required to establish how Conformity is to be verified. They identify the responsibilities for executing the activities, the documents controlling them and the records required to provide Assurance. These are prepared for a particular element of the *works* to support the *Contractor's* Project Quality and Assurance Plan.
Safe System of Work	A statement submitted in accordance with the requirements of clause 31.2 of the *conditions of contract* describing how the *Contractor* plans to do the work, and identifying the principal Equipment and resources which he plans to use.

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Non Conformance Report (NCR)	A statement raised to record a Non-conformity (Defect) in the product, workmanship, or system.
Nonconformity	A Defect - as defined in clause 11.2 (5) of the *conditions of contract*. (The term “Non-conformity” is used to be consistent with industry practice and includes System Defects as defined below.)
Notification of Works Ready for Inspection (NOWRI)	*Employer* process for validating *works* within LU Stations Infrastructure have been completed.
Outstanding Work List	A list generated at an inspection or acceptance stage to identify Defects which must be remedied before an asset can be put into operational use.
Contractor’s Quality and Assurance Management System	The management system for achieving the quality requirements described in the Generic Works Information and for demonstrating that achievement, including the provision of documentary evidence and supporting records..
Quality Control Procedures (QCPs)	Documents that specify operational techniques or activities that are used to fulfil requirements for quality, and as such support the Call-Off Contract quality plan.
Quality Focus Meeting (QFM)	See WI1615.3 for typical agenda and expectations of a QFM
Quality Improvement Plan (QIP)	A QIP is a process that should be used by the *Contractor* when the Call-Off Contract has a series of non-conformances that are of major concern. The QIP will focus on not just corrective actions but satisfying the *Project Manager* that the root cause has been addressed and future reoccurrence has been closed down. The QIP must be auditable in that it will show where process changes have taken place and relevant records can be seen.
Site Query (SQ)	A request for information, clarification or agreement to a proposed action.
System Defect	A failure to comply with the quality and Assurance management requirements specified in this Generic Works Information..
Verification Activity Plan	Document prepared and owned by the *Employer* in accordance with LUL Standard S1538.

GWI 610 **Quality Statement**

(1) The *Employer* requires the *Contractor* to adopt and apply effectively and efficiently Quality Management Principals (*ISO 9000*) for this Project that enables

- achievement of all the Project objectives,
- sustainable culture of Continuous Improvement and Innovation to correct and prevent non-conformances,
- Enables a robust and adequate application of Quality Management Systems (*ISO 9000*).

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(2) The approach to be taken is to be based on the eight Quality Management Principals of Customer Focus, Leadership, Involvement of People, Process Approach, System Approach to Management, Continuous Improvement, Factual Approach to Decision Making and Mutually Beneficial Supplier Relationships.

(3) The *Contractor* will demonstrate in their Quality and Assurance Plan(s) (*ISO 9000*) how these eight principals throughout the Call-Off Contract are applied and validated by self-Assurance, Processes and Controls and Validation.

GWI 610.1 ***Contractor's* Quality and Assurance Management System**

(1) The *Contractor's* Quality and Assurance Management System complies with the following requirements;

(i) For contractors without existing Quality and Assurance Management System certification: The *Contractor* at all times manages quality using suitably scaled and defined management system(s) that meet(s) the requirements as a minimum contained in ISO 9001 or similar.

(ii) For contractors with existing Quality and Assurance Management System certification: The *Contractor* at all times manages quality using suitably defined management system(s) that meet(s) the requirements of standards ISO 9001 or similar.

(iii) Third party registration of assessed capability (i.e. approval to BS EN ISO 9000, BS EN ISO 9001 and BS EN ISO 9004) is not considered to be demonstration that any specified quality and Assurance requirements of the Framework Contract and the relevant Call-Off Contract have been met.

GWI 615 **Contract Specific Quality and Assurance Management System Requirements**

(1) The *Contractor* shall ensure that the *Employer* is made fully aware at pre-contract and contract stage of any scopes of work that are required which fall outside the scope of their Management System which was certificated to ISO 9001. If this does occur it is imperative that this is covered in the *Contractor's* Project Quality and Assurance Plan and how such Call-Off Contract specific requirements will be managed as if subject to the requirements of ISO 9001.

GWI 615.1 **Contract Specific Assurance Requirements**

(1) The *Contractor* provides a Quality and Assurance Management System which meets the requirements of LU Standard S1538 including appropriate quality management plans.

Within six weeks of the *starting date*, the *Contractor* will prepare and implement the *Contractor*'s Quality Management System as required in QUENSH, to Provide the Works.

(2) The systems identify how the *Contractor,* by audit, inspection, self-certification, collation and provision of evidence, demonstrates that the *works* are designed and constructed in compliance with all the requirements of the Call-Off Contract relevant standards and statutory regulations.

(3) The *Contractor* submits plans and procedures for acceptance by the *Project Manager* to demonstrate how he will satisfy these requirements.

(4) The *Contractor's* Quality and Assurance documentation are designed to minimise the duplication of information between plans and procedures.

GWI 615.2 **Contract Specific Quality Requirements**

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(1) The *Contractor*, his designers, Subcontractors and suppliers establish and implement quality management systems which comply with BS EN ISO 9001.

(2) The *Contractor* provides access to his quality system documentation for review, inspection, and audit by the *Project Manager*.

(3) Any intervention by the *Project Manager* in Hold Point inspections, and critical interventions, in audits, or in oversight of the progress of the *works*, does not relieve the *Contractor* of his obligations under the Framework Contract and the relevant Call-Off Contract.

(4) Quality system documentation which supports Subcontractor and supplier activities in the *works* is reviewed and accepted by the *Contractor* before work starts on the relevant activities. The *Contractor* makes the documentation available to the *Project Manager* for audit on request.

(5) The *Employer*, the *Project Manager* and Others including statutory authorities and Statutory Undertakers have the right to observe, witness, conduct audits, inspections and tests of all *works* that are being executed by the *Contractor*, his designers, Subcontractors, suppliers and sub-tiers thereof.

(6) The *Contractor* provides all inspection and testing necessary to demonstrate compliance with the specified requirements. All Non-conformities are resolved before final acceptance of the whole of the *works* or any *section* thereof.

GWI 615.3 Quality and Assurance Manager

(1) The *Contractor* appoints a Quality and Assurance Manager to be responsible for all quality and Assurance matters on each Call-Off Contract. The Quality and Assurance Manager is suitably empowered and supported to enable the quality of work on the Call-Off Contract to be managed effectively.

(2) The Quality and Assurance Manager is independent of the design and construction functions and has an independent link to senior director level. The Quality and Assurance Manager is full-time for the duration of the *works*, dedicated to quality and Assurance matters of the *works*, and is provided with adequate resources and authority to enable the quality of work on the relevant Call-Off Contract to be managed effectively.

(3) The Quality and Assurance Manager:

- develops and implements a Project Quality and Assurance Plan as detailed in GWI 625 below;
- ensures the *Contractor*'s Quality and Assurance Plan complies with ISO 9001 and LU Standard S1538
- develops and provides quality training for all personnel to include induction and training for staff with specific quality responsibilities;
- manages all quality personnel;
- approves the quality elements of the *Contractor's* Safe Systems of Work;
- ensures compliance with legal and contractual requirements;
- provides advice and instruction to construction teams to deal rapidly and effectively with quality non-conformities and complaints;
- analyses individual quality non-conformities [from Audits, Inspections, Snaggings, Testings, etc] and complaints to identify trends, root causes and the corrective and preventive actions needed;
- will create and share Quality Improvement Plans (QIP) with the *Project Manager* when there are root causes of significant concern. The QIP shall show what changes are needed to the *Contractor* and supply chain processes, resources and

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related ITPs to give confidence and assurance that the solutions will bring closure to a certain group of related non-conformances

- ensures the provision and review of ITPs;
- undertakes audits of the *Contractor* and Subcontractors including compliance with legal and contractual requirements;
- ensures there is a robust self assurance process which is documented in the Quality and Assurance Plan and that this process is effectively applied to achieve a 'right first time' ethos for process and product deliverables;
- develops SMART (Specific, Measurable, Achievable, Realistic, Timed) sets of Quality KPIs for approval by the *Project Manager* which use statistical measurements to judge the ongoing levels of compliance against requirements
  - Typically, the Quality KPIs would consider performance of ITP application, ongoing improvement targets for inspection failures and specific Q-CTR targets, and shall be presented at the periodic Quality Focus Meeting (QFM)
  - The Quality KPIs must be widely communicated and be a key agenda on the *Contractor's* internal reviews and shared with the *Employer*
  - It must be noted that failure of Quality KPIs targets can be a trigger mechanism for Clause GWI 630.5
- convenes and chairs a periodic QFM with an agenda to reflect current, ongoing and emerging quality issues and to report any agreed QKPIs. Attendance to include but not limited to the *Contractor's* Project Manager, Quality Manager, Engineering Manager and any / all asset-specific personnel aligned to the activities determined by the Accepted Programme and the *Employer's* Project Manager, Senior Quality Manager (or representative) plus asset-specific engineering personnel. The QFM shall be formally recorded and distributed to the *Employer*.
- produces information for the Management Review with senior management, that as a minimum should comply with ISO 9001, and attend the Management Review meeting to ensure that the quality management system remains suitable, adequate and effective.; and
- reports to the *Project Manager* on all quality issues

(4) The Quality and Assurance Manager has the following key competencies:

- appropriate experience of quality management and the delivery functions of the contractor/supplier under self certification contracts;
- good knowledge and practical experience of developing, implementing and improving quality management systems;
- be a member of the Chartered Quality Institute (or an equivalent recognised quality body) or an appropriate engineering institute; and
- be a competent auditor or have access to competent auditors (e.g. IRCA registered)

(5) Designers, Subcontractors, suppliers and sub-tiers thereof each provides a quality assurance representative with adequate resources and appropriate authority and competency to ensure the quality of work and deliverables on the relevant Call-Off Contract.

GWI 615.4 Samples for submission

(1) The *Employer*, the *Project Manager*, and authorised Others including statutory authorities and Statutory Undertakers, have the right to observe, witness, conduct audits, inspections and tests of all *works* that are being executed by the *Contractor*, his designers, Subcontractors and supply chain.

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(2) The *Contractor* provides all inspection and testing necessary to demonstrate that all the requirements of the relevant LU Standards, the Generic and Specific Works Information, and the law have been met. All non-conformities are resolved before final acceptance of the *works* or any *section* of the *works*.

(3) All on-Site and off-Site testing carried out in laboratories shall be done by laboratories accredited by UKAS or by a similar national body or by persons accredited to a similar standard and are subject to acceptance by the *Project Manager*. The quality system provides procedures for witnessing the manufacturing, construction, installation, testing and commissioning of the *works*.

(4) Any additional requirements for sampling will be detailed in each Call-off Contract SWI 100.

GWI 615.5 NEC Supervisor

(1) The *Employer* shall provide an NEC Supervisor in a key role in the project team.

(2) The key responsibilities / accountabilities of this position are:

- construction supervision, independent from the *Project Manager*, as specified in the Construction Plan;
- undertaking quality inspections and monitoring checks on site, including checks on materials being placed and testing thereof, and ensuring adherence on site to the works specification, drawings and specified Generic Works Information and Specific Works Information requirements as applicable;
- keeping site records of works and inspections being undertaken, including photographic records, equipment and labour , activities on site and progress against programme and reporting to the *Project Manager;*
- providing input to key project control documentation such as drawings, programme and valuations interfacing with in-house and external specialists providing services to the project;
- working with technical staff, and *contractors* to drive successful solutions on site during the Works. Working closely with both client and Principal Contractor Quality and Safety Managers to improve Quality and Safety performance;
- liaising with sub-contractors, third party organisations including utility providers, and stakeholders during the course of the *Works,* identifying improvement opportunities to methods of work
- attendance at site meetings / progress meetings.

GWI 620 Assurance Management

GWI 620.1 General

(1) *Contractor* Assurance requires the *Contractor* to provide sufficient evidence to demonstrate to the *Project Manager* that the general and specific requirements of the Generic Works Information, Specific Works Information and the Standards have been complied with.

(2) The *Project Manager* monitors Assurance by a process of planned sampling and critical intervention. The extent of sampling and intervention is risk and confidence based and recorded in the *Employer's* Verification Activity Plan which will be issued to the *Contractor* from time to time.

(3) The *Contractor* monitors, inspects, audits and verifies that his suppliers and Subcontractors and all tiers supplying the suppliers and Subcontractors are providing

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acceptable Assurance, through procedures and evidence, in compliance with general and specific requirements and the relevant Standards.

GWI 620.2 **Design Assurance** (applicable only if design is part of the *works*)

(1) The *Contractor* ensures that the designer(s) have the appropriate professional qualifications and competencies to achieve the design assurance requirements and maintains individual competency records. The designer(s) shall also be fully trained in the specified processes and procedures relating to the specific design work. Such training shall be documented. In particular, the design requirements shall meet those specified in GWI 300 and any Specific Works Information.

(2) Where there is a Defect, the *Contractor* carries out such redesign as may be necessary (and appropriate having regard to the extent of the *Contractor's* design obligations under the Framework Contract and the relevant Call-Off Contract) to correct, rectify or prevent a recurrence of such Defect. Any such redesign ensures that the performance and operation of the *works* and the relevant part thereof is not degraded or reduced by virtue of such redesign from the Standards specified in the Generic Works Information, Specific Works Information, and/or in Framework Contract and the relevant Call-Off Contract. If no Standard is so specified, from the Standard reasonably inferred from the Framework Contract and the relevant Call-Off Contract.

(3) As a minimum, the design management process is documented in the *Contractor's* or Subcontractor's management system to meet both LU Standard S1538 and ISO 9001 requirements for design.

(4) The *Contractor* ensures that the designer(s) have the appropriate professional qualifications to achieve the design assurance requirements and that they have been fully trained in the specified processes and procedures relating to the specific design work. Such training shall be documented. In particular, the design requirements will meet those specified in GWI 300 and any Specific Works Information.

GWI 620.3 **Construction (including Testing and Commissioning) Assurance** (applicable only if construction is part of the *works*)

(1) The *Contractor* Provides the *works* in accordance with the assured design and with all applicable law, the Standards and the Framework Contract and the relevant Call-Off Contract requirements.

(2) The *Contractor* assures the *Employer,* through submissions to the *Project Manager,* that the *works* have been constructed in accordance with the Framework Contract and the relevant Call-Off Contract. The *Contractor* prepares, retains and provides evidence to the *Project Manager* to that effect. Essential to this process of assurance is the development of robust and effective Inspection and Test Plans.

(3) The *Contractor* implements self-certification processes to ensure that the *works* have been constructed in accordance with the Framework Contract and the relevant Call-Off Contract. Such self-certification processes include demonstrably independent scrutiny, monitoring, checking and audit regimes in accordance with the Framework Contract and the relevant Call-Off Contract requirements. The *Contractor* ensures independence in assessment, and certification in the quality assurance, quality control and building control processes. The processes are identified in the *Contractor's* Project Quality and Assurance Plan which will indicate the relevant processes and procedures used.

GWI 620.4 **Handover Assurance**

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(1) The process of access to the *Employer*'s asset (e.g. substations and railway) and Handback at the end of Engineering Hours or a closure and Handover of new and altered assets are dealt with in GWI 200 and GWI 400.

(2) The *Contractor* develops a strategy, for acceptance by the *Project Manager*, to provide Assurance when it is necessary to take existing assets out of service and to bring new or altered assets into use.

GWI 625 *Contractor's* Project Quality and Assurance Plan(s)

GWI 625.1 Project Quality and Assurance Plan(s)

(1) The *Contractor* submits a Project Quality and Assurance Plan(s) to the *Project Manager* for acceptance within six weeks of the *starting date*. The *Contractor* reviews and updates the plan no less frequently than at six monthly intervals or sooner if significant changes occur to the processes, organisation or requirements.

(2) The *Contractor's* Project Quality and Assurance Plan(s) is supported by applicable QCPs, ITPs, Safe Systems of Work and references to and extracts from LUL Standards.

(3) The *Contractor's* Project Quality and Assurance Plan(s) include the controls to be applied by designers, Subcontractors, suppliers and sub-tiers thereof, both directly and by identifying the Quality and Assurance System documentation that designers, Subcontractors, suppliers and sub-tiers thereof are required to produce. The *Contractor* ensures that designers, Subcontractors, suppliers and sub-tiers thereof agree to and implement the applicable controls specified in the *Contractor's* Project Quality and Assurance Plan(s) and the identified quality system documentation.

(4) The *Contractor*, the designers, Subcontractors, suppliers and sub-tiers thereof shall not commence any activity on any part of the *works* for which the *Contractor's* Project Quality and Assurance Plan(s), applicable QCPs and ITPs, have not been accepted by the *Project Manager*.

(5) The *Contractor's* Project Quality and Assurance Plan(s), as a minimum, complies with the requirements of LUL Standard S1538, addresses the guidelines set out in BS EN ISO 10005 and should comply with the following:

- Covers the relevant phases of the Call-Off Contract (design, assessments, procurement, manufacture, condition/defect surveys, construction, installation, monitoring, testing, commissioning and maintenance);
- Complies with BE EN ISO 9000, BS EN ISO 9001 and BS EN ISO 9004 (as applicable);
- Clearly identify those processes, procedures, resources, competencies and related product / asset systems that have been required by the Call-Off Contract which fall outside of the *Contractor*'s and Subcontractors' BS EN ISO 9001 scopes of certification;
- Incorporates comprehensive quality system procedures for all identified risk and processes associated with each Call-Off Contract;
- Identifies clear and robust QCPs to provide independence of all inspection and checking processes to ensure that self-certification is in place and evidence provided to assure the design and construction;
- Indicates the inter-relationship of the *Contractor's* Project Quality and Assurance Plan(s) with other associated documentation of the *Contractor*;
- Describes the interrelationship between the partners' quality systems in any joint venture or consortium;
- Describes the relationships and activities of the *Contractor*, designers, Subcontractors, suppliers and consultants including organograms;

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- Describe the management roles and responsibilities of critical personnel in support organisations;
- Specifies the requirements of the quality systems to be operated by the *Contractor's* designers, Subcontractors and suppliers;
- Includes *Contractor's*, designers' and Subcontractors' design control systems/procedures;
- Identifies the requirements for self-certification, audit, intervention and inspection of all subcontracted processes;
- Incorporates a monitoring system for procurement, maintenance and condition of Plant and Materials to ensure that the Call-Off Contract objectives can be fulfilled;
- Allows for external second and third party audits to be carried out as required by the *Project Manager* and Others as described above;
- Incorporates comprehensive Quality and Assurance System audit procedures including the preparation of audit reports;
- Describes the process for introducing Quality Improvement Plan(s) when they are needed to drive out root causes of concern to the *Project Manager* / Quality Manager, which have been identified from analysis of either a major failure or repeating non-conformance;
- Specifies procedures to rectify Non-conformities raised, including System Defects raised as a result of both internal and external audits;
- Describes the statistical process techniques to be used to prevent the occurrence of Non-conformities;
- Provides for regular management reviews of the Quality and Assurance System;
- Includes records management procedures including for review and verification of records by the *Contractor's* quality assurance manager and compilation of Assurance packages at Handover of new and altered assets; and
- Identifies quality related Key Performance Indicators.
- How the requirements of its customer's quality statement will be achieved

(6) The *Contractor* prepares, and updates as required, QCPs to support the *Contractor's* Project Quality and Assurance Plan(s) for the *works*. The *Contractor* incorporates requirements for review and update of the QCPs in the *Contractor's* Project Quality and Assurance Plan. The *Project Manager* identifies those QCPs which require *Project Manager* acceptance.

(7) The primary activities addressed by QCPs and to be implemented by the *Contractor* are to include:

- Preparation of QCPs for design (including temporary works);
- Procurement, manufacture, construction, installation and testing along with all quality control processes and required competencies;
- Design control including verification, validation, approval and acceptance by Others where relevant;
- Design change control;
- Preparation of Safe Systems of Work;
- Preparation, review and approval of ITPs;

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- Preparation of Materials requisitions and approval of purchase orders in accordance with accepted specifications;
- Performance of quality verification inspections;
- Control and calibration of measuring and test Equipment;
- Scheduling of necessary testing;
- Interim inspection of work including Equipment and temporary works;
- Monitoring against Safe Systems of Work;
- Monitoring the activities of designers, Subcontractors, suppliers and sub tiers thereof, to ensure their compliance with the Framework Contract and the relevant Call-Off Contract;
- Review of Material suppliers' and Subcontractors' quality verification documentation;
- Administration of Non-conformity and reporting to the *Project Manager*;
- Certification control and co-ordination;
- Quality verification inspection of the completed *works* and collation delivery of quality control records;
- Collation delivery of design and construction compliance verification and Assurance records;
- Administration of design, procurement, manufacture, construction, installation, test and functional Non-conformities and concessions and reporting of them to the *Project Manager*;
- Production of four-weekly reports of quality issues including Nonconformity records and Key Performance Indicators; and
- Verification of Plant and Materials and system compliance through conducting inspection, testing and commissioning.

The *Contractor*, the designers, Subcontractors and suppliers complete the *works* in accordance with the *Contractor's* Project Quality and Assurance Plan and QCPs.

(8) Certification to be provided:

- Manufacturing Certification – the *Contractor* shall ensure that Subcontractors provide manufacturing and fabrication certification in accordance with the requirements of the Generic Works Information and Specific Works Information. The *Contractor* submits such certification with the relevant Sub-Construction or Construction Certification Package
- Design Certification
- Construction Certification

(9) The *Contractor* shall establish and maintain controls over *Contractor* designed elements of the *works* which will ensure that the *Contractor's* design output documents are traceable to the *Employer's* requirements documents and that the required level of technical acceptance has been obtained prior to the issue of detailed design deliverables for construction.

Design Certification Sequence

The *Contractor* shall provide the *Employer* with the assurances set out in 3.4 of LU Standard S1358 regarding Assurance of Project / Programme Works delivering new or altered assets.

GWI 630 **Surveillance and Audits**

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GWI 630.1 **Surveillance**

(1) The *Contractor's* Quality Management System provides a process and procedure for surveillance of the design and construction of the *works* by a process of audits, certification and self-certification. The *Contractor* collates all the quality documentation from his inspection and testing processes and other verification activities.

GWI 630.2 **Audit Schedule**

(1) The *Contractor* develops and submits, with his *Contractor's* Project Quality and Assurance Plan(s), a schedule of internal, designer, Subcontractor and supplier audits that will be conducted by the *Contractor's* personnel. The schedule, scope and method of the audits enable the *Contractor* to verify that all aspects of the *works* are conducted in accordance with contractual requirements.

(2) The schedule and any amendments are subject to acceptance by the *Project Manager*. The audit schedule is reviewed by the *Contractor* with the *Project Manager*, every four weeks, to reflect all relevant aspects and the developing and changing nature of the Project and the construction programme. This review will consider trends from audit findings and the adequacy of preventative measures put in place. At all times throughout each Call-Off Contract, the audit schedule must be risk-based driven.

GWI 630.3 **Audit participation**

(1) The *Contractor* allows the *Employer*, the *Project Manager*, and authorised Others to observe or participate in these audits and to conduct additional independent audits, as they consider appropriate, to provide Assurance that the *works* are being conducted in accordance with the Framework Contract and the relevant Call-Off Contract requirements. The *Contractor* provides the facilities and access necessary for these audits to be carried out effectively.

(2) The *Contractor* places similar requirements on his designers, Subcontractors, and suppliers and all tiers thereof.

GWI 630.4 **Audit process and outputs**

(1) All audits performed by the *Contractor* are carried out as described in BS EN ISO 19011 and all reports are, unless otherwise agreed by the *Project Manager*, to be submitted for acceptance.

(2) The *Contractor* maintains an audit/CARs/preventative action reports database for use by the *Contractor* and the *Project Manager*. The database must also show how it triggers the need for Quality Improvement Plans when either a major Non-Conformance or groups of similar Non-Conformances need a specific root cause(s) to be driven out to achieve consistent right first time and how the *Contractor* uses this data to identify and manage Quality KPIs.

GWI 630.5 **Quality management**

(1) The *Project Manager* monitors the effectiveness of the quality management system through:

- surveillance,
- witnessing appropriate key activities,
- review of certification and records,
- monitoring and participation in the *Contractor's* audit schedule,

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independent auditing.

(2) If the *Contractor* fails to demonstrate that the specified requirements are being met, the *Project Manager* may notify the *Contractor* that the quality management system is ineffective.

(3) An ineffective quality management system is demonstrated by the following, although this list is not exhaustive:

- Non-conformities not being identified by the *Contractor* in a timely manner;
- Non-conformities not being resolved in a timely manner;
- failure to prevent recurring Non-conformities;
- consistent failure to provide required certification and records as the *works* are executed;
- audits by the *Contractor*, the *Project Manager* or any other party identifying significant inadequacies in the quality management system; or

identified inadequacies in the quality management system not being resolved in a timely manner.

(4) If, following notification by the *Project Manager* of an ineffective quality management system, the *Contractor* fails to correct the quality management system within one week from notification, the *Project Manager* may either implement his own quality control regime on the *works* to correct the quality control or may instruct the *Contractor* to stop or not to start any further work. If the *Project Manager* implements his own quality control / quality Assurance the costs thereof will be recoverable from the *Contractor*.

GWI 635 *Contractor's* resources

GWI 635.1 Resources

(1) The *Contractor's* Project Quality and Assurance Plan(s) includes organisation charts for the *Contractor* and all designers, Subcontractors, and suppliers to show the reporting structure of those personnel responsible for quality on each Call-Off Contract and particularly those personnel responsible for assurance activities and safety critical accountabilities.

(2) The *Contractor's* Project Quality and Assurance Plan(s) includes curriculum vitae for all such quality personnel, including those of Subcontractors, designers, and suppliers and particularly those nominated for assurance activities.

(3) The *Contractor* demonstrates that adequate resources are provided to fulfil the the Framework Contract and the relevant Call-Off Contract requirements for quality and Assurance, audits, inspection and testing.

(4) The *Contractor* provides appropriate training to all personnel in the operation of the Quality Management System and maintains training records. This training should also include a process on how all staff can suggest ways of improving the process of work being carried out and that such improvements are welcomed by the *Contractor*'s and Subcontractors' management. The *Contractor* shall, via the Induction process provide an overview to the project quality requirements to be delivered.

GWI 640 Asset Information Management

GWI 640.1 General

At an appropriate time, the *Contractor* shall be provided with extracts of the *Employer*'s Asset Information Management System (AIMS) database by the *Project Manager* containing planned assets to be constructed / modified / demolished / preserved / interfaced by the *Contractor* as detailed in the Asset Information

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Management Plan. These extracts will contain assets adjacent to the Site which the *Contractor* may need to be aware of.

Throughout the relevant Call-Off Contract, the *Contractor* shall be responsible for the safe storage and management of the extracts of the *Employer's* Asset Information Management System (AIMS) supplied to them. They shall maintain suitable controls to prevent the loss, deletion, corruption or degradation of the Asset Register consistent with current industry good practice.

The *Contractor* shall populate the extracts of the *Employer's* Asset Information Management System (AIMS) to support future operational, maintenance and asset management activities. The Asset Information Management System (AIMS) extracts shall be updated to contain the complete asset listing covering the contracted works.

The Asset Information Management System (AIMS) shall enable storage and access of the following information to *Employer's* standards:

- Asset identification;
- Asset location;
- Asset classification to the classification standards of the relevant infrastructure manager;
- Asset status;
- Asset criticality;
- Asset attributes specific to the relevant class of asset;

The capability to store identifiers to allow linkage to other information systems.

The Asset Information Management System (AIMS) extracts shall be populated by the *Contractor* with all specified data updates to comply with *Employer* requirements and shall be fully populated no later than four weeks after the relevant asset has been installed / set to work. The *Contractor* shall maintain at all times traceability of all assets and line wide replaceable units, including failure during testing and commissioning and product swap-out.

All assets, down to the line replaceable units, shall have a unique identification number that is capable of being used to consistently identify the asset electronically and manually. Unique identification shall be compliant with the *Employer's* Asset Identification Standard.

All assets installed or supplied by the *Contractor* shall have a durable label or name plate appropriate to the environment either securely fixed to the asset, or securely fixed adjacent to the asset. These labels shall be compliant with *the Employer's* standards. These labels shall be compliant with *the Employer's* Asset Identification Standard.

The *Contractor* shall be accountable for the management, storage and population of the Asset Register data and shall attend and contribute to *Employer* data governance meetings when required. If changes are required to *Employer* standard reference data, then the *Contractor* shall notify the *Project Manager*. The *Contractor* shall ensure that all data population and updates are consistent with the *Employer's* quality requirements. This shall include ensuring that the accuracy, validity, precision, completeness and timeliness of asset information comply with the *Employer* `s standards listed as:

- S1041 Engineering Asset Information
- The *Contractor* shall instigate suitable checks and audits of data quality to demonstrate that *Employer* `s standards are being complied with and shall demonstrate the effectiveness and outputs of these processes to the *Project Manager*, when requested;
- Requirements for the coding and numbering of *Employer* assets shall be compliant with the *Employer'*s Asset Identification Standard;

The *Contractor* shall nominate a relevant senior employee as Data Owner who shall be accountable for the management, storage and population of the Asset Register

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data. The Data Owner shall attend and contribute to *Employer* data governance meetings when required.

