

Dated 22 DECEMBER 2017

TRANSPORT FOR LONDON (1)

and

DMA S.r.l (2)

CONTRACT number: TfL/CRL/IMV2

being for the supply of a Track Visual Defect
Detection System for the Crossrail
Infrastructure Monitoring

Contents

Clause	Page
1 Definitions and Interpretation	5
2 Duration	16
3 Supplier's Primary Obligations	16
4 Contract Programme	19
5 Records and Audit	20
6 Company's Obligations	22
7 Additional Goods	22
8 Variation	22
9 Price and Payment	23
10 Delivery of Goods	25
11 Failure to Supply.....	27
12 Not Used.....	27
13 Risk and Ownership	27
14 Inspection of the Goods	28
15 Warranty	29
16 Intellectual Property Rights	29
17 Termination and Suspension.....	31
18 Co-operation in Handover	34
19 Indemnity and Insurance	34
20 Force Majeure and Permitted Delay Events	36
21 Safety	38
22 Not used	38
23 Independent Supplier	38
24 Not used	39
25 Confidentiality	39
26 London Living Wage.....	40
27 Responsible Procurement	41

28	Assignment and Subcontracting.....	41
29	Company's and Supplier's Representative	43
30	Costs	43
31	Severance	43
32	Publicity	43
33	Corrupt Gifts and Payments of Commission	43
34	No Waiver.....	44
35	Entire Contract.....	44
36	Notices and Service of Process	44
37	Dispute Resolution	45
38	Governing Law and Jurisdiction	45
39	Counterparts.....	45
40	Contracts (Rights of Third Parties) Act 1999.....	46
41	Not Used.....	46
42	Not Used.....	46
43	Change of Control	46
44	Interest.....	46
45	Freedom of Information	46
46	Data Transparency.....	47
47	Survival.....	48
48	Transport for London Group.....	48
49	CompeteFor.....	57
50	Criminal Record Declarations.....	57
	Schedule 1 Detailed Terms	59
	Schedule 2 Prices.....	62
	Schedule 3 Specification	65
	Schedule 4 Contract Variation Procedure	66
	Schedule 5 Contract Programme	70
	Schedule 6 Company IPR	71
	Schedule 7 Deed of Novation.....	72

Schedule 8 Form of Parent Company Guarantee and Performance Bond..... 75

Schedule 9 Form of Collateral Warranty 76

Schedule 10 Escrow 76

THIS CONTRACT is made on 22 DECEMBER 2017
BETWEEN:

- (1) **Transport for London**, a statutory corporation established under the Greater London Authority Act 1999 whose principal office is at Windsor House, 42-50 Victoria Street, London SW1H 0TL (the “**Company**” which expression shall include its successors and assigns); and
- (2) **DMA S.r.l.**, a company registered in Italy under number IT-07376180019 and having its registered office at Via Bottego 8, Torino I-10129, Italy (the “**Supplier**”).

BACKGROUND

- (A) The Supplier carries on the business of manufacturing and selling the Goods.
- (B) The Company wishes to buy and the Supplier wishes to supply the Goods on the terms and conditions set out in the Contract.
- (C) This Contract may be utilised by the Company or any other member of the TfL Group.

THIS DEED WITNESSES as follows:

1 Definitions and Interpretation

- 1.1 In the Contract the following definitions shall have the following meanings:

“**Additional Goods**” means any goods which the Company requests the Supplier to provide in accordance with the terms of the Contract in addition to those set out in the Specification.

“**Aggregated Annual Spend**” means the total of all sums paid by the Company to the Supplier (exclusive of VAT) pursuant to the terms of the Contract annually calculated in accordance with Clause 9.

“**Applicable Laws**” means, depending on the context, all or any laws, statutes, proclamations, recommendations, codes of practice, by-laws, directives, Regulations, statutory instruments, rules, orders, rules of court, delegated or subordinate legislation, rules of common law or any European Union legislation (including any declarations of conformity), at any time or from time to time in force in the United Kingdom and which are or may become applicable to the Contract, any agreement or document referred to in the Contract, or the Goods.

“**ASITE**” means, the Contract Administration Management System provided by the Company.

“**BAFO**” means ‘best and final offer’.

"Cessation Plan" means a plan agreed between the parties or determined by the Company in accordance with Clause 48.1 to give effect to a Declaration of Ineffectiveness or a Public Procurement Termination Event.

"Commencement Date" means the date specified as such in Schedule 1.

"Company Documents" means any plans, drawings, documents, handbooks, and codes of practice or other information provided by the Company to the Supplier in accordance with the Contract.

"Company IPR" means the Intellectual Property Rights listed in Schedule 6 that the Company owns and/or has a licence in relation to.

"Company's Representative" means the person appointed by the Company and named as such in Schedule 1.

"Competent Authority" means any legislative, judicial, regulatory or administrative body or agency (or any subdivision of any of them) of the United Kingdom or of the European Union (while the directives, decisions, instructions rulings, law or regulations of such European Union bodies or agencies are enforceable in the United Kingdom) or any supranational body which has rulemaking power or whose directives, decisions, instructions, rulings, laws or regulations are directly enforceable against either of the parties in connection with the performance of the Contract.

"Confidential Information" means any information given orally or in writing which is a trade or business secret or method; technical know how; personal data which relates to a living individual who can be identified from that information; information relating to any crime, breach of statutory duty or criminal investigations; information relating to the protection of prominent persons, national security, counter-terrorism or other information relating to the provision of police services for any national or international purpose; information relating to the Company's obligations in accordance with sections 118 to 121 of the Railways Act 1993; confidential financial information including but not limited to taxation information and returns to shareholders; and any other information that a party would reasonably expect to be able to protect by virtue of business confidentiality provisions.

"Consequential Loss" means in relation to a breach of this 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 and whether or not the party who caused the loss knew, or ought to have known, that such loss would be likely to be suffered.

"Continuing Support Services" has the meaning given to that term in Clause 3.10.

"Contract" means this contract made between the Company and the Supplier.

"Contract Programme" means the programme set out in Schedule 5 or, where no programme is so included or the included programme has subsequently been revised (and such revisions have been accepted by the Company), the latest programme accepted by the Company pursuant to Clause 4. The latest programme accepted by the Company supersedes previous Contract Programmes.

"Contractual Documentation" means all documentation and information agreed to be delivered by the Supplier in accordance with the Contract including without limitation records, reports, documents, papers, unpatented designs, drawings, data specifications, manufacturing or work processes, the Manuals, testing procedures, the Integration Instructions, relevant computer data and all other technical business and similar information originated by or on behalf of the Supplier in accordance with the Contract.

"Contract Information" means (i) the Contract in its entirety (including from time to time agreed changes to the Contract) and (ii) data extracted from the invoices submitted pursuant to Clause 9.1 which shall consist of the Supplier's name, the expenditure account code, the expenditure account code description, the document number, the clearing date and the invoice amount.

"Contract Price" means the total price for the Goods stated in Schedule 2.

"Contract Variation Procedure" means the procedure set out in Schedule 4.

"Crossrail Infrastructure" has the meaning given to that term in Schedule 3.

"Declaration of Ineffectiveness" means a declaration of ineffectiveness in relation to the Contract made by a court of competent jurisdiction in accordance with Regulation 99 of the Public Contracts Regulations 2015 (as amended) or Regulation 45(k) of the Utilities Contracts Regulations 2006 (as amended).

"Defect" means that the Goods or any part of them do not comply with the requirements of the Contract, or are not fit for their intended purpose, or are of unsatisfactory quality whether in consequence of:

- (a) faulty design, faulty materials, negligence, or bad workmanship;
- (b) transit of the Goods, including from the Supplier's premises into Storage and from Storage to the Delivery Address; or
- (c) any other reason attributable to the Supplier or its suppliers or the employees of any of them during the Warranty Period,

and is not principally caused by:

- (i) any failure by the Company or any third party appointed by the Company to use, operate or maintain the Goods in accordance with the Manuals, Integration Instructions and/or any Applicable Laws or Standards; or
- (ii) vandalism, collision or accidental damage caused by any person other than the Supplier, its suppliers or the directors, agents, representatives or employees of any of them.

"Delivery Address" means the address at which the Supplier shall deliver the Goods to the Company and which is set out in Schedule 1 or such other destination as may be notified by the Company to the Supplier.

"Delivery Date" means the date upon which the Goods or any part of them are actually delivered by the Supplier to the Company.

"Delivery Note" has the meaning given to that term in Clause 10.2.6.

"Dispute" has the meaning given to that term in Clause 37.1.

"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 Supplier in the performance of the Contract and whether in paper form or stored electronically.

"Escrow Agent" means NCC Group Escrow Limited (Company Number 03081952) or any successor or replacement to all or any of its functions, or any other reputable escrow agent agreed to by the Company;

"Escrow Agreement" means an agreement in the form or substantially in the form set out in Schedule 10 (*Form of Escrow Agreement*);

"Escrow Materials" means materials as defined in Appendix 1 of Schedule 10

"Excepted Liabilities" means the liability of the Supplier for:

- (a) death or personal injury;
- (b) any Liquidated Damages payable;
- (c) any abatements for performance levied in accordance with this Contract;
- (d) Losses against which the Supplier 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);
- (e) Losses against which the Company is indemnified under Clause 16.9;

- (f) the rectification of any Defect pursuant to each of the Supplier's obligations under Clause 15;
- (g) Losses caused by fraudulent acts or acts of a criminal nature; and
- (h) Losses caused by the Supplier committing a Prohibited Act or Safety Breach.

"Excess Costs" has the meaning given to that term in Clause 17.5.

"Existing Contracts" means any and all contracts, whether current, expired or terminated, pursuant to which goods or services have been supplied or provided by the Supplier (in the capacity of contractor or subcontractor) to the Company or any member of the TfL Group.

"Expected Delivery Date" means the date set out in Schedule 1 upon which the Goods or any part of them are to be delivered by the Supplier to the Company.

"Extended Storage Option" has the meaning given to that term in Clause 10.1.2.

"Force Majeure Event" means any of the following (or any circumstances arising as a consequence of any of the following) if and only to the extent that such event or circumstances is or are not caused by, and their effects are beyond the reasonable control of, a party affected by such an event or circumstances and which have an adverse effect on the party affected by such an event or circumstances and such party's ability to perform its obligations under the Contract and is not an event or circumstances (i) whose effect the party affected by such an event is otherwise required to avoid or provide against (other than by way of insurance) under the Contract or (ii) which the party affected by such an event could reasonably have avoided or provided against:

- (a) war, invasions, acts of foreign enemies, hostilities (whether war be declared or undeclared), civil war, rebellion, revolutions, insurrection, military or usurped power, confiscation, or requisition by or under the order of any government or public or local authority;
- (b) civil unrest;
- (c) any act of terrorism or a specific threat of terrorism which results in the partial or total, temporary or long term closure of the Crossrail Infrastructure;
- (d) lightning, earthquake or subject to (f) below, extraordinary storm;
- (e) fire;
- (f) flooding, other than flooding caused by rising water table or by weather conditions (including extraordinary storm);

- (g) tunnel collapse;
- (h) compliance with the provision of sections 118 to 121 of the Railways Act 1993;
- (i) nuclear, chemical or biological contamination including ionizing radiation or contamination by radioactivity from any nuclear fuel or nuclear waste from the combustion of nuclear fuel or radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof;
- (j) the discovery of fossils, antiquities or other material which in each case is required to be exhumed or unexploded bombs; and
- (k) strikes, lock outs or other industrial action being in each case industry-wide.

"Goods" means the goods stated in the Specification to be supplied by the Supplier and any Additional Goods which the Company has agreed to buy under Clause 7.

"Greater London" has the meaning ascribed to it in the GLA Act.

"Greater London Authority Act" or **"GLA Act"** means the Greater London Authority Act 1999 relating to the formation of the Greater London Authority.

"Infrastructure Manager" has the meaning ascribed to it in the Railways Act 1993 and the Railways (Access, Management and Licensing of Railway Undertakings) Regulations 2016.

"Initial Period" means the number of years from the Commencement Date stated in Schedule 1.

"Insolvency Event" in relation to any person means:

- (a) such person stopping or suspending or threatening to stop or suspend payment of all or a material part of its debts, or becoming unable to pay its debts, or being deemed unable to pay its debts under sections 123(1) or (2) of the Insolvency Act 1986;
- (b) any step being taken by any person with a view to the winding up of such person or any person presenting a winding-up petition in respect of such person which is not dismissed within seven (7) days;
- (c) any step being taken to enforce security over or a distress execution or other similar process being levied or served out against the whole or a substantial part of the assets or undertaking of such person;
- (d) a receiver, administrative receiver, administrator, compulsory manager or other similar officer being appointed in respect of such person;
- (e) such person ceasing or threatening to cease to carry on all or a material part of its business, except for the purpose of and followed by a reconstruction, amalgamation,

reorganisation, merger or consolidation on terms approved by the Company (in its absolute discretion) before that step is taken;

- (f) the making by such person of a general assignment or an arrangement or composition with or for the benefit of creditors; or
- (g) any event occurring which, under the laws of any relevant jurisdiction other than England and Wales, has an analogous or equivalent effect to any of the events listed above.

“Integrator” means the entity appointed by the Company to integrate the Goods with other equipment.

“Integration Instructions” means the instructions produced by the Supplier for integrating the Goods with other equipment (details of such equipment to be provided to the Supplier by the Company as soon as reasonably practicable following the Commencement Date).

“Intellectual Property Rights” means any intellectual property rights in any part of the world and includes but is not limited to all rights to, and interests in, any patents (including supplementary protection certificates), designs, trade-marks, service marks, trade and business names and get up, moral rights, domain names, copyright and neighbouring rights, databases, semi-conductors, know how, knowledge, trade secrets and any other proprietary rights or forms of intellectual property (protectable by registration or not) whether registered or not in respect of any technology, technique, concept, idea, style, scheme, formula, system, logo, mark or other matter or thing, existing or conceived, used, developed or produced by any person, together with all applications and rights to apply for registration or protection of such rights, Confidential Information relating to those rights, material embodying those rights and in each case rights of a similar or corresponding character.

“Liquidated Damages” means the sums identified and calculated in accordance with Schedule 1.

“London Living Wage” means the basic hourly wage (before tax, other deduction and any increase for overtime) as may be revised from time to time by the Mayor or any other relevant Competent Authority.

“Losses” means any expense, liability, loss, claims, fines, damages, costs (including reasonable legal and other professional fees and disbursements), penalties, settlements and judgments incurred by the Company, its employees or agents (which, for the avoidance of doubt, shall include a Replacement Employer).

“Manuals” means documents which fully describe how the Goods should be operated, serviced, maintained, dismantled, reassembled, repaired and overhauled.

"Mayor" means the person from time to time holding the office of Mayor of London as established by the GLA Act.

"Network Rail" means Network Rail Infrastructure Limited (Registered No: 02904587) a company incorporated under the laws of England and Wales whose registered office is at 1 Eversholt Street, London, NW1 2DN.

"Nominated Representatives" has the meaning given to that term in Clause 37.2.

"Notice to Proceed" has the meaning given to that term in Clause 17.7(b).

"Notified National Technical Rules" means those rules or standards notified by the Secretary of State to the European Commission in accordance with Directive 2008/57/EC on the interoperability of the rail system within the community.

"Operator" means a person with statutory duties to provide or secure the provision for Greater London of public passenger services by railway or a person who secures the provision of such services through appropriate contractual arrangements.

"Payment Application" has the meaning given to that term in Clause 9.1.

"Permitted Delay Event" has the meaning given to that term in Clause 20.2.

"Persistent Breach" has the meaning given to that term in Clause 17.12.

"Policies" means the policies set out in Clause 27.3.

"Prohibited Act" means:

- (a) offering or agreeing to give to any servant, employee, officer or agent of the Company any gift or consideration of any kind as an inducement or reward:
 - (i) for doing or not doing (or having done or not having done) any act in relation to the obtaining or performance of the Contract or any other contract with the Company; or
 - (ii) for showing or not showing favour or disfavour to any person in relation to the Contract or any other contract with the Company; or
- (b) entering into the Contract or any other contract with the Company with which commission has been paid or has been agreed to be paid by the Supplier or on its behalf or to its knowledge unless, before the Contract is entered into, particulars of any such commission and of the terms and conditions of any such contract for the payment thereof have been disclosed in writing to the Company; or

- (c) committing an offence:
 - (i) under the Bribery Act 2010;
 - (ii) under legislation creating offences in respect of fraudulent acts; or
 - (iii) at common law in respect of fraudulent acts,in relation to the Contract or any other contract with the Company; or
- (d) defrauding or attempting to defraud the Company.

"Public Procurement Termination Event" means:

- (a) this Contract has been subject to any substantial modification that would require a new procurement procedure in accordance with Regulation 72(9) of the Public Contracts Regulations 2015; or
- (b) the Company determines that this Contract should not have been awarded to the Supplier in view of a serious infringement of the obligations contained under the EU Treaties and Directive 2014/24/EU of the European Parliament Council dated 26 February 2014.

"Railway Group Standards" means, to the extent applicable to the Goods and their operation, those standards to which railway assets or equipment used on or as part of railway assets must conform, and operating procedures with which the purchasers of railway assets must comply, in each case as prepared and updated by the Rail Safety and Standards Board.

"Regulations" includes any regulation, rule, official directive, request or guideline (whether or not having the force of law) of any governmental, intergovernmental or supranational body, agency, department or regulatory, self-regulatory or other authority or organisation.

"Rejected Goods" has the meaning given to that term in Clause 14.2.

"Rejection Notice" has the meaning given to that term in Clause 14.2.

"Responsible Procurement Policy" means the policy document entitled the "GLA Group Responsible Procurement Policy" dated March 2006, updated in January 2008 and as may be amended.

"Safety Breach" means a material breach of any obligation under the Contract caused by the gross incompetence of or wilful default by the Supplier (or anyone employed by or acting on behalf of the Supplier) or any of its agents which has materially affected the safe operation of the Crossrail Infrastructure or the safety of the Company's customers, staff or any other person.

"Software" means software for incorporation into or operation of the Goods, as may be developed, enhanced, modified, adapted, altered or updated from time to time.

"Specification" means the description of the Goods set out in Schedule 3 to be supplied by the Supplier in accordance with the Contract.