GWI 645 **Materials and Construction**

The *Contractor* develops a Plant and Materials Proposal Schedule listing all proposed permanent works materials and products and indicating any variances from the specified materials. The Plant and Materials Proposal Schedule identifies:

- all materials, products, Equipment and Plant proposed to deliver the *works*
- samples/ test panels/factory acceptance tests required;
- Specification and technical reference numbers;
- material approvers (*Contractor* /subcontractor organisations/persons, including applicable BREAM specialists);
- LUL Approved Product Register reference number
- Certification provided to demonstrate compliance target dates (approval, delivery, overdues)

The *Contractor* regularly submits the Plant and Material Proposal Schedule and a matrix of approvers for all materials and products, commencing within 12-18 weeks following the *starting date.*

The *Contractor* ensures that the Project's quality certification requirements are established in the preparation of material requisitions and orders for manufactured goods and materials.

Unless otherwise accepted by the *Project Manager,* Plant and Materials forming part of the permanent works or temporary works incorporated into the *works* are procured from sources that hold appropriate certification from a United Kingdom Accreditation Service (UKAS) accredited certification body (or one that has mutual recognition with UKAS). The existence of UKAS or similar acceptable accreditation does not relieve the *Contractor* from ensuring the quality of the products.

The *Contractor* makes available certification to demonstrate that Plant and Materials used comply with the relevant legal requirements and standards. Material quality and traceability requirements for *Employer* designed parts of the *works* are described on the drawings and in the materials and workmanship specifications in SWI 100 for each Call-off Contract For *Contractor* designed parts of the *works* the material quality and traceability requirements are indicated on applicable drawings or materials and workmanship specifications or by reference to appropriate codes of practice.

Verification of the quality and material traceability of each element of the works is the responsibility of the *Contractor* and is achieved through checks, tests, inspections, audits and reviews, planned and implemented in accordance with the Project Quality and Assurance Plan and ITPs developed by the *Contractor*.

The *Contractor* provides representative samples of proposed manufactured items, mock-ups/ prototypes of proposed fabricated or constructed items, and test panels of standard finishes, including concrete, to be achieved during construction as required by the drawings and materials and workmanship specifications in GWI300 and applicable drawings or materials and workmanship specifications produced by the *Contractor* as part of his design obligations. Each sample is offered for inspection and acceptance from the *Supervisor* prior to construction of the parts of the *works* represented. The sample is subsequently protected and retained by the *Contractor* and made available as an inspection reference until the completion of the *works*.

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The *Contractor* maintains for *Project Manager's* acceptance*,* a schedule of all samples, mock-ups, prototypes, test panels and Quality Benchmarks within the Plant and Material Proposal Schedule which identifies for each:

- the planned date at which each sample will be made available for inspection by the *Supervisor*;
- the planned date at which the *Supervisor's* acceptance will be needed;
- the part of the Generic or Specific Works Information that requested it;
- the part(s) of the *works* that it represents;
- a unique reference number;
- the secure location (accepted by the *Project Manager*) where the item is stored or located; and
- the acceptance status of the sample by *Contractor* and by the *Supervisor.*

The preliminary schedule is submitted for *Project Manager's* acceptance within 12 weeks of the *starting date* and is subsequently regularly updated and resubmitted to incorporate changes and updates.

In addition, London Underground maintains a Products Register (**http://www.lu-apr.co.uk**). Products on that register are deemed approved for use on London Underground. Should the *Contractor* wish to use a product not on the register then approval shall be sought and granted before it is incorporated into the works. The luminaires identified in S1066 takes precedence over luminaires and lamps listed on the Products Register.

GWI 650 Inspection and Testing

(1) The *Contractor*, his designers, Subcontractors and suppliers engaged in design, supply, manufacture, construction, installation, commissioning and testing or any other service connected with the *works*, maintains ITPs to satisfy the requirements of ISO 9001, LUL Standard S1538 and S1900 QICC process and other relevant Statutory Requirements appropriate for the deliverables being provided, which have been accepted by the *Project Manager.*

The objective of inspection and testing is to demonstrate to the *Employer* and the *Contractor* that the works provided meet and comply with the requirements of the Generic and/or Specific Works Information.

(2) These accepted ITPs stipulate the necessary level and frequency of tests and inspections for each aspect of the *works* and also stipulate:

- Item(s) being inspected and tested;
- The inspection and test activity;
- Acceptance criteria;
- Involvement of various parties including Hold Points and witness points;
- Controlling specifications; and
- Certification/ documentation/ records required as verification data.

(3) Activities listed in the ITP shall include pre-construction activities such as material approvals and completion activities such as close out of any NCRs arising. The *Contractor* shall complete the details to be stipulated in the ITPs including acceptance criteria. As a minimum the acceptance criteria shall comply with the requirements specified in the Generic Works Information,, this shall include the provision of samples/mock-up/prototypes (including test panels and benchmarking of standard finishes for agreement with the *Supervisor* where identified). Where not specified the

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Contractor shall propose acceptance criteria for the *Supervisor*'s acceptance, including the method and frequency of inspection and testing.

The *Contractor* identifies in the ITP the tests that are:

- Routine tests
- Batch Tests
- One off tests – specific to plant/system/equipment employed.
- Factory tests
- Site tests.

(4) The *Contractor* shall submit the ITP to the *Supervisor* 4 weeks prior to the start of the relevant works using the proforma as provided by *Employer* unless agreed otherwise by the *Project Manager*. The *Contractor* shall not start the relevant works until the *Supervisor* has accepted the ITP. The *Contractor* shall maintain a schedule of ITP submissions with a record of the status of review and acceptance. Any further revisions, submissions and responses shall be made within the *period for reply.*

(5) ITPs refer to those procedures, method statements and other documents such as national standards, codes of practice and legislation, which are to be used to control in-process and completed works.
Records and other deliverables generated as part of the inspection and test process shall be identified within the ITPs. The ITPs shall also make clear who is responsible for implementing the planned arrangements, as well as who is responsible for certifying that compliance with requirements has been achieved in practice.

(6) The *Contractor* arranges access to carry out tests and inspections together with the supply of all materials, equipment and is cognisant of the system interfaces and integration.

With the agreement of the *Project Manager* and in compliance with the agreed ITP schedule, the *Contractor* carries out tests on items including the following:

- Concrete
- Concrete constituent materials,
- Welding and welds,
- Fixings
- Other materials as required,
- Proprietary materials; and Power assets
- HV switchboards
- LV switchboards
- DC switchboards
- Transformer Rectifiers
- Coupling Transformers
- LV Distribution Board (fuse board TP&N)
- Auxiliary Transformers
- Battery charger systems
- LV sockets
- HV cables (single and multi-core)
- LV cables (single and multi-core)

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- Control cables
- Fibre optic cables
- Control and instrumentation junction or marshalling boxes
- Lighting (normal and emergency)
- Earthing systems
- Fire detection and alarm systems
- Substation ventilation systems

(7) The *Project Manager* identifies, upon receipt and acceptance of the *Contractor's* ITPs those activities, which are required to be checked and/or witnessed by the *Employer* and/or third parties.

(8) Mandatory interventions will be defined as 'Hold Points', other interventions may include activities such as 'Witness Points' and 'Review Points'. The *Contractor* ensures a minimum of 7-days' notice is provided for Hold Points on site.

(9) The *Contractor* implements QSPs to verify conformance with the Generic Works Information.. The *Contractor*'s verification is accomplished by examinations, tests, measurement and inspection and by verifying records including those of his Subcontractors and suppliers. The *Contractor*'s verification procedures will be developed using applicable testing and inspection methods along with acceptance criteria stipulated by the drawings and materials and workmanship specifications.

(10) The *Contractor* ensures that staff nominated for undertaking sampling, inspection and testing activities are appropriately trained and competent to carry out the particular activities to which they have been assigned. The *Contractor* maintains records of training and competence and make such records available to the Supervisor for inspection upon request.

(11) The *Contractor* shall conduct inspections and tests in accordance with his detailed quality plans and ITPs. Key inspection activities shall be agreed with the *Supervisor* prior to construction, which shall include activities of structural or operational, significance, and inspections which are of a subjective nature or release work that is to be covered up. The *Contractor* shall record the completion of inspections and tests and identify records of the results.

(12) Where a Defect in a works item is noted that cannot be put back in compliance within the same shift the *Contractor* shall raise an NCR. Where a specified work activity has not been carried out in accordance with agreed procedural requirements, an NCR is raised.

(13) The *Project Manager's* acceptance is required where an exception or deviation from specified requirements is proposed by the *Contractor*.

(14) Nominated *Contractor* personnel, accepted by the *Supervisor*, shall produce a schedule of inspections to identify Defects and shall raise snagging lists or outstanding works lists at appropriate inspection and acceptance stages to record work that has not been completed correctly or which is outstanding. Defects identified during the inspection and included in these lists shall also require NCRs to be raised. Where testing and commissioning activities are to follow construction, access shall be provided to testing and commissioning personnel and their snagging/outstanding works items shall be included in these lists. Any items remaining open at Completion and any new Defects identified after Completion shall be transferred to a list of Defects for clearance. All snagging, and outstanding works items shall be entered by the *Contractor* into Punchworks or an alternative database provided by the *Project Manager and* tracked to closure.

(15) Each NCR requiring a concession or design change shall be referred to the *Project Manager* by the *Contractor* for appropriate resolution. Any agreed remedial action shall be completed prior to the commencement of any further activities that may render the non-conforming item inaccessible, difficult to repair or increase the cost of the repair.

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(16) All on-site and off-site testing shall be carried out by laboratories accredited by UKAS or similar, acceptable national body or by persons accredited to a similar standard. The samples shall be taken by staff appointed by the laboratory. The requirement for UKAS accreditation may be waived for the testing of systems and their components, subject to an alternative testing proposal by the *Contractor* and the acceptance of the proposal by the *Project Manager.*

(17) Testing and sampling methodologies shall be in accordance with the standards contained in the Generic Works Information, unless otherwise specified by written agreement from the *Project Manager*.

(18) The *Contractor* shall maintain a schedule of all inspection, measuring and test Equipment used for the *works* that includes records of the calibration of such Equipment to nationally recognised standards.

(19) All records from the inspection and testing process are referenced to the location of the item in the works and collated and assembled as part of the Assurance documentation. Copies of all test plans, records and results will be kept in the AIR and MIPD.

(20) The template for ITPs to be completed is be agreed with the *Employer* at least eight weeks before first submission is due by the *Contractor*.

GWI 655 **Procedures for inspections and watching tests**

(1) The *Contractor* notifies the *Project Manager* in advance of the intention to conduct a factory test and site test. The *Contractor* also offers the *Employer* the opportunity to attend each factory and site test. The notice given for a factory test is at least 28 days in advance unless it is outside the UK then it is at least 56 days. The *Contractor* ensures a minimum of 7-days' notice is provided for site tests.

(2) The factory and site test results are project deliverables and form part of the operation and maintenance documentation. The format of the test results record sheets are submitted for agreement with the *Project Manager, Supervisor* and *Employer*. The test record sheets are included within the factory acceptance plan and the site acceptance plan.

(3) The *Contractor* manages the inspection, testing and commissioning of the Power assets in accordance with S1900 Category 1 standard Quality Inspection Completion Certificate (QICC) process.

GWI 660 **Schedule of *Contractor's* Management Plans and Other Procedural Documentation**

GWI 660.1 **Management Plans and Other Procedural Requirements**

(1) The following schedule of Management Plans must be in place and accepted by the *Project Manager* prior to the commencement of the *works*.

The complexity and risk associated with individual projects will determine the production of Management Plans and procedures, these shall be agreed on a project by project basis by the *Contractor* seeking agreement from the *Project Manager* i.e. ''painting and decorating'' Station Upgrade Projects will NOT require an ESP whereas Tunnelling Projects will require the full suite (TMP etc)

Priority 1 = Required within 4 weeks of *starting date*
Priority 2 = Required within 6 weeks of *starting date*
Priority 3 = Required within 8-12 weeks of *starting date*
Priority 4 = Required within 12 - 18 weeks of *starting date*

Priority	Deliverable
1	Project Execution Plan (PEP)

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1	Design Management Plan (DMP)
1	BIM Execution Plan (BEP)
1	Key Persons Succession Plan
1	Master Information Delivery Plan (MIDP)
2	Access Plan
2	Stakeholder Management Plan
2	*Contractor's* Project Quality and Assurance Plan (PAP)
2	Risk Management Plan
2	Training Plan
2	Environmental Management Plan (EMP)
3	Construction Phase Plan
3	Organisational Chart
3	Resource and Waste Management Plan (RWMP)
3	Strategic Labour Needs and Training (SLNT) Plan
3	Equality, Diversity and Inclusion (EDI) Action Plan
3	Ethical Sourcing Schedule
3	Suppliers of Plant identified in the Major Equipment Schedule for each SWI 100
4	Plant and Materials Proposal Schedule
4	Emergency Preparedness Plan
4	Handover/Handback Strategy & Plans
4	Estimate Submission
4	EMC Control Plan

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London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 800

MANAGEMENT OF THE *WORKS*

Document History: **Version:**	**Prepared by**		**Quality Checked by**		**Legal Review**		**Peer Review**	
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5.0					☐			

	Final Sign-off	
	Commercial Line Manager	***Project Manager***
Name		
Signature		
Date		

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GWI 805 The *Contractor*'s Representative (14A.1)

(1) As part of the *Contractor's* mobilisation duties the *Contractor* understands the structure and format of the *Employer's* project team, in particular the appointment of the *Project Manager* and *Supervisor* and any delegations there to and submits to the *Project Manager* for acceptance a communication plan such that there are clear lines of communications between the *Contractor* and the *Employer's* team to facilitate:

- Receipt of instructions
- Understanding of levels of authority to receive instructions by the *Project Manager* or *Supervisor*
- Receipt of other contractual communications

(2) The *Contractor* ensures that his project team and site organisation are established and changed as necessary to facilitate effective communications between the *Employer*'s representatives.

GWI 810 Progress meetings

(1) The *Contractor* is to attend meetings convened by the *Project Manager* at the times and places instructed.

These meetings include reviews on:

- progress,
- health and safety,
- environment,
- cost,
- risk,
- performance
- quality
- design
- Subcontracting
- Third party liaison, and
- special subjects as the need arises.

The *Contractor's* procurement process must include the requirement for his Subcontractors to attend these meetings as required by the *Project Manager*.

(2) Meetings will in each case be held at the location designated and notified to the *Contractor* by the *Project Manager*. The *Contractor* ensures attendance at such meetings by all necessary, appropriate and relevant personnel.

(3) The *Contractor* advises the *Project Manager* of any meetings between himself, Subcontractors, *Employer's* representatives, Infracos, PFI Contractors, Others and/or a Third Party, which the *Project Manager* has the right to attend.

(4) Meetings will be chaired by the *Project Manager*. The *Contractor* will be responsible for taking of minutes and distribution thereof. The minutes will be formally issued within two

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(2) Working Days of the meeting, except where agreed otherwise by the *Project Manager*.

GWI 810.1 Project Start-Up Meeting

(1) Within two (2) weeks of the Contract Date the *Contractor* attends a Project start-up meeting with the *Project Manager* and the *Employer*. The key objectives of this meeting are to:

- review understanding of the *conditions of contract*;
- review understanding of the scope of *works* and processes;
- ensure the *Contractor* fully understands the *Employer's* requirements;
- review and agree key dates;
- review the *Contractor's* programme and agree a sufficient level of detail for project control and co-ordination to further develop an accepted programme baseline;
- table and discuss the *Contractor's* project risk and issues register;
- establish lines of communication and single points of contact;
- agree a meeting and reporting schedule;
- ensure that the *Employer's* systems, processes and procedures are understood;
- notify the *Contractor* of the Contract Administration and Management System (CAMS) and CAMS Communications;
- identify any other meetings that are necessary; and
- agree the format and content of the Progress Report.

GWI 815 Reporting

GWI 815.1 Work Breakdown Structure, Cost Breakdown Structure and List of Control Accounts

The *Contractor*, within twenty-eight (28) calendar days of the Contract Date, develops and submits to the *Project Manager*, for acceptance, a deliverable-based work breakdown structure ("Work Breakdown Structure" or "WBS") and cost breakdown structure ("Cost Breakdown Structure" or "CBS") which subdivides the scope into manageable elements of work so that schedule and cost data can be linked, captured, recorded and measured on a consistent basis.

The *Employer* uses a thirteen (13) period fiscal calendar that runs from April to March (Appendix 1). The *Contractor* uses this calendar when reporting costs and other data and will comply to the *Project Manager's* reporting requirements.

GWI 815.5 Periodic Project Progress Report

(1) The *Contractor* issues a comprehensive Project Progress Report at four-week intervals to suit the *Employer's* thirteen (13) period reporting cycle. The first Project Progress Report is issued at a date to be instructed by the *Project Manager* which will be no more than 28 days after the *starting date.*

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The *Contractor* submits one (1) electronic copy of each progress report to the *Project Manager*.

Each progress report submitted by the *Contractor* is to be reviewed in a Project Progress Report review meeting held at the *Employer's* office or at another location chosen by the *Project Manager* each period. Mandatory attendees of this meeting are to be defined by the *Project Manager.*

Following the *Project Manager's* review of each progress report, the *Contractor* is to review and resubmit the progress report addressing the comments raised within one (1) working week.

The detailed format of the report is agreed with the *Project Manager* prior to the submission of the first report but the submission shall include the following as a minimum:

- Executive Summary and Key Issues;
- Health and Safety, Security and loss prevention;
- Progress;
- Programme Narrative;
- Resources (Manpower and Equipment);
- Design;
- Ground Movement – Monitoring and Control;
- Procurement;
- Commercial;
- Risk Management;
- Quality and Assurance;
- Environment Activities;
- Community Relations; and
- Substation, Underground Station, and Track Access.

Details of each part of the report are set out in the below paragraphs.

Should Call-off Contracts require additional contents, this shall be stated in the SWI.

(2) **Executive Summary and Key Issues**

This part should be no more than two pages summarising the achievements and key issues and interfaces experienced during the period, the safety report, and the commercial position.

Achievement of Key Performance Indicators shall be reported here.

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(3) **Health and Safety, Security, and Loss Prevention.**

This part contains a summary of all activities related to health and safety, security and loss prevention, such as meetings, instructions, inductions, and special achievements. Safety defects and security breaches are summarised together with a brief description of any lost time due to injury or damage to property.

Safety statistics, Accident Frequency Rates (AFR) including all Lost Time Incidents (LTI) and RIDDOR in the period and cumulative shall be included.

Trends are provided together with proposed action to improve safety performance.

The health and safety information required to be reported every four weeks in accordance with GWI 1100 is included here.

(4) **Progress**

This part comprises a narrative report on the progress achieved against that planned in the period, together with explanations of any delays incurred and details of plans on how the delays are recovered. Progress is reported against the latest accepted programme on a physical percentage complete basis by discipline and overall and on schedule performance indicators (SPIs).

The report describes the work which is on the critical path(s), noting the amount of remainingwork.

(5) **Programme Narrative**

This part identifies the current accepted programme and summarise the information contained on each programme which the *Contractor* submits for acceptance. The *Contractor* comments on the progress of all aspects of the work including design, procurement and construction.

Special emphasis is given to issues notified, or to be notified, as early warnings which may delay Completion or delay achievement of a Key Date. The *Contractor* provides a summary of progress on the *Employer*'s milestones.

(6) **Resources (Manpower and Equipment)**

This part shows in tabular and graphical form the planned and actual manhours (by discipline and craft), including Subcontractor manpower, deployed for each activity during the period and cumulatively. A narrative describes any items where a shortfall of manpower is affecting progress.

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Productivity factors by work crews, by discipline and by shift, is analysed and reported with reasons for underperformance including measures being taken to achieve the plan and recover performance.

The *Contractor* reports workforce turnover in the period and cumulative, and the measures being taken to recover and maintain the planned workforce level.

This part also schedules the actual Equipment used, and its performance versus that planned, in the period. Equipment breakdowns impacting on progress during the period is reported. Measures being taken to recover lost production is identified.

(7) **Design**

This part describes the status of the design and engineering of the *works*. The percentage status of completion of each drawing proposed, the percentage of drawings completed and the number and category of drawings to be completed shall be recorded. The *Contractor* identifies the progress on preparation of the assurance package(s).

The *Contractor*, from the design sub-network in the accepted programme described below, reports the status of design relative to the critical path and measures being taken to address any slippage.

(8) **Ground Movement – Monitoring and Control**

This part presents an overview of the status of defects and condition surveys, of monitoring instrumentation, of the movements experienced in the period and to date, and details of any breaches of performance criteria and mitigation measures implemented.

(9) **Procurement**

This part describes the status of procurement (including procurement of Subcontractors) and purchasing, including delivery of all Equipment, Plant and Materials. It shall highlight those items that have long delivery times or where the procurement dates have limited float.

(10) **Commercial**

(a) Compensation Events

The *Contractor* provides a summary and the current status of all compensation events in the period of report, and to date.

(b) Early Warning Matters

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The *Contractor* provides a summary of all early warning matters raised in accordance with clause 16 of the *conditions of contract* giving the date raised, date of any risk reduction meeting held and a reference to records made by the *Project Manager.*

(c) Forecast of Defined Cost

The *Contractor* provides a forecast in accordance with clause 20.4 of the *conditions of contract*. The forecast includes a summary of all expenditure to date, assessment of earned value to date, and shall identify all risk allowances and compensation events and early warnings which the *Contractor* has allowed for in the forecast. The forecast is updated at intervals no longer than set out in the Contract Data.

(d) Earned Value Analysis

Earned value analysis techniques is utilised by the *Contractor*. Earned value versus planned earned value and Defined Cost shall be represented in both tabular and graphic formats. Progress measurement methods shall be as submitted to the *Project Manager* for acceptance. Earned value reports is included with each four weekly progress report.

(e) Cost and Schedule Performance

The report highlights any cost and/or schedule variances between budgeted / forecasted and actual, both in the period and cumulatively and describes the impact of the variances on the final cost and schedule.

Cost performance indicators and schedule performance indicators are developed from the earned value analysis to trend the overall performance of the contract. The numerical analysis is supported by narrative explaining the reasons for any variances and giving the *Contractor's* proposed mitigation plans and actions to correct or minimise any overruns.

(f) Cash flow forecasts

The *Contractor* submits a cash flow forecast broken down to correspond with each activity within the *activity schedule* incorporating all the latest time and cost adjustments. All forecasts are to be submitted in both electronic and hard copy formats.

(g) Change Register

A summary of the changes register (a record of all variations and other cost and time changes), detailing all changes submitted, pending or approved (the full register to be made available to the *Project Manager* upon request).

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(11) **Risk Management**

The *Contractor* identifies in this part of the report, the top ten risks to the *works* as identified by the risk grading current in the report period.

This part addresses the following issues in relation to each of the identified ten risks:

- Risk control measures as assessed against cost of implementation;
- Control measures for the risks identified;
- Action completion dates;
- Completion of actions; and
- Any further issues raised.

A narrative is provided in this part of the report for each risk identified.

(12) **Quality and Assurance**

This part details:

- The latest revision of the *Contractor's* Project Assurance Plan;
- A summary of changes to the *Contractor's* Project Assurance Plan;
- Progress on safe system of works, procedures, inspection and test plans;
- Any concerns or difficulties in providing certification or quality records to demonstrate the compliance of completed work;
- A summary of the assessment and monitoring of suppliers and Subcontractor's quality systems that has been carried out;
- Summary of recent ongoing and planned quality audits;
- Status of all non-conformance reports (NCRs); and
- Any other significant quality issues.

(13) **Environmental Activities**

This part details:

- The latest revision of the Environmental Management Plan (contents as defined by GWI 1100);
- Status of all environmental consents;
- Status of all environmental incidents;
- Status of all environmental NCRs;
- Record of all environmental audits performed;
- Status of all dust monitoring in hand; and
- Status of all noise and vibration monitoring in hand.

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(14) **Stakeholder Management**

This part details:

- The latest revision of the Stakeholder Management Plan
- Record of all *works* notifications issued and requirements for further notification;
- Record of all complaints received and actions taken; and
- Record of all community relations initiatives made and contacts made.

(15) **Access**

This part describes:

- The actual access used against that planned with reasons for loss of access or loss of planned access;
- Access planned and not used and reasons for not used; and
- Access cancelled by the *Employer*.

(16) **Progress photographs**

The *Contractor* provides a minimum of 50 No progress photographs at each period report. Comprehensive progress reportage in still, dated, colour, digital photography shall be submitted.

A representative selection of the photographs is included in the *Contractor's* four-weekly progress report.

The *Project Manager* may specify particular locations and details to be recorded at any time as a record of progress.

The photographs are held in the *Contractor's* central electronic records and accessible to the *Project Manager*.

Photographs are suitable for reproduction at A3 size.

GWI 820 Work Plan

(1) For each element of the *works* in progress (or planned), the *Contractor* issues a work plan(s), no later than 0900 a.m. on Monday of each week. The work plan comprises a four-week rolling programme (one week look back and three weeks look ahead) covering day to day activities. This work plan is in Gantt chart format and be resource loaded with labour resources, Equipment, Plant and Materials by discipline.

The headings include Safety, Progress, Programme, Design, Quality, Access,

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Environment and Issues.

The work plan indicates the timing of all proposed hold points in the inspection and test plans identified by the *Project Manager*, for inspection by the *Project Manager* or the Supervisor or by Others who have the right of inspection.

There is a narrative report on each section/discipline of the work describing the progress over the week look back and planned for the three weeks look ahead.

The *Contractor* marks up progress achieved on the look back week with weightings linked to the overall Accepted Programme. Schedule performance indicators (SPIs) and cost performance indicators (CPIs) shall be calculated for the planned and actual work.

The *Contractor* provides details and reasons for targets not being achieved and actions that the *Contractor* intends to take to recover any lost time.

The format of the work plan is to be agreed by the *Project Manager*, and the work plan is submitted in electronic format and hard copy.

The work plan is discussed at a work plan meeting to be held at the time of issue of the work plan. The *Project Manager* is to be invited to attend the work plan meeting. The *Contractor* requires the *Contractor*'s section managers accountable for the delivery of the works to present their section and account for the performance and the short-term plan.

GWI 825 Daily Log

(1) For each area of work in hand the *Contractor* maintains a daily log to be completed and filed no later than 1000 a.m. the next day, inclusive of all weekends.

The daily log shall be available to the *Project Manager* and his staff and contains as a minimum:

- Daily manpower report: The report states the number of actual personnel on Site during the day against that planned. For manual workers the personnel are grouped by trade and for non-manual workers by work title;
- Daily Equipment report: The report indicates all actual items of Equipment on Site against that planned, and their availability for work;
- Daily construction report. The report includes:

  a) a brief description of the work carried out that day,
  b) the initiation or completion of any significant event,
  c) major items of Equipment received, removed or installed,
  d) work stoppages, interruptions, delays and potential causes of delay; and
  e) Weather records: The report shall include a general description and any

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significant weather events during the course of the day.

The format of the daily log shall be agreed by the *Project Manager* and issued daily via Asite to the *Employer.*.

GWI 830 *Contractor*'s Proposals to change the Works Information

(1) Any proposal submitted by the *Contractor* to the *Project Manager* to change the Works Information contains:

- A detailed scope of the change, clearly identifying the specific sections of the Works Information which are proposed to be changed;
- A schedule detailing how the proposed change is to be affected, including activities and anticipated durations for any resulting design changes to be undertaken by the *Contractor*, additional or revised consents, additional or revised concessions, amended Completion Date, amended Key Dates and other relevant information;
- A proposed revised programme if the programme for the remaining work is affected; and
- Proposed changes to the Prices.

The *Project Manager* replies in accordance with Z1.9A within the conditions of contract. The reply is:

- A rejection of the proposal; or
- A request to submit more information, stating details of the information required; or
- A request to submit a revised proposal to suit the *Project Manager*'s broader considerations, stating details of the amendments; or
- An acceptance of the change to the Works Information which arises from a fault of the *Contractor* and therefore the Prices, the Completion Date and the Key Dates are not changed; or
- An acceptance of the proposal.

The *Project Manager* may extend the time allowed for the *Contractor* to submit a revised proposal and the *Contractor* may extend the time for the *Project Manager* to reply to any proposal or revised proposal if the *Project Manager* and the *Contractor* agree to the extension before the submission or reply is due.

The *Contractor* ensures that the submission and review of the proposal to change the Works Information does not adversely affect the Completion Date(s) or Key Dates or Prices.

The *Project Manager* is under no obligation to accept any proposal or revised proposal and does not need to give any reasons for doing so or not doing so. The emphasis on

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any proposal is on a cost, schedule or risk reduction without impacting on safety.

In the event the proposal is accepted and implemented by the *Project Manager*, the Prices and/or Completion Dates shall be changed by the *Employer* in accordance with Z1.9A.2.

GWI 835 Geological Records

(1) The *Contractor* observes and records the geological materials excavated or investigated during the course of the *works*. Such records are made of all excavations of whatever nature.