"Standards" means all the laws, rules, regulations, recommendations and instructions, including (without limitation) guidance, codes of practice and conduct which have the force of law or with which it is generally accepted within the United Kingdom rail industry that it is good practice to comply, relating to the performance of this Contract and/or applicable to the Goods which are or have been issued by the Secretary of State for Transport, Network Rail, The Office of Rail and Road, the Rail Safety and Standards Board, or any other Competent Authority or other person from time to time legally authorised to set standards in respect of the rail industry including the European Railway Agency and shall include, without limitation, Railway Group Standards, Notified National Technical Rules and Technical Specifications for Interoperability.

"Storage" has the meaning given to that term in Clause 10.1.1.

"Supplier Personnel" means all employees, agents or consultants of the Supplier and the Supplier's subcontractors from time to time.

"Supplier Public Procurement Termination Event" means the Supplier has, as at the Commencement Date, 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.

"Supplier's Representative" means the person appointed by the Supplier and named as such in Schedule 1.

"Technical Specifications for Interoperability" means the Technical Specifications for Interoperability adopted pursuant to EU Directive 2001/16/EC.

"Term" means the period specified as such in Schedule 1 to this Contract.

"TfL Group" means the Company and all of its subsidiaries and their subsidiaries (as defined in Section 1159 of the Companies Act 2006) from time to time, together with Crossrail Limited (company number 04212657) and reference to any **"member of the TfL Group"** refers to the Company or any such subsidiary.

"Transparency Commitment" means the transparency commitment stipulated by the UK government in May 2010 (including any subsequent legislation) in accordance with which the Company is committed to publishing its contracts, tender documents and data from invoices received.

"VAT" means value added tax as provided for in the Value Added Tax Act 1994 and legislation (whether delegated or otherwise) supplemental thereto, or in any primary or secondary

legislation promulgated by the European Union or any official body or agency of the European Union (while such legislation is enforceable in the United Kingdom), and any similar sales, consumption or turnover tax replacing or introduced in addition to the foregoing.

“Variation Order” means the written authorisation from the Company to a Variation Proposal in accordance with the Contract Variation Procedure.

“Variation Proposal” means the written proposal put by the Company or the Supplier to vary the Contract in accordance with the Contract Variation Procedure in substantially the form set out in Appendix 1 to Schedule 4.

“Volume Discount” is the figure calculated annually in accordance with Clause 9.12.

“Volume Discount Percentage” is the volume discount percentage set out in Schedule 1 to the Contract.

“Warranty Period” means the period specified as such in Schedule 1.

“Working Day” means any day of the week (other than Saturday or Sunday) which is not an English bank holiday, or public holiday.

- 1.2 The headings in the Contract are only for convenience and shall not affect its interpretation.
- 1.3 Where appropriate, the singular includes the plural and vice versa.
- 1.4 A reference to a Clause or a Schedule shall be to a Clause of or, as the case may be, a Schedule to, the Contract and references to the Contract include its recitals and Schedules.
- 1.5 References to (or to any specified provision of) the Contract or any other document shall be construed as references to the Contract, that provision or that document as in force for the time being and as from time to time amended in accordance with the terms of the Contract.
- 1.6 Reference to any Applicable Laws and Standards also includes a reference to the Applicable Laws and Standards as from time to time amended, extended or re-enacted.
- 1.7 References to the **“Company”** shall include its successors, transferees and assignees.
- 1.8 References to a person, firm or company shall include any individual company, unincorporated association or body (including a partnership or joint venture) or other entity whether or not having a separate legal personality.
- 1.9 In the event that a conflict, ambiguity or inconsistency exists between the documents comprising the Contract, the order of priority for the purpose of construction in descending order shall be:
 - (a) the Clauses of the Contract;

- (b) the Schedules to the Contract (equal priority but subject to Clause 1.10); and
- (c) any other document referred to in, or incorporated by reference into, the Contract.

1.10 The documents that make up the Schedules shall be taken as being mutually explanatory of one another. In the event of any conflict between any provision of the Clauses of the Contract and a provision of any other Schedule then the Clauses of the Contract shall take precedence except where the conflicting part of the other Schedule is explicitly expressed to take precedence over any specific part of the Clauses of the Contract.

1.11 Communication

The Company may use the ASITE Contract Administration Management System ("ASITE") in order to support the commercial administration of this Agreement. If the Company elects to use ASITE:

- (a) the Parties shall use ASITE for all notices required to be issued under this Agreement, including Variation Quotes, Variation Valuations and payment applications made by the Supplier;
- (b) the Company shall provide the Supplier with access to ASITE at no cost to the Supplier; and
- (c) the Company shall provide the Supplier with training on how to use ASITE if required.

2 Duration

2.1 The Contract shall commence on the Commencement Date and shall be performed by the Supplier in accordance with the terms of the Contract (save in the event of earlier termination) and shall continue for the Term.

2.2 Not used.

3 Supplier's Primary Obligations

3.1 The Supplier shall supply the Goods in accordance with the terms of the Contract.

3.2 The Supplier shall ensure and warrants to the Company that the Goods will:

- (a) conform in all respects with the Specification and the provisions of the Contract including, without limitation, specifications as to quantity, quality and description;
- (b) be of satisfactory quality and fit for the purpose for which they are intended;

- (c) comply with all Applicable Laws (including but not limited to any law and regulations applicable to the Company or the Crossrail Infrastructure);
- (d) comply with all Standards and any additional standards listed in Schedule 3 ;
- (e) comply with the requirements of the Company set out in the Contract and all lawful and reasonable directions of the Company;
- (f) have a rate of deterioration no more than is reasonably to be expected of high quality, reliable, well designed and engineered, materials, goods and equipment; and
- (g) be supplied to the Company in accordance with the Contract Programme.

3.3 The Supplier warrants to the Company that it has entered into and executed the Contract by its duly authorised representatives in accordance with all procedures required by its governing laws and contractual documents.

3.4 The Supplier shall perform its obligations under the Contract in accordance with:

- (a) the Contract Programme; and
- (b) the requirements of the ISO 9000 and ISO 14000 series as appropriate to the supply of Goods, or any equivalent international quality assurance standards as may be accepted as an alternative in the absolute discretion of the Company.

3.5 It shall be the responsibility of the Supplier to obtain, at its cost, all necessary approvals, licences, permits and consents in relation to the Goods and their delivery, including, but not limited to, those required by any Applicable Laws and Standards.

3.6 Unless otherwise stated in the Contract, the Supplier shall provide all equipment, support services and other facilities necessary for the performance of its obligations under the Contract.

3.7 For the avoidance of doubt, neither a communication from the Company nor the review or acceptance of the Goods waives, limits or amends in any way any warranties, liabilities or responsibilities of the Supplier under this Contract.

3.8 The Supplier shall be responsible for the accuracy of all Contractual Documentation and shall pay the Company any extra costs occasioned by any discrepancies, errors or omissions therein. The Supplier shall at its own expense carry out any alterations or remedial work necessitated by such errors, omissions or discrepancies and modify the relevant documents or information accordingly.

3.9 The Supplier warrants to the Company that it has the right to grant to the Company and any member of the TfL Group all licences (including without limitation all rights to sub-licence) of all and any Intellectual Property Rights as contemplated in this Contract.

3.10 The Company may, at any time during the Term of the Contract, request a quote for the Supplier to provide assistance to the Integrator to support the integration of the Goods with other equipment ("**Continuing Support Services**") by issuing a Variation Proposal to the Supplier in accordance with the Contract Variation Procedure.

3.11 **Design**

3.11.1 The Supplier shall carry out its design in accordance with the Specification and the Contract terms. The Supplier shall submit the particulars of its design which the Specification requires to the Company's Representative for acceptance. The Supplier shall not proceed with the supply of Goods until the Company's Representative has accepted its design. Reasons for not accepting the Supplier's design shall include (without limitation):

- (a) it does not comply with the Specification, or any other part of the Contract;
- (b) it does not comply with Applicable Laws and Standards;
- (c) it is not integrated and coordinated with the designs of others where the Supplier is required by the Specification or instructions of the Company's Representative to do so or such integration is necessary for the Supplier to provide the Goods; or
- (d) it is not in a format which is accepted for use by the Company's Representative.

3.11.2 The Supplier shall not be entitled to any changes to the Contract Price, Contract Programme or Expected Delivery Date of the Goods by reason of anything in this Clause 3.10.

3.11.3 The Supplier may submit its design for acceptance in parts if the design of each part can be assessed fully.

3.11.4 The Supplier integrates and coordinates his design with the designs of others in accordance with the Specification and instructions of the Company's Representative, and where necessary to provide the Goods.

3.11.5 The Supplier in designing and specifying the parts of the Goods which he is required to design and specify, warrants, undertakes and represents to the Company that the design:

- (a) is in accordance with the Specification and any other performance or output specification or requirements contained or referred to in the Contract;
- (b) complies with all Applicable Laws and Standards, and
- (c) is fit for the purpose defined in the Specification.

- 3.11.6 The Supplier accepts entire responsibility for the design and specification of the Goods which he is required to design and specify and for any mistake, inaccuracy, ambiguity, inconsistency or omission in or between his design and specification of the Goods and the documents which are part of the Contract.

4 Contract Programme

4.1 Contract Programme

- 4.1.1 If a programme is not included in Schedule 5, the Supplier shall within the period stated in Schedule 1 submit a programme to the Company for acceptance showing:

- (a) the Commencement Date, Expected Delivery Date(s) and the payment dates;
- (b) the sequence and timing of activities by which the Supplier proposes to carry out the Agreement (including [design, manufacture,] commissioning and delivery);
- (c) the respective dates for submission by the Supplier of the Manuals, Integration Instructions and any other Contractual Documentation for approval thereof by the Company;
- (d) the dates by which, in order to carry out the Contract, the Supplier will need (to the extent provided for under this Agreement):
 - (i) access to the Company's premises;
 - (ii) any materials, drawings, information or other things to be provided by the Company; and
- (e) any other information which the Specification requires the Supplier to show on the Contract Programme, including any information set out in Schedule 1.

- 4.1.2 The Supplier undertakes to undertake the [design, manufacture,] supply and delivery of the Goods in a regular and diligent manner and in accordance with the Contract Programme.

4.2 Form of programme

The programme shall be in such form as may be specified in Schedule 1 or, if not so specified, as may reasonably be required by the Company.

4.3 Acceptance of programme

4.3.1 The Company shall either accept a programme (or any revised programme submitted pursuant to Clauses 4.5 or 4.6) or notify the Supplier of its reasons for not accepting it. Reasons for not accepting the programme may include:

- (a) the Supplier's plans shown on it are not practicable;
- (b) it does not show the information that this Contract requires;
- (c) it does not represent the Supplier's plans realistically; or
- (d) it does not comply with the Specification.

4.3.2 The Company's acceptance of the programme shall not relieve the Supplier of any of its obligations under this Contract.

4.4 **Alterations to programme**

The Supplier must not without the Company's prior written consent make any alteration to the Contract Programme.

4.5 **Revision of programme**

4.5.1 The Supplier must submit a revised programme to the Company for acceptance:

- (a) every four (4) weeks from the Commencement Date; and
- (b) if instructed to do so pursuant to Clause 4.6

4.6 **Rate of progress**

4.6.1 The Company may notify the Supplier if it assesses that the Goods will not be delivered by the Expected Delivery Date(s).

4.6.2 Following receipt of such notice the Supplier must take such steps as may be necessary and as the Company may approve to remedy or mitigate the likely delay, including submitting a revised programme to the Company for acceptance. The Supplier will not be entitled to additional payment or an extension of time for taking such steps.

5 **Records and Audit**

5.1 The Supplier shall, and shall procure that its subcontractors shall, maintain a true and correct set of records including personnel records relating to all aspects of their performance of the Contract and all transactions related to the Contract. For the avoidance of doubt, such records shall include but are not limited to:

- (a) all necessary information for the evaluation of claims or variations;
- (b) subcontract files (including proposals of successful and unsuccessful bidders, bids, rebids etc);
- (c) variation and claims files (including documentation covering negotiated settlements);
- (d) detailed inspection records; and
- (e) such materials prepared in relation to the invitation to tender and subsequent tendering process relating to cost breakdowns, reconciliations against BAFO pricing and project plans, in each case which have not already been provided to the Company.

5.2 The Supplier agrees, and shall procure that its subcontractors agree, to retain all such records in such a manner as the Company may reasonably instruct for a period of not less than twelve (12) years after completion of performance under the Contract. In the absence of specific instructions as to the method of storage, the Supplier shall retain his records in an orderly and logical fashion.

5.3 Subject to reasonable notice including a written agenda of activities the Company and its authorised representatives shall have the right to inspect and audit any of the records referred to in Clause 5.1 at any time during the period referred to in Clause 5.2.

5.4 The Supplier shall promptly provide all reasonable co-operation in relation to any audit or check including, to the extent reasonably possible in each particular circumstance:

- (a) granting or procuring the grant of access to any premises used in performance of the Contract, whether the Supplier's own premises or otherwise;
- (b) granting or procuring the grant of access to any equipment (including all computer hardware, software and databases) used (whether exclusively or non-exclusively) in the performance of the Supplier's obligations under the Contract, wherever situated and whether the Supplier's own equipment or otherwise;
- (c) making any contracts and other documents and records required to be maintained under the Contract available for inspection;
- (d) providing a reasonable number of copies of any contracts and other documents or records reasonably required by the Company's auditor and/or granting copying facilities to the Company's auditor for the purposes of making such copies; and
- (e) complying with the Company's reasonable requests for access to senior personnel engaged in the Supplier's performance of the Contract.

5.5 The Supplier shall maintain an effective and economical programme for monitoring and

maintaining product quality, planned and developed in conjunction with any other functions of the Supplier necessary to satisfy the Contract requirements.

- 5.6 The Supplier shall permit the Company's authorised representatives, access and facilities (as required and when notified) for the purpose of systems and product quality audits including but not limited to access to documentation showing results of testing and inspection, certificates of conformance and safety-related documents. The Supplier shall provide the Company with a copy of any or all of the records listed in Clause 5.1, free of charge within thirty (30) days of the Company's request for the same.
- 5.7 The Supplier shall, and shall ensure that any subcontractor or sub-supplier shall ensure that appropriate security systems are in place to prevent unauthorised access to, extraction of, or alteration to data, during any audit undertaken pursuant to the Contract

6 Company's Obligations

- 6.1 The Company shall pay the Supplier the Contract Price for the Goods and the Contractual Documentation in accordance with the terms of the Contract.
- 6.2 Payment of the Contract Price shall not affect any claims or rights which the Company may have against the Supplier and shall not be an admission by the Company that the Supplier has performed its obligations under the Contract properly.
- 6.3 The Contract is not an exclusive arrangement and nothing in the Contract operates to prevent the Company from engaging any other organisation or person to supply goods similar to or the same as the Goods.

7 Additional Goods

The Company may, at any time during the Term of the Contract, request the Supplier to provide a quotation for the supply of Additional Goods in accordance with the Contract Variation Procedure and Schedule 2 (Prices). If a Variation Order is made in respect of such Additional Goods, Schedule 1 shall be amended to include such Additional Goods, the Expected Delivery Date and the Contract Price.

8 Variation

- 8.1 Unless the parties agree otherwise in writing, any variation to the Contract shall be made under the Contract Variation Procedure.
- 8.2 The Supplier shall not proceed to implement any variation unless there has been a Variation Order.

9 Price and Payment

- 9.1 The Supplier shall submit an application for payment to the Company's Representative according to the rates and prices set out in Schedule 2 for the relevant portion of the Contract Price in respect of the Goods and Contractual Documentation after the Delivery Date of such Goods and Contractual Documentation (a "**Payment Application**"). If (as the case may be) the Goods are to be delivered in instalments, the Supplier shall submit a Payment Application for the relevant portion of the Contract Price to the Company's Representative after the Delivery Date of each instalment.
- 9.2 Each Payment Application shall specify the sum that the Supplier considers will become due on the payment due date and the basis upon which that sum is calculated. The Supplier shall submit any supporting documents that are reasonably necessary to enable the Company's Representative to check the Payment Application.
- 9.3 The Company's Representative shall assess and verify the Payment Application in a timely manner and shall notify the Supplier in writing not later than seven (7) days after the date of receiving the Payment Application of:
- (a) the amount (if any) the Company's Representative considers to be due at the payment due date (which amount shall be net of any discount to which the Company is entitled); and
 - (b) the basis on which the amount was calculated,
- (a "**Payment Certification**"). It is immaterial for the purposes of this Clause 9.3 that the amounts referred to in Clause 9.3(a) and Clause 9.3(b) may be zero. Where the Company fails to comply with its obligations under this Clause 9.3 and there is an undue delay in considering and verifying the Payment Application, the Payment Certification shall be regarded as issued for the purposes of Clause 9.4 after a reasonable time has passed.
- 9.4 Within seven (7) days of receipt of a Payment Certification the Supplier shall issue a VAT invoice for the amount stated in that Payment Certification to the Company. The final date for payment of such VAT invoice shall be ten (10) days after the date on which the Company's Representative received such VAT invoice.
- 9.5 The Contract Price shall be fixed and inclusive of all expenses and disbursements including, but not limited to, the costs incurred in delivering the Goods to the Delivery Address. The Contract Price for the Goods shall only be changed in accordance with the Contract Variation Procedure.
- 9.6 The Contract Price shall not include VAT and, to the extent that such VAT is properly chargeable, it shall be charged at the rate in force on the date of the Payment Application and will be shown as a separate item on all Payment Applications.

9.7 In addition to any other rights of the Company whether at law or equity under this Contract, whenever under or arising out of this Contract or any other contract between the Company and the Supplier

(a) any sum of money is recoverable from or payable by the Supplier; or

(b) any Losses are reasonably and properly owed to, or incurred by, the Company, or any member of the TfL Group

then the same may be set-off against and/or deducted and/or withheld from any sum then due or which at any time thereafter may become due to the Supplier under this Contract.

9.8 All Payment Applications shall clearly show any associated Variation Order. Supporting documentary information shall be submitted to the Company's Representative for all Payment Applications submitted by the Supplier. The Company's Representative shall from time to time agree with the Supplier the detailed information required in relation to all such Payment Applications and the Supplier shall provide such information as is reasonably required.

9.9 All sums payable to the Company by the Supplier under the Contract shall be paid in full, free of any present or future taxes, levies, duties, charges, fees or withholdings and without any deduction, restriction, conditions, withholding, set-off or counterclaim whatsoever; and if the Supplier is compelled by law to make any deduction or withholding, the Supplier shall gross up the payment so that the net sum received by the Company will be equal to the full amount which the Company would have received had no such deduction or withholding been made.

9.10 NOT USED

9.11 The Supplier agrees that if at any time during the Initial Period it supplies any Goods to a comparable customer for less than the Contract Price, it shall reduce the relevant rates and prices to match the lower price for so long as the lower price is available (but for no longer) and shall refund the Company the difference between the Contract Price and the lower price in respect of its purchases of the Goods after the Supplier began charging the lower price. For the purposes of this Clause 9.11, 'comparable' means a customer that purchases products in substantially similar volumes as the Company on broadly similar terms and conditions.

9.12 NOT USED

9.13 No payment made by the Company will indicate or be taken to indicate the Company's acceptance or approval of any part of the Goods delivered or of any act or omission of the Supplier or will absolve the Supplier from any obligation or liability imposed upon the Supplier by any provision of the Contract or otherwise.

10 Delivery of Goods

10.1 Storage

10.1.1 Prior to the Expected Delivery Date(s) of the Goods, the Supplier shall place and maintain the Goods in storage in a location approved by the Company ("**Storage**") until delivery of the Goods is made to the Delivery Address. The Supplier shall safeguard the Goods and take all reasonable steps to prevent deterioration of the Goods while they are in Storage.

10.1.2 If for any reason the Company does not wish to accept delivery of the Goods on their Expected Delivery Date(s), the Company may require the Supplier by way of the Contract Variation Procedure to continue to store and maintain the Goods in Storage in a manner that enables the Goods to be delivered to the Delivery Address on a revised Delivery Date (the "**Extended Storage Option**"). If the Company exercises the Extended Storage Option:

- (a) the Supplier shall be entitled to submit a Payment Application in respect of the Goods that are subject to the Extended Storage Option and the provisions of Clause 9 shall apply; and
- (b) upon the Company paying the relevant portion of the Contract Price in respect of the Goods that are subject to the Extended Storage Option, title to such Goods shall pass with full title guarantee to the Company.

10.2 Delivery

10.2.1 Subject to Clause 10.1, the Goods and any other Contractual Documentation shall be delivered by the Supplier to the Company on the Expected Delivery Date(s) at the Delivery Address and in accordance with the Contract Programme. The Supplier shall be responsible for, and shall comply with all reasonable instructions of the Company with regard to, the unloading of the Goods. The Company shall be under no obligation to accept partial delivery of an order.

10.2.2 The time of delivery of the Goods and other Contractual Documentation shall be of the essence of the Contract.

10.2.3 If the Goods and other Contractual Documentation are not supplied on the Expected Delivery Date(s) then, without limiting any other remedy, the Company shall be entitled to deduct from the price payable for such Goods and Contractual Documentation or to claim from the Supplier by way of Liquidated Damages for delay the amount stated in Schedule 1 for the period of delay stated in Schedule 1. The Company shall not be entitled to deduct such amount from the price payable for such Goods and Contractual Documentation or to claim such amount from the Supplier by way of Liquidated Damages for delay to the extent that the delay is due to (i) a default or other act of prevention of the Company, its agents, employees or contractors (other than the Supplier) or (ii) a Force Majeure Event, or (iii) a Permitted Delay Event.

- 10.2.4 The Parties acknowledge and agree that the amount of Liquidated Damages under the Contract:
- (a) serves to protect the Company's legitimate business interests, including the need to have the Goods delivered on-time so that they are ready for use when required by the Company; and
 - (b) constitutes a genuine pre-estimate of the loss that would be suffered by the Company as a result of the Supplier's failure to achieve the Expected Delivery Date.
- 10.2.5 The Goods shall be properly packed and secured in such a manner as to reach the Delivery Address in good condition and otherwise in a condition which fully complies with the requirements of the Contract.
- 10.2.6 The Supplier shall provide a detailed delivery note giving full particulars of the Goods and Contractual Documentation to be supplied (the "**Delivery Note**"). A copy of the Delivery Note shall be delivered with the Goods and Contractual Documentation and be sent by facsimile to the Company on the Delivery Date in accordance with Clause 36.
- 10.2.7 In the event that all or any of the obligations of the Supplier under the Contract to pay Liquidated Damages are held to be unenforceable, the Supplier agrees to pay the Company damages in respect of all actual Losses suffered by the Company due to the circumstances in respect of which Liquidated Damages would have been payable if the relevant obligation had been enforceable including, without limitation, loss of profit, loss of use, loss of revenues, loss of production and loss of savings. The damages payable by the Supplier in accordance with this Clause 10 shall not exceed the amounts which would have been payable if the relevant obligation(s) to pay Liquidated Damages had been enforceable save where such obligation(s) are held to be unenforceable as a result of any argument or proceedings raised or brought by the Supplier that such obligation(s) are unenforceable, in which case the amount of such damages shall be unlimited.
- 10.2.8 The Supplier will not, and will ensure that neither its subcontractors, suppliers nor any other person will have, a lien, charge or encumbrance on or over any of the Goods or Contractual Documentation which are vested in the Company under Clause 13.2 for any sum due to the Supplier or its subcontractors, suppliers or other persons and the Supplier shall take all reasonable steps as may be necessary to ensure that the title of the Company and the exclusion of any such lien charge or encumbrance are brought to the notice of subcontractors and other persons dealing with any such Goods or Contractual Documentation.
- 10.2.9 The Company shall be under no obligation to accept or pay for any Goods delivered in excess of the quantity ordered. If the Company elects not to accept such over-delivered Goods it shall be entitled to give notice in writing to the Supplier to remove them. Within 7 days of receipt by

the Supplier of such notice the Supplier shall remove the excess and refund to the Company any expenses incurred by the Company as a result of such over-delivery (including but not limited to the costs of moving and storing them) failing which the Company shall be entitled to dispose of such Goods and to charge the Supplier for the costs of such disposal. The risk in any over-delivered Goods shall remain with the Supplier until they are collected by or on behalf of the Supplier or disposed of or purchased by the Company, as appropriate.

- 10.2.10 Notwithstanding Clause 10.2.6 the Company may revise the Delivery Note by providing the Supplier with not less than one (1) days' notice of the revised Delivery Date (the "Revised Delivery Note").

11 **Failure to Supply**

- 11.1 Without prejudice to any other right or remedy of the Company under this Contract or general law and its rights under Clause 17, if the Supplier fails to supply the Goods or any part to the Company's satisfaction the Company may give the Supplier at least seven (7) days' notice in writing (except in an emergency when no notice need be given) requiring the Supplier to remedy such failure. If the Supplier fails to comply with the requirements of the Company specified in such notice the Company shall be entitled to perform or procure the supply of the Goods or part thereof itself or from a third party. Without prejudice to any other right or remedy of the Company hereunder or under the general law, all expenditure properly incurred by the Company exercising its rights under this Clause 11.1 is recoverable by the Company from the Supplier and the Company shall be entitled to deduct such amounts from any amount due or to become due to the Supplier under the Contract.
- 11.2 For the purposes of Clause 11.1 the Supplier hereby grants to the Company and any third party the right to use any Intellectual Property Rights, Documentation, goods, materials and spares belonging to the Supplier or used by the Supplier in connection with the Contract as may be required by the Company to exercise its rights under Clause 11.1 and the Supplier shall provide all such co-operation and assistance as may be required by the Company to enable the Company to exercise its rights under Clause 11.1.

12 **Not Used**

13 **Risk and Ownership**

- 13.1 Risk of damage to, or loss of, the Goods or other Contractual Documentation shall pass to the Company upon counter-signature by the Company of the Delivery Note. If the Company serves a Rejection Notice under Clause 14.2, risk of damage to and loss of the Goods shall pass to the Supplier on the earlier of the date that the Supplier removes the Goods from the Delivery Address (or such other address as the Company shall specify under Clause 14.3) or the date falling three (3) days after the receipt by the Supplier of the Rejection Notice.

- 13.2 Subject to Clause 10.1.2(b), the Supplier shall, without further act, pass title to the Goods and other Contractual Documentation, with full title guarantee to the Company, upon the Delivery Date.

14 **Inspection of the Goods**

- 14.1 Following delivery by the Supplier to the Company of the Goods the Company shall inspect the Goods.
- 14.2 If, following the inspection referred to in Clause 14.1, the Goods do not comply with the terms of the Contract, including but not limited to, conforming to the Specification and being fit for the purpose for which they are intended, without prejudice to any rights or remedies the Company may have against the Supplier, whether under the Contract or otherwise, the Company may by notice in writing (the “**Rejection Notice**”) to the Supplier reject all or any part of the Goods (the “**Rejected Goods**”).
- 14.3 The Rejection Notice shall specify the reason for the rejection of the Rejected Goods. Within seven (7) days of receipt of the Rejection Notice, the Supplier shall remove such Rejected Goods at its risk and expense from the Delivery Address or such other address as the Company shall specify in the Rejection Notice and shall at the Company’s option:
- (a) replace such Rejected Goods with Goods which conform in all respects with the Contract within five (5) Working Days; or
 - (b) if an application for payment has been submitted or payment made for the Rejected Goods, issue a credit note in respect of that application or refund the payment (as applicable); and
 - (c) pay the Company’s Losses resulting from the Supplier’s delivery of Goods that were not in conformity with the terms of the Contract.
- 14.4 The Company’s rights and remedies under this Clause 14 are in addition to the rights and remedies available to it in respect of the statutory conditions relating to description, quality, fitness for purpose and correspondence with sample implied into the Contract by the Sale of Goods Act 1979.
- 14.5 If the Supplier fails to promptly replace Rejected Goods in accordance with Clause 14.3(a), the Company may, without affecting its rights under Clause 14.3(c), obtain substitute goods from a third party supplier, or have the Rejected Goods repaired by a third party, and the Supplier shall promptly reimburse the Company for the costs it incurs in doing so.
- 14.6 The Goods shall conform in all respects with any sample approved by the Company and in the absence of a sample; all the Goods provided shall be within the normal limits of industrial quality.

15 **Warranty**

- 15.1 Without prejudice to any rights or remedies the Company may have against the Supplier whether under the Contract or otherwise, the Supplier shall at its own cost and without delay rectify (which, for the purposes of this Clause 15, means repair, replace, modify or (as appropriate) amend) each Defect which arises, occurs or becomes apparent in relation to any item of Goods during the Warranty Period for that item and where necessary shall execute or procure the execution by another of all rectification works. Any replacement Goods shall comply in all respects with the terms of the Contract and shall conform to the Specification and shall be fit for the purpose for which they are intended.
- 15.2 If the Company identifies a Defect in an item of Goods, the Company shall notify the Supplier of such Defect within a reasonable time of its discovery. The Supplier shall, after consultation with the Company, determine how the Defect is to be rectified.
- 15.3 Where Goods are replaced or repaired in accordance with this Clause 15, the Warranty Period for such Goods shall be 104 weeks from the date of repair or (as the case may be) replacement certified in writing by the Company, provided that such further Warranty Period shall end no later than the date 48 months after the original Delivery Date of the Goods, and the Supplier shall have no further obligation to repair, replace, modify or (as appropriate) amend any such Defect after that date.
- 15.4 Where the Supplier is obliged to rectify a Defect in accordance with this Clause 15 but has not, for any reason, responded and commenced any rectification work in relation to that Defect within ten (10) Working Days of being notified of such Defect by the Company, the Company may rectify that Defect using its own or third party personnel or resources. All costs and expenses properly and reasonably incurred by the Company in undertaking any work pursuant to this Clause 15.4, together with VAT chargeable thereon shall be recoverable by the Company within ten (10) Working Days of demand from the Company as a debt due and owing from the Supplier.
- 15.5 The Supplier shall use all reasonable endeavours to procure for the Company the benefit of such warranties and other rights as are conferred on the Supplier in relation to Defects in such part or parts of the Goods which are not manufactured by the Supplier.

16 **Intellectual Property Rights**

16.1 **Existing Contracts**

This Contract is entirely without prejudice to, and nothing in it is intended to, nor shall, in any way prejudice the rights of any member of the TfL Group in relation to intellectual property under or pursuant to Existing Contracts.

16.2 Not Used

16.3 Not Used

16.4 Not Used

16.5 Not Used

16.6 Not Used

16.7 Not Used

16.8 Not Used

16.9 Supplier's Indemnity against Third Party Intellectual Property Rights Infringement

16.9.1 The Supplier shall indemnify and hold harmless the Company and any member of the TfL Group against any actions, claims, losses, demands, costs, charges or expenses that arise from or are incurred by reason of any infringement or alleged infringement of any Intellectual Property Rights belonging to any subcontractor (of any tier) or other third party and against all costs and damages of any kind which the Company may incur in connection with any actual or threatened proceedings before any court or arbitrator or any other dispute resolution forum. If required by the Company the Supplier shall conduct negotiations with any subcontractor (of any tier) or other third party and/or a defence in relation to any action, claim or demand referred to herein on behalf of the Company.

16.9.2 In the event of a claim of infringement of any Intellectual Property Rights the Supplier shall use all reasonable endeavours to make such alterations or adjustment to the Goods as may be necessary to ensure that the use and provision of the Goods continues in spite of such claim.

16.10 Ownership of the Company's Intellectual Property Rights

Intellectual Property Rights in all Documentation and in all other material and items supplied by the Company to the Supplier in connection with the Contract shall remain vested in the Company or the person owning such rights at the time the Documentation, material or items were supplied. The Supplier shall, if so requested, at any time, execute such documents and perform such acts as may be required fully and effectively to assure to the Company the rights referred to in this Clause.

16.11 Company's Intellectual Property Rights

16.11.1 The Company hereby grants to the Supplier (to the extent that the Company has such rights) a worldwide, royalty-free, perpetual, irrevocable, non-exclusive, non-transferable licence (with the right to sub-licence such rights to any third party) to use the Company IPRs for the duration of

this Contract solely to enable the Supplier to design the Goods in a way that enables the Goods to be mounted on to other equipment (as more particularly described in the Specification) and produce any documentation in relation thereto.

- 16.11.2 Subject to the licence set out in Clause 16.11.1 above, the Supplier is not entitled to use in any manner whatsoever any Intellectual Property Rights belonging to the Company.

16.12 Escrow

- (a) Within twenty (20) Working Days of the Commencement Date, the Supplier shall execute the Escrow Agreement. The Supplier shall place the Escrow Materials in escrow with the Escrow Agent on the terms set out in the Escrow Agreement as soon as reasonably possible after its completion and in any event within twenty (20) Working Days thereof and providing for the release of the Escrow Materials in the event of insolvency (or analogous events) of the Supplier or cessation of trade by the Supplier.
- (b) The Supplier shall pay all fees of the Escrow Agent in connection with the placement, storage and release of the Escrow Materials and shall provide evidence of the same to the Company on written request.
- (c) The Supplier shall at all times ensure that the Escrow Materials deposited with the Escrow Agent are capable of being used to generate and maintain and adapt the latest version of any Hardware or Software and the Supplier shall deliver to the Escrow Agent an updated copy of the Escrow Materials as and when necessary for this purpose and shall also inform the Company when any update is made.
- (d) This clause 16.12 shall terminate 104 weeks from the delivery of the equipment.

17 Termination and Suspension

- 17.1 The Company may terminate the Contract immediately by notice in writing to the Supplier if:
- (a) the Supplier commits a material breach of the Contract which in the case of a breach capable of remedy has not been remedied within five (5) Working Days, or such other period as may be agreed between the Supplier and the Company, of the Company serving notice on the Supplier requiring such remedy;
 - (b) the Supplier or anyone employed by or acting on behalf of the Supplier (whether or not acting independently of the Supplier when committing any breach) commits a Safety Breach or Prohibited Act;
 - (c) the Supplier commits a Persistent Breach as provided for in Clause 17.12;
 - (d) any limit on the Supplier's liability to pay Liquidated Damages is reached or exceeded;

- (e) an Insolvency Event occurs in relation to the Supplier;
- (f) the Supplier fails to make payment of any sum (including any Liquidated Damages) not in dispute when due and payable to the Company in accordance with this Contract within thirty (30) days of a written demand for payment;
- (g) the Supplier fails to take out and/or maintain any of the insurance policies referred to in Clause 19.6;
- (h) the Supplier fails to provide (where Schedule 1 states it is required) a bond and/or parent company guarantee or any replacement thereof in accordance with Clause 42;
- (i) the Supplier breaches its obligations under Clause 43; or
- (j) a Supplier Public Procurement Termination Event occurs.

17.2 Without prejudice to Clause 17.1, the Company shall have the right:

- (a) to terminate the Contract at any time by giving notice of not less than thirty (30) days to the Supplier in writing; or
- (b) at any time to require the Supplier to suspend the provision of the Goods by giving notice in writing (a “**Suspension Notice**”) to the Supplier.

17.3 In the event that the Company terminates the Contract for any reason under this Clause 17, the Supplier shall, without prejudice to any other rights or remedies which the Company may have under the Contract or under general law, at the Company’s option:

- (a) permit the Company to enter the Supplier’s premises and take possession of any equipment, goods or Documentation which are the property of the Company; and
- (b) permit the Company to place an order for the remaining Goods (or equivalent goods) with any other person or persons; and
- (c) promptly return to the Company any equipment, goods or Documentation which are the property of the Company and of which the Supplier or any of its subcontractors have possession.

In any such case, the Company shall be entitled to retain those Goods already provided by the Supplier in accordance with the Contract, at the material time.

17.4 In the event that the Contract is terminated, the liability of the Company shall be limited to payment to the Supplier for those Goods provided in accordance with the Contract up until the date of such termination.