These records describe the nature of the materials at the base and in the sides of any excavations, and at the face and sides during tunnelling, the nature of the strata, the levels of the strata boundaries (lithology, weathering grades, nature of jointing etc), location and quantities of groundwater inflow, groundwater levels and details of overbreak and any unanticipated movements of the ground or groundwater.

The records are made by a person with an appropriate knowledge of geology and descriptive terminology for the strata and shall be in accordance with BS 5930- "Code of practice for site investigations" 1999 and the ICE Yellow book “Specification for ground investigation" published by Thomas Telford, London.

Records are made of the results of any borehole drilling, exploratory probing, in situ or laboratory testing, instrumentation or ground treatment carried out from the ground surface. Typical details related to any exploratory probing carried out both prior to or after any ground treatment and include the core descriptions, laboratory test results, penetration rates, loss of drill fluids, water outflows, water pressures, grout pressure, grout quantities and permeability test results, etc.

Two copies of the records are submitted to the *Project Manager* not later than 24 hours after the record has been taken, in a format accepted by the *Project Manager*. The record is signed off as being agreed by representatives of the *Contractor* and by the *Supervisor*.

Summary record drawings of the encountered geology, ground conditions, borehole drilling, exploratory probing, ground treatment and installed instrumentation shall be produced by the *Contractor* for each cutting, heading, and deep excavation at completion of the relevant part of the *works*. The drawing(s) is signed off as being agreed by representatives of the *Contractor* and by the Supervisor.

GWI 840 Record Drawings and Test Records

(1) The *Contractor* keeps a set of all drawings used for construction or fabrication, and associated data and specifications, on the Site marked up to record accurately all

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changes during construction including any instructions and technical query responses.

Drawings and specifications are to be marked up on a continuous basis by the *Contractor* in a format acceptable to the *Project Manager*. The *Project Manager* has access to these Site records at all times and is entitled to a copy for review as and when requested by the *Project Manager*.

Within two weeks of all work shown on a specific drawing, associated data or specification being completed, the *Contractor* produces the as-built drawings and other information which are clearly marked As Built. The *Project Manager* may audit the record information.

The *Contractor* includes or references these "As Built" drawings in the documentation to be provided to the *Project Manager* or Principal Designer (as applicable) for inclusion in the AIR and MIDP which incorporates health and safety file.

Should Call-off Contracts require additional contents, this shall be stated in the SWI.

(2) The *Contractor* keeps on Site copies of all inspection and test results for compilation into test dossiers and handover documentation. Copies of all inspection and test results, test dossiers and handover document will be submitted to the *Project Manager* when required.

GWI 845 Risk Management

(1) The *Employer* is committed to identifying and managing risk.

Risk in this context includes (but is not limited to) those events that, if they do occur, could impact on safety, the environment, the *Employer*'s interests or reputation, or the interests of Others. The *Employer*'s strategy for this process is summarised below.

The *Contractor* co-operates with the *Project Manager*, the *Employer*, and with Others in providing information needed in connection with risk management of this contract.

(2) *Employer's* Risk Management strategy

Risk management is utilised as an action and decision support tool. The process identifies high risk activities and processes and these risks are reviewed to ensure that all reasonably practicable measures are taken to mitigate the risk.

Risk control measures shall be determined for all risks identified.

The Risk Management Process (RMP) is prepared by the *Employer*. The RMP generates information to be used in support of management decision making and drives action in the prioritisation and reduction of risks to which the Project may be exposed.

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It is emphasized that the risk management process is an ongoing activity comprising regular review and the incorporation of measures so that contract risks shall be fully mitigated or to ALARP status as appropriate.

The objectives of the risk management process are:

- To identify risks to the contract before they occur; i.e. events or circumstances that may have an impact on one or more of the project's objectives, including time and cost.
- Eliminate risks wherever possible or reduce the likelihood of occurrence.
- Develop risk management strategies and fall-back plans to deal with risks should they occur.
- Mitigate or reduce the scale of the potential impact of the risk occurring.
- Assess cost and programme effect of any agreed risk and link to the project cost plan and schedule.

Having conducted a risk reduction meeting or other risk review, the *Project Manager*, with the *Contractor*'s co-operation, ensures that the Risk Register is updated and provides the following information:

- Description of risk
- Probability of risk occurring
- Impacts if risk occurs (schedule and cost descriptions and level)
- Mitigation strategies and actions with dates
- Risk owner.

(3) ***Contractor's* Responsibility for Risk Management**

The *Contractor* submits, within four weeks of the starting date, for acceptance by the *Project Manager*, a Risk Management Plan. The *Contractor* liaises with the *Project Manager* during this time to identify and agree the parameters to be used in the identification and evaluation of risk.

The focus of the Risk Management Plan should be reduction of risk exposure. It should be results-oriented and not place undue weighting on analysis at the expense of action. It is in the interests of the *Employer* and the *Contractor* to share relevant risk information and work together to prevent the realisation of risks where possible.

In conjunction with clause 16 of the conditions of contract the *Contractor* identifies any changes or newly identified risks to the *Project Manager*

The *Contractor* identifies to the *Project Manager* any risks which have been realised and become issues.

The *Contractor* reports risks and provides risk related information in accordance with the

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requirements of this contract, the RMP and his risk management plan.

The *Contractor* submits an updated version of their Risks and Issues registers, as separate documents, for approval by the *Project Manager* with the 4 weekly period progress report or earlier as required by the *Project Manager*.

The *Contractor* provides, both in hard-copy and electronic format, a copy of the *Contractor*'s current project risk register for reference at each meeting.

(4) **Management of trends**

The *Contractor* notifies the *Project Manager* of any potential issues which are likely to impact on the programme, the Accepted Programme or the Price for Work Done to Date. In addition to changes, these may arise from items such as pricing issues, constructability matters, ground conditions and working constraints.

An initial review of these issues will be carried out between the *Contractor* and the *Project Manager* (or his delegated representative) who will reject, request additional information or accept the issue as a potential trend.

Potential trends will be analysed to determine whether they will have a material effect on cost or programme. The *Contractor* will participate in the assessment of the likely cost and schedule impacts of potential trends and offer mitigation, corrective action and recommendations.

For the avoidance of doubt, no trend will modify the Accepted Programme or Prices unless it is accepted or assessed by the *Project Manager* as a compensation event.

The *Contractor* submits an updated version of their Risks and Issues registers, as separate documents, for acceptance by the *Project Manager* with the 2 weekly period progress report or earlier as required by the *Project Manager*.

The *Contractor* provides, both in hard-copy and electronic format, a copy of the *Contractor's* current project risk register for reference at each meeting.

The *Contractor* participates in the client's QSRA (Quantitative Schedule Risk Assessment) on the agreed plan once upon the Contract Date and a second time before proceeding to implementation

(5) **Risk Reduction meetings**

The *Contractor* meets with the *Project Manager* not less than once in each four-week period to review the Risk Register in accordance with clause 16 of the conditions of contract. The *Contractor* provides the appropriate level of representation at the meetings to review and action the identified risks and notified early warnings.

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GWI 850 Project Execution Plan

(1) Within 4 weeks of starting date the Contractor shall produce and submit to the *Project Manager*, for review and acceptance, a Project Execution Plan for the *works* within each Call-off Contract.

(2) The Project Execution Plan shall:

(a) outline the overall vision for delivery of the *works*;

(b) document all the *Contractor's* plans for Providing the *works* and show how they fit within the structure of the Call-Off Contract, their respective purpose and high-level context including:

(i) detailing how the *Contractor* will manage its performance of the works;

(ii) setting out *Contractor's* management structure who will be accountable and responsible for delivering all facets of the works including Key People, their role and function in delivering the works, reporting lines and organisation structure; and

(iii) identifying within the management structure, the key role interfaces, such as with, inter alia, the *Project Manager*, Network Rail (where relevant), competent authorities, and Others, by the *Project Manager* and/or the *Employer.*

(c) provide a summary statement of how the *Contractor* plans to provide the *works* to achieve Key Dates and Completion, cost effectively;

(d) describe when the *Contractor* will provide the plans, procedures and other deliverables set out in the Works Information;

(e) act as an index to other plans, should the reader wish to read further and provide a document tree with a clear hierarchy.

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(3) The *Contractor* shall use the Project Execution Plan structure shown below, with the following minimum content. Should the *Contractor* request a change or omission to this PEP structure, the *Contractor* shall submit their proposed outline format of the Project Execution Plan to the *Project Manager* for initial review within ten (10) Working Days of the *starting date.*

Section	Outline Contents
Vision	• An outline of the overall vision for the delivery of the *works* including yearly objectives the *Contractor* team are aiming for.
Scope	• Summary of the scope of the Call-Off Contract including the Prices, Key Dates, Completion date, access planning and management, design management, coordination between system and station designs, subcontracting, training, handover, regular maintenance and reactive maintenance.
Organisation	• Core roles and resourcing including Key People and key role interfaces. • *Contractor's* organisation chart, and indicative team structure for each key project stage • Key Person succession
Project Controls	Summary of how controls will be implemented for the works, including the approach to: • estimating • risk management • reporting progress and performance • planning and scheduling • document management • cost management • commercial management • stakeholder and communications management
Delivery Approach	Description of the approach being used to provide the *works* • Summary of the Procurement Plan for the *works* • Summary of how the *Contractor's* responsible procurement and sustainable delivery obligations will be met • Summary of the contract management approach • Summary of construction and logistics strategy for Works across multiple site locations
Collaboration	How the *Contractor* will embrace collaborative working with the *Employer* and supply chain.

(4) The *Contractor* shall review and revise the Project Execution Plan annually, on the anniversary of the starting date and submit the revised Project Execution Plan to the

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Project Manager for review and acceptance.

GWI 855 Accounts and Records of Defined Cost

GWI 855.1 Commercial Administration

(1) The *Contractor* submits, to the *Project Manager* for acceptance, within twelve weeks of the *starting date*, procedures to be implemented by the *Contractor* to provide maximum confidence that the contract will be properly administered and that the *Employer* will obtain value for money.

The procedures include detailed measures on how the *Contractor* intends to:

- Administer purchase orders, subcontracts and service orders in due time;
- Make timely payments to Subcontractors and suppliers;
- Maintain a cost and commitment ledger and reporting system;
- Monitor Equipment on and off hire dates;
- Control utilisation of Equipment;
- Maintain and review an Equipment register;
- Monitor, check and record deliveries of Plant and Materials;
- Provide Equipment and labour returns to the *Project Manager* on a weekly basis;
- Verify working hours claimed for all people involved in Providing the Works;
- Operate a labour control system based on time-sheets authorised by Site staff and coded according to the agreed code of cost allocations;
- Control Materials wastage, reconciliation and management;
- Code all costs in accordance with the agreed coding system by each activity and by each main element of the Schedule of Cost Components (People, Equipment and Plant and Materials etc.);
- Code compensation events and Disallowed Costs in accordance with the agreed coding system; and
- Carry out any other procedures to ensure that this contract is being adequately administered.

GWI 855.2 Accounting Procedure

(1) The *Contractor* submits, to the *Project Manager* for acceptance, within twelve weeks of the *starting date*, the procedures by which the *Contractor* intends to carry out the accounting for all aspects of Defined Cost.

GWI 860 Procurement Procedures

GWI 860.1 General

(1) The *Contractor* submits detailed procurement procedures, to the *Project Manager* for acceptance, within four weeks of the *starting date*. The procurement procedures define the processes leading to the procurement of Equipment, Plant and Materials, Subcontractors and services including the acceptance by the *Project Manager* of Subcontractors and suppliers in accordance with the accepted Subcontract Procurement

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Plan. The *Contractor* complies with the accepted procedure.

The procedures as a minimum provides the following:

- a detailed Procurement Plan identifying purchase orders, subcontracts and service orders to be placed;
- procedures for the procurement of Plant and Materials, Equipment, subcontracts and services which will achieve best value;
- identifying means of achieving and verifying compliance with the *Employers* Responsible Procurement Principles;
- procedures for the procurement of Plant and Materials, Equipment, subcontracts and services using accurate documentation and latest information;
- procedures for the procurement of Plant and Materials, Equipment, subcontracts and services using contract conditions which adequately reflect the *Contractor's* obligations under the conditions of contract;
- control systems to ensure purchased Plant and Materials are supplied to the specified quality and are delivered to Site at the agreed times; and

- procedures for ensuring that Plant and Materials and Equipment received on Site are properly stored, cared for, and issued for construction.

GWI 860.2 Responsible Procurement Principles

(1) See GWI 1200.

GWI 865 Computer Set-up and Electronic Data Transfer

(1) IT Plan

The *Contractor* provides, within four weeks of the starting date, an information technology plan describing his computing and communications proposals. This plan includes but not be limited to a description of his major computer systems, hardware/software and communications (data and telephone) installations, including any external links, any software development and training plans.

(2) **Computer Hardware**

The *Contractor* establishes a computer network to service this contract and makes access to certain central records available to the *Project Manager* and *Others* from the *Project Manager* or *Employer's* teams as notified by the *Project Manager*. The *Contractor* and *Project Manager* provides computer hardware and software for use by their own personnel.

(3) **Data Transfer Methods**

All drawings, CAD Models, setting-out data, correspondence, reports, financial cost data, risk register data and construction programmes will be transferable electronically.

Contractor central records, drawings, specifications, Site queries, photographs,

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inspection and testing reports, and the ITP/NCR/SQ database and the Audit/CARs database will be accessible to the *Project Manager*.

Version control systems are proposed by the *Contractor* to ensure that only intended versions are used.

GWI 870 Project Team

(1) The *Contractor* issues within fourteen days from the *starting date* an organogram detailing the following information:

- All key people (including Project, Commercial and Technical Management Divisions)
- Reporting lines
- Names of staff allocated to roles
- Key Subcontractors and Subcontractors

(2) The organogram will be reissued when any changes are made.

(3) The *Contractor* notifies the *Project Manager* with the contact details (including e-mail addresses and mobile phone numbers) of all key people set out in the organogram (as amended from time to time).

(4) The *Contractor* establishes and deploys within four weeks the *Contractor*'s key people and all other necessary support staff and resources as required for the commencement of *works* from the Contract Date.

(5) The *Contractor* prepares and submits once every two weeks a resource status and progress to fulfil project requirements, until all resources have been allocated to the project. The resources must be integrated within the programme.

GWI 875 Communications

GWI 875.1 General

(1) The *Employer* utilises an internet-based document management system (Asite) for the purpose of document and information management. The *Employer* grants read access to part of this system, and that it may be used as a platform for sharing documentation with the *Contractor*. The *Contractor* makes allowance for the project's document controller and any other member of staff requiring training to attend a half-day session at London Underground's offices to receive the training.

All contractual communication required under the contract are to be made under Asite unless the *Project Manager* has suspended use or advised it is not to be used. Email is not to be used for formal Contract correspondence but is acceptable as a means of forwarding correspondence.

All contract communication between the *Employer* and *Contractor* will be between the *Project Manager* and the *Contractor*'s *Project Manager* only. No variance from the agreed lines of communication will be permitted without the agreement of the *Project*

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Manager.

The *Employer* is responsible for providing or procuring the provision of the necessary licenses and initial training required by the *Contractor* in order to utilise Asite. The *Contractor* confirms at the Project Start–Up Meeting the number of licenses it requires and the number of its staff that will require training together with their names and disciplines

With the exception of certain defined communications (including Requests for Information, Early Warning Notifications and Notification of Compensation Events), all A-site communications from the *Contractor* to the *Project Manager* will be submitted under cover of a *Contractor*'s Communication.

Only one subject will be included on any one *Contractor*'s Communication, which will be accurately titled accordingly.

All correspondence between the *Contractor* and other parties appointed or under the control of the *Project Manager* will be through the *Project Manager* unless otherwise agreed.

GWI 875.2 Document Management

(1) The *Contractor* is required to develop and implement a document management system. The system shall enable the *Contractor* to manage, control and track all documentation and communications in relation to this project. The following minimum requirements shall be met:

- Asite must be the mechanism for document and information management
- The *Contractor* tracks all incoming and outgoing correspondence on a contracts communication register, which shall be kept up to date and supplied to the *Project Manager* whenever requested
- The *Contractor* additionally keeps a separate record of any early warning, compensation event notice, compensation event quotation and responses by the *Project Manager* (the change control register)
- All communications and documents will have a unique reference number, as per the following format:
    - Project Code (4-numbers: 0000) – Originator Code (3 letters) – recipient code (3 letters) – document code (3 letters) – sequential number (4 digits + 2 digits revision number)
    - An example would be 0000-LUL-ABC-DEF-0001, being the first project general communication sent from LUL to ABC.
    - The sequential number is specific to the code combination that precedes it
    - A list of accepted codes will be provided to the *Contractor* by the *Employer* prior to contract award

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- All contract communications are to be signed by the *Contractor*
- All communications are to be issued to the *Project Manager* and to be sent via Asite.
- All communications have an issue type (for information, for comment, for action). If the communication is issued for comment, the nature of the comment required (e.g. approval) shall be clearly stated in the communication. If the communication is issued for action, the action(s) required is to be clearly stated in the communication.
- All communications issued in response to a previous communication are to reference the original's reference number.
- Should a communication require re-issuing, e.g. to rectify an inaccuracy in the original, a new communication is to be issued, with new identification number, voiding the previous erroneous communication.
- All documents and drawings are to be revision controlled. Any document or drawing that is submitted to LUL following a prior formal submission must have all changes tracked or highlighted (e.g. by using a tracked changes function on a word processor, or using revision clouds on drawings). This will ensure a quicker review period. The *Project Manager* reserves the right to refuse any revised document received without changes tracked.

If a document is re-submitted in response to an *Employer*'s review with associated comments log, the document must be accompanied with the original comment log, annotated by the *Contractor*, detailing the response to each comment. The *Project Manager* reserves the right to reject any document submitted without the associated completed comments log.

The *Project Manager* reserves the right to reject any submission intended for onward transmission, e.g. a design change for engineering approval, without comprehensive commentary if, in the *Project Manager*'s opinion, it does not meet a minimum quality standard.

GWI 880 Labour and Plant Returns

(1) The *Contractor*, in addition to such other returns and reports, notices and the like required under this contract, submits the following in a form accepted by the *Project Manager*:

- Daily Labour Returns giving the numbers, including trade classifications, of all personnel employed on the Site, including those of subcontractors, and the number and position of supervisory and administrative staff.
- Details of works to be carried out each forthcoming night and the names of personnel involved (to be submitted by 1200 hours on the day of the works or 1200 hours Friday for weekend works).
- Weekly Equipment Returns recording the numbers and types of all mechanical

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plant & Equipment on the Site and, where applicable, the dates when the plant or Equipment was brought on to and removed from the Site, including the activity the plant or Equipment is required for.

- Incident notification reports for all incidents occurring on Site, in a form to be agreed with the *Project Manager*.
- List of all Plant and Materials prior to delivery to Site.
- Timesheets are completed by all *Contractor* personnel. These are signed and endorsed by the relevant line manager. The timesheets are kept in a suitable single location within the *Contractor*'s offices and be available for regular audit by the *Project Manager*. A weekly summary of timesheets is submitted to the *Project Manager* by Thursday of the following week. The summary sheet includes a list of all staff working on the contract, the rate being charged, hours expended, and cumulative hours expended.

GWI 885 Key Persons Succession Plan

(1) The *Contractor* submits to the *Project Manager* a key person succession plan for acceptance within four (4) weeks of the *starting date*. A reason for not accepting the key person succession plan is that it does not give sufficient comfort to the *Project Manager* that replacement key people will be properly inducted, and their workload handed over to them in a structured and ordered fashion.

The *Contractor* includes, as a minimum, in his key person succession plan the following:

- details of any planned replacement key people
- processes for handing over duties, including length of shadowing time
- submission of CVs,
- details of how the *Contractor* proposes to affect any replacement such that there is no impact on the *Contractor* Providing the Works.

GWI 890 Principals group

(1) The *Project Manager* reserves the right to convene a Principles group meeting between the *Employer* and *Contractor* with 10 days' written notice. The mandatory attendees of this meeting are the be defined by the *Project Manager* but will include senior representatives of the *Employer* and *Contractor.*

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Appendix 1: *Employer* 13 period fiscal and reporting calendar

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London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 900

WORKING WITH THE *EMPLOYER* and OTHERS

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	Final Sign-off	
	Commercial Line Manager	**Project Manager**
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GWI 905 Sharing the Working Areas with the *Employer* and Others

GWI 910 Co-operation

GWI 915 Co-ordination

GWI 920 Authorities and utilities providers

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GWI 905 Sharing the Working Areas with the *Employer* and Others

(1) The *Contractor* co-ordinates his design, construction and programme of works with the *Employer* and Others and allows the *Employer* and Others to complete their works within the Working Areas in compliance with the requirements of the Generic and Specific Works Information.

GWI 905 General Requirements

(1) Certain operations not forming part of the *works* may be carried out within or adjacent to the Site by the *Employer* and/or Others under separate arrangements with the *Employer*.

(2) In addition, certain parts of the Project will also be carried out by the *Employer* and/or Others under separate arrangements with the *Employer*.

(3) The *Contractor* is responsible for the co-ordination of the *works* with the activities of the *Employer* and/or Others on the Site in respect of programme and technical interfaces. Failure to demonstrate this within the programme issued for acceptance may give grounds for non-acceptance by the *Project Manager*.

(4) The *Contractor* exercises the duties of contractor and Principal Contractor in accordance with the CDM Regulations 2015, including in respect of:

- Co-operation with (including access for the *Employer* and/or Others to the Site);
- Ensuring all contractors and Others co-operate on and outside the Site; and
- Ensuring the safety of his workforce and Others.

The *Contractor* ensures that the progress of the *works* is not compromised.

(5) Where the *Contractor* is not the Principal Contractor as set out in the CDM Regulations for a particular area within the Site, the *Contractor* provides all necessary information required by the Principal Contractor for that area in order to ensure the safety of the *works*, and in order to comply with the CDM Regulations.

(6) Any communication required under this contract from the *Contractor* to the *Employer* and/or Others is copied simultaneously to the *Project Manager*, unless otherwise stated in the Generic Works Information or Specific Works Information.

GWI 905.2 Station Security

(1) Where access is gained through the Station operational area, the *Contractor* liaises with and accepts instructions from LU operational staff and security managers or from British Transport Police in its independent policing role.

GWI 905.3 London Underground (Station and Train Operator)

(1) The *Employer*, and particularly the Station manager, is responsible for the operation of the Station and for running trains.

(2) The *Contractor* takes all steps to minimise the impact of his construction activities on the Station operations and co-operates with the *Employer's* operational staff in providing safe and alternative routes and access for the travelling public.

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(3) Where there is an effect or potential effect on safety in train operations and service, such operations and service takes priority over the execution of the *works*.

GWI 905.4 Access into the Site

(1) Access for the workforce to areas within the Site for the purpose of Providing the Works is as described in GWI200.

GWI 905.4 London Underground (Maintenance)

(1) Unless otherwise stated in the Specific Works Information, London Underground is responsible for the maintenance of assets within the Site.

(2) The *Contractor* takes all steps to minimise the impact of his construction activities on the *Employer's* maintenance activities and co-operates with the *Employer's* maintenance staff in providing safe and alternative routes and access for the travelling public.

GWI 905.6 Other Works Contractors

(1) Other contractors will be working on the Site and/or the Underground Network during the construction period.

(2) The following operations may require the *Contractor* to share the Site with Others:

- *Employer's* station upgrade contractors;
- *Employer's* Piccadilly Line Upgrade project contractors;
- *Employer's* Test Trains;
- *Employer's* Engineering Trains;
- The *Employer's* maintainers; and
- HS2 and their contractors
- Others and operators and their contractors.

(3) The *Contractor* liaises and co-ordinates on programme and technical interface matters with such contractors listed above. The *Contractor* co-ordinates the *works* with such other contractors' activities.

(4) The *Contractor* makes suitable allowances within his programme submitted for acceptance for the interfaces with such contractor's activities.

GWI 910 Co-operation (25.1)

(1) The *Contractor* will be required to interface with the *Employer's* staff and Others to acquire and provide information, services and resources, in order to Provide the Works; the following is a non-exhaustive list:

(a) *Employer* representatives from other Piccadilly Line Upgrade project teams;

(b) *Employer* representatives from other TfL teams;

(c) The *Employer's* Asset Operations (AO) Power Team;

(d) the *Employer's* maintainers, operators and their contractors;

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(e) Infracos;

(f) Network Rail and London Overground;

(g) any other party in contract with the *Employer* whose works interface with, are adjacent to and/or have the potential to impact upon the *works;*

(h) TfL Group;

(i) British Transport Police and LUL Operational Security, Security and Policing;

(j) Statutory Undertakers;

(k) the London Fire and Emergency Planning Authority (LFEPA);

(l) any other relevant Third Party.

(2) Any specific licences, consents, notices or approvals to be obtained from Others by the *Contractor* are defined within the Specific Works Information.

(3) The *Contractor* cooperates, liaises and provides all reasonable assistance and information to the parties listed in GWI 910 (1).

GWI 915 Coordination

(1) GWI 215 details the procedures to be followed regarding *Contractor* liaison with the *Employer* for access to the Site.

(2) The *Contractor* interfaces, co-operates, liaises and attends all necessary meetings to ensure that the designs and the *works* being carried out by the *Contractor* are entirely compatible, integrated and co-ordinated with all Others' activities.

(3) The *Contractor* ensures that the *works* are sufficiently co-ordinated, programmed and interfaced with the relevant Others' activities, to avoid any delay or disruption being caused to Others in the carrying out their activities.

(4) The *Contractor* ensures that the *works* (including those in relation to sub-station buildings) are in accordance with all relevant local authority requirements.

(5) The *Contractor* takes overall responsibility for managing the interfaces arising in the *works* at all stages of the project. The *Contractor* manages the coordination of all stakeholders and interfaces, and provide sufficient notice to all parties to enable the implementation of the *works*.

(6) The *Contractor* provides all information required by the *Project Manager* for the purpose of enabling the *Project Manager* to assist with internal LUL interfaces.

GWI 915.1 Responsibility for Co-ordination

(1) The *Contractor* co-operates with all parties having health and safety responsibilities on or adjacent to the Site. The *Contractor* holds regular general co-ordination meetings as specified by GWI 915, to which the *Project Manager* will be invited. All

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Others who share and/or adjacent to the Site will be invited as required.

(2) The *Contractor* will be responsible for stakeholder management for the *works*, through all project stages including design, construction, commissioning and handover. The *Contractor* develops a Stakeholder Management Plan for each Site.

All communications with third party stakeholders will be approved in advance by the *Project Manager* and if appropriate by the *Employer's* Communications department.

(3) The *Contractor* regularly liaises with Others as to their actual progress and arranges the delivery schedules for his Equipm**ent**, Plant and Materials accordingly.

(4) Where the *Contractor* is required to use shared areas within or adjacent to the Site the *Contractor* agrees who is to be the Principal Contractor for these parts of the Site and ensures that the limits of primacy are clearly delineated.

(5) The *Contractor* attends coordination meetings chaired by the respective Principal Contractor as agreed for that part of the Site and provides the necessary assistance to the Principal Contractor to enable him to manage the construction area.

GWI 915.2 Co-ordination Meetings

(1) In order to be able to co-ordinate the works being carried out by Subcontractors and by Others, the *Contractor* arranges three types of co-ordination meeting which he will convene with the relevant personnel and offers the *Project Manager* the right to attend. The *Project Manager* reserves the right to include any representatives from the *Employer* in these meetings.

The area(s) of the Site allocated to each contractor during any period of work will be determined in these meetings.

a) Four weekly meetings

During these meetings, after the updating of the *works* execution programmes, the *Contractor* draws up, having regard to health and safety matters, a forward works programme and a list of resources (personnel, Plant and Materials and Equipment) to be employed by any contractors working at the relevant area of the Site during the following four weeks.

b) Weekly meetings

During these meetings the *Contractor* draws up, having regard to health and safety matters, detailed coordinated arrangements for access and deliveries of resources, Plant and Materials, and Equipment for the next week and prepares the arrangements for the coordination of the activities for the following two weeks after that.

c) Daily briefing report

As part of the briefing, the *Contractor* draws up, having regard to health and safety matters, a common programme for the *works* to be performed the next day. This programme includes in particular:

- The schedule of activities to be carried out during normal working hours in

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areas segregated from depot operations by any contractors working in the relevant area of the Site;

- The schedule of equipment movements for the Site in respect of any contractors working in the relevant area of the Site*;*
- The list of deliveries of Plant and Materials to the Site in respect of any contractors working in the relevant area of the Site*;*
- The schedule of activities to be carried out by any contractors working in the relevant area of the Site;
- The *Contractor* and Others sign this report which constitutes a safety document.

GWI 920 Authorities and utilities providers

(1) Any works to be carried out by authorities and utilities providers will be identified in the Call-off Contract SWIs.

(2) The *Employer* is to undertake any necessary engagement with utility providers in regard to any proposed changes to the permanent LU power supplies.

Note: there are no appendices associated with this document.

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GENERIC WORKS INFORMATION (GWI) 1000

SERVICES AND OTHER THINGS TO BE PROVIDED

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GWI 1005 Services and other things for the use of the *Employer*, *Project Manager* or Others to be provided by the *Contractor*.