- 17.5 Following a termination in accordance with Clause 17.1 (but not a termination in accordance with Clause 17.2(a)) the Supplier shall be liable to the Company for
- (a) any Losses of whatever nature arising out of or in connection with the relevant breach; and
 - (b) where the Company exercises its rights under Clause 17.3(b) and in so doing incurs costs which are in excess of those which would have been incurred in relation to the due provision of the Goods under the Contract by the Supplier ("**Excess Costs**"), such Excess Costs.
- 17.6 The provisions of this Clause 17 shall be without prejudice to the Company's right of termination implied into this Contract by Regulation 73(3) of the Public Contracts Regulations 2015.
- 17.7 In the event that the Contract is suspended in accordance with Clause 17.2(b), the Supplier shall:
- (a) issue to the Company an application for payment in respect of those Goods provided to the Company in accordance with the Contract up until the date of such suspension; and
 - (b) not carry out any further work in connection with the provision of the Goods until such time as the Company issues a notice lifting the suspension (a "**Notice to Proceed**").
- 17.8 In the event that the Contract is suspended in accordance with Clause 17.2(b), and such suspension continues for a period of twenty-eight (28) days, the Supplier shall be entitled to request that the Company serve a Notice to Proceed. In the event that no Notice to Proceed is issued by the Company within a further fourteen (14) days from such request of the Supplier, the Supplier shall be entitled to approach the Company with a request for a variation, in accordance with the Contract Variation Procedure.
- 17.9 In the event that the parties are unable to agree upon the variation requested under Clause 17.8, then a Dispute shall be deemed to have arisen and the matter shall be referred for resolution in accordance with Clause 37.
- 17.10 Termination of the Contract for whatever reason shall not affect the accrued rights of the parties arising in any way out of the Contract as at the date of termination and in particular but without limitation the right to recover damages against the other party.
- 17.11 If anyone employed by the Supplier, acting independently of the Supplier, commits a Safety Breach or Prohibited Act, then the Company may require the Supplier to exclude that individual from the provision of the Goods with immediate effect and that individual may only resume the provision of the Goods at the Company's absolute discretion.
- 17.12 **Persistent breach**

- 17.12.1 If the Supplier breaches any of its obligations (where those obligations are of the same type or nature) under this Contract, more than twice in any three (3) month period, then the Company may serve a notice on the Supplier:
- (a) specifying that it is a formal warning notice;
 - (b) giving reasonable details of such breach; and
 - (c) stating that such breach is a persistent breach that, if it continues unremedied or if a breach of the same type or nature occurs within three (3) months of the date of service of the notice, may result in a termination of this Contract in accordance with this Clause 17.12.
- 17.12.2 If, following service of such a warning notice pursuant to Clause 17.12.1, the breach specified has continued unremedied or a breach of the same type or nature has occurred within the three (3) months following the date of service of such notice, then the Company may, no later than the date falling six (6) months following the date of service of the warning notice pursuant to Clause 17.12.1, serve another notice on the Supplier specifying that such breach constitutes a "**Persistent Breach**" for the purposes of Clause 17.1(c).

18 Co-operation in Handover

- 18.1 The Supplier shall provide at no cost such reasonable assistance to the Company and to any third party nominated by the Company as the Company may require during the last six (6) months of the Contract and in the three (3) months after the expiration of the Term (or, in the case of earlier termination for any reason, the period of three (3) months from the effective Contract termination date) to facilitate the engagement of a successor supplier and/or the resumption by the Company of the provision of the Goods and in such a manner so as not to unduly disrupt or hinder the Company's business
- 18.2 Without prejudice to the generality of Clause 18.1 above, the Supplier shall on or prior to the end of the effective Contract termination date transfer to the Company such Documentation relating to the Goods or full copies thereof as the Company may request.

19 Indemnity and Insurance

- 19.1 The Supplier shall be liable for, and shall indemnify the Company, 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 Company or any relevant member of the TfL Group, arising from or in connection with the performance or non-performance of the Supplier under the Contract:
- (a) in respect of death or personal injury to any person;

- (b) in respect of loss of or damage to any property (including the Crossrail Infrastructure and any other property belonging to the Company or for which it is responsible);
- (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 Supplier, its employees, agents or subcontractors; and
- (d) arising under the Company's contracts with third parties,

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

- 19.2 The Supplier shall not be liable to indemnify the Company or any member of the TfL Group under the indemnity in Clause 19.1 to the extent Losses are solely due to the negligence, breach of duty or breach of contract of the Company.
- 19.3 The Supplier's indemnity under Clause 19.1 and all other indemnities under the Contract shall remain in force for the duration of the Contract and for the period of two (2) years after the Delivery Date or earlier termination of the Contract.
- 19.4 The Company may withhold from any sum due or which may become due to the Supplier any sum due to the Company as a result of the operation of Clause 19.1, provided that an appropriate notice to withhold payment has been served by the Company on the Supplier.
- 19.5 Other than in respect of the Losses (i) described in Clauses 19.1(a) and 19.1(d) above and (ii) 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 the Contract. Each party respectively undertakes not to sue the other party, the Company or any member of the TfL Group in respect of Consequential Loss.
- 19.6 Without prejudice to the obligation to indemnify the Company set out in Clause 19.1, the Supplier undertakes to:
- (a) maintain at its own cost insurance which complies with the Employers' Liability (Compulsory Insurance) Act 1969 and any statutory orders made under such Act or any amendment or re-enactment thereof;
 - (b) maintain at its own cost an adequate level of public liability insurance in respect of the Supplier's liability for death or injury to any person and loss of or damage to property and being not less than £5,000,000 (five million pounds) per occurrence;
 - (c) Not used;

- (d) maintain at its own cost an adequate level of "goods in transit" insurance commensurate with the risk and, where appropriate, being not less than an amount equal to the Contract Price for the Goods per occurrence, in respect of the Supplier's liability for theft, loss or damage to property and Goods while in transit from one place to another or being stored during a journey;
- (e) maintain at its own cost product liability insurance in respect of the Supplier's liability for death or injury to any person, or loss or damage to any property arising out of its performance of the Contract in an amount not less than an amount equal to the Contract Price for the Goods, for any one occurrence;
- (f) ensure that the foregoing insurance policy or policies shall be or are effected with a reputable insurer. Such insurance shall be on terms approved by the Company (such approval not to be unreasonably withheld or delayed) and shall be maintained in force for a period not less than twelve (12) years after delivery of the Goods;
- (g) ensure that any subcontractors also maintain adequate insurance having regard to the obligations under the contract which they are contracted to fulfil; and
- (h) produce within seven (7) days of any reasonable request by the Company and in any event before the provision of any of the Goods under the Contract satisfactory evidence in the form of a broker's letter or similar confirming the existence of insurance in accordance with the terms of this Clause 19.6.

19.7 The Supplier's liabilities under the Contract shall not be deemed to be released or limited by the Supplier taking out the insurance policies referred to in Clause 19.6.

19.8 Without prejudice to the Company's rights under Clause 17, if the Supplier fails to maintain the insurance policies as provided in Clause 19.6, the Company may effect and keep in force any such insurance and pay such premium or premiums at commercially competitive rates as may be necessary for that purpose and from time to time deduct the amount so paid from any monies due or which become due to the Supplier or recover the same as a debt due from the Supplier.

The Supplier's liability to the Company and members of the TfL Group under this Agreement (whether arising in contract, tort (including negligence, breach of statutory duty or otherwise)) shall be limited to 100% of the Contract Price (the "**Liability Cap**"), provided that the Supplier's liability to the Company and members of the TfL Group under this Agreement in respect of the Excepted Liabilities shall not be subject to the Liability Cap.

20 Force Majeure and Permitted Delay Events

20.1 Force Majeure

- (a) Neither party shall be in breach of its obligations under the Contract if there is any total or partial failure of performance by it of its duties and obligations under the Contract occasioned by any Force Majeure Event. If either party is unable to perform its duties and obligations under the Contract as a direct result of a Force Majeure Event, that party shall within one (1) Working Day of such event taking place give written notice to the other party specifying the event and the steps taken by it to minimise or overcome the effects of such event. The operation of the Contract shall be suspended during the period (and only during the period) in which the Force Majeure Event continues. Without delay upon the Force Majeure Event ceasing to exist the party relying upon it shall give written notice to the other of this fact. If the Force Majeure Event continues for a period of more than sixty (60) days and substantially affects the abilities of the Supplier to perform its obligations under the Contract, the Company shall have the right to terminate the Contract immediately upon giving written notice of such termination to the Supplier.

20.2 Permitted Delay Events

- (a) If a delay is caused or either party can reasonably foresee delay occurring by reason of a Permitted Delay Event then the Supplier shall give notice to the Company's Representative of the same and any claim for an extension of time to the Delivery Date, within seven (7) days after the cause of any delay has arisen.
- (b) For the purposes of the Contract, the occurrence of one or more of the following shall constitute a "**Permitted Delay Event**":
 - (i) any act of prevention, omission, default or neglect or breach by the Company of an express obligation under this Contract; or
 - (ii) any variation of the Contract under Clause 8; or
 - (iii) the suspension of the Contract in accordance with Clause 17 (other than where the suspension is necessary by reason of default by the Supplier).
- (c) Where any delay in achieving the Expected Delivery Date arises, the Supplier shall be entitled to an extension to such Expected Delivery Date (either prospectively or retrospectively) and any such extension shall amend the Contract Programme but only to the extent that such delay is directly caused by a Permitted Delay Event that has a direct and material adverse effect on the Supplier's ability to provide the Goods by the Expected Delivery Date and provided that the Supplier:
 - (i) notifies the Company of the Permitted Delay Event in accordance with Clause 20.2 and subsequently provides such further information as the Company may reasonably require regarding the nature and likely duration of such event;

- (ii) provides the Company with reasonable access to the Supplier's premises or of its subcontractors for investigating the validity of the potential Permitted Delay Event;
- (iii) uses its reasonable endeavours to mitigate the delay to the relevant Delivery Date; and
- (iv) shall not be entitled to an extension of time to the extent that the Permitted Delay Event was caused by or resulted from any act, omission, neglect, default or breach of this Contract by the Supplier, its subcontractors or employees.

21 **Safety**

- 21.1 The Supplier shall not endanger in any manner the health and safety of, or unreasonably interfere with the proper performance of the duties of, the Company's employees or third parties or otherwise expose the Company to liability under any Applicable Laws and Standards, including (without limitation) the Health and Safety at Work etc. Act 1974, the Transport and Works Act 1992, or any statutory modifications or re-enactments thereof.
- 21.2 The Supplier shall act in accordance with the health and safety regulations and requirements stated in the Specification, including (but not limited to):
- (a) Not used;
 - (b) the Company's drug and alcohol principles as amended from time to time.
- 21.3 Not used.
- 21.4 The Company may at its discretion carry out on the Supplier's behalf any testing of the Supplier's employees, subcontractors or agents for drugs or alcohol which the Contract requires the Supplier to carry out. The reasonable cost to the Company of carrying out the testing shall be paid by the Supplier.

22 **Not used**

23 **Independent Supplier**

The Supplier is an independent supplier and is not and shall not hold itself out as, and shall procure that none of the Supplier's employees or subcontractors or their employees hold themselves out as, an agent of the Company. All personnel used by the Supplier in the performance of its obligations under the Contract shall be employees of the Supplier, or any subcontractor or agent of the Supplier.

24 **Not used**

25 **Confidentiality**

- 25.1 The Supplier undertakes to keep confidential and not to disclose to any third party (without the prior written consent of the Company) any Confidential Information supplied by the Company to the Supplier and shall use such information only for the purpose of the performance of his obligations under the Contract.
- 25.2 On the Company's request, the Supplier shall, so far as is reasonably possible:
- (a) transfer onto hard copies or other media in industry standard format and programming languages and deliver to the Company any Confidential Information in its possession or control supplied by the Company to the Supplier;
 - (b) return to the Company all copies (whether hard copy or other media) of such Confidential Information; and
 - (c) destroy, erase or otherwise expunge from its records, systems, databases or other forms of archive all such Confidential Information save to the extent that information needs to be retained for statutory purposes or tax purposes.
- 25.3 The Supplier shall ensure that all his subcontractors, suppliers, employees and agents perform his obligations in Clauses 25.1 and 25.2 as if they were the Supplier, and the Supplier shall be responsible to the Company for any act or omission by his subcontractors, suppliers, employees and agents in breach of such obligations.
- 25.4 The Supplier shall notify the Company promptly if the Supplier becomes aware of any breach of confidence by a subcontractor, supplier, employee or agent and shall give the Company all assistance the Company reasonably requires in connection with any proceedings the Company brings, or other steps the Company takes, against that subcontractor, supplier, employee or agent for such breach of confidence.
- 25.5 The Supplier shall not, either alone or jointly with others, publish any material relating to the Company, the Company's Representative, the Contract or the Goods without the prior written consent of the Company.
- 25.6 The Supplier shall not, either alone or jointly with others, make any press, television, radio or other media announcement in connection with the Contract or the Goods, or any Dispute arising under or in connection with the Contract.
- 25.7 The provisions of Clauses 25.1 to 25.6 shall not apply:

- (a) to any information which is already in the public domain at the time of its disclosure other than by breach of the Contract; or
- (b) to any information which is required to be disclosed to the extent required by any applicable law, the regulations of any recognised stock exchange, any taxation authorities or by order of a court or other tribunal of competent jurisdiction or any relevant regulatory body.

25.8 The Supplier acknowledges that damages would not be an adequate remedy for any breach of this Clause 25 by the Supplier and that (without prejudice to all other remedies to which the Company may be entitled as a matter of law) the Company shall be entitled to any form of equitable relief to enforce the provisions of this Clause 25.

26 **London Living Wage**

26.1 The Supplier shall, to the extent the Contract is for the provision of Goods to be undertaken within Greater London or on the Crossrail Infrastructure:

- (a) ensure that none of its employees engaged in the provision of Goods under the Contract is paid an hourly wage (or equivalent of an hourly wage) less than the London Living Wage;
- (b) provide to the Company such information concerning the application of the London Living Wage as the Company or its nominees may reasonably require;
- (c) disseminate on behalf of the Company to its employees who are paid no more than the London Living Wage such perception questionnaires in relation to the London Living Wage as the Company or its nominees may reasonably require and promptly collate and return to the Company responses to such questionnaires;
- (d) co-operate and provide all reasonable assistance to the Company and its nominees in monitoring the effect of the London Living Wage; and
- (e) procure that any subcontractor (of any tier) is required to comply with the provisions of this Clause 26 and the provisions of this Clause 26 are included in any subcontract (of any tier).

26.2 The Supplier shall not, and shall procure that any subcontractor shall not, without the prior written consent of the Company, vary or purport to vary the provisions contained in any contract or subcontract in accordance with the operation of this Clause 26.

27 Responsible Procurement

- 27.1 The Supplier and the Company acknowledge and agree that the Mayor, in accordance with section 155 of the GLA Act has directed the Company and its subsidiaries (including the Company) to do all things reasonably necessary to comply with (inter alia) the Responsible Procurement Policy in its procurement activities.
- 27.2 The Supplier shall and shall procure that its subcontractors (of any tier) shall comply with, and shall provide such co-operation and assistance as may be reasonably requested by the Company to enable the Company to comply with, the Responsible Procurement Policy.
- 27.3 The Supplier acknowledges and agrees that the Company is required to develop a policy relating to the promotion of the procurement of goods and services in an ethical manner (the “**Ethical Sourcing Policy**”) which shall reflect and be consistent with the relevant principles of the Responsible Procurement Policy, and the Supplier shall and shall procure that all of its subcontractors shall comply with such Ethical Sourcing Policy to the extent it does not conflict with the Responsible Procurement Policy.
- 27.4 The Supplier acknowledges and agrees that it (and its subcontractors) shall be required to comply with any changes to the Responsible Procurement Policy (and any adjustment or amendment to the Ethical Sourcing Policy as a result of such amendment or adjustment to the Responsible Procurement Policy).
- 27.5 The Supplier shall not be entitled to any addition to the Contract Price in the event of any change to the Responsible Procurement Policy (and any change to the Ethical Sourcing Policy as a result of such change to the Responsible Procurement Policy).
- 27.6 The Supplier shall procure that any subcontractor (of any tier) is required to comply with the provisions of this Clause 27 and the provisions of this Clause 27 are included in any subcontract (of any tier).
- 27.7 The Supplier shall not, and shall procure that any subcontractor shall not, without the prior written consent of the Company, vary or purport to vary the provisions contained in any contract or subcontract in accordance with the operation of this Clause 27.

28 Assignment and Subcontracting

28.1 Subcontracting

- 28.1.1 The Supplier may subcontract its obligations under this Contract either in whole or in part provided that:
- (a) the Supplier obtains the Company's prior written consent; and

- (b) the Supplier notifies the Company in writing of the name, contact details and details of the legal representatives of any subcontractors.

28.1.2 Unless the Company agrees otherwise in writing, the Supplier shall procure that each subcontractor duly executes and deliver to the Company, within fifteen (15) Working Days of the date of the relevant subcontract, a deed of warranty in the form set out at Schedule 9.

28.1.3 The Supplier will be fully responsible for any act, neglect, default or breach of this Contract by any subcontractor or supplier or the directors, agents, representatives or employees of the Supplier or of any of its subcontractors or suppliers as if such act, neglect, default or breach and been carried out by the Supplier.

28.1.4 The Supplier will ensure that it includes in any subcontract provisions on substantially similar terms to Clause 9.

28.1.5 The Company 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 Company's exercise of its right under this Clause 28.1.5, the Company may request that the information provided by the Supplier under Clause 28.1.1(b) shall 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 Company:

- (a) shall require the Supplier to replace 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
- (b) may require the Supplier to replace any subcontract 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.

28.2 Assignment

28.2.1 Without prejudice to Clause 28.1, the Supplier shall not assign (whether absolutely or by way of security and whether in whole or in part), novate, transfer, mortgage, charge, declare itself a trustee for a third party of, or otherwise dispose of (in any manner whatsoever) its rights and/or obligations under this Contract without the prior written consent of the Company.

28.2.2 The Company may novate, assign, transfer or subcontract the Contract or any part thereof to any person at any time without the consent of the Supplier, provided the Company has given prior written notice to the Supplier.

- 28.2.3 Within seven (7) days of any written request by the Company to the Supplier, the Supplier shall execute a deed of novation in the form set out in Schedule 7 in favour of any person to whom the Contract is being novated.

29 **Company's and Supplier's Representative**

Each party shall appoint one or more representatives to act on its behalf under the Contract. Each party shall advise the other party, in writing, of the names and contact details of its representatives and these shall be recorded in Schedule 1. The Supplier shall not appoint such a representative without the prior written consent of the Company (which consent shall not be unreasonably withheld). Any party may, on giving reasonable notice to the other party, appoint an additional representative or replace an existing representative but the Supplier may only do so with the prior written consent of the Company. Each party shall be responsible for the acts, omissions, neglects and defaults of its representatives as if such acts, omissions, neglects and defaults were its own. Each party will be bound by any decision made or action taken by its representatives.

30 **Costs**

Except as otherwise agreed, each party shall bear its own costs incurred in connection with the negotiation, preparation and execution of the Contract.

31 **Severance**

If a provision of the Contract is, or becomes, invalid, unenforceable or illegal, that will not affect the legality, validity or enforceability of any other provision of the Contract, provided that the operation of this Clause 31 would not negate the commercial interest and purpose of the parties under the Contract.

32 **Publicity**

The text of any press release or other communication to be published by or in the media concerning the subject matter of the Contract shall require the prior written approval of the Company. No interviews concerning the same shall be given by the Supplier with the media without prior written approval from the Company of the content of such an interview.

33 **Corrupt Gifts and Payments of Commission**

- 33.1 The Supplier undertakes that it shall not and procures that its subcontractors and suppliers shall not enter into or offer to enter into any business arrangement with any servant, employee, officer or agent of the Company other than as a representative of the Company without the Company's prior written approval.

33.2 The Supplier undertakes that it shall not, and uses reasonable endeavours to procure that its subcontractors and suppliers shall not commit any Prohibited Acts or cause the Company to commit any equivalent act.

33.3 The Company shall have the right to audit any and all records necessary to confirm compliance with this Clause 33 at any time during performance of this Contract and during the twelve (12) year period following completion of performance.

34 **No Waiver**

34.1 No failure or delay on the part of either party to exercise any right or remedy under the Contract shall be construed or operate as a waiver thereof nor shall any single or partial exercise of any right or remedy as the case may be. The rights and remedies provided in the Contract are cumulative and are not exclusive of any rights or remedies provided by law.

34.2 No payment made by the Company shall indicate or be taken to indicate the Company's acceptance or approval of any part of the Goods or any act or omission of the Supplier from any obligation or liability imposed upon the Supplier by any provision of the Contract or otherwise.

35 **Entire Contract**

The Contract embodies and sets forth the entire contract and understanding of the parties and shall supersede all prior oral or written contracts understandings or arrangements relating to the subject matter of the Contract. Except in the case of fraud neither party shall be entitled to rely on any contract, understanding or arrangement which is not expressly set forth in the Contract.

36 **Notices and Service of Process**

36.1 Any notice or other document given under, or in connection with, the Contract must be in English and in writing and sent by letter or fax or delivered by hand to the other party's representatives in each case to the address below. The notice or other document will be effective as follows:

- (a) if the notice or other document is sent by letter, it will be effective when it is delivered;
- (b) if the notice or other document is sent by fax, it will be effective when it has been transmitted and the transmission report from the fax machine states that the entire fax has been sent successfully; and
- (c) if the notice or other document is delivered by hand to the other party's representative, it will be effective immediately it is delivered.

The address and fax numbers of the Company and the Supplier are set out in Schedule 1.

If a party's details change, it must notify the other party promptly in writing of any such changes. The parties agree that proceedings arising out of or in connection with the Contract may be served in accordance with this Clause 36.1.

37 **Dispute Resolution**

- 37.1 Any question, dispute, difference or claim (a “**Dispute**”) shall be resolved in accordance with this Clause 37.
- 37.2 The parties shall use their reasonable endeavours to resolve any Dispute by a meeting between the Company's Representative and the Supplier's Representative (together the “**Nominated Representatives**”) which shall be convened to discuss such Dispute within fourteen (14) days of notification in writing by one party to the other of a matter in dispute.
- 37.3 If the Dispute has not been resolved within twenty-eight (28) days after the date of a meeting between the Nominated Representatives in accordance with Clause 37.2 (or if no such meeting was convened within twenty-eight (28) days after the date on which notification was served by one party on the other), the Dispute shall be referred as soon as practicable to the Company's Contracts and Procurement Manager and the Supplier's Managing Director or in the absence or unavailability of these personnel, persons of similar status deputed to resolve disputes on behalf of their respective companies.
- 37.4 If the Dispute has not been resolved within twenty-one (21) days of it being referred to the Company's Contracts and Procurement Manager and the Supplier's Managing Director or their deputies in accordance with Clause 37.3 either party may refer the matter for resolution in accordance with the provisions of Clause 38.
- 37.5 Not used.

38 **Governing Law and Jurisdiction**

- 38.1 This Contract and any dispute or claim arising out of or in connection with it or its subject matter shall be governed by and construed in accordance with the law of England and Wales.
- 38.2 The Company and the Supplier submit, subject to the provisions of this Contract, to the exclusive jurisdiction of the courts of England and Wales provided that the Company has the right in its absolute discretion to enforce a judgement and/or to take proceedings in any other jurisdiction in which the Supplier is incorporated or in which any asset of the Supplier may be situated.

39 **Counterparts**

This Contract may be executed in several counterparts each of which shall be deemed an original and all of which shall constitute one and the same document.

40 **Contracts (Rights of Third Parties) Act 1999**

40.1 No person except any member of the TfL Group may enforce the Contract by virtue of the Contracts (Rights of Third Parties) Act 1999, but this does not affect any other right or remedy of a third party arising at law.

40.2 Notwithstanding those rights referred to above in Clause 40.1, the Company and the Supplier may agree to vary or rescind the Contract without the consent of any third party.

41 **Not Used**

41.1

42 **Not Used**

42.1

43 **Change of Control**

The Supplier shall notify the Company within 30 days of any change of ownership of the Supplier where such change relates to fifty per cent (50%) or more of the issued share capital of the Supplier.

44 **Interest**

44.1 If either party fails to pay to the other any amount payable in connection with the Contract on or before the due date for payment, interest shall accrue on the overdue amount from the due date for payment until the date of actual payment (whether before or after judgment) at the interest rate specified in the Late Payment of Commercial Debts (Interest) Act 1998. Any interest accruing under this Clause 44.1 shall be immediately payable by the paying party on demand.

44.2 Interest (if unpaid) arising on an overdue amount will be compounded monthly with the overdue amount but will remain immediately due and payable.

45 **Freedom of Information**

45.1 For the purposes of this Clause 45.1:

“**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 for Constitutional Affairs, or the Department for Environment Food and

Rural Affairs (including in each case its successors or assigns) in relation to such legislation.

“Information” means information recorded in any form held by the Company or by the Supplier on behalf of the Company.

“Information Request” means a request for any Information under the FOI Legislation.

45.2 The Supplier acknowledges that the Company:

- (a) is subject to the FOI Legislation and agrees to assist and co-operate with the Company to enable the Company to comply with its obligations under the FOI Legislation; and
- (b) may be obliged under the FOI Legislation to disclose Information without consulting or obtaining consent from the Supplier.

45.3 Without prejudice to the generality of Clause 45.2 the Supplier shall and shall procure that its subcontractors (if any) shall:

- (a) transfer to the Company's Representative (or such other person as may be notified by the Company to the Supplier) each Information Request relevant to the Contract, the supply of Goods or any member of the TfL Group that it or they (as the case may be) receive as soon as practicable and in any event within two (2) Working Days of receiving such Information Request; and
- (b) in relation to Information held by the Supplier on behalf of the Company, provide the Company with details about and/or copies of all such Information that the Company requests and such details and/or copies shall be provided within five (5) Working Days of a request from the Company (or such other period as the Company may reasonably specify), and in such forms as the Company may reasonably specify.

45.4 The Company shall be responsible for determining whether Information is exempt information under the FOI Legislation and for determining what Information will be disclosed in response to an Information Request in accordance with the FOI Legislation. The Supplier shall not itself respond to any person making an Information Request, save to acknowledge receipt, unless expressly authorised to do so by the Company.

46 **Data Transparency**

46.1 The Supplier acknowledges that the Company is subject to the Transparency Commitment. Accordingly, notwithstanding Clause 25 and Clause 45, the Supplier hereby gives its consent for the Company to publish the Contract Information to the general public.

- 46.2 The Company 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 Company may take account of the exemptions/exceptions that would be available in relation to information requested under the FOI Legislation. The Company may in its absolute discretion consult with the Supplier regarding any redactions to the Contract Information to be published pursuant to Clause 46.1. The Company shall make the final decision regarding publication and/or redaction of the Contract Information.

47 **Survival**

The provisions of Clauses 1 (Definitions and Interpretation), 5 (Records and Audit), 9.7 (Set-Off), 11 (Failure to Supply), Clause 15 (Warranty), 16 (Intellectual Property Rights), 17 (Termination), 19 (Indemnity and Insurance), 25 (Confidentiality), 27 (Responsible Procurement), 31 (Severance), 32 (Publicity), 33 (Corrupt Gifts and Payments of Commission), 34 (No Waiver), 35 (Entire Contract), 36 (Notices and Service of Process), 37 (Dispute Resolution), 38 (Governing Law and Jurisdiction), 40 (Contracts (Rights of Third Parties) Act 1999), 45 (Freedom of Information), 46 (Data Transparency), 47 (Survival), 48.1 and 48.5 (Transport for London Group) will survive the termination or expiry of this Contract and continue in full force and effect, along with any other Clauses or Schedules of this Contract necessary to give effect to them. In addition, any other provision of this Contract which by its nature or implication (including in respect of any accrued rights and liabilities) is required to survive the termination will survive such termination as aforesaid.

48 **Transport for London Group**

48.1 **Declaration of Ineffectiveness**

- (a) Without prejudice to the Company's right to terminate the Contract under Clause 17.1, Clause 17.2(a) or at common law, the Company may terminate the Contract at any time in the event that:

- (i) there is a Declaration of Ineffectiveness; or
- (ii) a Public Procurement Termination Event occurs (without prejudice to the Company's rights of termination implied into this Contract by Regulations 73(3) of the Public Contracts Regulations 2015),

in accordance with the provisions of this Clause 48.1.

- (b) In the event that any court makes a Declaration of Ineffectiveness or a Public Procurement Termination Event occurs, the Company shall notify the Supplier. The parties agree that the provisions of this Clause 48.1 shall apply as from the date of receipt by the Supplier of the notification of a Declaration of Ineffectiveness or Public

Procurement Termination Event (as applicable). Where there is any conflict or discrepancy between the provisions of Clause 17.1 and this Clause 48.1 or the Cessation Plan, the provisions of this Clause 48.1 and the Cessation Plan prevail.

- (c) The Declaration of Ineffectiveness or Public Procurement Termination Event (as applicable) shall 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 (as applicable).
- (d) As from the date of receipt by the Supplier of the notification of the Declaration of Ineffectiveness or Public Procurement Termination Event (as applicable), the parties (acting reasonably and in good faith) shall agree or, in the absence of such agreement, the Company shall reasonably determine an appropriate Cessation Plan with the object of achieving:
 - (i) an orderly and efficient cessation of the supply of Goods or (at the Company's request) a transition of the supply of Goods to the Company or such other entity as the Company may specify; and
 - (ii) minimal disruption or inconvenience to the Company or to public passenger transport services or facilities, in accordance with the provisions of this Clause 48.1 and to give effect to the terms of the Declaration of Ineffectiveness (if applicable).
- (e) Upon agreement, or determination by the Company of the Cessation Plan the parties shall comply with their respective obligations under the Cessation Plan.
- (f) The Company shall pay the Supplier's reasonable costs in assisting the Company in preparing, agreeing and complying with the Cessation Plan. Such costs shall be based on any comparable costs or charges agreed as part of the Contract or as otherwise reasonably determined by the Company. Provided that the Company shall not be liable to the Supplier for any loss of profit, revenue goodwill or loss of opportunity as a result of the early termination of the Contract in accordance with this Clause 48.1.

48.2 Crime and Disorder Act 1998

The Supplier acknowledges that the Company is under a duty under Section 17 of the Crime and Disorder Act 1998 (as amended by the Police and Justice Act 2006 and the Policing and Crime Act 2009) to:

- (a) have due regard to the impact of crime, disorder and community safety in the exercise of the Company'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 Company, 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 the Contract, the Supplier shall assist and co-operate with the Company and relevant members of the TfL Group and shall use reasonable endeavours to procure that its subcontractors assist and co-operate, with the Company and relevant members of the TfL Group to enable the Company to satisfy its duty.

48.3 **The Company's business**

The Supplier acknowledges that it:

- (a) has sufficient information about the Company and the supply of Goods;
- (b) is aware of the Company's processes and business;
- (c) has made all appropriate and necessary enquiries to enable it to carry out the supply of Goods in accordance with the Contract;
- (d) is aware of the purposes for which the supply of Goods are required; and
- (e) shall neither be entitled to any additional payment nor excused from any obligation or liability under the Contract due to any misinterpretation or misunderstanding by it of any fact relating to the supply of Goods.

48.4 **Best value**

The Supplier acknowledges that the Company is a best value authority for the purposes of the Local Government Act 1999 and as such the Company is required to make arrangements to secure continuous improvement in the way it exercises its functions, having regard to a combination of economy, efficiency and effectiveness. The Supplier shall assist the Company to discharge the Company's duty where possible, and in doing so, shall carry out any review of the supply of Goods reasonably requested by the Company from time to time. The Supplier shall

negotiate in good faith (acting reasonably) with the Company any changes to the Contract in order for the Company to achieve best value.

48.5 Data Protection

- (a) The Supplier shall comply with all of its obligations under the Data Protection Act 1998 and if processing personal data (as such terms are defined in section 1(1) of that Act) on behalf of the Company ("**Company Personal Data**"), the Supplier shall only carry out such processing in order to carry out the supply of Goods and at all times in accordance with any instructions from the Company.
- (b) When the Supplier receives a written request from the Company for information about, or a copy of, Company Personal Data, the Supplier shall supply such information or data to the Company 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 Company shall supply the information or data within fourteen (14) days from the date of the request.
- (c) The Company shall remain solely responsible for determining the purposes and manner in which Company Personal Data is to be processed. The Supplier shall not share any Company Personal Data with any subcontractor or third party unless there is a written agreement in place which requires the subcontractor or third party to:
 - (i) only process Company Personal Data in accordance with the Company's instructions to the Supplier; and
 - (ii) comply with the same data protection requirements that the Supplier is required to comply with under the Contract.

48.6 Conflict of Interest

- (a) The Supplier 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 carrying out of the supply of Goods or with any member of the TfL Group, save to the extent fully disclosed to and approved in writing by the Company.
- (b) The Supplier shall undertake ongoing and regular checks for any conflict of interest throughout the duration of the Contract and in any event not less than once in every six (6) months and shall notify the Company in writing immediately on becoming aware of any actual or potential conflict of interest with the carrying out of the supply of Goods under the Contract or with any member of the TfL Group and shall work with the Company to do whatever is necessary (including the separation of staff working on, and data relating to, the supply of Goods from the matter in question) to manage such conflict

to the Company's satisfaction, provided that, where the Company is not so satisfied (in its absolute discretion) it shall be entitled to terminate the Contract.

48.7 **Equality and Diversity**

48.7.1 Without limiting the generality of any other provision of the Contract, the Supplier:

- (a) shall not unlawfully discriminate;
- (b) shall procure that its employees and agents do not unlawfully discriminate; and
- (c) shall use reasonable endeavours to procure that its subcontractors do not unlawfully discriminate when providing the Supply,

within the meaning and scope of the Equality Act 2006, the Equality Act 2010 and any other relevant enactments in force from time to time in relation to discrimination in employment.

48.7.2 The Supplier acknowledges that the Company is under a duty under section 149 of the Equality Act 2010 to have due regard to the need to:

- (a) eliminate unlawful discrimination on the grounds of age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation (all "**Protected Characteristics**") and marriage and civil partnership;
- (b) advance equality of opportunity between persons who share a Protected Characteristic and persons who do not share it; and
- (c) foster good relations between persons who share a Protected Characteristic and persons who do not.

In performing the Contract the Supplier shall assist and cooperate with the Company where possible in satisfying this duty.

48.7.3 The Supplier shall ensure that its staff, and those of its subcontractors who are engaged in the performance of the Contract comply with the Company's policies in relation to equal opportunities and diversity, workplace harassment and drugs and alcohol as may be updated from time to time. Copies of these policies are available from the Company at any time on request.

48.7.4 To the extent that the Company is required to assist or co-operate with the Company in compliance with its duties under the Equality Act 2010 (Specific Duties) Regulations 2011, the Supplier shall assist and co-operate with the Company where possible.

48.8 **Work Related Road Risk**

48.8.1 For the purposes of Clauses 48.8.2 to 48.8.9 (inclusive) of this Contract, the following expressions shall have the following meanings:

“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
“Car-derived Vans”	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 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 Supplier (including an agency driver), who operates Delivery and Servicing Vehicles on behalf of the Supplier while delivering the Goods;
“DVLA”	Driver and Vehicle Licensing Agency;
“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
“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

“Lorry”	a vehicle with an MAM exceeding 3,500 kilograms;
“MAM”	the maximum authorised mass of a vehicle or trailer including the maximum load that can be carried safely while used on the road;
“Side Guards”	guards that are fitted between the front and rear axles of a Lorry and that comply with EC Directive 89/297/EEC and the Road Vehicles (Construction and Use) Regulations 1986;
“Silver Accreditation”	the intermediate level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk
“Van”	a vehicle with a MAM not exceeding 3,500 kilograms.

Fleet Operator Recognition Scheme Accreditation

48.8.2 Where the Supplier operates Delivery and Servicing Vehicles to provide the Goods, it shall within 90 days of the Commencement Date:

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

Safety Equipment on Vehicles

48.8.3 The Supplier shall ensure that every Lorry, which it uses to provide the Goods, shall:

- (a) have Side Guards, unless the Supplier can demonstrate to the reasonable satisfaction of the Company that the Lorry will not perform the function for which it was built if Side Guards are fitted;
- (b) have front, side and rear blind spots completely eliminated or minimised as far as practical and possible, through the use of fully operational direct and indirect vision aids and driver audible alerts;
- (c) have equipment fitted with an audible means of warning other road users of the Lorry's left manoeuvre; and
- (d) have prominent signage on the Lorry to warn cyclists and other road users of the dangers of passing the Lorry on the inside and of getting too close to the Lorry.

Driver Licence Checks

48.8.4 Where the Supplier operates Delivery and Servicing Vehicles to provide the Goods, the Supplier shall ensure that:

- (a) it has a system in place to ensure all its 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 licence; and
- (b) each of its Drivers engaged in the provision of the Goods has a driving licence check with the DVLA or such equivalent before that Driver commences delivery of the Goods 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 Supplier's risk scale, provided that the Supplier's risk scale has been Approved in writing by the Company within the last 12 months:
 - (i) 0 – 3 points on the driving licence – annual checks;
 - (ii) 4 – 8 points on the driving licence – six monthly checks;
 - (iii) 9 – 11 points on the driving licence – quarterly checks; or
 - (iv) 12 or more points on the driving licence – monthly checks.