GWI 1010 Services and other things to be provided by the *Employer*

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GWI 1005 **Services and other things for the use of the *Employer, Project Manager* or Others to be provided by the *Contractor***

GWI 1005.1 **Services and things provided by the *Contractor***

(1) The *Contractor* allows for the provision of up to five sets of Personal Protective Equipment (PPE) as listed below for visitors to the Site. The number of visitors and actual sizes of PPE requirements will be advised to the *Contractor* in appropriate time in advance of the planned visit.

- hard hat;
- hi Visibility coat;
- hi Visibility vest;
- flame retardant overalls;
- safety boots and socks;
- safety glasses;
- gloves;
- ear plugs/ear defenders; and
- any other PPE as required by the C*ontractor's works* risk assessments.

(2) The *Contractor* provides the *Employer* with access to each Site welfare facilty provided by the *Contractor,* as well as access to the *Contractor's* office accommodation when required by the *Employer*.

The *Contractor* provides the following facilities for two individuals from the *Employer's* organisation when such access is provided:

- Desk with suitable chair
- Standard functional power points
- Desktop computer monitor with HDMI cable
- Available WiFi
- Shared kitchen, mess and welfare facilities
- Toilets

(3) The *Contractor* is responsible for procurement, installation, consumption charges, connections to the site, maintenance and subsequent removal of the temporary power supplies that he requires to construct the *works*, to test and commission the MEP systems, and provide for Others until such time as the permanent HV supply is connected.

(4) The *Contractor* makes their own applications for temporary supplies from the relevant utility undertaker.

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(5) The *Contractor* determines his own demands for power and negotiates accordingly with UK Power Networks.

GWI 1005.2 Meter Readings

(1) Not Used

GWI 1005.3 Scheme Sign Boards

(1) The *Contractor* provides the project and emergency escape route signage in compliance with relevant Standards and the agreement of the *Project Manager* detailing the Site layout, sign locations, signage schedule and sign content and specification requirements.

GWI 1005.4 Redundant Substation Equipment – General

The *Contractor* undertakes the following *works*:

- Remove from Site all equipment and associated cables and CMS that become redundant due to the *works*.
- Offer all removed items of plant and equipment to the Employer for retention of spares. The *Contractor* will transport and deliver all components that the *Employer* wishes to retain to the *Employer's* maintenance storage depots.
- Where redundant equipment (including cabling) is not suitable for use as spares the *Contractor* will dispose of it in an appropriate manner and compliance with GWI 1310 and GWI 1100.

GWI 1010 Services and other things to be provided by the *Employer* for use by the Contractor

GWI 1010.1 Services and other things provided by the *Employer*

(1) The *Contractor* (where required in order to Provide the Works) shall obtain free of charge the following services from the *Employer* and others;

- provision of relevant London Underground substation training
- SCADA TRI engineer
- Tunnel Telephone engineer, Signal Technical Officers, Cable Linesman

For the avoidance of doubt the *Contractor* is responsible for procuring at his own cost all required track/station protection staff, fire watchman and T002 staff.

For the avoidance of doubt the *Contractor* provides suitably competent personnel to be trained and authorised by LU as HV1 & LV1 and HV2 & LV2 Acceptors in accordance with the *Employer's* HV & LV Safety Rules.

The provision of HV1 and LV1 personnel is in accordance with GWI 200.

(2) The *Employer* provides the following office accommodation, sanitary

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accommodation, mess rooms and other welfare provisions for the use of the *Contractor*, free of charge;

- Substation toilet;
- Substation mess room.

(3) The *Contractor* maintains these facilities and services for the duration of the contract and ensures they are kept in a clean and decent condition at all times, in line with good industry practice. The use of these facilities may be withdrawn if the *Contractor* fails to do so.

(4) The *Contractor* provides additional welfare facilities required for the number of personnel on site at each location as required.

(5) Access to the Site in line with GWI215.11.

GWI 1010.2 Free Issue

(1) The *Employer* does not provide any free issue Materials, Plant or Equipment to the *Contractor,* unless otherwise stated in the Specific Works Information.

Note: there are no appendices associated with this document.

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GENERIC WORKS INFORMATION (GWI) 1100

HEALTH, SAFETY AND ENVIRONMENTAL REQUIREMENTS

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	Commercial Line Manager	**Project Manager**
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Signature		
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GWI 1105 – Health and Safety requirements

GWI 1105.1 General Health, Safety and Environmental requirements (including Contract QUENSH Conditions)

(1) The *Contractor* complies with all of the requirements listed in the Contract QUENSH Conditions menu completed for each Call-off Contract. The QUENSH Conditions menu template is provided in Appendix 7.

(2) The *Contractor* complies with the London Underground Limited (LUL) Health, and Safety Management System Standards containing mandatory Category 1 Standards and, if stated, Category 2 and 5 Standards, Guidance Documents and template documentation.

(3) The *Contractor's* health and safety performance is monitored by the *Employer* using the LUL Supplier HSE Maturity Assessment. The default frequency for assessment against the criteria is quarterly, though this may be varied by the *Employer* in light of the level of activity or performance. The *Contractor* participates in the assessment through the provision of information and evidence requested by the *Employer* in respect of the criteria. The results of the assessment will be discussed with the *Contractor* upon its completion. If required, the *Contractor* will be asked to prepare an Action Plan in response; progress against which is monitored as part of subsequent assessments. The full assessment criteria will be shared with the *Contractor* after the Project Start-Up Meeting.

GWI 1105.2 LUL AIR and MIDP requirements

(1) See GWI 400.

GWI 1105.3 Facilities & Services

(1) The *Contractor* refers to GWI 900 and GWI 1000, for details of facilities to be provided to the *Contractor* for its use, and for those which the *Contractor* is required to provide for Others and or the *Employer's* use.

(2) The *Contractor* is responsible for cleaning, inspecting and maintaining all sanitary conveniences and facilities provided in the Working Areas, whether shared or provided for use by the *Contractor* or *Employer*.

GWI 1105.4 HSE Initiatives

(1) The *Contractor* ensures that his staff participates in the Health and Safety initiatives that the *Employer* uses to review and improve Health and Safety performance collectively with the *Employer's* supply chain. This includes the requirement to attend routine HSE committee meetings, briefings and forums, and to cascade, communicate and circulate associated bulletins and notices.

GWI 1105.5 Audit Schedule

(1) The *Contractor* provides a Health and Safety audit schedule in accordance with QUENSH.

(2) The reports completed after all audits will be forwarded to the *Project Manager*, for information, within two (2) weeks of the audit being carried out. The report will include details of any identified issues and any proposed corrective actions. The report will be reviewed during the periodic progress meetings.

(3) The *Contractor* ensures that the *Project Manager* is notified a minimum of two (2) weeks in advance of any audits that are to be undertaken, so that the *Project Manager* may attend and witness the audit.

(4) Where an inspection identifies a non-compliance or issue for improvement, the *Contractor* details the action required, the name of the individual responsible for the action and a reasonable timescale for completing the action. The identified person will be responsible for closing out the action within the stated timescale.

(5) The *Contractor's* health and safety audits will be undertaken by a person

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qualified by training and experience to undertake such audits. The proposed auditor's competence will be accepted by the *Project Manager* before such audits take place.

GWI 1105.6 Glossary

Term	Definition
Action Plan	*Contractor* improvement proposal(s) that address the issues identified in the LUL HSE assessment.
HSE	Health Safety and Environment
HSE Maturity Assessment	LUL's review of *Contractor's* performance against the HSE objectives and targets
AIR	See GWI 400.
Pre Construction Information	An information pack to provide the *Contractor* with project specific health, safety and environmental (HSE) information required to identify hazards and risks associated with the work.
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013. These Regulations require employers, the self-employed and those in control of premises to report specified workplace incidents
Safe System of Work (SSoW)	The *Contractor* assesses all safe systems of work in relation to the risks advised by the *Project Manager*

GWI 1110 - Particular Health and Safety requirements

GWI 1110.1 Contractor's Health & Safety Management

(1) The *Contractor* implements and maintains a health and safety management system that, as a minimum, meets the requirements contained in BS OHSAS 18001 Occupational Health and Safety Management, ISO 45001 Occupational Health and Safety and HSG65 Managing for Health and Safety, or similar.

GWI 1110.2 Health, Safety and Environmental Training

(1) The *Contractor* determines the Health & Safety competency and training requirements for all staff working on the contract. The *Contractor* makes full allowance in programming, controlling and executing the *works* for Health & Safety training requirements.

GWI 1110.3 Site Hazards

(1) The *Contractor* is to consider the Site hazards identified by the *Employer* in association with the *works* contained in the Specific Works Information and the Site Inforamtion supplied with each Call-off Contract.

(2) The *Contractor* is to also consider the Site hazards that are normally associated with working on a LUL Network. These include, but are not limited to:

- confined spaces;
- restricted working heights;
- asbestos containing materials;
- buried as well as hidden cables;
- hazardous materials;

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- uneven surfaces;
- high and low voltage cables and station & communication equipment rooms;
- moving machinery;
- moving trains; and
- working close proximity to track and LUL assets

(3) The *Contractor* is to undertake its own 'site hazard survey' prior to starting *works* on Site. The output of each site hazard survey is to be incorporated into each method statement and/or safe system of work provided by the *Contractor* for review by the *Employer*. The *Employer* reserves the right to reject any method statement or safe system of work submission by the *Contractor* which does not demonstrably incorporate hazards on site.

GWI 1115 - Occupational Health

GWI 1115.1 General Requirements

(1) The *Employer* believes that an exemplary standard of occupational health across the *works* is essential in delivering the *Employer's* Health, Safety and Environment policy commitments and objectives. This can have a positive effect on the *Contractor's* workforce health where actively managed.

(2) The *Contractor* procures occupational health services and submits to the *Project Manager* for acceptance the name of the occupational health services provider from whom the *Contractor* intends to procure occupational health services together with demonstration that the level of service proposed will meet the requirements of this contract.

(3) The *Contractor's* occupational health services provider works with the *Contractor* to achieve the *Employer's* overall objectives for occupational health in the context of the following four elements of activity:

- design of structures/ facilities to be built;
- procurement of Equipment, Plant and Materials to be used;
- planning of construction work and determining the method of working through risk assessment; and
- delivery of the *works* in construction, commissioning and operations.

GWI 1115.2 Occupational Health Services

(1) The following reactive occupational health services are to be provided by the *Contractor* for each individual engaged by the *Contractor* (including the employees of Site based subcontractors and suppliers of any tier):

- providing first aid and emergency response services to be operated from Site based facilities appropriate to each work location;
- providing a treatment service for those likely to have difficulty accessing medical care locally;
- testing for drugs and alcohol in individuals in accordance with the requirements of QUENSH and the Generic Works Information;
- providing health questionnaires for all individuals including Site and office based staff;
- providing specific health appraisals for those referred following evaluation of questionnaires;
- providing occupational hygiene services to support and assess ill health prevention management;
- providing the opportunity for annual health checks for operatives, including:
    a. general health, personal guidance, health promotion, etc. and to include relevant factors for safety critical workers;

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b. contributing to the effectiveness of attendance management, rehabilitation and return-to-work programmes and support for ill health incidence investigation where necessary; and

c. providing health promotion programmes applicable to construction operatives' workplace and lifestyle

GWI 1115.3 Additional occupational health services to be provided

(1) In addition to the 'reactive' and 'preventative' occupational health services detailed above, the following additional occupational health services are to be provided by the *Contractor*:

- provision of advice and guidance on occupational health to the *Contractor*;
- contributing to the development and continuous improvement of the occupational health strategy through cooperation with the *Employer*;
- providing advice to the *Contractor's* supply chain to assist in compliance with the *Employer's* occupational health standards;
- ensuring suitable record keeping through a central database; and
- compiling periodic reports detailing activity and achievements.

GWI 1115.4 Impact of Health on Performance

(1) The *Contractor* implements suitable and sufficient processes to control the impact of health on performance in the areas of fitness for work and health surveillance.

GWI 1115.5 Fitness to Work

(1) Safety Critical and Non-Safety Critical Workers

- The *Contractor* defines a range of activities as safety critical. The *Contractor* provides and maintains a process to ensure sufficient health arrangements including, but not limited to, fitness to work. When assessing activities that are safety critical the *Contractor* takes due cognisance of statutory regulations that define safety critical works (such as The Railways and Other Guided Transport Systems (Safety) Regulations 2006 and London Underground Rule Book 24).
- The *Contractor* selects safety critical workers based on levels of competences, specific hazards or working conditions, including but not limited to; work at height, electricians. The *Contractor* assesses all non-safety critical staff by a paper screening process, which will be reviewed by the *Contractor's* nominated occupational health provider, and follow up consultations arranged where the assessor deems necessary. This assessment should take place prior to allowing an individual to commence work and it should be repeated annually unless alternative timescales are agreed by the *Project Manager*.
- The *Contractor* also ensures occupational health assessments are performed for any worker who has been referred by other means (including self-referral).

(2) Periodic Health Assessments

- The *Contractor* implements a process that identifies those workers who require periodic assessment due to legal or other occupational health defined requirements. The period and nature of the assessment will be defined by the *Contractor's* approved occupational health provider in response to the nature and risks associated with the work that is being carried out and any circumstances of the individual.

(3) Health Surveillance

The *Contractor* will, as a minimum, have agreed occupational health protocols for the following surveillance as applicable:

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- Hand arm vibration syndrome (HAVS) related health surveillance that is conducted pre-exposure, after twenty-six (26) weeks and annually thereafter;
- Noise health surveillance that is carried out pre-exposure and annually for at least two years. Thereafter the frequency of further occupational health surveillance will be between one to three years depending on risk assessment based on previous results and task;
- Control of substances hazardous to health (COSHH) surveillance, where a situation has been identified where surveillance is deemed necessary;
- Respiratory health surveillance; and
- Dermatological / skin health surveillance.

(4) Alcohol and Drugs

- The *Contractor* enforces a strict alcohol and drugs policy across the Site that will apply to all persons (including Subcontractors and suppliers of any tier) engaged on the *works*. The policy will be consistent with the *Employer's* policy and will apply to all persons whether based within the Working Areas or travelling to and from the Working Areas in connection with the *works*.
- No alcohol or drugs will be brought into or consumed by any person within the working areas and associated welfare facilities or delivering Equipment or Plant and Materials, including but not limited to temporary facilities.
- Any person suspected of being under the influence of alcohol and/or drugs will be refused entry to the Working Areas or required to leave the Working Areas and subject to testing by the *Contractor's* approved occupational health provider.
- The *Project Manager* informs the Police of any person working on the contract who is found or believed to be supplying illegal drugs. The *Contractor* provides all required assistance to the *Project Manager* and the Police and takes appropriate measures to exclude any such persons from the Working Areas.
- The *Contractor* advises the *Project Manager* of any personnel who are 'safety critical' and are under any form of prescription medication without delay and comply with any direction given.
- The *Contractor* ensures that adequate processes are in place to allow the *Employer* and/or the *Project Manager* to undertake "For Cause" drugs and alcohol testing of any manager or operative where it is deemed necessary as part of an investigation.
- The *Contractor* implements suitable arrangements to verify compliance with the *Employer's* Alcohol & Drugs policy, including undertaking the necessary alcohol & drug testing and in addition the *Contractor* co-operates with the *Employer* who may arrange for the execution of "Random" and/or "For Cause" Alcohol and Drugs test.

(5) For the purposes of this part of the Generic Works Information;

- "For Cause Test" means – A drugs and alcohol test undertaken to identify whether or not drugs or alcohol affected a persons behaviour resulting in acts or omissions which caused, or could have caused an incident or accident or where there is reasonable ground to suspect that a person is in breach of the drugs and alcohol policy.
- "Random test" means – A drugs and alcohol test undertaken to determine the effectiveness of the drugs and alcohol policy and to verify compliance at a given date and time. The selection of staff that is required to submit to random testing will be done in a way that minimises disruption but the *Project Manager* reserves the right to undertake an appropriate level of testing to verify compliance with the *Contractor's*

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Policy.

(6) For the Random Testing programme, the *Contractor* performs testing based on the following requirements:

- 10% of non-manual employees annually;
- 10% of manual employees annually;
- 10% of lorry drivers; and
- 10% of Subcontractors and suppliers (of any tier) employees annually.

(7) A positive result will be recorded when the test identifies the presence of a drug for which there is no legitimate medical need or where the level of alcohol exceeds:

- 29 milligrams of alcohol in 100 millilitres of blood; or
- 13 micrograms of alcohol in 100 millilitres of breath; or
- 39 milligrams of alcohol in 100 millilitres of urine.

(8) Refusal to submit to a drugs & alcohol test or evidence that a test sample has been altered or corrupted will be regarded as a positive result and will require investigation and action.

(9) Suitable arrangements will also be provided by the *Contractor* as part of the overall Occupational Health programme to identify and assist those with a alcohol or drug dependency, allowing for rehabilitation and or disciplinary actions where breach of site rules apply.

(10) The *Contractor* ensures that employees who refuse to consent to alcohol screening or search protocols will be subjected to disciplinary actions

GWI 1115.6 Clarification of Drugs & Alcohol testing arrangements for LU and Transport for London employees and non-permanent labour

(1) London Underground (LUL) and Transport for London (TfL) staff and non-permanent labour are already subject TfL Standard S1257 Drugs and Work and TfL Standard S1251 Alcohol and Work that form part of their contractual arrangements. These arrangements have been agreed with both the Trade Unions and Regulator and ensure a consistency of application in line with the agreed contractual arrangements; irrespective of their work location.

(2) The *Contractor's* own drug & alcohol (D&A) testing arrangements, including those which form a part of the site induction process, should therefore not be applied to LUL and TfL employees and non-permanent labour. Instead the following applies:

If the *Contractor* has reason to believe, that an LUL/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 – who will then, arrange for the individual to be D&A tested, in accordance with the relevant TfL Standards.

(3) In the event of an incident, where "For Cause" testing is required for an *Employer's* permanent or temporary staff member, contact should be made with the *Project Manager* immediately – who will arrange for the individual to be tested, in accordance with the relevant TfL Standards.

GWI 1115.7 Employee Wellbeing

(1) The *Contractor* ensures processes are in place that addresses employee wellbeing by raising awareness of both work related and lifestyle health issues through campaigns, lifestyle screening and education. The *Employer's* nominated occupational health service provider gives leadership and co-ordination in this area.

GWI 1115.8 Campaigns and Education

(1) The *Contractor's* occupational health provider utilises campaigns and targeted

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health education to:

- Reduce the risks to workers acquiring occupational disease by providing appropriate information on risks and control measures; and
- Respond to adverse occupational health trends.

GWI 1115.9 Lifestyle screening

(1) The *Contractor's* approved occupational health provider makes available lifestyle screening to all employees working on the contract to enable early detection and intervention of identified issues. Lifestyle screening is to be made available on an annual basis as a minimum.

GWI 1115.10 First Aid & Medical Arrangements

(1) The *Contractor* makes suitable and sufficient arrangements for first aid and medical facilities and assess their requirements based on:

- the nature of the work and workplace hazards and risks;
- the size of the organisation;
- the nature of the workforce;
- the organisation's history of accidents;
- the needs of travelling, remote and lone workers;
- work patterns;
- the distribution of the workforce;
- the remoteness of the Site from emergency medical services;
- employees working on shared or multi-occupied sites;
- annual leave and other absences of first-aiders and appointed persons;
- First-aid provision for non-employees;
- arrangements for reporting injuries from first aid to RIDDOR events;
- training of first aiders and medical practitioners; and
- First aid and medical facilities to be provided.

GWI 1115.11 Welfare Arrangements and Hygiene

(1) Beyond the facilities provided by the *Employer* detailed in GWI 1010.1, the *Contractor* provides quality welfare facilities to support the overall occupational health programme and delivery of the *works*. Welfare facilities must be established and in working order before any *works* on Site commence. All toilet, washing, changing, personal storage and rest areas must be 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 *Contractor* provides arrangements to ensure good hygiene standards throughout the welfare and office facilities provided. As a minimum the *Contractor* ensures that all of the following are provided before the *works* commence:

- washing facilities (including provision of barrier and after care skin treatments etc.);
- facilities for storage and drying of work wear;
- rest facilities;
- designated smoking areas;
- drinking water;
- general maintenance and cleaning; and
- welfare vehicles / temporary facilities.

(2) The *Contractor* may use portable toilet/wash facilities on worksite where the duration of *works* does not exceed one (1) week.

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GWI 1120 - The Construction (Design and Management) Regulations 2015

GWI 1120.1 General Requirements

(1) Unless stated otherwise in the Contract Data, the *Employer* is the Client and Principal Designer for the purposes of the CDM Regulations 2015.

(2) Unless stated otherwise in the Contract Data, the *Contractor* is appointed as Principal Contractor and Designer as required by CDM Regulations 2015.

(3) The *Project Manager* is to provide the *Contractor* with a copy of the *Employer*'s F10 Notification informing the Health & Safety Executive (HSE)/Office of the Rail and Road (ORR) of this project's planned construction works in accordance with CDM Regulations 2015. Upon request by the *Project Manager*, the *Contractor* must display the *Employer*'s F10 Notification in its site office in accordance with Regulation 6(3)(b) of the CDM Regulations 2015.

(4) The *Contractor* acknowledges the *Employer's* statutory duty to provide a safe and efficient public passenger transport service and the *Contractor* is to, at all times during the *works,* have regard to those statutory duties. The *Contractor* does not in Providing the Works in any manner endanger the safety of or interferes with the convenience of the Underground Network or the public and takes all reasonable steps to minimise any disruption to the same.

GWI 1120.2 Personal Protective Equipment (PPE) and clothing

(1) The *Contractor* assesses and provides the appropriate PPE requirements for use of his personnel and subcontractors as follows:

- The *Contractor* provides PPE free of charge to all personnel, as required and appropriate, for the job task.
- PPE fits the individual and is laundered, maintained and/or replaced to ensure that it remains effective at all time.

The minimum equipment to be provided is:

- Flame resistant overalls (must be worn as the outmost layer of clothing to protect against potential arc or flame hazards);
- Hard hat with company branding;
- Eye protection (safety glasses);
- Hand protection (gloves);
- Safety footwear;
- High visibility jacket and/or vest with company branding; and
- High visibility trousers.

Dependant on the job task function and Site conditions, personnel are also provided as a minimum with:

- Respiratory protection equipment (which can be properly fitted for all users);
- Hearing protection;
- Hot, wet or inclement weather protection.

(2) High visibility clothing is to be flame retardant.

(3) The *Contractor* ensures that all PPE is suited to the task on the basis of health risk assessment. Details of the PPE to be used should be included in the Construction Phase Plan and the respective Safe System of Work.

(4) The *Contractor* ensures that all personnel wear PPE appropriate to the health risks of each task and demonstrate that health risk control systems are in place.

GWI 1120.3 *Employer's* PPE and clothing requirements

(1) The *Contractor* provides PPE and clothing requirements to be provided for use on Site of the *Project Manager*, his staff and other agents involved in the

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contract.

(2) The PPE to be provided by the *Contractor* for visitors to the Site is in accordance with section GWI 1005.1.

GWI 1120.4 Use of equipment, materials or substances hazardous to health

(1) The *Contractor* gives the *Project Manager* such written notice as the *Project Manager* requires prior to the use under the contract of any equipment, materials or substances that may be hazardous and a risk to the safety, health or welfare of persons or property. The *Contractor* identifies the hazards and provides full details of any precautions to be taken on the use of such equipment or materials.

(2) The *Contractor* only specifies substances and materials for incorporation in the *works*;

- which are in accordance with the relevant TfL Standards and general good building and engineering practice; and
- which are in accordance with the guidelines contained in any publication of the Building Council of Offices' "Good Practice in the selection of Construction Materials" current at the time of incorporation of such substances or materials into the works.

(3) The *Contractor* informs the *Project Manager* if he considers that any material or substance which he is required by drawings or specification to incorporate into the *works* does not comply with the above.

GWI 1120.5 Consumables

(1) In accordance with the *Employer's* commitment to reducing its' environmental impact through responsible procurement, the *Contractor* is required to use cleaning products and consumables that have minimal environmental impact. The products used by the *Contractor* comply with the European Eco-label or equivalent standard, these include:

- All purpose cleaners
- Sanitary cleaners
- Toilet roll and hand towels
- Soaps

Products which meet the European Eco-label can be found at: https://ec.europa.eu/environment/ecolabel/

GWI 1120.6 Fire

(1) The *Contractor* ensures that all *works* are compliant with the relevant legislation, Standards and LUL guidance on fire safety.

(2) The *Contractor* ensures that regular site inspections include those of the *Contractor's* fire safety arrangements, are recorded and the completed forms are maintained on site in the appropriate site files.

(3) The Site Person in Charge (SPC) is the primary point of contact for all issues relating to fire safety on the work site. The SPC ensures that all personnel on Site receive a site briefing prior to work commencing and comply with the contents of specific conditions relative to fire safety on the Site. The SPC coordinates all activities relative to fire related emergency procedures in accordance with the Emergency Plan.

(4) In the event of a fire emergency the *Contractor* complies with the requirements of the Emergency Plan in order to ensure a speedy evacuation of the Site and to account for all personnel.

(5) The *Contractor's* Emergency Plan includes emergency pollution control measures compliant with Environment Agency (EA) guidelines including emergency phone numbers and the method of notifying local authorities and statutory authorities.

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(6) The *Contractor* complies with the requirements of the LFEPA or other relevant fire authority for the provision of Site access points. Where appropriate, the accesses are designed to the requirements of LFEPA Publication: Fire Safety Guidance Note Number 29 "Access for Fire Appliances". The access points must also be suitable for access for ambulances.

GWI 1120.7 Isolation of fire protection and detection systems

(1) The *Contractor* ensures that isolation of automatic fire prevention and detection equipment is controlled in accordance with TfL Standard S1088 and TfL Procedure Document PRO630 Fire Detection Isolations, Smoke to Heat Detector Substitutions.

(2) The *Contractor* agrees the proposed isolation plan to suit his method of working with the *Project Manager*, and requests the isolation from the Fault Report Centre (FRC).

(3) As well as requesting isolation from the FRC, the *Contractor* requests exemption from the Fire Asset Engineer, where applicable, no later than two weeks before work is planned to take place and confirms that:

- the fire asset engineer passes the request to the London Fire and Emergency Planning Authority (LFEPA);
- the Fire Asset Engineer confirms that isolation requests have been approved and where necessary, that exemptions are in place before a Hot Work Permit is issued;
- the *Contractor* maintains a presence on Site and undertakes an hourly fire inspection of the isolated area until the fire protection or detection system is reinstated.

(4) The *Contractor* shall be aware of, and follow, the procedures for raising the alarm, in the event of outbreak of fire at a location where work activity is taking place.

(5) The *Contractor* provides dedicated Fire Points when and where Hot Works are carried out.

GWI 1125 - Work Related Road Risk

GWI 1125.1 For the purposes of GWI 1125.2 to WI GWI 1125.10 (inclusive), the following expressions have the following meanings:

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(1)

Term	Definition
Approved Progressive Training	An ongoing programme of personal development that uses a combination of theoretical, e-learning, practical and on the job training to ensure Drivers have the knowledge, skills and attitude to operate safely on urban roads and includes: i) Safe Urban Driving (SUD) training to be undertaken every five years; or ii) A training course, which in the reasonable opinion of the *Employer* is an acceptable substitute to SUD; and iii) One safety related FORS e-learning module to be undertaken every twelve (12) months
Bronze Accreditation	The minimum level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk
Category N2 Lorry	A vehicle designed and constructed for the carriage of goods having a MAM exceeding 3,500 kilograms but not exceeding 12,000 kilograms
Category N3 Lorry	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
Collision Report	A report detailing all collisions during the previous twelve (12) months involving injuries to persons or fatalities
Delivery and Servicing Vehicle	A Lorry, a Van or a Car-derived Van
Driver	any employee of the *Contractor* (including an agency driver), who operates Delivery and Servicing Vehicles on behalf of the *Contractor* to Provide the Works
DVLA	Driver and Vehicle Licensing Agency
Direct Vision Standard or 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 Lorry cab in relation to other road users. Further information can be found at: www.tfl.gov.uk
FORS	The Fleet Operator Recognition Scheme, which is an accreditation scheme for businesses operating van and lorry fleets. 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: www.fors-online.org.uk
Front Underrun Protection	Devices that are fitted at the front of Lorries and which comply with EC Directive 2000/40/EEC and the Road Vehicles (Construction and Use) Regulations 1986
Gold Accreditation	The highest level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk

GWI 1125.2 Fleet Operator Recognition Scheme Membership

(1) Where the *Contractor* operates Delivery and Servicing Vehicles to Provide the Works, within 90 days of the Contract Date:

- (unless already registered) he registers for FORS or a scheme, which in

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the reasonable opinion of the *Employer*, is an acceptable substitute to FORS (the "**Alternative Scheme**"); and

- (unless already accredited) he has attained the standard of Silver Accreditation (or higher) or the equivalent within the Alternative Scheme and maintains 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 takes 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 will be undertaken in accordance with the periods set out in the FORS Standard.

GWI 1125.3 Safety Features on HGVs

(1) The *Contractor* ensures that every HGV, which he uses to Provide the Works, has:

- Side Underrun Protection fitted at a height not exceeding 550mm from the ground, unless the *Contractor* can demonstrate to the reasonable satisfaction of the *Employer* that the Lorry will not perform the function for which it was built if the Side Underrun Protection is fitted;
- Front Underrun Protection fitted at a height not exceeding 400mm from the ground, unless the *Contractor* can demonstrate to the reasonable satisfaction of the *Employer* that the Lorry will not perform the function for which it was built if the Front Underrun Protection is fitted;
- Equipment fitted with an audible means of warning other road users of the Lorry's left manoeuvre;
- Prominent signage on the Lorry to warn cyclists and other road users of the dangers of the Lorry's near side blind spot and of getting too close to the Lorry; and
- Front, side and rear blind spots completely eliminated or minimised as far as practical and possible, through the use of direct vision, fully operational indirect vision aids and driver audible alerts.

GWI 1125.4 Direct Vision Standard (DVS)

(1) Where applicable (for contracts exceeding a value of £1m where the duration will exceed 12 months and a significant amount of the *works* will be conducted within GLA boundaries arranagements):

(2) The *Contractor* complies with the DVS Schedule in Appendix 5.

(3) The *Contractor* ensures that

- from and including 26 October 2019, all Category N3 HGVs used to Provide the Works achieve a minimum of a one (1) star Direct Vision Standard rating; and
- from and including 26 October 2023 all Category N3 HGVs used to Provide the Works achieve a minimum of three (3) star Direct Vision Standard rating

so far as reasonably practicable, the conditions at:

- any part of the Site which is within the control of the *Contractor* , or
- any other site or location which is within the control of the *Contractor* and at which, in order to Provide the Works, waste is being disposed of or supplies are being delivered to or from

are appropriate for each Category N2 Lorry and Category N3 Lorry used to Provide the Works. The *Contractor* does not incur any costs or make any changes to either (i) the Site or (ii) other sites or locations for the purposes of this Section 19.7.4 (b) and (iii) without the prior written consent of the *Employer.*

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GWI 1125.5 Driver Training

(1) Where the *Contractor* operates Delivery and Servicing Vehicles to Provide the Works the *Contractor* ensures that each of his Drivers attends Approved Progressive Training throughout the duration of the contract.

GWI 1125.6 Driver Licence Checks

(1) Where the *Contractor* operates Delivery and Servicing Vehicles to Provide the Works the *Contractor* ensures that:

- he has a system in place to ensure all his Drivers hold a valid driving licence for the category of vehicle that they are tasked to drive, along with recording any endorsements, or restrictions on the Drivers' licences; and
- each of his Drivers engaged to Provide the Works has a driving licence check with the DVLA or such equivalent before that Driver commences work and that the driving licence check with the DVLA or equivalent authority is repeated in accordance with either the following risk scale (in the case of the DVLA issued licences only), or the *Contractor's* risk scale, provided that the *Contractor's* risk scale has been approved in writing by the *Employer* within the last twelve (12) months:
    - 0 – 5 points on the driving licence – six monthly checks;
    - 6 – 8 points on the driving licence – quarterly checks; or
    - 9 or more points on the driving licence – monthly checks.

GWI 1125.7 Collision Reporting

(1) Where the *Contractor* operates Delivery and Servicing Vehicles to Provide the Works, the *Contractor*:

- ensures that he has a system in place to capture, investigate and analyse road traffic collisions that results in fatalities, injury or damage to vehicles, persons or property and for generating Collision Reports; and
- within fifteen (15) days of the Contract Date, provides to the *Employer* a Collision Report. The *Contractor* provides to the *Employer* an updated Collision Report within five (5) working days of a written request from the *Employer*.

GWI 1125.8 Self Certification of Compliance

(1) Where the *Contractor* operates Delivery and Servicing Vehicles to Provide the Works, within ninety (90) days of the Contract Date, the *Contractor* makes a written report to the *Employer* detailing his compliance with GWI 1125.2, GWI 1125.3, GWI 1125.4, GWI 1125.5, GWI 1125.6, and GWI 1125.7 (the "WRRR Self-certification Report"). The *Contractor* provides updates of the WRRR Self-certification Report to the *Employer* on each three (3) month anniversary of his submission of the initial WRRR Self-certification Report

GWI 1125.9 Obligations of the *Contractor* Regarding Subcontractors

(1) The *Contractor* ensures that those of his Subcontractors who operate Category N2 HGVs, Category N3 Lorries, Vans and/or Car-derived Vans to Provide the Works:

- comply with GWI 1125.2, GWI 1125.5, GWI 1125.6, and GWI 1125.7, GWI 1125.6, GWI 1125.8, and
- for Category N2 Lorries, comply with GWI 1125.3
- for Category N3 Lorries, comply with GWI 1125.3, GWI 1125.4, GWI

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1125.5, and where applicable, the appropriate provisions of the Heavy Goods Vehicle Direct Vision Standard; and

as if those Subcontractors were a party to this contract

GWI 1125.10 Failure to Comply

(1) Without limiting the effect of any other clause of this contract relating to termination, if the *Contractor* fails to comply with **GWI 1125.2 to GWI 1125.9**:

(2) (i) the *Contractor* commits a material breach of this contract; and

(3) (ii) the *Employer* and/or any member of the TfL Group may refuse the *Contractor*, his employees, agents and Delivery and Servicing Vehicles entry onto any property that is owned, occupied or managed by the *Employer* and/or any member of the TfL Group for any purpose (including but not limited to deliveries).

GWI 1130 - Procedures

GWI 1130.1 Emergency Plan Procedures

(1) The emergency plan procedures manual is submitted to the *Project Manager* for acceptance prior to commencement of *work* on Site.

(2) The *Contractor* carries out training for key emergency management personnel as required for the effective implementation of the procedures. The emergency arrangements for the *works* can be included in the construction phase plan if preferred by the *Contractor*.

(3) The *Contractor* arranges at least one simulated emergency exercise in each twelve (12) week period following commencement of *work* on Site.

(4) Immediately following an emergency, or following a simulated emergency exercise, the *Contractor* reviews the actions taken, against the requirements set out in the emergency plan procedures manual, and issues revisions to the emergency plan procedures manual when appropriate. The *Contractor* reviews in full the emergency plan procedures at maximum of twenty-six (26) weekly intervals. Any revisions in the emergency plan procedures manual are submitted to the *Project Manager* for acceptance.

GWI 1130.2 Incident Reporting

(1) The *Contractor* will, at the earliest opportunity, after the incident has been made safe report the following to the *Employer:*

- Incidents (events that resulted in harm);
- Near misses/near hits (events that could have resulted in harm);
- Sub-standard conditions (hazards that have the potential to cause harm); and
- Sub-standard acts (behaviours or work methods that have the potential to cause incident).

(2) Incident reporting is to be detailed in each approved site method statement (constraints for which are defined by GWI 200).

GWI 1130.3 Hours Worked Reporting

(1) To support the analysis of health and safety performance, the *Contractor* provides the *Project Manager* with the details of the number of hours worked (including for the avoidance of doubt, by Subcontractors and other suppliers) for the work carried out, and the number of personnel involved, in each four week period to be stipulated by the *Project Manager*. This data is be submitted by Tuesday of Week 1 of the following period (based on the LUL accounting periods), and includes for all the *Contractor's* staff and personnel expended on the *works* used in the Working Areas since last report. The cumulative report is

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broken down by management, site level supervision and operatives.

GWI 1135 - Construction Phase & Environmental Plans requirements

GWI 1135.1 Construction Phase & Environmental Plans - General

(1) *The Contractor* ensures that all Health, Safety and Environment Pre-Construction Information provided by London Underground is considered and addressed in the Construction Phase Plan (CPP) and/or the Environmental Management Plan (EMP). The EMP may be included in the CPP or may be a separate document.

(2) The Construction Phase must not start before a suitable CPP and EMP are in place and accepted by the *Project Manager*.

GWI 1135.2 Construction Phase Plan

(1) The *Contractor* prepares the Construction Phase Plan (CPP) as required by the CDM Regulations 2015 before commencing any construction activities forming part of the *works*. Further to the *Project Manager's* acceptance of the initial CPP, subsequent updates are submitted to the *Project Manager* for review and comment. The *Contractor* responds accordingly to comments raised by the *Project Manager*.

GWI 1135.3 Detailed Safe Systems of Work

(1) The *Contractor* is responsible for producing all safe systems of work.

(2) As defined in GWI 500, the *Contractor* shall include the schedule of safe systems of work submissions in all programmes issued for approval by the *Employer*;

(3) The *Project Manager* may identify safe systems of work on the *Contractor's* schedule that are required to be reviewed and accepted by the *Project Manager* in addition to those identified in GWI 1135.3 (2).The *Contractor* provides these safe systems of work to the *Project Manager* for review when requested.

(4) If the *Project Manager* has commented on a proposed safe system of work that requires a response and/or corrective action, the *Contractor* must respond accordingly allowing sufficient time to obtain the *Project Manager's* acceptance prior to commencing the element of the *works*.

(5) No element of the *works* commences without a safe system of work being produced and approved by the *Contractor* and accepted by the *Project Manager*.

(6) All safe systems of work and supporting documentation, including any relevant approvals from Others, represent and detail the *Contractor's* planned works and addresses construction sequences, co-ordination with third parties and the relevant control and mitigation measures for identified risks.

(7) With each safe system of work the *Contractor* produces a risk assessment that demonstrates how potential risks resulting from the works have been mitigated to ALARP status.

GWI 1135.4 Traffic requirements

(1) The *Contractor* ensures that all HGV drivers are fully advised of the approved routes (and any relevant restrictions) prior to attending Site. The *Contractor* takes a proactive approach to ensuring that drivers adhere to the agreed routes at all times during the execution of the *works.*

GWI 1135.5 Police requirements

(1) The *Contractor* contacts the local police to establish their requirements relating to security, emergency arrangements etc. The *Contractor* should provide the Police with contact names and numbers that enable contact with a responsible person at any time

(2) Relevant issues should be incorporated into the Construction Phase Plan and Emergency Plan Procedures.

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GWI 1140 - Health and Safety Staffing

GWI 1140.1 Staffing Levels and Competencies

(1) The *Contractor* employs a sufficient number of competent and appropriately qualified and experienced health and safety professionals to ensure the full implementation of all the health and safety requirements.

(2) The *Contractor* obtains the *Project Manager's* written consent before the proposed personnel take up health and safety related positions, and prior to implementing any changes to the personnel undertaking these roles.

GWI 1140.2 Health and Safety Manager

(1) The *Contractor* is to appoint a Health and Safety Manager.

(2) Unless otherwise agreed with the *Project Manager*, the Health and Safety Manager will be employed full-time for the duration of the *works* and will be the lead point of contact on such matters.

(3) Any reduction in the Health and Safety Manager's employment on the contract (e.g. as the contract nears completion), will only be permitted with the written agreement of the *Project Manager*.

(4) As a minimum, the Health and Safety Manager will have the following competencies, experience and qualifications:

- Appropriate senior level experience of managing Health and Safety issues during construction – ideally including experience of significant rail / road projects;
- Experience of managing Health and Safety teams;
- A good knowledge and practical experience of developing, implementing and improving Health and Safety management systems compliant BS OHSAS 18001 Occupational Health and Safety Management, ISO 45001 Occupational Health and Safety and HSG65 Managing for Health and Safety or similar
- A good knowledge and practical experience of legal and policy requirements related to Health and Safety disciplines;
- Good knowledge and practical experience of using Health and Safety systems to drive high levels of Health and Safety performance and achieve targeted awards;
- Experience of liaison with stakeholders and competent authorities not limited to Health and Safety Executive, The Office of Rail and Roads, local authorities and residents;
- Experience of obtaining and complying with environmental consents;
- Preferably a full member, but otherwise an associate member, of the Institute of Occupational Health and Safety (IOSH) (or equivalent recognised competent body); and
- The Health and Safety Manager will be available to attend periodic environment meetings with the *Project Manager*, or their nominated representative, to review key environmental issues and progress.

GWI 1145 - Communication

GWI 1145.1 Advanced Notifications

(1) The *Contractor* takes a proactive approach to notifying neighbours, including residents, businesses and relevant stakeholders such as hospitals, GP surgeries, churches and schools, in advance of the commencement of any construction or works that will affect them in any way, including vegetation removal works, noise and vibration impacts, impacts from staff noise, access and welfare or staff

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parking and travel.

(2) The *Contractor* submits draft notification letters proposed to nearby properties of construction works to the *Employer's* local communities and partnerships representatives (LocalCommunitiesandPartnerships@tfl.gov.uk) for approval no fewer than fifteen (15) Working Days prior to the *works* commencing, together with a suggested distribution area for the letter drop.

(3) Notification letters will include details of the:

- location of works;
- reason for the works;
- information about potential impacts: noise and vibration, parking, staff access and welfare locations;
- duration of the works;
- working hours; and
- The *Employer's* customer services details.

(4) In ascertaining the distribution area for the letter drop, the *Contractor* will carefully consider potential impacts of *works*, including such aspects as noise and vibration, areas affected by staff parking, access or welfare requirements, delivery and loading of equipment

(5) Letters will be produced on the *Employer's* letterhead. A template will be supplied by the *Employer* in the first instance a notification letter is required.

(6) Once the details of the notification letters have been accepted by the *Employer's* Local Communities and Partnership representative, they will be distributed to all properties potentially affected by the works a minimum of ten (10) Working Days before works commence. The *Contractor* undertakes the distribution directly.

(7) A briefing note about work activities that could potentially affect the community will be provided by the *Contractor* to the *Employer's* Local Communities and Partnerships team in advance of the commencement of the works. This briefing note will be used to brief customer services and other key stakeholders to address any complaints or enquiries. The briefing note will contain a copy of the notification letter, the agreed distribution area of the letter, a location map of the works, best practicable means used to mitigate potential adverse impacts, an indication of whether a Section 61 planning application is required/expected to be agreed by the local authority (where relevant); and the name and contact details (for internal use only) of the *Contractor's* representative who can provide further information if required according to the complaints handling process.

(8) Once distribution is complete, the *Contractor* provides the *Employer's* Local Communities and Partnerships team with a distribution report which will include details of all properties that had a letter delivered to it.

GWI 1145.2 Complaints Handling

(1) The *Contractor* develops a complaints handling process agreed with the *Project Manager*. As a minimum, the complaints handling process will include the following:

- inclusion of the *Employer's* customer services details on all public facing communication;
- information on how complaints and enquiries will be responded to when passed on by the *Employer's* customer services;
- details of the emergency response system that will be employed for dealing with emergency issues – such as suspected breaches of Section 61 consent conditions, health and safety contraventions including out of hours contacts for the *works*; and
- reporting all complaints/enquiries and their responses within twenty-four

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(24) hours of receipt to the *Employer's* customer services and the Local Communities and Partnerships Team.

(2) Whilst Providing the Works, the *Contractor* will be responsible for dealing with Local Authority work-related issues directly, including health and safety concerns. The *Contractor* must notify the *Employer's* Representative and Local Communities and Partnership Representative of any health and safety concerns within twenty-four (24) hours of receiving them. After Completion, any Local Authority queries or issues will be dealt with by the *Employer's* Local Communities and Partnerships team**.**

GWI 1145.3 Internal Communication

(1) The *Contractor* takes a pro-active approach to informing their team about health and safety issues so that there is a high level of awareness and the opportunities to implement good practice are maximised. As a minimum the *Contractor* will:

- Nominate a person responsible for promoting internal health and safety communication;
- Include health and safety issues in the site induction;
- Brief staff (including subcontractors) about the key health and safety risks and the controls detailed within the CPP;
- Display health and safety information (including the *Employer's* HSE policy) on noticeboards; and
- Include and review health and safety matters as an item on the progress review meetings.

GWI 1150 - Environmental Requirements

GWI 1150.1 Introduction

(1) This document contains the environmental requirements that the *Contractor* adheres to at all times when undertaking the *works*.

(2) There are a number of requirements for the *Contractor* to submit documentation to the *Project Manager* (e.g. Plans and Reports). All such documentation will be submitted for the *Project Manager's* acceptance.

(3) If the *Project Manager's* acceptance is not provided, the *Contractor* revises and resubmits the documentation to the *Project Manager* until such time as acceptance is granted. After which, the *Contractor* complies with the accepted documentation.

GWI 1150.2 Environmental Lead

(1) As a minimum, the *Contractor* ensures that a suitably competent and experienced person is appointed to lead on environmental and sustainability matters and ensures the full implementation of all the requirements contained herein. The person must be able to demonstrate the attainment of suitable environmental qualifications (e.g. completion of the IEMA Foundation in Environmental Management, or a similar course).

GWI 1150.3 Other Environmental Specialists

(1) As necessary, based on the scope and the level of environmental risk associated with the *works*, the *Contractor* engages environmental specialists to ensure the full implementation of the environmental requirements. The environmental specialists may include personnel with expertise in noise/vibration, air quality, ecology, contaminated land etc.

(2) All such specialists will have suitable qualifications and experience.

(3) The *Contractor* obtains the *Project Manager'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.

GWI 1155 - Environmental Management

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GWI 1155.1 Environmental Management Plan (EMP)

(1) The *Contractor* defines their environmental management system (EMS) approach within a site specific Environmental Management Plan (EMP).

(2) The EMP will be based on the requirements of the latest BS EN ISO 14001 standard, and will include coverage of each of the environmental aspects referenced in this document – although coverage may be suitably scaled to the environmental risk associated with each individual Call-off Contract.

(3) The EMP will cover all stages of the *works*, including the design stage, where applicable.

(4) The EMP will cover all *works* within each Call-off Contract.

GWI 1155.2 EMP Content

(1) As a minimum, the EMP will include or define the approach to:

- Planning – determining the Site specific risks and opportunities and actions to address significant environmental aspects and fulfil all compliance obligations.
- Environmental objectives – establishing environmental objectives and plans to achieve them
- Operational planning and control – establishing and implementing processes to manage the identified environmental risks and fulfil all compliance obligations, objectives etc.
- Emergency preparedness and response – detailing the processes to prepare for and respond to emergency situations (see Appendix 1)
- Performance evaluation – detailing the approach to monitoring, analysing and evaluating environmental performance, including how the *works* will be monitored and inspected
- Internal Audit – the approach to establishing and implementing an internal audit programme
- Improvement – Approach to dealing with nonconformities and correctives actions

GWI 1155.3 Submitting and Complying with the EMP

(1) The *Contractor* submits their EMP to the *Project Manager* for acceptance within 28 days of the *starting date*.

(2) Works will not start on Site until the *Project Manager* has accepted the EMP. A reason for not accepting the document is that it does not conform to the Generic Works Information.

(3) The *Contractor* complies with the accepted EMP at all times.

GWI 1155.4 Emergency Preparedness and Response

As a minimum, the *Contractor* defines the following either within their EMP or an Emergency Preparedness Plan (see Appendix 1 for further detail) :

- Definitions of what constitutes an environmental incident, a major environmental incident, an environmental emergency, harm or damage to the environment, and an environmental near miss;
- Details of the potential types of environmental incident relevant to the works and the envisaged control measures;
- Responsibilities of the *Contractor's* staff for dealing with an environmental incident or near miss;
- Details of the incident response equipment that will be used to bring environmental incidents or emergencies under control, including the location of spill kits and the minimum acceptable stock requirements;
- An up-to-date site drainage plan which details manholes, direction of flow, interventions points and final discharge points to foul and surface water resources;

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- The systems (and contact details) for notifying the appropriate statutory authorities, emergency services, *Project Manager* and the *Contractor's* personnel in the event of an environmental incident or near miss;
- Contact details of a supplier who can assist if the incident cannot be dealt with by the *Contractor's* team (e.g. if a significant spill occurs that cannot be controlled or cleaned up by the site staff)
- The information to be recorded in the event of an environmental incident (to include date, time, location, description of incident, action taken, personnel involved and notifications, photographs); and,
- A simple flowchart to show the process and responsibilities.

GWI 1160 - Environmental Objectives

GWI 1160.1 Environmental Targets

(1) As a minimum, the *Contractor* adopts the following environmental targets and put in place appropriate systems to achieve them.

(2)

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%
Noise and vibration complaints	<0.65 complaints/100,000 site hours worked

(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 *Contractor* adopts the following targets for diverting non-hazardous construction and demolition waste from landfill by the years indicated.

(4)

Year	2018-20	2021-25	2026-30	2030
Percentage of non-hazardous construction and demolition waste diverted from landfill	96%	97%	98%	99%

(5) The *Contractor* proposes additional environmental objectives to either take account of the identified significant environmental aspects or compliance obligations, or to support the attainment of the objectives in TfL's Corporate Environmental Strategy, or their own corporate goals.

(6) The *Contractor* reports on progress against all environmental targets within the 4-weekly progress report – including justification and / or proposals for achieving the target if it is not being met.

GWI 1160.3 Environmental Reporting

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(1) The *Contractor* reports the following information as part of their 4-weekly report, or via the Info Exchange Online Portal (when available).

- The Environmental Data set out in Appendix 2
- Details of any environmental incidents or near misses that occurred and, how the issue was resolved (i.e. what corrective action was implemented)
- Details of any interaction with environmental regulators

Contractor access to the Info Exchange Online Portal is to be provided by the *Employer* within 14 following the *starting date.*

GWI 1165 - Environmental Inspections and Audits

GWI 1165.1 Implementation

(1) The *Contractor* implements a programme of environmental inspections and audits to ensure compliance with all legal and contract requirements (Compliance Obligations).

(2) The *Contractor* keeps the *Project Manager* appraised of the timing of these environmental inspections and audits, so that a member of the TfL HSE Team may, on occasions, attend and participate in joint exercises.

GWI 1170 - Environmental Training

GWI 1175.1 Competency and Training

(1) The *Contractor* determines the environmental competency and training requirements for all staff working on the contract, and maintain documentation to demonstrate delivery of the planned training.

(2) As a minimum, the *Contractor* ensures that all staff receive environmental awareness training on the specific project risks and the content of the EMP.

GWI 1175 - Communication

GWI 1175.1 Advanced Notifications

(1) The *Contractor* takes a pro-active approach to notifying residents, businesses and regulators (e.g. the Local Authority) about forthcoming works. The notifications, which will be made using a format agreed with the *Employer*, will, as far as possible, be issued two weeks prior to the *works* taking place. As a minimum, the notifications will include:

- Details of the works to be undertaken
- The dates / hours of working
- Brief details of the potential impacts and how these are to be mitigated
- Contact details that can be used to seek further information or make a complaint

GWI 1175.2 Environmental Correspondence

(1) The *Contractor* provides the *Project Manager* with a copy of all environmentally related correspondence with third parties (e.g. the Local Authority or Environment Agency) on the date of issue, or when received from third parties.

GWI 1175.3 Internal Communication

(1) The *Contractor* 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. As a minimum the *Contractor* will:

- Nominate a person responsible for promoting internal environmental communication
- Include environmental issues in the site induction
- Brief staff (including subcontractors) about the key environmental risks and the controls detailed within the EMP
- Display environmental / sustainability information (including the TfL HSE policy)

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on noticeboards

- Include environment as an item on the progress review meetings

GWI 1175.4 Investigation of Environmental Incidents

(1) The *Contractor* notifies the *Project Manager* of all environmental incidents and 'near misses' as soon as practicable after they occur. In particular, the *Contractor* ensures that any incidents which could result in significant damage to the environment, a breach of legislation, or reputational damage are reported to the *Project Manager* immediately.

(2) All environmental incidents and/or near misses will also be reported to via the TfL Incident Line or the Info Exchange Online portal as soon as possible but within 24 hours of the event occurring.

(3) In the event of any environmental incident or near miss, the *Contractor* records the following information and ensures it is reported to the *Project Manager* within an initial written report which will be submitted within forty eight (48) hours of the incident occurring:

- Time and date;
- Location of incident;
- Description of incident – including an outline of events, personnel and parties involved and any mitigation measures applied;
- Whether the incident is considered an environmental incident, a major environmental incident, an environmental emergency or an environmental near miss;
- In the event of a spillage, details of the substance spilt and an estimate of the amount;
- An initial assessment of the root causes of the incident and any corrective actions proposed to prevent recurrence

(4) In order to fully identify root causes and prevent recurrence, all environmental incidents and near misses will be investigated by the *Contractor*. The *Contractor* produces a report of the investigation and submits this to the *Project Manager* within 14 Working Days of the incident.

(5) In addition to containing the bullet point information above, the report will, as a minimum, include:

- Photographs / a sketch showing what happened and where;
- Details of any notification/third party involvement;
- Immediate causes;
- Root causes – e.g. inadequate procedures, conflicting targets, poor communication, lack of training, inadequate maintenance, extreme weather conditions or lack of security;
- Remedial actions implemented and/or proposed and timescales; and
- Measures to prevent recurrence and timescales.
- Approvals by the *Contractor's* senior individual responsible for ensuring the actions are completed satisfactorily.

(6) The *Contractor* monitors the implementation of any actions / recommendations resulting from the investigation of the environmental incident, and will ensure that they are completed by the scheduled completion dates.

GWI 1180 - Sustainable Design and Assessment

GWI 1180.1 Quantitatively measuring whole life carbon

(1) The *Contractor* will create a Whole Life Carbon Model in MS Excel for the scope of their works, as detailed in Appendix 8, which specifies the scope of the carbon assessment and model, using the Level 4 of the Rail Method of Measurement to provide requirements (BS EN 15804 carbon lifecycle stages A1-5 and B4, B6, both or none). The *Contractor*

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must match the scope of their works to these carbon requirements. Note: when 'carbon' is used in this document, it will be taken be a short-hand umbrella term for the emissions from all greenhouse gases).

(2) The Whole Life Carbon Model will be calculated as per the requirements and assumptions in Appendix 8. The study period shall be 120 years.

(3) The Whole Life Carbon Model will be created by competent persons.

(4) The Whole Life Carbon Model will be used by the *Contractor* to capture each major design iteration and to calculate the whole life carbon footprint of the project.

(5) Where relevant (see Appendix 8), volumetric material data should be modelled in and taken from the 3D MicroStation design model. Please see GWI 300 and the Exchange Information Requirements (EIR) for more information. It should be noted that GWI 1100 (including appendices) sets no requirements on what should or should not be included in the 3D MicroStation model as this is driven by other Works Information requirements (see GWI 300 and the Exchange Information Requirements). It only sets additional requirements for elements already being modelled in the 3D MicroStation model.

(6) The *Contractor* will present the carbon emissions in MS Excel format. It is noted that the *Contractor* is not required to enter all carbon information in the 3D MicroStation design model but has the option to if they wish. Data from MicroStation can be exported into MS Excel.

(7) The minimum requirements of the Whole Life Carbon Model are shown in the table below. The *Contractor* may add further metadata entries to aid presentation of calculations and recording of source data. The TfL ProjectWise data environment includes these metadata items in the default AECOSim libraries. Should the *Contractor* be using an alternative modelling package within MicroStation, the *Contractor* must add these custom carbon attributes.

Ref	Name in Bentley MicroStation[1]	Name in MS Excel	Description
1	Element_Location and_Short_Description	Element location and short description	Location and brief description of the element (e.g. Ticket hall foundation beam / Substation CMS / Depot main office luminaire).
2	Level_4_Rail_Method_of_Measurement_Element	Level 4 RMM Element	Element class numeric code as per the Rail Method of Measurement (RMM) Level 4 classification system (see Appendix A).
3	B6_Appliance_Wattage	B6 Appliance wattage (W)	Electrical load drawn by unit when active. If the appliance is distribution equipment and wattage is required (see Appendix A), this value should reflect electrical losses only.
4	B6_Appliance_Power_Factor	B6 Appliance power factor	Power factor for unit drawing power.
5	B6_Annualised_Appliance_Utilisation	B6 Annualised appliance utilisation	Percentage of the time that the appliance will be drawing stated wattage (e.g. 60% for a luminaire / 20% for an electric heater / 100% for comms equipment).
6	FORMULA | B6_Carbon_Emissions	B6 Carbon emissions	Not required to be filled in within the BIM model. This field allows the calculation to be done on export of the data or afterwards within MS Excel. Calculation is: **'Appliance wattage (W)'** multiplied by **'Annualised appliance utilisation'** multiplied by **365** multiplied by **24** multiplied by multiplied **0.001** multiplied by **[average carbon emissions in grid electricity for study period in CO2e/kWh].**
7	A1-3_Material_Description	A1-3 Material description	Brief description of the material (e.g. CEM II reinforced concrete / 85mm SWA submain / dense concrete blockwork). If not from manufacturer, preferably as per the entry in Inventory of Carbon and Energy (ICE) v3.0/RSSB database.
8	A1-3_Carbon_Factor	A1-3 Carbon factor	BS EN 15978 carbon factor for life cycle stages A1-3 (Product).
9	A1-	A1-3 Carbon	Unit for carbon factor (kgCO2e/m3, kgCO2e/tonne etc.).