Driver Training

48.8.5 Where the Supplier operates Delivery and Servicing Vehicles to supply the Goods the Supplier shall ensure that each of its Drivers undergo approved progressive training (to include a mix of

theoretical, e-learning, practical and on the job training) and continued professional development to include training covering the safety of vulnerable road users and on-cycle hazard awareness, throughout the term of the Contract.

Collision Reporting

- 48.8.6 Where the Supplier operates Delivery and Servicing Vehicles to supply the Goods, the Supplier shall:
- (a) ensure that it 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
 - (b) within 15 days of the Commencement Date, provide to the Company a Collision Report. The Supplier shall provide to the Company an updated Collision Report within five working days of a written request from the Company.

Self Certification of Compliance

- 48.8.7 Where the Supplier operates Delivery and Servicing Vehicles to supply the Goods, within 90 days of the Commencement Date, the Supplier shall make a written report to the Company detailing its compliance with Clauses 48.8.3, 48.8.4 and 48.8.5 of this Contract (the "WRRR Self-certification Report"). The Supplier shall provide updates of the WRRR Self-certification Report to the Company on each three month anniversary of its submission of the initial WRRR Self-certification Report.

Obligations of the Supplier Regarding Subcontractors

- 48.8.8 The Supplier shall ensure that those of its subcontractors who operate Delivery and Servicing Vehicles to supply the Goods shall:
- (a) comply with Clause 48.8.2; and
 - (b) where its subcontractors operate the following vehicles to supply the Goods shall comply with the corresponding provisions of this Contract:
 - (i) For Lorries – Clauses 48.8.3, 48.8.4, 48.8.5 and 48.8.6; and
 - (ii) For Vans – Clauses 48.8.4, 48.8.5 and 48.8.6,
- as if those subcontractors were a party to this Contract.

Failure to Comply with Work Related Road Risk Obligations

48.8.9 Without limiting the effect of any other clause of this Contract relating to termination, if the Supplier fails to comply with any of Clauses 48.8.2, 48.8.3, 48.8.4, 48.8.5, 48.8.6, 48.8.7 and/or 48.8.8:

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

49 **CompeteFor**

49.1 Without prejudice to Clause 28, the Supplier will, on a non-exclusive basis, use the CompeteFor electronic brokerage service (or such alternative web-based tool as the Company may direct from time to time) ("**CompeteFor**") to make available to other suppliers all appropriate opportunities, arising in connection with the Contract, to supply goods, works or services to the Supplier.

49.2 The Supplier will use all reasonable endeavours to ensure that its subcontractors (for the purposes of this Clause, the "**Supplier's Subcontractors**") use CompeteFor, on a non-exclusive basis, to make available to other subcontractors all appropriate opportunities, arising in connection with the Contract, to supply goods, works and services to the Supplier's Subcontractors.

49.3 The Supplier will monitor (and maintain a record of) the number, type and value of opportunities, arising in connection with the Contract, made available to other suppliers via CompeteFor, whether by the Supplier or the Supplier's Subcontractors, as required by this Clause 49.3, and will report this information on a quarterly basis by way of email to the Company's Representative.

50 **Criminal Record Declarations**

50.1 For the purposes of this Clause 50:

"**Relevant Individual**" means any servant, employee, officer, consultant or agent of either the Supplier or any subcontractor or supplier involved in the provision of , or intended to provision of, any aspect of the Goods; and

"**Relevant Conviction**" means any unspent criminal conviction relating to actual or potential acts of terrorism or acts which threaten national security.

50.2 The Supplier shall procure from each Relevant Individual (as the case may be) a declaration that he has no Relevant Convictions ("**Declaration**") or disclosure of any Relevant Convictions. A Declaration shall be procured prior to a Relevant Individual providing any of the Goods. The

Supplier shall confirm to the Company in writing on request or in any event not less than once in every year that each Relevant Individual has provided a Declaration. The Supplier shall procure that a Relevant Individual notifies the Supplier immediately if he commits a Relevant Conviction and the Supplier shall notify the Company in writing immediately on becoming aware that a Relevant Individual has committed a Relevant Conviction.

- 50.3 The Supplier shall not engage or allow to act on behalf of the Supplier or any subcontractor in the performance of any aspect of the Goods any Relevant Individual who has disclosed a Relevant Conviction.
- 50.4 The Company shall have the right in accordance with the audit rights set out in Clause 4 to audit and inspect the records of the Supplier and its subcontractors and its and their respective employees and agents in order to confirm and monitor compliance with this Clause 50 at any time during performance of this Contract.
- 50.5 If the Supplier fails to comply with the requirements under Clauses 50.2 and/or 50.3 the Company may, without prejudice to its rights under Clause 17.1, serve notice on the Supplier requiring the Supplier to remove or procure the removal of (as the case may be) any Relevant Individual who has not provided a Declaration from the Contract and/or Company's site with immediate effect and take such steps as are necessary to ensure that such Relevant Individual has no further involvement with the provision of the Goods unless (in the case of non-compliance with Clause 50.2) within seven (7) days of receipt of the notice the Supplier confirms to the Company that he has procured all of the relevant Declarations required under Clause 50.2.
- 50.6 A persistent breach of Clause 50.2 and/or Clause 50.3 by the Supplier shall entitle the Company to terminate the Contract in whole or in part with immediate effect in accordance with Clause 17.1(a).
- 50.7 In the event the Company becomes aware that a Relevant Individual has committed a Relevant Conviction, the Supplier shall remove or procure the removal (as the case may be) of such Relevant Individual from the Contract and/or the Company's site with immediate effect and take such steps as are necessary to ensure that such Relevant Individual has no further involvement with the provision of the Goods.
- 50.8 Nothing in this Clause 50 shall in any way waive, limit or amend any obligation of the Supplier to the Company arising under the Contract and the Supplier's responsibilities in respect of the provision of the Goods remain in full force and effect and the Supplier cannot claim any extra costs or time as a result of any actions under this Clause 50.

Schedule 1

Detailed Terms

Commencement Date	Date of this Contract (being the date entered on the Front Page of this contract)
Expected Delivery Date(s)	(Key Date 1) Dummy unit 15 January 2018 (Key Date 2) Final Equipment Delivery 02 April 2018
Delivery Address	To be agreed between the Company and the Supplier, but shall be within the EU.
Supplier's Representative: Address for service of notices: Telephone: Email:	Attention: [REDACTED] Email: [REDACTED] Address: DMA S.r.l Via Andorno 22, Torino I-10153 Italy
Company's Representative: Address for service of notices: Telephone: Email	Attention: [REDACTED] Email: [REDACTED] Address: 29 th Floor - Crossrail Ltd 25 Canada Square Canary Wharf London E14 5LQ
Quantity	1 (one)
Contract Price	Please refer to Schedule 2
Warranty Period	For each item of Goods, the period from the date that the Delivery Note for such Goods is counter-signed by the Company until the date falling 104 weeks after the date of counter-signature of the Delivery Note for such Goods.
<i>Additional applicable standards</i>	ASSURANCE SCHEDULE 3A of Schedule 3
Term	The end date of this contract shall be 02 April 2020, this being 104 weeks (the Warranty Period) after the expected delivery date of the Goods.. Note that the Company intends to enter into a separate

	Service Contract with the Supplier for the provision of ongoing support to cover the useful life of the equipment.
Initial Period	Not used
If a programme is not included in Schedule 5, the Supplier must submit the programme under Clause 4.1.1 within this many day of the date of this Contract:	Two (2) weeks from the Commencement Date
The other information which the Specification requires the Supplier to show on the Contract Programme is:	Such information detailed in Appendix 1 to this Schedule 1
Under Clause 4.2 the programme must be in the following form:	Primavera P6 (version 6.2.1 or later) or MS Project (2010 onwards), or such other form as may be reasonably required by the Company. The programme must also be provided in PdF format.
Security required pursuant to Clause 42:	Bond is not required
Bond	.
Parent company guarantee	Parent Company Guarantee is not required
The Liquidated Damages for delay for the purpose of Clause 10.2.3 payable for such Goods (expressed as a percentage of the contract price) is:	████ per week but up to a limit of █████ of the Contract Price in aggregate
The period of delay over which the Liquidated Damages shall be calculated for the purpose of 10.2.3 is every	[Week]

Appendix 1: Contract Programme Information Requirements

The Contract Programme must include the following activities and milestones:

- (a) ***As defined in Clause 4.1.1 of this Contract.***
- (b) Any other activities and milestones as agreed between the Company and the Supplier

Schedule 2 Prices

Contract Price

The Contract Price is a Fixed Price and consists of the elements in the table below:

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
Total Manufacture Supply	£ 539,088

The following provides a breakdown of the Fixed Price elements:

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

Spares

The following is a list of recommended spares and associated prices. These are excluded from the Contract Price. If the Company chooses to purchase any spares via this Contract, then it shall issue an instruction in accordance with the Variation procedure (Schedule 4).

Item	Quantity (Recommended)	Rate (each)
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]
[REDACTED]	1	[REDACTED]

Additional Training

The rate for additional training shall be [REDACTED], being the rate for provision of a trainer. A minimum order of [REDACTED] is required per training booking.

Schedule 3

Specification

The Specification consists of the following documents:

1. TECHNICAL REQUIREMENTS SPECIFICATION
TRACK VISUAL DEFECT DETECTION SYSTEM
Document Number: CRL1-RFL-08-RSP-CR001-50004 v2.0 dated 14 November 2017
2. ASSURANCE SCHEDULE 3A



TECHNICAL REQUIREMENTS SPECIFICATION

TRACK VISUAL DEFECT DETECTION SYSTEM (LOT 2)

Document Number: CRL1-RFL-O8-RSP-CR001-50004

Document History:

Version:	0.1	1.0	2.0
Date	24 Mar 2017	21 Jun 2017	14 Nov 2017
Reason for Revision:	First draft	First Issue	Second Issue
Prepared by:	██████		
Checked by:	████████		
Approved by:	██████		
Authorised by:	██████		

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.

Change Summary

The following table summarises the changes to the requirements made since the ITT issue of this specification. New test is shown in **Blue**, deleted in **Red**

ID	Requirement Text	Supporting Information
TRS-VDR-11	The visual defect recognition system shall be designed to be installed on the vehicle underframe.	A sketch of the proposed mounting position can be seen in figure 1. Note the diagrams have changed
TRS-SII-87	The equipment and its mounting location shall not exceed the limits of W6a gauge defined in GE/RT8073.	Suspension movement, overthrow, wheel wear etc must be considered when sizing the equipment.
TRS-SII-50	Necessary information and support to demonstrate vehicle compliance to obtain Approval to Place into Service from the ORR, as well as compatibility with the Crossrail Central Operating Section Infrastructure shall be provided to the vehicle supplier and the nominated system integrator.	For example, information on EMC, materials, structural integrity will be required. For example, information on EMC, materials, structural integrity will be required. The System Integrator is required to follow the assurance process described in "Schedule 3A Assurance" and will require support from the equipment Supplier to complete this

Contents

1 INTRODUCTION	4
1.1 Purpose	4
1.2 Scope.....	4
1.3 Definitions	4
2 Interfacing Projects and Systems	5
2.1.1 Engineering Trains.....	5
2.1.2 Track	5
2.1.3 Civils.....	5
2.1.4 Ventilation & Fire	5
2.1.5 System Integrator	6
3 REQUIREMENTS	7
3.1 Physical Installation.....	7
3.2 Function.....	10
3.2.1 Plain Line Defects.....	10
3.2.2 Switch and Crossing Defects	12
3.3 Power.....	14
3.4 System Integration.....	14
3.4.1 Synchronisation	15
3.4.2 Tachometer	16
3.4.3 Speed Interlock.....	16
3.4.4 Emergency Stop Input	16
3.4.5 Control System	17
3.4.6 Fire and Materials	17
3.4.7 Internal Clock.....	17
3.4.8 Reliability, Availability and Maintainability	17
3.4.9 Electromagnetic Compatibility.....	18
3.4.10 Operations	18
3.4.11 Assurance.....	19
3.4.12 Assumptions	20

1 INTRODUCTION

This Technical Requirements Specification (TRS) has been developed to define the capabilities required of a Track Inspection System to be installed on the Crossrail Engineering Trains "Transport Wagon" capable of detecting defects normally found during manual Track Patrol inspections.

1.1 Purpose

The purpose of the TRS is to transform stakeholder requirements and interface constraints and combine them into functional and performance requirements against which the system must be designed and built.

Technical requirements define what the system must do in order to meet the capability and functionality required by the user(s) and business, but not the exact solution. The TRS defines the benchmark against which the solution will be verified.

The primary sources of requirements for the systems requirements are:

- User requirements from the Purchaser's Operational Concept for Works Trains;
- Interfaces to other Crossrail systems such as signalling, track and civils;
- Maintenance plans and standards for infrastructure systems;
- Specialist domain knowledge (RAM, system safety, Human Factors, EMC, fire protection etc.)

1.2 Scope

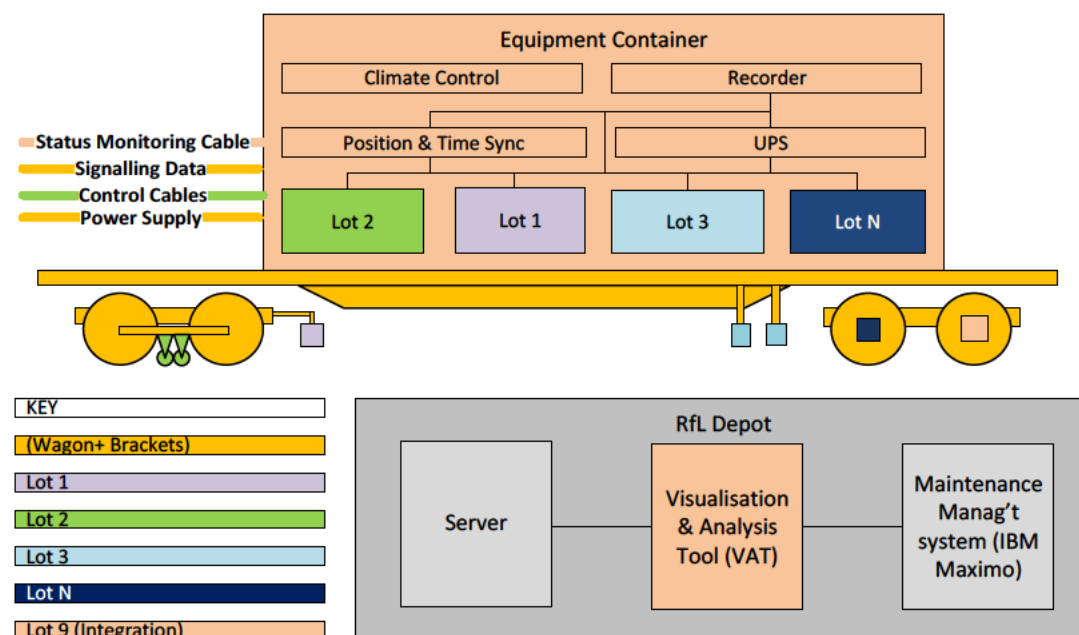
The scope of this TRS is limited to the Track Visual Defect Detection System and associated equipment, capable of detecting faults on plain line and switches and crossings traditionally detected using "Basic Visual Inspection" track patrols. The equipment is likely to consist of high resolution camera equipment and defect recognition software capable of recognising fault conditions based on comparison to known fault and non-fault conditions.

1.3 Definitions

Abbreviation/Acronym	Definition
Central Operating Section (COS)	The railway under management of Rail for London between Westbourne park in west London and Stratford and Abbey Wood in the east.
ERTMS	European Rail Traffic Management System
ETCS	European Train Control System
EMC	Electromagnetic Compatibility
RAM	Reliability, Availability, Maintainability
RfL	Rail for London (Infrastructure Manager for Crossrail)
RIS	Rail Industry Standard
TRS	Technical Requirements Specification
UPS	Uninterruptable Power Supply

2 Interfacing Projects and Systems

There are multiple complex interfaces involved with infrastructure monitoring equipment. A scope diagram and descriptions of the major interfaces is below.



Note that equipment locations and sizes are indicative. Feasibility has been undertaken to install equipment at the locations shown, reflected in the physical installation requirements, but alternative proposals can be considered. However, the right to reject any proposals where they are felt to require unreasonable modification is reserved.

2.1.1 Engineering Trains

The equipment will be installed on the "Transport Wagon" as part of the Crossrail Engineering Trains, indicated in yellow above. Space has been reserved in various locations on the vehicle to allow for equipment to be installed in the areas that are typically required for track monitoring equipment. The physical size and weight constraints for the particular piece of equipment are listed in the requirements.

2.1.2 Track

The track is the primary asset being monitored. There are two types of rail installed on Crossrail, on multiple track types, with different types of fastener.

2.1.3 Civils

The major interface to civil infrastructure is to maintain passing clearance by staying within the W6a and Crossrail gauge profiles. If the equipment provided complies with the requirements related to available space, this requirement will be demonstrated by the vehicle manufacturer as part of the vehicle approvals process.

2.1.4 Ventilation & Fire

Operating primarily in a tunnel environment, fire risks must be controlled. As a minimum, materials used must comply with the Euro Norm for fire materials, EN 45545-2.

2.1.5 System Integrator

A System Integrator will be appointed to provide a control container to be installed on the vehicle deck, provide power for the equipment and the common elements required by many of the individual systems, including the following:

2.1.5.1 Synchronisation

The monitoring equipment will be required to record a synchronisation signal along with the recorded data to enable data comparison and fault diagnosis using multiple data streams.

2.1.5.2 Power

Power will be provided from the power cars hauling the transport wagon and is limited. A UPS will be provided for vital systems, less reliable supplies will be provided for equipment that does not require the UPS supply.

2.1.5.3 Recording Equipment

A separate recording and positioning system will be provided to store all data in the same place, with a centralised positioning system. To enable this, data must be exported from the system in real time (or close to) to allow the data logger to record and tag the data with the relevant metadata, such that data removal is simplified once the inspection is completed.