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	3_Carbon_Factor_Unit	factor unit	
10	A1-3_Carbon_Factor_Source	A1-3 Carbon factor source	Source of the Stage A 1-3 carbon factor. If not from manufacturer, preferably Inventory of Carbon and Energy (ICE) v3.0/RSSB database. Please also add any specific commentary regarding A1-3.
11	FORMULA |A1-3_Quantity	A1-3 Quantity	The quantity of A1-3 carbon measured as a multiple of the carbon factor. Not required to be filled in within the BIM model. Outside of the model, this field should select the relevant modelled data as per the carbon factor chosen (e.g. volume/tonnage).
12	FORMULA |A1-3_Carbon_Emissions	A1-3 Carbon emissions	Not required to be filled in within the BIM model. This field allows the calculation to be done on export of the data or afterwards within MS Excel. Calculation is: **'A1-3 carbon factor'** multiplied by **'A1-3 carbon quantity'.**
13	A4_Carbon_Factor	A4 Carbon factor	BS EN 15978 carbon factor for life cycle stages A4 (Construction transport).
14	A4_Carbon_Factor_Unit	A4 Carbon factor unit	Unit for carbon factor (kgCO2e/tonne.km etc.)
15	A4_Carbon_Factor_Source	A4 Carbon factor source	Source of the Stage A4 carbon factor. Please also add any specific commentary regarding A4 (e.g. transport method and distance)
16	A4_Quantity	A4 Quantity	The quantity of A4 carbon measured as a multiple of the carbon factor.
17	FORMULA | A4_Carbon_Emissions	A4 Carbon emissions	Not required to be filled in within the BIM model. This field allows the calculation to be done on export of the data or afterwards within MS Excel. Calculation is: **'A4 carbon factor'** multiplied by **'A4 carbon quantity'.**
18	A5_Carbon_Factor	A5 Carbon factor	BS EN 15978 carbon factor for life cycle stages A5 (Construction).
19	A5_Carbon_Factor_Unit	A5 Carbon factor unit	Unit for carbon factor (kgCO2e/m3, kgCO2e/tonne, kgCO2e/£ etc.).
20	A5_Carbon_Factor_Source	A5 Carbon factor source	Source of the Stage A5 carbon factor (EPDs, ICE database, etc). Please also add any specific commentary regarding A5.
21	A5_Quantity	A5 Quantity	The quantity of A5 carbon measured as a multiple of the carbon factor.
22	FORMULA | A5_Carbon_Emissions	A5 Carbon emissions	Not required to be filled in within the BIM model. This field allows the calculation to be done on export of the data or afterwards within MS Excel. Calculation is: **'A5 carbon factor'** multiplied by **'A5 carbon quantity'.**
23	B4_Factored_Service_Life	B4 Factored service life	The working life of a product, after which it is assumed that the element will be replaced. Note that this is generally longer than the design service life.
24	FORMULA | B4_Carbon_Emissions	B4 Carbon emissions	Not required to be filled in within the BIM model. This field allows the calculation to be done on export of the data or afterwards within MS Excel. Calculation is: Round down (**120** divided by **'Factored service life'**) multiplied by **'A1-3 carbon emissions'.**
25	Optional_Carbon_Commentary	Optional carbon commentary	Optional entry for any other commentary else.
26	FORMULA | Sum_of_Carbon_Emissions	Sum of carbon emissions	Not required to be filled in within the BIM model. This field allows the calculation to be done on export of the data or afterwards within MS Excel. Calculations is: **'A1-3 carbon emissions'** plus **'A4 carbon emissions'** plus **'A5 carbon emissions'** plus **'B4 carbon emissions'** plus **'B6 carbon emissions'**

[1] *If using AECOSim, these attributes are under 'Carbon General', Carbon Operational', and 'Carbon Embodied'.*

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(8) The *Contractor* provides the Whole Life Carbon Model and a Carbon Report for review and acceptance by the *Project Manager* as a formal deliverable at end of the following stages: Detailed Design, Completion. A Carbon Report will have as a minimum:

1. Details of who undertook the assessment.
2. Date that the assessment was undertaken.
3. Assumptions in the build-up of the model beyond those stated in Appendix A.
4. Whole life carbon results.
5. Data sources for the carbon values.
6. The approximate percentage of the project's material quantities covered.
7. Carbon results by each Level 1, 2, and 3 RMM category
8. % change against [4] from last assessment.

Commentary about the key design changes made from last assessment that result in % change, including optioneering considered and resultant quantitative impact on whole life carbon, as well as other changes implemented to meet Works Information requirements.

GWI 1185 - Minimising Noise and Vibration in design

GWI 1185.1 General

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

GWI 1185.2 Green Infrastructure

The Mayor's aspirations for promoting green infrastructure are set out in the London Plan and the London Environment Strategy. The *Contractor* supports delivery of these aims by incorporating green infrastructure (including Sustainable Urban Drainage Systems (SuDS)) into the project wherever feasible.

GWI 1190 - Dust and Air Quality

GWI 1190.1 Impact Mitigation

(1) The *Contractor* ensures that air quality impacts (including dust) from demolition, construction-related activities and construction traffic are controlled by using best practicable means during the planning and management of the *works*.

(2) The *Contractor* ensures compliance with the Mayor of London's Supplementary Planning Guidance (SPG) on The Control of Dust and Emissions During Construction and Demolition.

GWI 1190.2 NRMM

(1) Non-road mobile machinery (NRMM) is any mobile machine or vehicle that is not solely intended for carrying passengers or goods on the road.

(2) The *Contractor* ensures that all NRMM used to provide the *works* meets the progressively tightening emission requirements of the Greater London Authority's (GLA's) NRMM Low Emission Zone, as set out in the Mayor's London Environment Strategy (Policy 4.2.3). Further information may be found in guidance published by the GLA.

(3) The *Contractor* demonstrates compliance with the NRMM Low Emission Zone by using the GLA's NRMM register to log all applicable NRMM used to Provide the Service

(4) The *Contractor* applies to the GLA for an exemption to the NRMM Low Emission

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Zone for any NRMM that does not meet the requirements because the machinery is not available or it is not feasible to meet the requirements.

(5) The *Contractor* and all Subcontractors will comply with the progressively tightening standards of the NRMM Low Emission Zone for the Service Period and any changes to the requirements of the NRMM Low Emission Zone do not constitute a change to the Scope.

(6) The *Contractor* ensures that all vehicles and NRMM are regularly serviced and switched off when not in use.

GWI 1190.3 Vehicle Emissions

(1) The *Contractor* ensures that all vehicles procured or leased for use in the delivery of the Works minimise CO2 and air quality impacts.

(2) All vehicles used for the delivery of the *works* will meet or exceed the following CO2 limits and European emission standards (Euro Standards) at the Commencement Date

- Cars - maximum certified CO2 emissions of 99 g/km and a minimum of Euro 6 emission standards by 2018 and 75 g/km by 2020
- Vans equal to or less than 1205 kg kerb weight – maximum certified CO2 emissions of 115 g/km CO2 and a minimum of Euro 6 emission standards
- Vans between 1205 and 1660 kg kerb weight – maximum certified CO2 emissions of 155 g/km CO2 and a minimum of Euro 6 emission standards
- Vans greater than 1660 kg kerb weight – maximum certified CO2 emissions of 189 g/km CO2 and a minimum of Euro 6 emission standards
- Heavy duty vehicles greater than 3500 kg kerb weight – Euro VI emission standards.

(3) If any vehicles used to provide the *works* requires replacement, the *Contractor* ensures that the replacement vehicle/engine meets the most stringent European or British regulated emissions standards (currently Euro 6/VI). Replacement vehicles must also meet the CO2 limits set out above; in addition, the *Project Manager* reserves the right to reduce CO2 caps for cars and vans and introduce CO2 caps for heavy duty vehicles during the contract term

(4) The *Contractor* will undertake monitoring and retain records sufficient to demonstrate compliance with the above.

(5) Where feasible, the *Contractor* uses vehicles with zero or ultra low tailpipe emission - such as electric, plug-in hybrid or biomethane vehicles. Zero and ultra low tailpipe emission cars and light duty commercial vehicles are widely available; if the *Contractor* is not able to deploy such vehicles they will be required to justify their decision to the *Project Manager*.

(6) The *Contractor* will ensure that all vehicles are operated in such a way to ensure that environmental impacts are reduced as far as reasonably practicable. The *Contractor* will:

- Ensure vehicles are regularly serviced in line with the Manufacturers' recommendations
- Ensure all faults or problems on such vehicles are repaired/addressed as soon as practicable; and
- Monitor and record all vehicle fuel and mileage in connection with the performance of the *works*.

(7) The *Contractor* ensures that all driving staff undertake a fuel efficient and safe driver training course within three months of commencing employment on the contract. The *Contractor* ensures that the training course consists of theoretical training and practical implementation skills and is a minimum duration of one hour. Details of DVSA-approved training courses including LoCITY Driving and Safe Urban Driving are available on the Fleet Operator Recognition Scheme (FORS)

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website.

(8) The *Contractor* maintains driver training records sufficient to demonstrate compliance with the above.

GWI 1195 - Noise and Vibrations

GWI 1195.1 Impact Mitigation

(1) The *Contractor* uses best practicable means to reduce noise and vibration at all times, and complies with the provisions of the current edition of BS5228 - Code of Practice for Noise and Vibration Control on Construction and Demolition Sites.

GWI 1195.2 Working Hours

(1) As far as reasonably practicable and respecting the overriding constraints set out in GWI 200, the *Contractor* undertakes all works within the following core working hours:

- 0800 to 1800 on Monday to Friday (excluding public and/or bank holidays),
- 0800 to 1300 on Saturdays

(2) It is acknowledged that elements of the *works* may need to be undertaken outside of core working hours – e.g. during highway or railway possessions / blockades. In accordance with best practicable means, the *Contractor* programmes the *works* so that any activities with the potential to give rise to disturbance are undertaken during less sensitive times of the day (i.e. avoiding night-time if possible).

(3) Work outside of normal working hours must be agreed with the *Project Manager* and the Local Authority before being undertaken.

(4) If 'out of hours' works are to be undertaken, the *Contractor* notifies local residents or other sensitive receptors in advance of commencing the *works*.

GWI 1195.3 Section 61 Consents

(1) Unless the *Contractor* can demonstrate to the *Project Manager* that the *works* can be undertaken without the risk of disturbing local residents or other noise and/or vibration sensitive receptors, the *Contractor* seeks and obtain a consent under Section 61 of the Control of Pollution Act, 1974, for all works (a Section 61 consent). The Section 61 Variation / Dispensation Form template can be found in Appendix 3.

(2) No works will be undertaken in advance of obtaining a Section 61 consent, unless explicitly agreed in advance with the *Project Manager*.

(3) The *Contractor* develops a draft Section 61 consent application (prepared by competent acoustic professionals) and agree this with the *Project Manager* before submitting it to the Local Authority.

(4) If the *Contractor* is to seek consent for working outside of the core working hours, then the *Contractor* provides justification for doing so, and detailed assessment of the associated noise impacts.

(5) The *Contractor* is advised that the Local Authority can take up to 28 days to determine a Section 61 application. In addition, the *Project Manager* requires that a draft of the Section 61 application is submitted for review at least 7 days prior to submission to the Local Authority, and that the *Contractor* addresses any comments raised by the *Project Manager* prior to submission to the Local Authority. The *Contractor* allows for the above timescales in their programme.

(6) No works covered by a Section 61 application (or subsequent variation / dispensation) will be commenced until the *Contractor* has obtained the relevant consent from the Local Authority

(7) The *Contractor* complies with the Section 61 consent at all times.

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(8) If the *Contractor* wishes to seek agreement from the *Project Manager* that a Section 61 Consent is not required, he submits justification to the *Project Manager* which will include details and reasoning based on the following:

- the nature of the works being undertaken,
- the time of day the works will be undertaken,
- the duration of the works,
- the proximity of neighbours,
- the sensitivity of neighbours (e.g. residents, schools, hospitals, places of worship etc would likely be considered more sensitive to noise than industrial areas).

(9) The *Contractor* ensures that all Section 61 consent related correspondence with the Local Authority is copied to the *Project Manager*. This will include provision of all applications for, or variations / dispensations to, a consent, all consents granted by the Local Authority, all over-run notifications and any associated matters.

GWI 1195.4 Noise and Vibration Monitoring

(1) The *Contractor* undertakes any monitoring required by the Section 61 Consent.

(2) Unless the *Contractor* can demonstrate to the *Project Manager's* satisfaction that monitoring is not required, the *Contractor* , as a minimum, undertakes noise monitoring adjacent to the closest noise sensitive receptors (e.g. residential premises) at the start of each new phase of works, and if undertaking any works outside of core working hours.

(3) The monitoring will be undertaken for a minimum of 10 minutes at each location, and will, as a minimum, record the LAeq over this time period, together with notes on the dominant noise sources and the calibration levels at the beginning and end of the measurement period.

(4) The *Contractor* also undertakes noise or vibration monitoring in response to any complaints, or requests from the *Project Manager* or the Local Authority.

(5) All noise monitoring will be undertaken using type 1 noise monitors which comply with BS EN 61672-1:2003.

(6) The noise monitoring data will be submitted to the *Project Manager* for information. This information will be submitted at a minimum frequency of once a month.

(7) The *Contractor* also undertakes regular on-site checks to confirm the application of BPM and adherence to the Section 61 consent requirements.

GWI 11100 - Contaminated Land

GWI 11100.1 General

(1) The *Contractor* complies with all relevant statutory and industry best practice guidance related to the assessment and management of contaminated land.

(2) Prior to commencing the *works*, the *Contractor* identifies any areas of potential contaminated land. Where there is the potential for the *works* to impact on, or be impacted by, potentially contaminated land, the *Contractor* develops and implements any necessary mitigation measures or remediation proposals.

(3) Such proposals, which will comply with statutory guidance and industry best practice, will be submitted to the *Project Manager* for acceptance. Landfill will only be used if other remediation options (e.g. on-site treatment, off site treatment) are not reasonably practicable.

(4) The *Contractor* plans and undertakes the *works* in a manner which minimises the disturbance of any contaminated land and avoids the creation of pollution pathways.

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(5) The *Contractor* monitors excavation activities to check for unexpected or unusual materials which may constitute contaminated land. In the event of such a discovery, the *Contractor* informs the *Project Manager* as soon as practicable. The *Contractor* implements all reasonably practicable measures to ensure the unexpected contaminated land does not give rise to risks to human health and the environment.

(6) The *Contractor* develops and implements measures to deal with the unexpected contaminated land after obtaining the *Project Manager's* acceptance of the proposals.

GWI 11100.2 Asbestos

(1) The *Contractor* is to adhere to the processes defined in WI245.3.

GWI 11100.3 Import of soils or infill materials

(1) The *Contractor* will not bring soils or infill materials onto the site unless they have been satisfactorily proven to be uncontaminated and to present no risks to human health, property or the environment. Documentary evidence to confirm the origin of all imported soils and infill materials, supported by appropriate chemical analysis test results, will be maintained by the *Contractor*.

GWI 11105 - Waste Management and Resource Use

GWI 11105.1 Introduction

The *Contractor* takes a proactive approach to the sustainable use of resources and to minimising both the production of waste and the volume of waste disposed of in landfill.

GWI 11105.2 Resource Efficiency

(1) The *Contractor* implements material efficiency principles wherever practicable in Providing the Works by, for example:

- using less materials,
- adopting low-waste processes,
- using recycled materials or by-products from other industries in preference to virgin materials,
- using durable materials to extend the asset's serviceable life.

(2) The *Contractor* considers the properties and potential environmental impacts of materials and, in so doing, selects and uses materials which have a low or reduced environmental impact – e.g. materials that are:

- non-hazardous (environmentally inert),
- low VOC,
- recyclable,
- low(er) in embodied energy and/or water.

(3) The *Contractor* documents how they have met the above requirements within a Resource and Waste Management Plan (RWMP) (see GWI 11105.5).

(4) The *Contractor* also endeavours to procure products and materials responsibly. Principles for achieving this are set out within the GLA's Responsible Procurement Policy, and products or materials certified under the BRE's Responsible Sourcing Standard, BES6001 are deemed to meet the Standard's responsible sourcing requirements.

GWI 11105.3 Timber

(1) Where it is necessary to use timber, the *Contractor* ensures that only timber from recycled, reclaimed or sustainable sources (i.e. timber sourced in accordance

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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.

GWI 11105.4 Waste Management

(1) All wastes will be managed in accordance with the waste hierarchy. For each waste type, the *Contractor* therefore adopts and implements the highest option for managing waste from the list below:

- prevent
- reduce
- re-use within the project
- re-use at other project sites
- recycle
- recover, e.g. energy from incineration
- dispose

GWI 11105.5 Construction Phase Resource and Waste Management Plan

(1) The *Contractor* builds upon the RWMP compiled during the design stage to develop and implement a Construction Phase Resource and Waste Management Plan that delivers the aspiration of the design stage RWMP, and, as far as practicable, ensures:

- compliance with the resources, materials and waste requirements
- compliance with the waste duty of care
- achievement of project waste and/or materials targets

(2) The Construction Phase RWMP is to be issued to the *Employer* for review under the detailed design submisisons. No works are to start on-site without an agreed Construction Phase RWMP being in place.

(3) The *Contractor* will not commence *works* until the *Project Manager* has accepted the Construction Phase RWMP.

(4) The *Contractor* regularly reviews and as necessary, updates the Construction Phase RWMP to take account of changing circumstances. Such reviews will take place at least every six months during construction (unless otherwise agreed with the *Project Manager*). The updated Construction Phase RWMP will be submitted to the *Project Manager* for acceptance.

(5) The *Contractor* is encouraged to use the Electronic Duty of Care (EDOC) system.

(6) The *Contractor* is to write and manage the Construction Phase Resource and Waste Management Plans at the Call-off Contract level.

GWI 11110 – Water and pollution

(1) The *Contractor* undertakes the *works* in a manner which protects the water environment – including any change to water quality, flow volume or levels. To achieve this, the *Contractor* will, as a minimum:

- Identify 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;
- Identify any mitigation measures which will be employed to minimise the risk to these water sensitive receptors – including any necessary pollution prevention measures;
- Obtain and comply with any necessary abstraction, discharge and other water environment consents;
- Undertake any water quality monitoring programmes agreed with the

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Project Manager.

(2) The output of the *Contractor's* risk assessment and the identification of mitigation measures will be clearly documented by the *Contractor* – e.g. within the *Contractor's* EMP.

(3) The *Contractor* ensures that the layout of the Site and facilities and management of construction operations complies with guidance contained within the relevant Construction Industry Research and Information Association (CIRIA) documents and accepted good practice. As a minimum, the *Contractor* ensures that:

- All potentially polluting Materials, Plant and Equipment is stored away from water sensitive receptors, including drains;
- All containers of potentially contaminating substances are securely stored within impermeable bunds with a capacity of not less than 110% of the largest container or 25% of the aggregate total capacity of the containers, whichever is the greater;
- All refuelling, oiling or greasing is undertaken on impermeable surfaces or using 'plant nappies';
- An authorised person oversees the bulk delivery of fuel to the Site, and the refuelling of vehicles, plant and Equipment;
- Plant, Equipment and vehicles are regularly inspected and maintained to ensure they are free from oil and fuel leaks;
- Measures are implemented to prevent run-off and other pollutants being washed into watercourses;
- Where wheel washes are installed adjacent to site accesses or egresses, they are self-contained, recycle as much wash water as possible and will not directly discharge to the environment;
- Sufficient quantities of spill kit materials are available and that personnel are trained in their use;
- All spillage incidents are reported and investigated so that lessons can be learnt and, if required, further controls can be implemented to prevent further potentially more serious incidents.

(4) The *Contractor* avoids the use of drip trays (due to their propensity to fill with water which can either overflow or be spilt). Instead, the *Contractor* uses 'plant nappies' under plant etc to contain any drips or spillages.

(5) The *Contractor* uses water in an efficient manner, both on-site and within site accommodation.

(6) The *Contractor* will not make temporary or permanent connections to any mains, drains, pipes, watercourses or utility services without the necessary consent.

GWI 11115 – Ecology

GWI 11115.1 Introduction

(1) When developing and implementing the *works*, the *Contractor* ensures that due consideration is given to ecology and biodiversity in line with current legislation and applicable strategies and plans. The mitigation hierarchy (of avoid, minimise, restore, compensate) will be followed, and a net gain in biodiversity will be delivered, in accordance with Mayor's Transport Strategy.

(2) Prior to commencing any works on-site, the *Contractor* reviews the ecological information that is available to determine if it is sufficient and current enough for the risks and opportunities to be understood.

Any existing ecological information is to be supplied by the *Employer* to the *Contractor* in the relevant Specific Works Information for each Call-off Contract.

(3) If the *Contractor* deems the available information to be insufficient or out-dated, the *Contractor* advises the *Employer* that a suitably competent Ecologist is required to

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undertake ecology surveys necessary to inform the *Contractor* about the potentially affected habitats and the presence of protected species, or to comply with the survey recommendations from previous reports. The *Employer* shall, at their discretion, instruct the *Contractor* to arrange for such surveys to be undertaken on a site-by-site basis.

(4) Where the *Employer* instructs the *Contractor* to undertake ecology surveys, the resultant reports must be prepared in sufficient time to enable the *Contractor* to implement the recommendations before the commencement of any *works* on site with the potential to affect ecological resources.

(5) Where ecology surveys are instructed by the *Employer, works* will not start on site until the *Project Manager* has accepted the Ecologist's report.

(6) When undertaking the *works*, the *Contractor* adheres to all the recommendations in the Ecologist's report. In addition, he complies with any applicable legislation, Mayoral policies, TfL strategies, borough biodiversity plans, guidance or code of practice.

(7) In the event that the *works* disturb, or have potential to harm, wildlife on-site, the *Contractor* will immediately cease the offending works and inform the *Project Manager* of the issue and the proposals for rectifying / avoiding further impacts.

GWI 11115.2 Trees

(1) The *Contractor* takes all reasonably practicable measures to minimise the loss of trees. Tree losses/removals will only be considered in agreement with the *Employer*. Should remedial or protective works to trees on, or adjacent to, the worksite be required, the *Contractor* employs a suitably competent and qualified arboriculturalist to advise and/or carry out the works in accordance with the latest version of:

- BS 5387 "Guide for trees in relation to construction" and
- BS 3998 "Tree work – recommendations"
- NJUG vol 4 "NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees"

(2) Prior to undertaking any w*orks* which may affect a tree, the *Contractor* confirms with the asset owner that there are no objections to these works. Healso confirms with the Local Authority, whether it is protected by a Tree Protection Order (TPO), or is within a conservation area. If a TPO is in place, or the tree is protected by virtue of being in a conservation area, the *Contractor* ensures that consent is obtained from the Local Planning Authority prior to undertaking any works that may affect the tree.

GWI 11115.3 Nesting Birds

(1) The *Contractor* implements the following control measures:

- Where possible, any clearance of scrubs and/or trees will be undertaken outside of the peak nesting bird season (typically March to August inclusive).
- If clearance of scrubs and/or trees or other works affecting structures with the potential for nesting birds is required during the breeding season, the *Contractor* engages a suitably qualified ecologist to undertake checks prior to these works to ensure nesting birds are not affected. If nesting birds are found, the area must be left until the birds have fledged, as is required by the legislation.

GWI 11115.4 Invasive Species

(1) If any invasive weeds may be affected by the *works*, the *Contractor* develops and, once agreed with the *Project Manager*, implement proposals for controlling these plants and ensuring they are not spread by the *works*.

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GWI 11115.5 Biodiversity enhancements

(1) The *Contractor* endeavours to implement both permanent and temporary initiatives to enhance biodiversity on site. Where such initiatives are implemented, the *Contractor* submits case studies to the CIRIA BIG Biodiversity Challenge (http://www.bigchallenge.info/).

GWI 11115.6 Biosecurity

(1) Where landscaping is included within the scope of *works*, the *Contractor* ensures the use of UK grown trees, shrubs and other bedding plants in order to maintain biosecurity.

(2) If there is a justifiable reason why UK grown plants cannot be used and plants need to be imported, the *Contractor* ensures that the plants have undergone a quarantine period appropriate to the species prior to being purchased.

(3) The *Contractor* provides the *Project Manager* with suitable documentary evidence to confirm these requirements prior to installation.

GWI11115.7 Ecological and biodiversity data

(1) All background ecology data searches, necessary to complete required ecology surveys, must be sourced from the Greenspace Information for Greater London CIC (GiGL) (the local environmental records centre for London) under the TfL Service Level Agreement; using the GiGL TfL data search request form (see Appendix 4 for details).

(2) To enable the *Employer* to maintain datasets for the TfL estate, the *Contractor* must return all ecology data and biodiversity net gain data, including GIS layers, to GiGL following the How to Provide Data guidance.

(3) Ecology data must be returned within 8 weeks of survey completion. Updated biodiversity Net gain data must be returned once work on Site are complete.

GWI 11120 - Highways and Traffic

GWI 11120.1 General

(1) The *Contractor* undertakes any necessary consultation with the Highways Authority for works affecting public highways, and ensures that all necessary consents or licences are obtained and complied with.

(2) When undertaking works that affects the highway, the *Contractor* will:

- minimise the need for and duration of any closures or diversions of highways or public rights of way
- where necessary, provide and maintain suitable diversion routes with all necessary signage and barriers, and
- provide advanced notification to all potentially affected local residents and businesses about the diversion routes and dates / durations of use.

(3) The *Contractor* minimises the impacts of construction traffic on the public highways and access routes by:

- Consolidating loads to reduce the number of deliveries
- Planning delivery routes and times to avoid sensitive sites / activities – e.g. schools at the start or end of the school day
- Implementing measures to prevent the deposition of mud on roads - these may include: the provision of hardstandings and wheel cleaning facilities at access points, the sheeting of lorries, and/or the use of mechanical road sweepers
- Avoiding, wherever practicable, the parking of vehicles on public highways
- Ensuring vehicles are switch off when not in use

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GWI 11125 - Historic Environment

(1) Where there is the potential for the Works to affect heritage assets or archaeology, the *Contractor* ensures that suitable procedures are developed for mitigating and managing the potential effects. The procedures, which may be within the EMP or a stand-alone document, will be agreed with the *Project Manager*.

GWI 11130 - Construction Worker Travel

(1) The *Contractor* implements measures to encourage site staff and construction workers to avoid using private cars to access the work site, and to encourage them to use alternatives such as public transport, cycling, walking etc. The *Contractor* monitors the effectiveness of the proposed measures.

GWI 11135 – Lighting

(1) The *Contractor* takes all reasonable steps to minimise the potential for artificial light to adversely affect or intrude upon local sensitive receptors. This includes, but not be limited to:

- Avoiding or minimising the use of lighting
- Using the appropriate lux levels to minimise disturbance
- Using directional lighting or shielding to avoid intrusion

GWI 11140 - Site Energy Conservation

(1)

- The *Contractor* will maximise energy efficiency on site. The measures to be implemented will be detailed in the EMP, but, as a minimum, the following measures will be considered and implemented wherever possible:
  - Avoiding unnecessary day and night time lighting of the site, and offices / accommodation
  - Installing energy efficient security and task lighting, e.g. LED;
  - Providing well insulated site accommodation;
  - Selecting and using energy efficient plant and equipment;
  - Powering-down equipment/plant when not in use;
  - Minimising the use of diesel or petrol powered generators and instead using mains electricity or battery powered equipment;
  - Collecting energy and fuel consumption data to communicate to staff and report to the *Project Manager*.

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Appendix 1

Emergency Preparedness and Response

As a minimum, the *Contractor* defines the following either within their EMP, Emergency Preparedness Plan or Environmental Incident Plan:

- Definitions of what constitutes an environmental incident, a major environmental incident, an environmental emergency, harm or damage to the environment, and an environmental near miss;
- Details of the potential types of environmental incident relevant to the *works* and the envisaged control measures;
- The procedures to be implemented to comply with the emergency preparedness and response requirements set out within ISO14001;
- Responsibilities of the *Contactor's* staff for dealing with an environmental incident or near miss;
- Details of the Equipment to be used to bring environmental incidents or emergencies under control, including details of the location of spill kits and the minimum acceptable stock requirements;
- An up-to-date site drainage plan which details critical connections manholes, direction of flow, pipe diameters, interventions points and final discharge points to foul and surface water resources;
- The systems (and contact details) for notifying the appropriate statutory authorities, emergency services, *Project Manager* and the *Contractor's* personnel in the event of an environmental incident or near miss;
- The information to be recorded in the event of an environmental incident (to include date, time, location, description of incident, action taken, personnel involved and notifications, photographs); and,
- A simple flowchart to show the process and responsibilities.

Response and Investigation of Environmental Incidents

The *Contractor* notifies the *Project Manager* of all environmental incidents or 'near misses'as soon as practicable after they occur. All such incidents and near misses will be reported to the TfL Incident Line before the end of the shift in which the incident occurred. In the event of any environmental incident or near miss, the *Contractor* records the following information and ensure it is reported to the *Project Manager* within the initial written report which will be submitted within forty eight (48) hours of the incident occurring:

- Time and date;
- Location of incident;
- Description of incident – including an outline of events, personnel and parties involved and any mitigation measures applied;
- Whether the incident is considered an environmental incident, a major environmental incident, an environmental emergency or an environmental near miss;
- An initial assessment of the root causes of the incident and any corrective actions proposed to prevent recurrence

The *Contractor* also reports all environmental incidents and near misses to TfL Info Exchange system.

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In order to fully identify root causes and prevent recurrence, all environmental incidents and near misses will be investigated by the *Contractor*. The *Contractor* produces a report of the investigation and submits this to the *Project Manager* for acceptance within 14 Working Days of the incident.