2.1.5.4 Tachometer

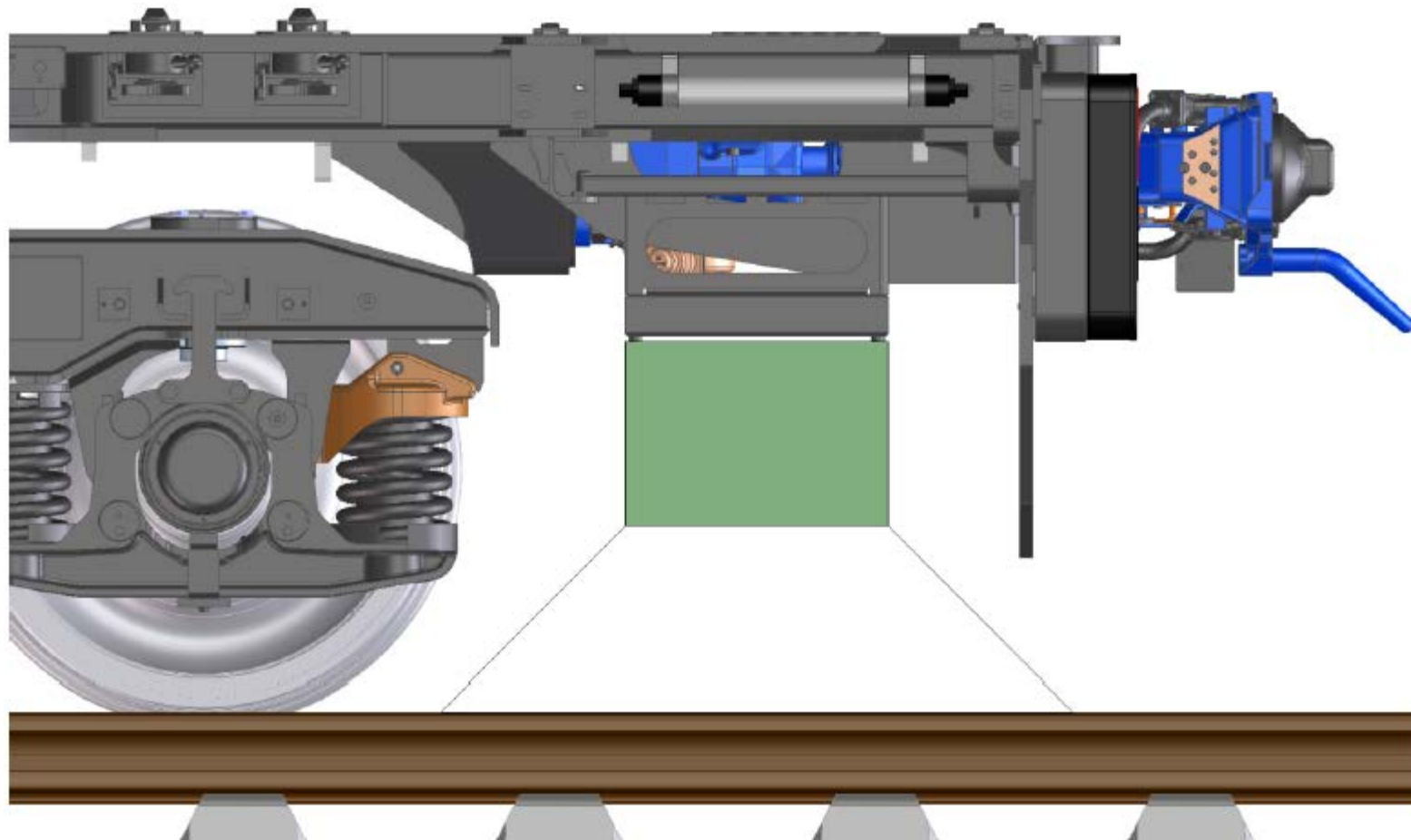
A centralised tachometer system will be provided by the system integrator to provide a tachometer signal to all equipment. The measurement equipment, where a tachometer is needed, will be required to use the centralised system rather than an individual system.

2.1.5.5 System Control

A centralised control system will be provided by the system Integrator. Each piece of recording equipment will be required to interface to the system to enable it to be switched on/off in a safe controlled manner (including emergency stop function) and to provide diagnostics to allow the equipment status to be checked centrally.

3 REQUIREMENTS

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-VDR-10	3.1 Physical Installation			
TRS-VDR-11	The visual defect recognition system shall be designed to be installed on the vehicle underframe.	A sketch of the mounting position can be seen in figure 1.		



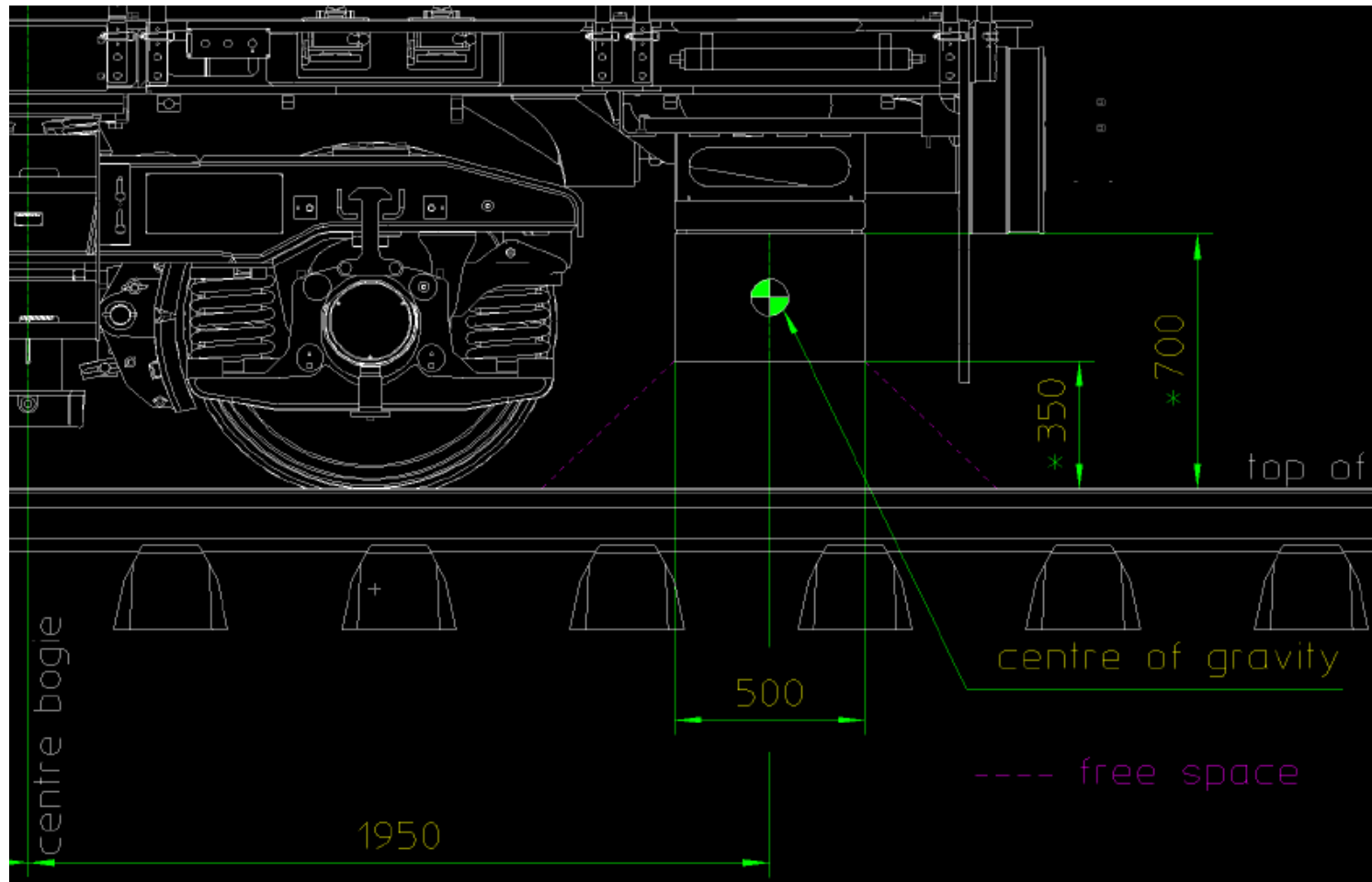


Figure 1: Mounting Location

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-VDR-12	The visual defect recognition system shall be capable of operating on curves generating an equipment overthrow of 70mm.			
TRS-VDR-13	The visual defect recognition system components installed on the underframe shall have a total mass capable of being supported by the mounting beam.	A total mass of 200kg can be supported by the carrier vehicle.		
TRS-VDR-42	The equipment not required to be mounted on the underframe shall minimise the space required within the equipment container mounted on the deck.	Approximately 45 U of 19" rack space are available for this system.		
TRS-VDR-2	3.2 Function			
TRS-VDR-57	3.2.1 Plain Line Defects			
TRS-VDR-14	The monitoring systems shall be capable of detecting and reporting a missing rail clip.	Rail clips on Crossrail consist of the following types: Vossloh W14 (SkI14) and W21 (SkI21), SkI12 and skI19 clips Pandrol PR clip, e-clip, ePlus and Fastclip.	C610-ATC-R4-RGN-CRG03-50004 v3.0 FMECA-019, 028, 034	
TRS-VDR-15	Monitoring systems shall be capable of detecting a loose rail clip screw/nut/bolt.	Vossloh clips are secured using a centre screw.	C610-ATC-R4-RGN-CRG03-50004 v3.0 FMECA-019, 028, 034	

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-VDR-16	Monitoring systems shall be capable of detecting a cracked rail clip.	Rail clips on Crossrail consist of the following types: Vossloh W14 (SkI14) and W21 (SkI21), Pandrol PR clip, e-clip, ePlus and Fastclip.	C610-ATC-R4-RGN-CRG03-50004 v3.0 FMECA-019, 028, 034	
TRS-VDR-59	Monitoring systems shall be capable of detecting a damaged baseplate.	RF195 (four hole) and RF196 (two hole)		
TRS-VDR-17	Monitoring systems shall be capable of monitoring and reporting the condition of the derailment containment fixings.			
TRS-VDR-18	The monitoring systems shall be capable of detecting obstacles or gaps in walkway crossings.	For example, obstructions which could affect safety of the line or the integrity of the walkway.	C610-ATC-R4-RGN-CRG03-50004 v3.0 FMECA-023	
TRS-VDR-19	Monitoring systems shall be capable of detecting and reporting visual damage to the railhead or rail foot.	Such as squats, wheelburns, visual cracks, faulty welds, corrosion.	C610-ATC-R4-RGN-CRG03-50004 v3.0 FMECA-003/005/006	
TRS-VDR-20	Monitoring systems shall be capable of detecting and reporting disconnected assets.	Such as cross bonds, traction earthing, lubrication/friction modification blades.	C610-ATC-R4-RGN-CRG03-50004 v3.0 FMECA-015	
TRS-VDR-21	Monitoring systems shall be capable of detecting and reporting a failed fishplate.	such missing plates or bolts and cracks where possible.	C610-ATC-R4-RGN-CRG03-50004 v3.0 FMECA-016	

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-VDR-22	Monitoring systems shall be capable of detecting and reporting a broken or damaged sleeper or track slab.	Both twin block sateba sleepers and the high attenuation sleepers. Track slab within 100mm of the sleeper housings should be monitored.	C610-ATC-R4-RGN-CRG03-50004 v3.0 FMECA-025	
TRS-VDR-54	The monitoring system shall be capable of detecting damaged or broken sleeper ties.	Damage includes breaks, cracks, chips or distortion.		
TRS-VDR-55	The monitoring system shall be capable of detecting damaged or displaced drainage/inspection covers in the 4 foot	Drainage covers and Floating Track Slab inspection covers, GERB spring housings.		
TRS-VDR-29	Monitoring systems shall be configured to be unattended such that onboard human presence is not required during recording.			
TRS-VDR-58	3.2.2 Switch and Crossing Defects In addition to the defects listed above, the system shall be capable of detecting the following switch and crossing defects:			
TRS-VDR-61	Obstructions in check rail and between switch and stock rail.			
TRS-VDR-71	Obstructed slide chairs (on the closed switch).			

CRL1-RFL-O8-RSP-CR001-50004

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-VDR-63	Missing fastenings assemblies and shims from check rail brackets.			
TRS-VDR-64	Misaligned check rail brackets.			
TRS-VDR-65	Misalignment of 4ft supplementary drive or hydrive systems			
TRS-VDR-70	Missing IBAV or SSb fishtail fastening on slide baseplate			
TRS-VDR-66	Broken or misaligned slide baseplate			
TRS-VDR-67	Loose or missing bolts on stretcher bars or point operating equipment	such as supplementary drives and drive rods.		
TRS-VDR-68	Loose or missing bolts on stress transfer blocks and spacer blocks			
TRS-VDR-69	Cracked/missing/misaligned blocks and spacers			
TRS-VDR-72	Ball and claw touching			

CRL1-RFL-O8-RSP-CR001-50004

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-VDR-3	3.3 Power			
TRS-VDR-31	The systems shall minimise power consumption to a level that can be provided by the train power supply.	Approximately 5kW of continuous power is reserved for this system.		
TRS-VDR-52	Systems shall operate using 24d.c. power where practicable. Alternatively, 240V ac will also be available.			
TRS-VDR-53	Power supplies for the equipment shall be separated into the following categories: Volatile - where the equipment can operate with an inconsistent supply without adverse affect on the equipment (eg lighting) UPS - where constant supply is necessary for the safe, reliable and continued operation of the equipment.			

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-SII-4	3.4 System Integration			
TRS-SII-33	Data shall be provided in an open format, capable of being interpreted and analysed by third party systems.			

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-SII-34	Data shall be exported to an external onboard recording system during operation.	This does not need to be undertaken in real time, but in near real time to enable data to be stored in a single location at the point at which it is removed from the vehicle (approx one hour after completion of recording). The transfer must include a data integrity check to ensure all data is transferred.		
TRS-SII-80	The output data shall be capable of being reviewed without specialist post-processing from the supplier.			
TRS-SII-55	3.4.1 Synchronisation			
TRS-SII-35	All recording equipment shall be capable of receiving and recording an optical synchronisation input pulse to periodically synchronise data.	The exact format of the signal has yet to be determined. Each pulse will be unique to enable data to be synchronised manually in the event of temporary fault during operation.		To allow combinations of data streams to be used to diagnose faults.
TRS-SII-56	The synchronisation pulse shall be captured by the measurement equipment with sufficiently small time delay to enable the data to be synchronised to within +/-2cm of the vehicle location based on an operational speed of 80km/h.			

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-SII-71	The recording equipment shall record the local time at the moment each synchronisation pulse is received.			
TRS-SII-57	The time elapsed since the last synchronisation pulse shall be recorded for all measurements.			
TRS-SII-58	3.4.2 Tachometer			
TRS-SII-63	Where tachometer input is required, a signal from the centralised tachometer system shall be used.	A 3600 pulse system will be made available from the System Integrator, with the capability to count down to a lower count where preferred.		
TRS-SII-59	3.4.3 Speed Interlock			
TRS-SII-60	Equipment (such as class 3B laser and above) that must be switched off below certain operational speeds, shall operate only when the Speed Interlock signal is received from the Tachometer system.	The tachometer system provided by the System Integrator will be dual redundant. Full details to be developed during design.		To provide centralised control of speed interlock
TRS-SII-61	3.4.4 Emergency Stop Input			
TRS-SII-62	The monitoring systems shall provide a fail safe Emergency Stop input into their system which, when activated by the control system, shall make safe (eg remove power) to all systems.			To enable centralised emergency stop plungers to be provided.

CRL1-RFL-O8-RSP-CR001-50004

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-SII-66	3.4.5 Control System			
TRS-SII-67	The equipment shall provide the capability to be controlled and monitored by an external system.	A centralised system will control the power up and shutdown process, start/stop recording and additionally provide an overall health status update for all equipment.		
TRS-SII-5	3.4.6 Fire and Materials			
TRS-SII-38	All materials shall comply with EN 45545-2.			
TRS-SII-72	3.4.7 Internal Clock			
TRS-SII-73	The system internal clock shall be capable of synchronising to the control system clock to an accuracy of +/-1s.			
TRS-SII-81	3.4.8 Reliability, Availability and Maintainability			
TRS-SII-82	The equipment shall have a successful shift completion rate of 98%.	Success in this instance is defined as completion of the full planned shift with no loss of data or corruption.		
TRS-SII-83	The monitoring system shall identify incomplete recordings or corrupted data.			

CRL1-RFL-O8-RSP-CR001-50004

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-SII-84	The monitoring system shall, where identifying specific faults, report no more than 25% of the total number of faults as False Positive.	A False Positive is a reported fault, that under further investigation is found to be incorrect.		
TRS-SII-85	The system shall fail to detect no more than 1% of the total number of faults.			
TRS-SII-86	Maintenance regimes shall not prevent the equipment from operating at least once per week , 52 weeks per year.			
TRS-SII-68	3.4.9 Electromagnetic Compatibility			
TRS-SII-69	All equipment shall be compliant with the EMC directive 2014/30/EU and also compatible with the electromagnetic environment of the Crossrail Central Operating Section and any other routes over which the machine is expected to run, including the vehicle on which it is installed.			
TRS-SII-75	3.4.10 Operations			
TRS-SII-76	The system shall be capable of operating at a speed of 50 km/h (or 30mph) or above.			

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-SII-77	Monitoring systems shall be configured to be unattended such that onboard manual control/monitoring is not required during recording.			
TRS-SII-78	Systems shall be capable of operating within normal environmental conditions including wet or dry track and a temperature range of -10 to +50 degrees Celsius.			
TRS-SII-48	3.4.11 Assurance			
TRS-SII-49	Data recorded by the equipment shall be demonstrated to be sufficiently accurate and reliable for maintenance use in accordance with the RfL Product Acceptance Procedure "Engineering Acceptance of Train Mounted Inspection Equipment for Compliance Monitoring" RFLI-ENG-AS-STG-0001.			
TRS-SII-50	Necessary information and support to demonstrate vehicle compliance to obtain Approval to Place into Service from the ORR, as well as compatibility with the Crossrail Central Operating Section Infrastructure shall be provided to the vehicle supplier and the nominated system integrator.	For example, information on EMC, materials, structural integrity will be required. The System Integrator is required to follow the assurance process described in "Schedule 3A Assurance" and will require support from the equipment Supplier to complete this		

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-SII-70	All equipment shall be proven to be safe to mount to the vehicle in the given location and compliant with applicable standards.	eg demonstrate the equipment can withstand the inertial load values described in GMRT2100.		
TRS-SII-79	The exact means of attachment to the vehicle shall be specified.	For example, the size of the mounting plate, number and size of mounting bolts.		To enable the vehicle design to be completed.
TRS-SII-54	The equipment shall be capable of operating in traffic/running mode.	The vehicle will be operating during off-peak times to minimise the access required during engineering hours.	RfL Maintenance Strategy	
TRS-SII-87	The equipment and its mounting location shall not exceed the limits of W6a gauge defined in GE/RT8073.	Suspension movement, overthrow, wheel wear etc must be considered when sizing the equipment.		
TRS-SII-44	3.4.12 Assumptions			
TRS-SII-45	A clean container/equipment room module will be provided on the vehicle deck for the installation of recording/analysis equipment, with adequate climate control.			
TRS-SII-51	Cable routing from the container module to the modules will be undertaken by the system integrator. Any specific requirements for cable lengths, separation, connectors, bending radius etc should be made available to the integrator.			