In addition to containing the bullet point information above, the report will, as a minimum, include the following:

- Photographs / a sketch showing what happened and where;
- Details of any notification/third party involvement;
- Immediate causes;
- Root causes – e.g. inadequate procedures, conflicting targets, poor communication, lack of training, inadequate maintenance, extreme weather conditions or lack of security;
- Remedial actions implemented and/or proposed and timescales; and
- Measures to prevent recurrence and timescales.
- Approvals by the *Contractor's* senior individual responsible for ensuring the actions are completed satisfactorily.

If not accepted by the *Project Manager*, the *Contractor* will rework the report. The *Contractor* resubmits it to the *Project Manager* within 1 week of the date of issue of the comments by the *Project Manager* and repeats this process as required until acceptance is granted.

The *Contractor* monitors the implementation of any actions / recommendations resulting from the investigation of the environmental incident, and ensures that they are completed by the scheduled completion dates.

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Appendix 2

Environmental Data template

Environmental Data template

The below table sets out the minimum environmental data the *Contractor* provides each period.
This information is required to track performance and facilitate TfL's corporate environmental reporting.

Environmental Aspect	Data Required	Units
Basis for normalising performance	Spend per period	£100k
Energy consumption, by type	Electricity consumption (normal grid mix)	kWh
	Natural gas consumption	kWh
	Petrol consumption	litres
	Diesel consumption	litres
	Heavy fuel oil consumption	tonnes
	Other (please specify)	Please specify
Noise complaints	Noise complaints	number received
	Noise complaints / 100,000 hrs worked	number/100,000
Waste produced and proportion recycled	Amount of construction and demolition (C&D) waste produced	tonnes
	Amount of non-hazardous C&D waste **recycled** (does not include recovered / incinerated)	tonnes & %
	Amount of non-hazardous C&D materials **diverted from landfill** (i.e. reused, recycled and/or recovered)	tonnes & %
	Amount of non-hazardous C&D waste **diverted from landfill** (i.e. reused/ recycled/ recovered) per £100K project spend	tonnes / £100K
	Amount of excavation waste produced	tonnes
	Amount of non-hazardous excavated materials put to **beneficial reuse** (i.e. recycled / reused / diverted from landfill)	tonnes & %
	Amount of waste classified as hazardous	tonnes
	Amount of hazardous waste recycled	tonnes & %
Water consumption	Mains water consumed	m^3
	Non-mains water consumed	m^3
	Total water consumed	m^3
Environmental Incidents	Number of environmental incidents per period	number
	Number of environmental enforcement/regulatory	number

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	notices	

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Appendix 3

Section 61 Variation / Dispensation Form

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Appendix 4

Ecological Survey Data Requirements

Please see form available here:

https://www.gigl.org.uk/data-insight-services/transport-for-london/

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Appendix 5

DVS Schedule

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Appendix 6

AIR Template

See GWI 400

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Appendix 7

Blank QUENSH Menu template

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Appendix 8
Whole Life Carbon Model workbook

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Appendix 9

Infrastructure Carbon Review

Please see here:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/260710/infrastructure_carbon_review_251113.pdf

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London Underground high voltage power networks, substations and associated cabling and low voltage works, forming part of the Piccadilly Line Upgrade Programme (Phases 1 and 2), and other works (including in relation to network-wide high voltage substation plant)

GENERIC WORKS INFORMATION (GWI) 1200

SUBCONTRACTING

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	Final Sign-off	
	Commercial Line Manager	**Project Manager**
Name		
Signature		
Date		

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GWI 1205 **Restrictions for subcontracting**

(1) The *Employer* does not consider that there are any particular tasks or work packages that cannot be subcontracted, with the exception of the following;

- *Contractor's* management of the *works*

Should a Call-off Contract have additional restrictions on subcontracting, these will be stated in the Specific Works Information for that Call-off Contract.

GWI 1210 **Requirements for all Subcontracts**

(1) The *Contractor* ensures that each subcontract he lets in relation to this contract contain provisions:

- requiring the proposed Subcontractor (and sub-subcontractors of any tier) to meet the Conditions stated for a Key Date on or before such Key Date and to achieve Completion on or before the Completion Date and to minimise the level of Defined Cost,
- requiring the proposed Subcontractor (and sub-subcontractors of any tier) to meet the Conditions stated for a Key Date, if applicable, on or before such Key Date and to achieve Completion on or before the Completion Date and to minimise the level of Defined Cost,
- requiring the proposed Subcontractor (and sub-subcontractors of any tier) to maintain accounts and records and grant audit rights to the *Employer* and its authorised representatives of an equivalent extent and nature to those required by this contract,
- requiring the proposed Subcontractor (and sub-subcontractors of any tier) to assign to the *Employer* the IPR in all documents, drawings, materials, computer software and any other material or works prepared or developed by or on behalf of the proposed Subcontractor in the performance of the subcontract,
- requiring the proposed Subcontractor (and sub-subcontractors of any tier) to grant a non-exclusive, perpetual, irrevocable, royalty-free licence to the *Employer* to use Background IPR (including the right to grant sub-licences) of an equivalent extent and nature to those required by this contract,
- imposing equivalent obligations of confidentiality on the proposed Subcontractor (and sub-subcontractors of any tier) to those required by this contract,

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- imposing equivalent obligations regarding Prohibited Acts and health and safety (including Safety Breaches) as required by this contract on Subcontractors (and sub-subcontractors of any tier),
- in equivalent terms to clause 50.12 of this contract together with an obligation to procure that equivalent provisions are included in sub-subcontracts of any tier,
- acknowledging that the Subcontractor is an insured party under the insurances provided by the *Employer* while the Subcontractor is engaged in carrying out the works at the Site and any associated compounds storage and transit locations and other places accepted by the *Project Manager* and used solely for the purposes of carrying out of the physical works within the United Kingdom.

GWI 1215 Submission of Subcontract Documentation

(1) The *Contractor* submits to the *Project Manager* for acceptance within eight weeks of the *starting date* and four weeks prior to placing the proposed subcontract, the name of the proposed Subcontractor for any subcontract over £100,000 (one hundred thousand pounds), or series of subcontracts with the same Subcontractor exceeding £100,000 (one hundred thousand pounds) in the aggregate, together with a copy of the proposed subcontract documentation and such other information as the *Project Manager* may require. The *Contractor* is to allow a minimum of 10 Working Days for the *Employer* to review the proposed Subcontractor.

(2) The *Project Manager* also has the right to object to any proposed Subcontractor for any subcontract (or series of subcontracts) under £100,000 in value.

The *Contractor* submits the name of the proposed Subcontractor for any such subcontract to the *Project Manager* if requested by the *Project Manager* to do so together with a copy of the proposed subcontract documentation and such other information as the *Project Manager* may require and the *Project Manager* provides the *Contractor* with his written objection (if any) to any such proposed Subcontractor within 4 weeks of submission.

If the *Project Manager* does not object to any such proposed Subcontractor for a subcontract with a value under £100,000 within this period the *Project Manager* is deemed to have accepted the proposed Subcontractor.

GWI 1220 Acceptance procedures

(1) There are no additional procedures for acceptance that the *Contractor* is to comply with other than those stated in clause 26 with regard to subcontract procurement.

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Should a Call-off Contract require additional procures for acceptance, these will be stated in the Specific Works Information for that Call-off Contract.

GWI 1225 The Subcontract Procurement Plan

(1) The *Contractor* submits a detailed Subcontractor Procurement Plan to the *Project Manager* for acceptance prior to the *starting date*.

(2) The Subcontractor Procurement Plan contains, as a minimum, the *Contractor's* proposal for the following:

- A subcontract procurement policy statement
- A subcontract procurement quality statement including a commitment to meeting the *Employer's* requirement for best value and responsible procurement.
- Overall procurement programme detailing when the *Contractor* intends to commence procurement for the parts of the *works* that are to be subcontracted, along with how this fits with the Accepted Programme.
- A statement detailing which parts of the *works* the *contractor* intends to subcontract along with the reason why.
- A statement explaining how the *Contractor* intends to pass risk to his Subcontractors and how this transfer meets with requirement of the *Contractor's* Risk Management Plan.
- A statement explaining how the *Contractor* intends to manage health and safety in his supply chain
- The proposed form of contact for each Subcontractor identified in the Subcontractor Procurement Plan
- Details of which, in accordance with this Works Information, subcontractors the *Contractor* intends to submit to the *Project Manager* the full subcontract details.
- How the *Contractor* proposes to meet LU Standard 1-551 'Procuring and managing suppliers and contractors - HS&E requirements'

GWI 1225.1 Updating the Subcontract Procurement Plan

(1) The *Contractor* submits a revised Subcontract Procurement Plan to the *Project Manager* for acceptance

- within the *period for reply* after the *Project Manager* has instructed him to

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- when the *Contractor* chooses to and, in any case,
- whenever the there is a change to the planned Subcontractor Procurement plan by virtue of a change to the programme, additional works identified to be subcontracted or when the Subcontractor Procurement plan is affected by a compensation event.

(2) The *Contractor* shows on each revised Subcontractor Procurement Plan how the plan has differed from the previous plan.

A reason for not accepting the revised plan is that it does not contain the information required by this contract and/or it will not allow the *Contractor* to Provide the Works.

GWI 1230 **Responsible procurement (Z2.13)**

(1) This section further defines the specific requirements with regards to Responsible Procurement and the obligations that the Contractor shall comply with in Providing the Works.

Glossary

Term	Definition
Apprentice	means a member of the *Contractor's* staff who is registered as an apprentice or technician with an industry recognised body.
Employers Supplier Skills Team	a function within the *Employers* organization who can provide guidance on SLNT principles.
Equality, Diversity and Inclusion (EDI) Action Plan	a plan provided by the *Contractor* which outlines how it will meet the EDI objectives and adhere to the GLA Responsible Procurement Policy.
Greater London Authority (GLA)	the local government body responsible for the Greater London area, as explained in the GLA Act 1999.
Strategic Labour Needs Training (SLNT) Plan	a plan provided by the *Contractor* which outlines the SLNT outputs it will use in order to meet the *Employers* SLNT requirements.
Quarterly SLNT Monitoring Report	means the report to be prepared by the *Contractor* in the form set out at Appendix 3 and submitted to the *Project Manager*.
Relevant Employment Vacancy	means an employment vacancy within the *Contractor*'s organisation for a member of *Contractor* Personnel.
Responsible Procurement Policy (RPP)	the strategic policy provided by the GLA that sets out its plans, ambitions and commitments for ensuring continuous improvement in London, delivered through their procurement activities.
Small to Medium Enterprises (SMEs)	a small or medium-sized enterprise, or SME, as defined by the European Commission is a business or company:

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	• that has fewer than 250 employees; and • has either (a) annual turnover not exceeding €50 million (approximately £40 million) or (b) an annual balance-sheet total not exceeding €43 million (approximately £34 million)

The *Contractor* complies with the requirements and principles of the Responsible Procurement Policy in accordance with the following;

The Greater London Authority (GLA) has developed a Responsible Procurement Policy (RPP) through which it aims to improve London's sustainability across the following themes:

- Enhancing Social Value
- Encouraging Equality and Diversity
- Embedding Fair Employment Practices
- Enabling Skills, Training and Employment Opportunities
- Promoting Ethical Sourcing Practices
- Improving Environmental Sustainability

These themes are set out in more detail on the GLA public websites which may be accessed using the following link:

https://www.london.gov.uk/decisions/md2019-gla-group-responsible-procurement-policy

GWI 1230.1 Responsible Procurement and Sustainable Delivery

(1) The *Employer* is committed to responsible procurement and sustainable delivery and therefore requires the Contractor to adopt and implement practices and procedures which actively support the GLA's RPP.

GWI 1230.2 Strategic Labour Needs and Training (SLNT)

(1) This section describes the management tasks that are required to be carried out by the *Contractor* in order to support the *Employer* to contribute towards implementing the UK Government's "Transport Infrastructure Skills Strategy" and "Transport Infrastructure Skills Strategy – Two Years on".

Transport Infrastructure Skills Strategy:

https://www.gov.uk/government/publications/transport-infrastructure-skills-strategy-building-sustainable-skills

Transport Infrastructure Skills Strategy – Four Years on:

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/934395/DfT_Transport-Infrastructure-Skills-Strategy-four-years-of-progress-STAT-accessible.pdf

(2) Transport Infrastructure Skills Strategy

The *Employer's* strategic workforce planning requirements reflect the recommendations of the Transport Infrastructure Skills Strategy. The strategy outlines the need to build sustainable skills in the transport and infrastructure sector, and commits to:

- Delivering 30,000 new apprenticeships by 2020, reflecting the government's overall apprenticeship target and funding from the apprenticeship levy.
- Ensuring the right mix of apprenticeships is on offer for the sector, including many at higher levels.
- Meeting the challenge of new technologies by upskilling the existing workforce.
- Promoting transport and engineering as a career of choice for the brightest and best.
- Encouraging greater diversity in the workforce, setting an ambition for:
  i. 20% of new entrants to engineering and technical apprenticeships in the transport sector to be women by 2020, and to achieve parity with the working population at the latest by 2030.
  ii. A 20% increase in the number of BAME candidates undertaking apprenticeships by 2020.

(3) In Providing the Works, the *Contractor* must work collaboratively with the *Employer* and wider transport industry to address critical skills challenges within the rail engineering sectors including in particular:

- Technology change;
- Lack of diversity;
- Increase demand for rail; and
- Improve productivity.

(4) The *Contractor* will set out its approach to addressing these matters in the SLNT Plan.

GWI 1230.2.1 SLNT Plan

(1) Within sixty (60) Working Days of the *starting date*, the *Contractor* shall produce and submit to the *Project Manager* for acceptance a Strategic Labour Needs and Training (SLNT) Plan.

(2) The SLNT Plan shall as a minimum:

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(a) be based upon the principles and approach set out in the Transport Infrastructure Skills Strategy and demonstrate how workforce planning for the works will utilise the approaches and partnerships identified in the Transport Infrastructure Skills Strategy;

(b) determine the minimum number of SLNT Outputs for the Order. The minimum number of SLNT Outputs shall be based on the total of the Prices and be calculated using a ratio of 1 Output per £2 million;

(c) detail the breakdown of the SLNT Outputs in accordance with the guidance in Appendix 1;

(d) plan the delivery of the SLNT Outputs against:

- the Accepted Programme for the Call-off Contract;
- the Tender Events Schedule for the Call-off Contract where works are to be sub-contracted;
- the *Contractor*'s Organisation Chart; and describe the steps the *Contractor* will take to deliver the SLNT Outputs.

(3) The *Contractor* shall submit the detailed format of the SLNT Plan to the *Project Manager* for initial review within thirty (30) Working Days of the *starting date*. The SLNT Plan shall include the following minimum content:

Section	Outline Contents
Vision	Outline the overall vision for the Strategic Workforce Plan and how it will align to the *Contractor*'s Project Execution Plan.
Market skills shortages and demand	Outline the *Contractor*'s understanding of market supply and demand for the skill areas required to deliver the *works*.
Project Skills Requirements	• The skills and resource profile for the Order, based upon the *Contractor's* resource loaded programme; • The number and breakdown of SLNT Outputs to be delivered under the Order using the template in Appendix 2; and • The profile of SLNT Output delivery through the Order.
Approach to Delivery	Describe the activities which will be undertaken in each of the SLNT Output areas against the categories in Appendix 1 and i. The qualifications and training programmes identified; ii. Named staff resource to be deploying to support the activity; iii. Assumptions made in preparing proposed activities; and

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	iv. Any input required from the *Employer* to undertake the activities.
Enabling a Diverse Workforce	• The Contractor's approach to embedding positive equality and diversity approaches into the SLNT Plan to attract and retain diverse candidates, help address skill shortage areas and work towards meeting the Transport Infrastructure Skills Strategy commitments; • This shall include: i. an outline of the *Contractor*'s comprehensive equality policy covering race, gender, disability, age, faith and sexual orientation in line with current legislation and codes of practice issued by the Equality and Human Rights commission; ii. the recruitment policies and procedures which exclude practices that are discriminatory, create unfair conditions of employment or create unequal rates of pay, particularly between men and women; iii. the approach to ensuring any publicity for vacancies will encourage applicants from equality target groups where there is evidence of gaps existing; iv. engagement, attraction, retention and development strategies for candidates from underrepresented groups; v. the procedures by which recruitment processes are regularly reviewed to ensure that all potential barriers to recruitment, particularly with regards to equality target groups, are removed
Supply Chain	• The key skills areas which will be sub-contracted; • The approach to ensuring Subcontractors support the delivery of the SLNT Plan; • How SLNT considerations will be included in the procurement and management of Subcontractors; and • How Subcontractors will be made aware of appropriate support and funding streams from the *Employer* and government for any SLNT activity they will be undertaking towards the *Contractor's* SLNT outputs.

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Quality	The approach to ensuring apprenticeship schemes, training programmes and employment are of good quality and line with national standards.
Supporting Sector Centres of Excellence	• The approach to engaging with one or more of the identified sector centres of excellence and what training will be delivered through these centres; • Where the identified sector centres of excellence will not be used, details of the training provider that will be used and the reasons for selecting this provider instead of using a centre(s) of excellence. • This shall include: i. What centre(s) of excellence will be used; ii. What training will be delivered through the centre(s); iii. Indicative number of learners which will receive training at the centre(s); iv. When the training is scheduled.
Funding and Support	The approach to accessing available government or wider funding sources to support the SLNT Plan.
Partnerships and Collaboration	The partners with *Contractor* will work with to deliver the SLNT Plan including training organisations, government bodies and sector skills councils.
Monitoring and Reporting	The processes and systems which will be put in place to track and report on progress in delivery of the SLNT Outputs.

(4) When referring to the approach to delivery in the SLNT Plan, the *Contractor* shall provide a narrative of how it proposes to address the following activities for each output type:

(a) Apprentice Job Start – New Entrant

- Attraction and recruitment
- Apprenticeship frameworks & standards
- Training provider
- Funding
- Apprentice welfare – terms, conditions and benefits

(b) Apprentice Job Start – Social Mobility

- Attraction and recruitment
- Apprenticeship frameworks & standards
- Training provider
- Funding

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- Apprentice welfare – Terms, Conditions and Benefits
- Engagement with charities and referral partners

(c) Apprentice Start – Existing Staff

- Generating interest in the existing workforce
- Apprenticeship frameworks & standards
- Training Provider
- Funding

(d) Apprentice Success – Completion

- Support provided to ensure timely completion of the apprenticeship
- Career pathways and opportunities available for successful Apprentices
- How Apprentices that are not retained are supported into work upon completion of the apprenticeship

(e) Job Start - Social Mobility

- Target groups or priorities
- Possible job roles available
- Training and support to retain the job start
- Charities and partner engagement to find suitable candidates

(f) Targeted Placement Positions

- The target group(s) and the method of finding the candidates
- Placement objectives
- Typical length and type of placement

(g) Placement Positions

- The target group(s) and the method of finding the candidates
- Placement objectives
- Typical length and type of placement

(h) Educational Engagement

- The target educational establishments
- Objectives of engagement

Engagement activities

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(5) The *Contractor* shall review and, if necessary, revise the SLNT Plan annually on the date of the first accepted plan and submit the revised plan to the *Project Manage*r for acceptance.

GWI 1230.2.2 SLNT Coordinator

(1) Within twenty (20) Working Days of the *starting date* the *Contractor* shall nominate a member of the *Contractor*'s senior personnel (the "SLNT Co-ordinator") with the necessary skills and authority to:

(a) be responsible for the implementation and on-going development and maintenance of the SLNT Plan; and

(b) act as the single point of contact with the Employer's staff on all matters concerning the SLNT Plan.

(2) The *Employer* has a Supplier Skills Team who may be able to provide guidance to the *Contractor* in relation to SLNT including funding, employability programmes, apprenticeship standards, referral partners and educational institutions.

GWI 1230.2.3 Training of Apprentices and Trainees

(1) Within five (5) Working Days of the date of an apprentice's commencement with the *Contractor*, the *Contractor* shall prepare and complete a written training plan for that trainee or apprentice. The training plan shall include:

(a) details of the skills and competencies to be developed and acquired by the Trainee and/or Apprentice; and

(b) the timescales by which the Trainee and/or Apprentice should acquire the defined skills and competencies.

(2) The *Contractor* shall:

(a) review and update training plans for all Trainees and/or Apprentices each month; and;

(b) make copies of completed and up to date training plans available to the Employer and Project Manager for review at any time.

GWI 1230.2.4 Supporting Centres of Excellence

(1) Where appropriate the *Contractor* shall use the nominated centre(s) of excellence for training:

- The Tunnelling Underground and Construction Academy (TUCA)
- The National Training Academy for Rail (NTAR)

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- College for High Speed Rail

(2) If the *Contractor* is not intending to use a centre(s) of excellence, they shall indicate in the delivery plan the training provider they intend to use and the reasons.

(3) Employment Vacancies

The *Contractor* shall:

(a) at the time of placing an advertisement for a Relevant Employment Vacancy, notify the *Employer* (and/or any Third Parties nominated by the *Employer*) and the *Project Manager* of such advertisement and provide details of the:

i. Relevant Employment Vacancy;
ii. date of the advertisement; and
iii. publication in which the advertisement is scheduled to appear or appeared (as applicable); and

(b) attend a minimum of two (2) events each year, at a time and location specified by the *Employer*, to publicise employment and training opportunities arising from the *works*.

GWI 1230.2.5 Monitoring and Reporting

The *Contractor* shall provide the *Employer* and *Project Manager* with a Quarterly SLNT Monitoring Report using the templates in Appendix 3. The first submission of the Quarterly SLNT Monitoring Report will be due on thirteen (13) weeks after acceptance (by the *Project Manager*) of the SLNT plan.

GWI 1230.3 Equality, Diversity and Inclusion (EDI) Action Plan

(1) The *Employers* approach to EDI is founded upon Inclusive London, the Mayor's Equality, Diversity and Inclusion Strategy which can be found at: https://www.london.gov.uk/sites/default/files/gla_group_responsible_procurement_policy_2021.pdff. This sets out his vision for a fairer, more equal, integrated city where all people feel welcome and able to fulfil their potential.

(2) The GLA RPP sets out how the *Employer* will encourage EDI by:

- Removing barriers in procurement approaches and processes that inhibit Small to Medium Enterprises (SMEs), community sector organisations, diverse enterprises and under-represented groups from easily entering the supply chain. The Employers procurement processes will be transparent, straightforward, and open to the whole of the supplier community;

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- Paying suppliers promptly and paying SME suppliers within 10 working days, in recognition of their specific challenge around cash flow, and encouraging our supply chain to adopt supportive practices;
- Reviewing requirements to ensure the goods and services procured support EDI within the *Employer's* own workforce and supply chain;
- Identifying opportunities to encourage suppliers to employ a workforce that is representative of the diversity of London's population and provide services that are inclusive;
- Working with organisations (and their supply chains) that have a good track record and can clearly demonstrate promoting EDI within their own organisations; and
- Maximising relevant opportunities to work with voluntary and community sector organisations including social enterprises in supply and service delivery.

(3) Within sixty (60) Working Days of the *starting date*, the *Contractor* shall produce and submit to the *Project Manager* for acceptance an Equality, Diversity and Inclusion (EDI) Action Plan.

(4) The EDI Action Plan shall be specific to the *works* and as a minimum:

(a) explain the steps that the *Contractor* will take to tackle discrimination, harassment and victimisation on grounds of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion and belief, sex and sexual orientation;

(b) outline the recruitment policies and procedures ensure that the *Contractor* does not discriminate or create unequal rates of pay between different protected groups, particularly in relation to disability, ethnicity and gender;

(c) detail the steps the *Contractor* will take to publicise vacancies to encourage applicants from disadvantaged or underrepresented groups and have measures in place to proactively recruit a diverse workforce including at a senior level;

(d) demonstrate how the *Contractor* is actively engaging with local employment agencies and local unemployment programmes so that, as vacancies arise in respect of providing the *works*, local people, particularly from groups who are underrepresented in the workforce, are made aware of these opportunities; and

(e) detail the procedures for creating safe and inclusive workplaces including ways to deal with bullying, harassment and grievances, requests for reasonable

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adjustments / flexible working and staff assigned to deal with issues of this nature and a robust mechanism for implementation.

(5) The EDI Action Plan shall include the following with respect to training:

(a) detail which staff are to receive training and what the nature of the particular training will be;

(b) clear guidance for managers on how to avoid discrimination, harassment and victimisation;

(c) clear guidance for managers on how to promote EDI within recruitment, training and appraisal;

(d) appropriate training on delivering inclusive products and services is available to all relevant employees; and

(e) indicate the types and levels of training, evaluation processes, and how impact will be monitored.

(6) Below is a template for EDI Action Plans, with some example EDI objectives. The *Contractor* shall develop their own format which is relevant to the *works,* but with consideration of the below template.

EDI Objective	Current Position/ baseline	Action	Timing	Person Responsible	Resources
Recruit and retain a workforce reflective of the local area	From workforce diversity statistics				
Move all staff onto London Living Wage					
Collect and analyses diversity data					

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Reduce gender pay gap					
Inclusive recruitment training for hiring managers					
Managing diversity for all line managers/ supervisors					
Inclusive customer service for all public facing staff					

(7) Key policy documents such as an EDI policy should be appended to the EDI Action Plan.

(8) The *Contractor* shall use the below resources in order to help develop their EDI Action Plan.

Mayor's Good Work Standard	https://www.london.gov.uk/what-we-do/business-and-economy/supporting-business/what-mayors-good-work-standard
Equality and Human Rights Commission	https://www.equalityhumanrights.com/sites/default/files/good_equality_practice_for_employers_equality_policies_equality_training_and_monitoring.pdf
Stonewall	https://www.stonewall.org.uk/creating-inclusive-workplaces/best-practice-toolkits-and-resources
Chartered Institute of Personnel and Development	https://www.cipd.co.uk/knowledge/fundamentals/relations/diversity
Inclusive Employers	https://www.inclusiveemployers.co.uk/resources
Business in the Community	https://www.bitc.org.uk/campaigns-programmes/employment-diversity/DiversityInclusion
Employers for Carers	https://www.employersforcarers.org/

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Disability Rights UK	https://www.disabilityrightsuk.org/

(9) The *Contractor* shall review and, if necessary, revise the EDI Action Plan annually on the date of the first accepted plan and submit the revised plan to the *Project Manager* for acceptance.

GWI 1230.4 Ethical Sourcing Schedule

(1) The *Employer* is committed to ensuring that workers employed in its supply chains in the UK and throughout the world are treated fairly, humanely and equitably. In the course of delivering the *works*, the *Contractor* delivers the works through the rigorous application of high-quality employment practices, lawful employment standards and the recommendations of recognised professional bodies, including the Ethical Trading Initiative's Base Code (2016), as set out in Appendix 4 to this Generic Works Information, and the Modern Slavery Act (2015). The *Contractor* takes active measures to ensure that its supply chain is similarly compliant.

(2) For each Call-off Contract, the *Contractor* prepares and delivers to the *Project Manager* at the contract commencement date an up-to-date Ethical Sourcing Plan setting out the steps it plans to take to ensure that slavery and human rights abuses are not taking place in any of its supply chains or in any part of its business. The plan should include as a minimum: management practices and governance structure; risk assessment and due diligence procedures, including the use of auditing; communication with suppliers and your supply chain; policies / contract requirements; supply chain training and compliance with the Electronics Watch disclosure approach. The *Contractor's* Ethical Sourcing Plan must contain specific detail regarding the transparency of its copper supply chain, including the name and location of mines and manufacturing plants, for all the components to be supplied during the course of delivering the *works*.

(3) The *Contractor* should provide their Ethical Sourcing Plan in the template set out in this document (Table 1).

(4) Within 40 working days of the *starting date*, the *Project Manager* and the *Contractor* shall agree an Agreed Ethical Sourcing Plan to deliver on the commitments in the initial Ethical Sourcing Plan. The Agreed Ethical Sourcing Plan shall cover the 12 calendar months following the starting date and will be updated on an annual basis for the duration of the Call-off Contract.

(5) The Contractor shall, where relevant, train for its employees and subcontractors to ensure compliance with GWI 1230.4 (1) and GWI 1230.4 (2). The Contractor shall keep a record of all training completed by its employees and subcontractors to ensure compliance with GWI 1230.4 (1) and GWI 1230.4 (2) and shall make a copy of the record available to the *Employer* on request.

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(6) During the course of delivering the *works*, if the *Employer* has reasonable cause to believe that the *Contractor* is not complying with GWI 1230.4 (1) or GWI 1230.4 (2), then the *Employer* shall notify the *Contractor* and both parties shall agree an action plan with appropriate timeframes for compliance by the *Contractor*, such action plan to be agreed between both parties by no later than 30 days from the date of the Employer's notification to the *Contractor* that remedial action is required or such other period as the Parties may otherwise agree in writing. The costs of the creation and implementation of the action plan shall be borne by the *Contractor*.

(7) Following agreement of the action plan, the *Employer* reserves the right to conduct, or require to be conducted, one or more audits, (either itself or via a third-party auditor approved by the *Employer*) in relation to compliance by the *Contractor* with the action plan.

(8) For the avoidance of doubt, the right of audit shall include without limitation the right of the *Employer* (or an auditor appointed by the *Employer*) acting reasonably to undertake physical inspections of relevant sites/factories, to conduct interviews with relevant personnel and to inspect relevant documents. The *Contractor* shall co-operate and shall procure that its sub-contractors (as applicable) co-operate with the *Employer* and the *Employer 's* auditor in relation to all aspects of any audit.

(9) The *Contractor* shall make the audit reports required] available to the *Employer* through the Suppliers Ethical Data Exchange ("Sedex"), or an equivalent process.

Ethical Sourcing Objective (Examples)	Current Position/Baseline (Examples)	Action/Task	When	Person Responsible	Resource	Measure of Success
Appropriate ethical sourcing policy and procedures in place to comply with the ETI Base Code (or equivalent).	Ethical Sourcing policy has not been reviewed in the last three years.	Review and update ethical sourcing policy.		Head of Ethical Sourcing	Consultation costs	Up-to-date policy and procedures in place
	Ethical Sourcing procedures not aligned to ETI Base	Review and update ethical sourcing procedures.	Within 12 months	Head of Sourcing		

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	Code (or equivalent)					
Ensure that those working for the organisation either directly or indirectly are equipped to deliver the organisation's commitment to ethical sourcing in all areas of their activities	There is no specific ethical sourcing training / briefing programme in place although ethical sourcing is covered during induction	Conduct a survey to identify training previously received by staff.		Director of HR	HR provisions	Staff understand how their role can affect labour standards at sites of production.
Modern Slavery Awareness Training	No formal training provided	Roll out toolbox talks to all site staff	Within 6 months	Head of Training		Staff understand how to spot the signs of Modern Slavery on site
Management Practices & Governance Structure	No oversight at present	Modern Slavery Statement (MSS) to be approved by the CEO/Board etc		CEO/MD		MSS published on own website and UK Government portal
Risk Assessment & Due Diligence	Supplier Risk Assessment does not include country of origin as a criteria	Use the https://www.globalslaveryindex.org/ as a data source to rank high risk				

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		countries of origin				
Communication with suppliers & supply chain		Develop formal approach to communicate with key suppliers within Contract Management approach	Within 12 months			
Contract Requirements		Draft requirements that flow down the supply chain				
Electronics Watch disclosure		Complete the EW Disclosure Form	Within 25 days	Head of Sourcing		

Table 1: ethical sourcing plan template

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GWI 1235 Notification Requirements

(1) On or before the Contract Date or the starting date for the works (whichever is the earlier), the *Contractor* provides to the *Employer* in writing the name, contact details and details of the legal representatives of any Subcontractor (of any tier), to the extent that such information has not already been provided by the *Contractor* to the *Employer*.

The *Contractor* also immediately notifies the *Employer* in writing of any change to the information notified under this GWI 1235 and provides to the *Employer* in writing the name, contact details and details of the legal representatives of each new Subcontractor (of any tier) which the *Contractor* subsequently involves in the *works* after the Contract Date or the starting date for the works (whichever is the earlier).

(2) The *Employer* reserves the right to verify whether there are any grounds for excluding any Subcontractor under regulation 57 of the Public Contracts Regulations 2015. Where necessary for the purpose of the *Employer's* exercise of its right under this GWI 1235, the *Employer* may request that the information provided by the *Contractor* under GWI 1235(1) be accompanied by one or more European Single Procurement Document(s) (within the meaning of regulation 59 of the Public Contracts Regulations 2015) in respect of the relevant subcontractor(s). Further, the *Employer*:

- shall require that the *Contractor* replaces any Subcontractor in respect of which the verification has shown that there are compulsory grounds for exclusion under regulation 57 of the Public Contracts Regulations 2015; and
- may require that the *Contractor* replaces any Subcontractor in respect of which the verification has shown that there are non-compulsory grounds for exclusion under regulation 57 of the Public Contracts Regulations 2015.

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Appendices

Appendix 1 – Strategic Workforce Output Breakdown

To ensure the *Contractor's* SLNT Outputs are aligned to the priorities in the Transport Infrastructure Skills Strategy, a minimum of 50% of SLNT outputs shall be from the Priority SLNT Activity Areas (Table 1).

SLNT activities, definitions and their output value are detailed below in Table 1:

Table 1:

SLNT Output	Definition	SLNT Value	Priority
Apprenticeships			
Apprentice Start New Entrant	A new entrant who is recruited as an apprentice and enrolled on an approved apprenticeship framework or standard. The apprentice must be a UK resident and have not previously completed an apprenticeship.	**1 Output** Level 2 or 3 apprenticeship start **1.5 Output** Level 4 and above apprenticeship start	✓ ✓
Apprentice Start Social Mobility	Apprentice enrolled on an approved apprenticeship framework or standard that can be identified as meeting the definition of improving social mobility.	**1 Output** 1 output for each Apprenticeship Start **1.5 Output** Level 4 and above apprenticeship start	✓ ✓
Apprentice Start Existing Employee	An existing staff member who is enrolled onto an approved apprenticeship framework or standard. The Apprentice must be a UK resident and could be progressing from another apprenticeship, for example from Level 3 to Level 4	**1 Output** 1 output for each Apprenticeship Start **1.5 Output** Level 4 and above apprenticeship start	✓ ✓
Apprentice Success Completion	An existing Apprentice that has completed an approved apprenticeship framework or standard and moved into continuous FTE employment for 90 days or more since completion of apprenticeship.	**1 Output** 1 output for each successful completion	
Job Creation			
Job Start Social Mobility	A new job start that meets the definition of improving social mobility for that individual.	**1 Output** 1 output for each Job start	
Educational/Career Support			

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Targeted Placement	This includes individuals that can be identified in the definition of improving social mobility, and individuals who are underrepresented in the sector, including women, people with a disability and people from a BAME background. The placement should develop or enhance their knowledge and skills. A placement is expected to last a minimum of 1 week. A placement position could be paid or unpaid .The individual must be a UK resident.	**10 days = 1 Output**	
Placement Position	A position intended to enable an individual to develop or enhance their knowledge and skills by providing a short work experience placement. A placement is expected to last a minimum of 1 week. A placement position could be paid or unpaid and the individual must be a UK resident.	**20 days = 1 Output**	
Educational Engagement	Education activities that support **schools, colleges, and Sector Centres of Excellence**, by raising awareness of the educational and employment opportunities in the industry. This could include attending career fairs, visits, taster days, ambassador programmes etc. Institutions supported should be within the UK.	**20 days = 1 Output**	

When developing the breakdown of the SLNT Outputs the *Contractor* shall be aware of the following definitions and explanations as set out in Table 2.

Table 2:

Priority Activity Areas	SLNT priority activity areas include Apprentice Starts – New Entrant, Social Mobility and Existing Employee
Improving social mobility	Where the individual can be identified in one of the following categories: • Resident in one of the 12 most deprived London boroughs • Offender or ex-offender • Homeless • Care leavers • Single parent • Care responsibilities

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	• Refugee status
London Boroughs with highest levels of deprivation	Information sourced from Trust for London. Based on 20 indicators: Poverty rate, child poverty rate, income inequality, pay inequality, homeless acceptances, temp accommodation, landlord repossessions, housing affordability, housing delivery, unemployment ratio, unemployment change, low pay, low pay change, out-of-work benefits, CTS cut, GCSE attainment, qualifications at 19, infant mortality and premature mortality The 12 boroughs with the highest average rank, based on the above indicators are: 1. Barking and Dagenham 2. Tower Hamlets 3. Hackney 4. Enfield 5. Greenwich 6. Newham 7. Ealing 8. Lewisham 9. Haringey 10. Brent 11. Waltham Forest 12. Islington
Sector Centres of Excellence	The Centres of Excellence are purpose built specialist training facilities and include, but not limited too: • The Tunneling Underground and Construction Academy (TUCA) • National Training Academy for Rail (NTAR) • College for High Speed Rail

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Appendix 2: SLNT Activity Breakdown Table

See separate Excel file.

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Appendix 3: Quarterly SLNT Monitoring Report template

See separate Excel file.

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Appendix 4: ETi Base Code

1.1 EMPLOYMENT IS FREELY CHOSEN

1.1.1 There is no forced, bonded or involuntary prison labour.

1.1.2 Workers are not required to lodge "deposits" or their identity papers with their employer and are free to leave their employer after reasonable notice.

1.2 FREEDOM OF ASSOCIATION AND THE RIGHT TO COLLECTIVE BARGAINING ARE RESPECTED

1.2.1 Workers, without distinction, have the right to join or form trade unions of their own choosing and to bargain collectively.

1.2.2 The employer adopts an open attitude towards the activities of trade unions and their organisational activities.

1.2.3 Workers representatives are not discriminated against and have access to carry out their representative functions in the workplace.

1.2.4 Where the right to freedom of association and collective bargaining is restricted under law, the employer facilitates, and does not hinder, the development of parallel means for independent and free association and bargaining.

1.3 WORKING CONDITIONS ARE SAFE AND HYGIENIC

1.3.1 A safe and hygienic working environment shall be provided, bearing in mind the prevailing knowledge of the industry and of any specific hazards. Adequate steps shall be taken to prevent accidents and injury to health arising out of, associated with, or occurring in the course of work, by minimising, so far as is reasonably practicable, the causes of hazards inherent in the working environment.

1.3.2 Workers shall receive regular and recorded health and safety training, and such training shall be repeated for new or reassigned workers.

1.3.3 Access to clean toilet facilities and to potable water, and, if appropriate, sanitary facilities for food storage shall be provided.

1.3.4 Accommodation, where provided, shall be clean, safe, and meet the basic needs of the workers.

1.3.5 The company observing the code shall assign responsibility for health and safety to a senior management representative.

1.4 CHILD LABOUR SHALL NOT BE USED

1.4.1 There shall be no new recruitment of child labour.

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1.4.2 Companies shall develop or participate in and contribute to policies and programmes which provide for the transition of any child found to be performing child labour to enable her or him to attend and remain in quality education until no longer a child.

1.4.3 Children and young persons under 18 shall not be employed at night or in hazardous conditions.

1.4.4 These policies and procedures shall conform to the provisions of the relevant ILO standards.

1.5 LIVING WAGES ARE PAID

1.5.1 Wages and benefits paid for a standard working week meet, at a minimum, national legal standards or industry benchmark standards, whichever is higher. In any event wages should always be enough to meet basic needs and to provide some discretionary income.

1.5.2 All workers shall be provided with written and understandable Information about their employment conditions in respect to wages before they enter employment and about the particulars of their wages for the pay period concerned each time that they are paid.

1.5.3 Deductions from wages as a disciplinary measure shall not be permitted nor shall any deductions from wages not provided for by national law be permitted without the expressed permission of the worker concerned. All disciplinary measures should be recorded.

1.6 WORKING HOURS ARE NOT EXCESSIVE

1.6.1 Working hours comply with at least UK national laws and benchmark industry standards, whichever affords greater protection.

1.6.2 In any event, workers shall not on a regular basis be required to work in excess of 48 hours per week and shall be provided with at least one day off for every 7-day period on average. Overtime shall be voluntary, shall not exceed 12 hours per week, shall not be demanded on a regular basis and shall always be compensated at a premium rate.

1.7 NO DISCRIMINATION IS PRACTISED

1.7.1 There is no discrimination in hiring, compensation, access to training, promotion, termination or retirement based on race, caste, national origin, religion, age, disability, gender, marital status, sexual orientation, union membership or political affiliation.

1.8 REGULAR EMPLOYMENT IS PROVIDED

1.8.1 To every extent possible work performed must be on the basis of recognised employment relationship established through national law and practice.

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1.8.2 Obligations to employees under labour or social security laws and regulations arising from the regular employment relationship shall not be avoided through the use of labour-only contracting, sub- contracting, or home-working arrangements, or through apprenticeship schemes where there is no real intent to impart skills or provide regular employment, nor shall any such obligations be avoided through the excessive use of fixed-term contracts of employment.

1.9 NO HARSH OR INHUMANE TREATMENT IS ALLOWED

1.9.1 Physical abuse or discipline, the threat of physical abuse, sexual or other harassment and verbal abuse or other forms of intimidation shall be prohibited.

1.10 Note on the Provisions of the ETI Base Code

1.10.1 The provisions of the ETI Base Code constitute minimum and not maximum standards, and this code should not be used to prevent companies from exceeding these standards. Companies applying this ETI Base Code are expected to comply with national and other applicable law and, where the provisions of law and this ETI Base Code address the same subject, to apply that provision which affords the greater protection.

1.11 Definitions

1.11.1 In this Schedule A:

“Child” shall mean any person less than 15 years of age unless local minimum age law stipulates a higher age for work or mandatory schooling, in which case the higher age shall apply. If however, local minimum age law is set at 14 years of age in accordance with developing country exceptions under ILO Convention No. 11, the lower will apply.

“Young person” shall mean any worker over the age of a child as defined above and under the age of 18.

“Child labour” shall mean any work by a child or young person younger than the age(s) specified in the above definitions, which does not comply with the provisions of the relevant ILO standards, and any work that is likely to be hazardous or to interfere with the child's or young person's education, or to be harmful to the child's or young person's health or physical, mental, spiritual, moral or social development.

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GENERIC WORKS INFORMATION (GWI) 1300

TITLE

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5.0					☐			

	Final Sign-off	
	Commercial Line Manager	**Project Manager**
Name		
Signature		
Date		

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GWI 1305 Marking

GWI 1310 Materials from excavation and demolition

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GWI 1305 Marking (71.1)

GWI 1305.1 Marking by the Supervisor

(1) The *Contractor* will mark the Plant and Materials and equipment outside of the Working Areas as property of the *Employer* in accordance with clause 71.1 in the contract.

(2) The Plant and Materials and equipment will be stored in a secure location as agreed by the *Supervisor* and/*or Project Manager*, protected from weather, climatic conditions and damage, and must be accessible for inspection by the *Supervisor*, *Project Manager* or *Employer* on request, insured appropriately and labelled as agreed with the *Supervisor* and/or the *Project Manager.*

GWI 1310 Materials from excavation and demolition (73.2)

GWI 1310.1 Disposal of materials from Site

(1) The *Employer* retains title to all materials from excavation and demolition.

(2) The *Contractor* shall offer all removed items of Equipment, Plant and Materials to the *Employer* for retention of spares. The *Contractor* will transport and deliver all components that the *Employer* wishes to retain to the *Employer's* maintenance depot at Unit 7, Bush Industrial Estate, Station Road, Tufnell Park N19 5UW (or to a location within Greater London to be advised by the *Project Manager).*

(3) If the *Project Manager* decides that the redundant materials and equipment are unsuitable for re-use, then the *Contractor* arranges for the disposal of the assets through the appropriate recycling processes and facilities in keeping with the *Employer's* green policies

(4) Unless otherwise stated in the Generic Works Information or Specific Works Information the benefits of credit for sale of all redundant materials, including all cabling, removed from the Site shall be to the benefit of the *Employer*.

(5) All reasonable costs incurred by the *Contractor* in the management and disposal by sale of such materials will be reimbursable by use of Defined Cost in accordance with the *conditions of contract*.

Note: there are no appendices associated with this document.

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GENERIC WORKS INFORMATION (GWI) 1500

ACCOUNTS AND RECORDS

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	Final Sign-off	
	Commercial Line Manager	**Project Manager**
Name		
Signature		
Date		

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GWI 1505 **Accounts and Records**

(1) Clause Z2.5 of the *conditions of contract* sets out the minimum records to be retained by the *Contractor* along with the *Employer's* compliance requirements in this respect.

This section of the Generic Works Information sets out the additional records to be retained by the *Contractor* and his Subcontractors.

The *Contractor* is required to retain records in respect of the following:

(a) Documents submitted to provide Assurance and to verify compliance with the *Employer's* Requirements as required by Generic Works Information 600 and the LUL Standard S1538;

(b) Documents and records to be retained as required by QUENSH;

(c) Records submitted to record progress and contract performance; and

(d) Records required by other parts of the Generic Works Information and Specific Works Information

All records to be retained are signed off by a member of the *Contractor's* staff with the appropriate level of authority.

The *Contractor* refines the lists of records to be provided and to be retained in discussion with any relevant Others including asset owners, Infracos, and consenting bodies.

GWI 1510 **Definitions and General Provisions**

(1) Deliverable Records means records that the *Contractor* is required to supply to the *Project Manager* and which are retained by the *Project Manager* or subsequently provided to the *Employer* or Others.

Contractor Records means records that the *Contractor* is required to retain and maintain.

(2) Deliverable Records are issued in hard copy and electronic format in numbers as set out in the QUENSH

Deliverable Records drawing files shall be prepared and issued in accordance with the LU CAD Standard S1037.

Contractor Records are issued in electronic and hard copy format in accordance with the QUENSH menu and shall comply with the relevant provisions of Clause 4.2.3 of ISO 9001 with regard to document version control.

Superseded documents are also considered to be records. The *Contractor* utilises LU proformas where available or proposes standard forms for deliverable documents for acceptance by the *Project Manager*.

GWI 1515 **Records Management**

(1) The *Contractor* submits within four weeks of the *starting date*, for acceptance by the *Project Manager*, a procedure for agreement of the records to be provided, and for production and submission of all Deliverable Records.

The dates on which the *Contractor* will prepare and submit the Deliverable Records for review by the *Project Manager* are included in the *Contractor's* programme submitted for acceptance.

Those documents requiring acceptance or approval by the *Employer* and Others (including documents submitted for LU or ORR Safety Inspectorate non objection)

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are identified, and submission dates agreed with the *Project Manager* to prevent delays in the execution of the *works*.

Deliverable Records are collated, packaged, indexed and submitted by the *Contractor* in a phased manner to the *Project Manager* for each element, structure, activity or Section as agreed with the *Project Manager*.

Access to Deliverable Records are provided by the *Contractor* to the *Project Manager*, or to third parties nominated by the *Project Manager*, as soon as the records become available.

Access to *Contractor* Records are provided to the *Project Manager*, or to the *Employer* and Others authorised by the *Project Manager*, who is allowed to copy records as required.

The *Employer* shall have the right to audit any and all of the *Contractor's* and Subcontractors' (and sub-subcontractors) records at any time during the performance of the contract and during the Term stated in this contract.

GWI 1520 **Management System Records**

(1) In addition to records required in accordance with clause Z2.5 of the *conditions of contract*, the *Contractor* maintains records of the following:

(2)

- Deliverable Records
- Schedule of Deliverable Records and *Contractor* Records
- Construction Phase Plan
- *Contractor's* Project Assurance Plan
- Environmental Management Plan and procedures
- Waste Management Plan
- Design Management Plan
- *Contractor's* management procedures
- Quality Control Procedures
- Competence assurance records
- Other assurance evidence as called up in the accepted *Contractor's* Project Assurance Plan.
- Risk Management Plan
- Register of Auditors, including name of each auditor and associated
- Company, qualification and brief details of experience
- Audit schedules and programme
- Audit reports
- Assurance Compliance Submission(s)
- Certificate of Conformity to EMC Regulations
- Community and Media Relations Plan
- Compliance with Crossrail Commitments
- Required Planning, Heritage, Design and Construction consents
- Acceptance letters, certificates, records
- Archaeology Plan

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- Safety documents as required in Generic Works Information 1100
- Incident/Accident reports
- Identification and resolution of system non-conformities/Defects
- Schedule of work/ programme
- Daily logs and work plans
- Corrective actions initiated and implemented
- Certificates of competency
- Certificates of conformity to quality management
- BBA certificates (including date of latest successful surveillance/assessment visit)

(3)
- *Contractor* Records
- Technical and commercial correspondence
- Minutes of meetings
- Records of training

(4) Should a Call-off Contract require additional records, these will be detailed in the Specific Works Information.

GWI 1525 **Design Records**

(1) In addition to records required in accordance with clause Z2.5 of the *conditions of contract*, the *Contractor* maintains records of the following:

(2) Deliverable Records

- Conceptual Design Statements (AIP submissions)
- Design Check Certificates (including Certificates for *Contractor*'s Change)
- Compliance Submission
- Fire Compliance Certificate Bb224
- Technical reports
- Surveys and associated drawings
- Detailed designs and Designer's risk assessments
- Specifications
- Design drawings (including temporary works)
- Design calculations (including temporary works)
- Further documents required for AIR and MIDP

(3) *Contractor* Records

- Marked up drawings
- Check prints of drawings, reports and calculations
- Design Risk Management Log

(4) Should a Call-off Contract require additional records, these will be detailed in the Specific Works Information.

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GWI 1530 **Construction and Manufacturing records**

(1) In addition to records required in accordance with clause Z2.5 of the *conditions of contract*, the *Contractor* maintains records of the following:

(2) Deliverable Records

- Competitively tendered Subcontractor and supplier evaluations
- Site Queries
- Construction safe system of works
- Risk assessments
- ICTBU Plans, and Inspection & Test Plans and supporting check sheets and inspection/test certificates
- Consent to test / trial certification report
- Working drawings
- Inspection and Test Reports including specified Certification
- Acceptance Certificates
- Settlement building and other infrastructure Condition and Damage
- Reports
- As built drawings
- As-built records
- Specifications of installed Plant
- Reports of the final disposition of nonconforming, defective or repaired work
- Geological records, ground investigation records, groundwater level and quality records, ground movement monitoring records, earthworks control records, piling and embedded walling records.
- Live risk register
- Materials testing records
- Records of outstanding work and Defects lists and implementation programmes for Completion
- Staged Completion Report
- Further documents required for AIR and MIDP

(3) *Contractor* Records

- Consultant, Subcontractor and supplier correspondence
- Construction diaries
- Inspection and test logs
- Calibration records
- Building settlement/damage logs
- Surveys diaries and records

(4) Should a Call-off Contract require additional records, these will be detailed in the Specific Works Information.

GWI 1535 **Commissioning Records**

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(1) In addition to records required in accordance with clause Z2.5 of the *conditions of contract*, the *Contractor* maintains records of the following:

(2) Deliverable Records

- Quality Inspection Completion Certificate(s) according to S1900
- Inspection and test reports (including ICTBU and ACHL where appropriate).
- Completion and Consent to Operate Certification Report
- Handover certification (for Maintainer acceptance of Asset)
- Details of testing and commissioning activity
- Records of testing and commissioning results
- Records of O&M training
- Acceptance and Completion Certificates
- Third party approvals, where required
- Plant reliability predictions
- Licences and consents
- Snagging Lists.
- Commissioning Plan
- Further documents required by legislation
- Further documents required for AIR and MIDP

(3) *Contractor* Records

- Inspection and test logs

(4) Should a Call-off Contract require additional records, these will be detailed in the Specific Works Information.

GWI 1540 **Operation and Maintenance records**

(1) In addition to records required in accordance with clause Z2.5 of the *conditions of contract*, the *Contractor* maintains records of the following:

(2) Deliverable Records

- Completion and Consent to Operate Certification Report
- Maintenance Manuals including spares requirements
- Maintenance procedures
- Emergency maintenance procedures
- Inspection procedures
- Maintenance programmes
- Operations manuals
- Records of modifications made to the completed infrastructure or installed Plant
- Reports of failures faults and incidents
- Further documents required for AIR and MIDP

(3) Should a Call-off Contract require additional records, these will be detailed in the Specific Works Information.

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GWI 1545 **Records for assessing the amount due**

(1) In order for the *Project Manager* to assess the amount due, along with his application the *Contractor* submits to the *Project Manager* a summary of Defined Cost to date, broken down into the major resource components of:

- Each main element of the Schedule of Cost Components;
- Subcontractors;
- Bank statement;
- Cash book & analysis;
- Cash book - bank statement reconciliations;
- Other information that the *Project Manager* may require.

The *Project Manager's* assessment of the amount due takes into account the payments the *Contractor* has made which are included on the bank statements. The *Project Manager* may carry out an audit of the *Contractor's* application for payment to verify its accuracy, prior to payment.

For the purposes of assessment of the amount due, the *Contractor* provides details of the values of:-

- Income and source;
- Finance charges;
- Foreign currency transactions;
- Value of VAT paid direct to and received from HM Revenue & Customs;
- Value of VAT paid to others;
- Value of transactions not subject to standard VAT; and
- Disallowed Cost.

The expenditures shown in the summary are reconciled to those stated in the *Contractor's* four weekly report.

(2) Cash Book;

The *Contractor's* cash book includes all transactions relating to the *works* from the *starting date* until final payment in a format acceptable to the *Project Manager*.

[Applicable when using Option C Call-Off Contract only]

(3) The *Contractor* submits forecasts of the activities on the Activity Schedule still to be completed during each four weekly period. The forecast is based on the last programme submitted for acceptance and the planned work to be carried out during the Period.

(4) The *Contractor* submits an application for payment to the *Project Manager* in a form prescribed by the *Employer* not less than fourteen days prior to each assessment date. The application states the sum that the *Contractor* considers to be due to him at the payment due date and the basis on which that sum is calculated and shall include:

(a) A verification data pack to support the application. The *Project Manager* reserves the right to request additional information in order to approve the application. The data pack shall include, but not be limited to:

a. progressed programme plan

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b. confirmation of reports produced by the *Contractor*

c. confirmation of drawings and calculations completed

d. photographs of progress

e. sample documentations e.g. witness notifications etc.

(b) each completed activity or group of completed activities in the Activity Schedule;

(c) Show, as a percentage physical completion of work achieved, each item of work in the programme. This assessment shall be used by the *Contractor* to calculate his cumulative progress at the end of each Period, expressed as a percentage of the whole of the *works*; and

(d) The *Contractor* holds in readiness for review by the *Project Manager* all data and calculations supporting the payment application

The date on which payment becomes due is seven days after the assessment date. The final date for payment is fourteen days or a different period for payment if stated in the Contract Data after the date on which payment becomes due

(5) Each invoice contains all information required by the *Project Manager*, including the SAP order number, the *Employer's* account details, the *Contractor's* name and address and a brief description of the *works* provided during the Period to which such invoice relates and be clear, concise, accurate and adequately descriptive to avoid delays in processing and subsequent payment. The invoice clearly shows which amounts applied for form part of the total of the Prices and which amounts applied for constitute claims for additional payment. and includes the relevant supporting documentation to substantiate the amounts applied for. The invoice shows VAT separately.

(6) All additional payments applied for by the *Contractor* which are calculated in accordance with the Shorter Schedule of Cost Components (and the Supplementary Notes thereto) must constitute Reasonable and Documented Costs.

Reasonable and Documented Costs means costs which:

- clearly demonstrate the manner, the basis and the circumstances under which such costs were incurred;
- have been reasonably incurred in the circumstances;
- have been mitigated to the extent reasonable in the circumstances;
- in relation to staff-related costs (including all the costs of the *Contractor's* employees or other staff, agents, consultants and Subcontractors, and the employees or other staff, agents, consultants and subcontractors (of any tier) of Subcontractors), are where necessary evidenced by the provision of daily time sheets (cross-referenced to activity numbers in the programme or the Accepted Programme (as the case may be)) which are delivered to the *Project Manager* with an application for payment; and
- in respect of all other costs, copies of invoices or other evidence, are provided together with, if appropriate, an explanation of the costs to which

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the invoice or other evidence relates, cross-referenced to programmed activities.

GWI 1550 **Additional Accounts and Records**

(1) In addition to records required in accordance with clause Z2.5 of the *conditions of contract* and elsewhere in the Generic Works Information the *Contractor* maintains records of the following:

- subcontract documentation and changes thereto;
- Invoices and credit notes;
- Timesheets, allocation sheets and swipe card records;
- Subcontract final accounts;
- Delivery tickets for Plant, Material and Equipment and off hire notices for Equipment; and
- Any other relevant records that the *Project Manager* may reasonably require to verify any aspect of the *works* or requirement of this contract.

GWI 1555 **Construction Industry Scheme**

(1) Where the Construction Industry Scheme applies to any payment made by the *Employer* to the *Contractor* under the contract, the obligations of the *Employer* to make such payment are subject to the provisions and requirements of the Construction Industry Scheme.

(2) The *Contractor* hereby undertakes that where, in relation to any payment to be made to the *Contractor* under this contract, a certificate of registration for gross payment is required in accordance with the Construction Industry Scheme, he will for the period between the Contract Date and the final date for payment of any amount due under the final assessment:

- ensure that such a certificate is in place;
- provide a copy of such certificate to the *Employer* upon receipt of a written request to do so; and
- will use all reasonable endeavours to ensure that no circumstances will arise whereby HM Revenue and Customs may be entitled to cancel such certificate.

(3) The *Contractor* further acknowledges and undertakes that if the certificate referred to in sub-clause (2) above, is not in place, or ceases to be in force for any reason during the currency of this contract, he will notify the *Employer* forthwith.

(4) If at any time between the Contract Date and the final date for payment of any amount due under the final assessment, the *Contractor* does not have a valid certificate of registration for gross payment under the Construction Industry Scheme in place, or if he fails to provide a copy of such certificate when requested by the *Employer*, the *Employer* deducts any tax from payments due to the *Contractor* under the contract at the rate specified by HM Revenue and Customs pursuant to the Construction Industry Scheme before paying the balance to the *Contractor*. The *Employer* accounts to HM Revenue and Customs for any tax so deducted.

Note: there are no appendices associated with this document.

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