ID	Requirement Text	Supporting Information	Source	Rationale
TRS-SII-53	Installation design and approvals necessary to enable the vehicle to operate with equipment isolated will be undertaken by the vehicle supplier.	This activity is reliant on the receipt of the necessary information relating to the equipment to inform the process.		

Schedule 3A

Assurance

Definitions

For the purposes of this Schedule 3A, the following words and expressions shall have the following meanings:

"ALARP" means "As Low as Reasonably Practicable" as described in the Health and Safety at Work etc. Act 1974;

"Assessment Body" means a competent external or internal individual, organisation or entity, separate and independent from the "design, risk assessment, risk management, manufacture, supply, installation, operation/use, servicing and maintenance" of the system under assessment, to check the application of the CSM risk management process by the proposer and the risk assessment results in order to form a judgement on whether the change management process and the safety requirements resulting from this process are appropriate and adequate for the planned significant change so that the system can satisfy those safety requirements as defined in "Regulation (EU) No 402/2013(1) on the common safety method for risk evaluation and assessment" or in the equivalent OTIF UTP GEN-G of 1.1.2014;

"Assurance Acceptance" means the review and approval given by the Purchaser in accordance with the procedure described in paragraph 1 of this Schedule 3A and "Assurance Accept" and "Assurance Accepted" shall be construed accordingly;

"Assurance Period" means the period commencing from the date on which the Purchaser receives the submission of certain information, drawings and/or documents from the Manufacturer for Assurance Acceptance pursuant to paragraph 1.5 of this Schedule 3A, until such date that the Purchaser notifies the Manufacturer conclusively that such information, drawings and/or documents have been Assurance Accepted;

"Central Operating Section" means the Crossrail central operating section, being the railway infrastructure between Royal Oak Boundary in the west of London and Pudding Mill Lane in the east of London and Abbey Wood sidings in the south east of London;

"Configuration Management Strategy" has the meaning given in paragraph 7 of this Schedule 3A;

"Crossrail Infrastructure" means that part of the Railway Infrastructure managed by Rail for London consisting of the Central Operating Section;

"DeBo" or "Designated Bodies" means independent third parties appointed by the Secretary of State to assess and verify conformity of projects with Notified National Technical Rules (NNTRs) in the United Kingdom;

"Design Area Breakdown Structure" means a hierarchical and incremental decomposition of the Train Works into deliverables and work packages;

"Design Management Plan" has the meaning given to such term in paragraph 16.2 of this Schedule 3A;

"Design Phase" means the period starting on the Commencement Date and ending on the date of the notice served by the Purchaser pursuant to paragraph 16.4 of this Schedule 3A and includes the Preliminary Design Phase and the Detailed Design Phase;

"Design Submission Programme" has the meaning given in paragraph 16.5 of this Schedule 3A;

"Detailed Design" means the detailed design of the Units and the production of each of the items described in paragraph 16.7 of this Schedule 3A undertaken by the Manufacturer pursuant to this Agreement;

"Detailed Design Phase" means that part of the Design Phase commencing on the expiry of the Preliminary Design Phase and ending on the date of the notice served by the Purchaser pursuant to paragraph 16.7 of this Schedule 3A;

"Detailed Design Submissions" has the meaning given to such term in paragraph 16.7.a of this Schedule 3A;

"EMC" means electromagnetic compatibility;

"EMC Management Plan" has the meaning given in paragraph 4 of this Schedule 3A;

"EMI" means electromagnetic interference;

"ESM" means engineering safety management;

"Hazard Log" has the meaning given to such term in paragraph 3.9.a;

"IHA" means interface hazard analysis;

"NoBo" or **"Notified Bodies"** means independent third parties appointed by the Department for Transport, the Secretary of State or another European Union Member State which meet the criteria of competence, integrity and independence set out in Annex VIII of Directive 2008/57/EC;

"Preliminary Design" means the preliminary design of the Unit and the production of each of the items described in paragraph 16.6.a of this schedule undertaken by the Manufacturer pursuant to this Agreement;

"Preliminary Design Submissions" has the meaning given to such term in paragraph 16.6.a of this Schedule 3A;

"PWHR" means Project Wide Hazard Record as described in paragraph 3.9.c;

"Progressive Assurance" has the meaning given to it in paragraph 5 of this Schedule 3A;

"Proposer" has the meaning given in paragraph 15 of this Schedule 3A;

"RAM" means reliability, availability and maintainability as more particularly described in paragraph 6;

"RAM Management Plan" has the meaning given in paragraph 6 of this Schedule 3A;

"Request for Review" means a request (in the form agreed between the Parties from time to time) by the Manufacturer for the Purchaser to review certain documents for Assurance Acceptance;

"Requirements Management System" has the meaning given to such term in paragraph 11 of this Schedule 3A;

"ROGS" means the Railway and Other Guided Transport Systems (Safety) Regulations 2006;

"System Safety Plan" has the meaning given to such term in paragraph 3;

"Safety Authorisation" has the meaning given to such term in ROGS;

"Stage Gate Review" has the meaning given to such term in paragraph 5.1.c of this Schedule 3A;

"Standards Matrix" has the meaning given in paragraph 10.1 of this Schedule 3A;

"TAP" means the technical assurance plan to be provided by the Manufacturer pursuant to paragraph 2.2 of this Schedule 3A;

"Technical Requirements Specification" or **"TRS"** means the Crossrail technical requirements specification relating to the Plant and Machinery as set out in the document entitled "Technical Requirements Specification" with document number CRL1-XRL-O8-RSP-CR001-50045 as appended to this Schedule 3A;

"Tests" has the meaning given in paragraph 13.1.b;

"Train Works" means the design, manufacture, supply, assembly, testing, commissioning and delivery of the Plant and Machinery by the Manufacturer for the benefit of the Purchaser in accordance with the terms of this Agreement;

"Technical Change Control Process" has the meaning given to such term in paragraph 8 of this Schedule 3A; and

"Unit" means each item of Plant and Machinery supplied pursuant to this Agreement, as more particularly described in the Technical Requirements Specification.

1. ASSURANCE ACCEPTANCE PROCESS

- 1.1. Where the Manufacturer is required to submit information, drawings and/or documents to the Purchaser for Assurance Acceptance, the Manufacturer shall comply with the requirements described in this paragraph 1. Any plan, programme, strategy or other document of the Manufacturer that is included in any Schedule to this Agreement as at the Commencement Date shall be deemed to have been Assurance Accepted in the form included in this Agreement but without prejudice to (i) the obligations of the Manufacturer to revise and/or resubmit such document for Assurance Acceptance as required by this Agreement; and (ii) the requirements of this Agreement generally.
- 1.2. The Manufacturer shall ensure that each drawing, document, report and/or other information submitted to the Purchaser for Assurance Acceptance shall be in accordance with the requirements of paragraph 6 (Communications and Document Control) of part 1 of Schedule A3 (Contract Management)¹ and is accompanied by a Request for Review.
- 1.3. The Manufacturer shall ensure that each Request for Review contains, to the extent applicable, the following information:
- the submission number (which shall be independent of any drawing number);
 - the drawing and/or document number, including where relevant the revision letter or number;
 - the drawing title and/or title of the document;
 - the date of submission; and
 - any supplementary information which is reasonably necessary to enable the Purchaser to make a decision in accordance with paragraph 1.6 below (including, where relevant, a description of the latest revision).
- 1.4. Where the Purchaser has received drawings, documents and/or information that have been submitted for Assurance Acceptance in accordance with the requirements of this paragraph 1, the Purchaser shall promptly acknowledge receipt of such submission by signing, dating and returning to the Manufacturer a copy of the Request for Review for that submission.
- 1.5. The Manufacturer shall be responsible for ensuring that the Purchaser receives each submission made by the Manufacturer for Assurance Acceptance (as evidenced by the Manufacturer receiving a copy of the Request for Review countersigned by the Purchaser) and the date on which the Purchaser signs a copy of the Request for Review shall be the date on which, for the purposes of this paragraph 1, the Purchaser shall be deemed to have received the submission for Assurance Acceptance.
- 1.6. Within 20 Working Days of the date the Purchaser receives a submission from the Manufacturer for Assurance Acceptance (or such later date as notified to the Manufacturer in accordance with paragraph 1.7 below), the Purchaser shall review and comment on the information, drawing and/or document that has been submitted (or re-submitted) by the Manufacturer and return one copy of the Request for Review stamped or marked with one of the following:
- "Category I — No Assurance Acceptance";
- "Category II — Assurance Acceptance granted with comments"; or
- "Category III — Assurance Acceptance granted".
- 1.7. Where the Purchaser, acting reasonably, considers that the complexity, detail, scope and/or nature of the drawings, documents and/or information submitted by the Manufacturer for

¹ TfL to confirm reference.

Assurance Acceptance means that it may not be able to respond to the Manufacturer within 20 Working Days of receipt by the Purchaser of such submission, the Purchaser shall be entitled to an additional period of time to consider the submission, provided that the Purchaser notifies the Manufacturer in writing within seven (7) Working Days of the date the Purchaser received the submission that the Purchaser is exercising its rights under this paragraph 1.7 to extend the period of time to consider such submission. Each notice served by the Purchaser pursuant to this paragraph 1.7 shall specify:

- a. the details of the relevant submission;
- b. the additional period of time required by the Purchaser; and
- c. a description in reasonable detail as to the reasons why the additional time is required.

1.8. The Manufacturer shall undertake the following actions in relation to the information, drawing and/or document (as the case may be) that has been returned to it by the Purchaser in accordance with paragraph 1.6 and subject to the provisions of paragraph 1.13:

- a. if such information has been stamped "Category I — No Assurance Acceptance", the Manufacturer shall immediately review and revise the relevant drawing, documents and/or information, taking into account and incorporating the comments made by the Purchaser pursuant to paragraph 1.6 and shall re-submit such information for Assurance Acceptance by the Purchaser in accordance with this paragraph 1;
- b. if such information has been stamped "Category II — Assurance Acceptance granted with comments", the Manufacturer shall be entitled to proceed on the basis of that drawing, documents and/or information as amended to incorporate the comments made by the Purchaser. The Manufacturer shall re-submit the amended drawing, documents and/or information to the Purchaser for Assurance Acceptance pursuant to paragraph 1.6; and
- c. if such information has been stamped "Category III — Assurance Acceptance granted", the Manufacturer shall be entitled to proceed on the basis of drawings, documents and/or information submitted to the Purchaser.

1.9. If the Purchaser does not respond within the timeframe set out in paragraph 1.6, the Manufacturer shall be entitled to treat the information submitted to the Purchaser as "Category III – Assurance Acceptance granted" provided that the Purchaser has signed and returned a copy of the Request for Review to acknowledge receipt under paragraph 1.3 in respect of that submission for Assurance Acceptance.

1.10. Unless otherwise required by the Purchaser, the Manufacturer shall only be required to submit one example of any sample, pattern or model in any request for Assurance Acceptance.

1.11. The Purchaser shall be entitled, at any time and on reasonable notice (and in any event not less than two (2) Working Days from the date of such notice) to:

- a. request the Manufacturer to submit any further document, information, design, drawing, calculation, schedule, sample, pattern or model necessary to clarify, support and/or justify any submission for Assurance Acceptance; and/or
- b. (acting reasonably) require the Manufacturer and/or any of its key Sub-Contractors to attend a meeting to discuss any aspect of the drawings, documents and/or information submitted for Assurance Acceptance,

and the Manufacturer shall comply with any such request.

1.12. When considering which category of response to give to any submission by the Manufacturer for Assurance Acceptance, the Purchaser shall not comment adversely on such submission if and to the extent the content of such submission is in accordance with the Technical

Requirements Specification, Applicable Laws, Industry and TfL Standards, good industry practice and the provisions of this Agreement. Where the content of any submission is not in accordance with the TRS, Applicable Laws, Industry Standards or TfL Standards, good industry practice and/or the provisions of this Agreement, the Manufacturer agrees to incorporate all comments made by the Purchaser before re-submitting any drawing, document or information for Assurance Acceptance.

- 1.13. Where indicated in this Agreement, the Manufacturer shall not proceed with such part of the project relating to the Assurance Acceptance without Assurance Acceptance having first been obtained. Where it is not stated that Assurance Acceptance must be obtained before action may be taken, the Manufacturer may proceed without Assurance Acceptance being granted, but it shall do so at its own risk.
- 1.14. No comment, stamping, marking or categorisation of any information, drawing or document shall diminish or relieve the Manufacturer from any of its obligations under this Agreement, nor shall such comment, stamping, marking or categorisation be a Variation nor shall it permit the Manufacturer to any costs, relief or compensation of any kind.
- 1.15. Unless expressly stated otherwise the Manufacturer shall not be entitled to amend any Assurance Accepted document in any manner or form without first obtaining Assurance Acceptance to such amendment.

2. TECHNICAL ASSURANCE PLAN

2.1. General

- a. During the Assurance Period, the Manufacturer shall in performing its obligations under this Agreement implement and manage a process of Progressive Assurance (as more fully described at paragraph 5 of this Schedule 3A) in order to demonstrate to the Purchaser that the Manufacturer is complying with the requirements of the TRS in respect of design, manufacture, testing, commissioning and supply of the Unit.
- b. The Manufacturer shall provide to the Purchaser for Assurance Acceptance, within three months of the Commencement Date, a technical assurance plan in respect of the design, manufacture, testing, commissioning and supply of the Unit containing the information set out in paragraph 2.4 of this Schedule 3A.

- 2.2. Once the technical assurance plan referred to in paragraph 2.1.b has received Assurance Acceptance, it shall be the "TAP" for the purposes of this Agreement.

- 2.3. During the Assurance Period, the Manufacturer shall review and update the TAP from time to time, including, as a minimum, at the end of each Stage (as defined in paragraph 5.1.c below), so that the TAP shall satisfy at all times the requirements set out in this Schedule 3A. Where the Manufacturer has updated or otherwise amended the TAP, it shall submit the modified TAP to the Purchaser for Assurance Acceptance.

2.4. Technical Assurance Plan

- a. The Manufacturer shall ensure that the TAP describes the systems engineering techniques (including the engineering "V" life-cycle model prepared in accordance with paragraph 5.1 of this Schedule 3A) and the manner in which the concept of Progressive Assurance will be implemented by the Manufacturer to systematically manage the risks described in paragraph 5.1.a and provide the necessary assurance to the Purchaser.
- b. The Manufacturer shall ensure that the TAP consists of, describes or includes the following:
 - i. Verification and Validation Strategies (described in paragraph 5.1.f below);

- ii. an engineering "V" life-cycle model and associated Stage Gate Reviews (described in paragraph 5.1.d below);
 - iii. a programme for the submission by the Manufacturer of the information and/or documentation that will be submitted to the Purchaser for Assurance Acceptance (described in paragraph 2.4.c below) The Manufacturer shall ensure that, to the fullest extent possible, the programme is structured to:
 - A. allow regular intervals between the submission of information and/or documents to the Purchaser;
 - B. take into account any timeframes and/or approval periods specified in any Applicable Laws and TfL Standards; and
 - C. be consistent with the Contract Programme; and
 - iv. an organisation chart setting out details of each key staff member of the Manufacturer who will be responsible for technical and Progressive Assurance, including, for each key staff member, their CV and details of qualifications and explanations as to how their experience is adequate for the competency requirements of the proposed role; and
 - v. the manner in which those employees are or will be independent from the Manufacturer's project team undertaking the design, manufacture, testing, commissioning and supply of the Unit.
- c. The information and/or documentation mentioned above shall include, or reference, as a minimum in paragraph 2.4.b(iii):
- i. Engineering Safety Management (as described in paragraph 3);
 - ii. Electromagnetic Compatibility (as described in paragraph 4);
 - iii. Progressive Assurance (as described in paragraph 5);
 - iv. Reliability and Resilience (as described in paragraph 6);
 - v. Configuration Management (as described in paragraph 7);
 - vi. Technical Change Control (as described in paragraph 8);
 - vii. Systems Integration and Interface Management (as described in paragraph 9);
 - viii. Standards management (as described in paragraph 10);
 - ix. Requirements management (as described in paragraph 11);
 - x. Human Factors (as described in paragraph 12);
 - xi. Testing and Commissioning (as described in paragraph 13);
 - xii. Interoperability (as described in paragraph 14);
 - xiii. Compatibility (as described in paragraph 15);
 - xiv. Design Assurance (as described in paragraph 16); and
 - xv. Document management.
- d. The Manufacturer shall ensure that the TAP is consistent and complies with all railway approval processes, all Applicable Laws, Industry Standards and TfL Standards and any Relevant Consents.

- e. The Manufacturer shall comply with the requirements the Railway Safety and Standards Board (RSSB) Standard RIS-1702-PLT issue One: September 2013.
- f. The Manufacturer shall audit its own internal engineering safety management activities and those of any Sub-Contractors or suppliers, as appropriate. The Manufacturer shall integrate such engineering safety management auditing within the overall quality management system for the Train Works and the results of such audits shall be submitted to the Purchaser for Assurance Acceptance. The Manufacturer shall confirm these arrangements in the Manufacturer's System Safety Plan ("**SSP**") and in the programme described in paragraph 2.4.b.iii above.

3. ENGINEERING SAFETY MANAGEMENT ("ESM")

3.1. The Manufacturer shall submit to the Purchaser for approval the SSP which must detail the application of the ESM principles throughout the V-life cycle. The SSP shall, as a minimum, meet the requirements of this paragraph 3.

3.2. General Engineering Safety Management Requirements

- a. The Manufacturer is responsible for ensuring the adequacy and safety of the elementary systems of the Train Works, having regard to:
- b. normal, degraded and emergency operating modes;
- c. maintenance of the systems; and
- d. the conditions and environment of the Crossrail railway.

3.3. The Manufacturer shall provide all necessary evidence of safety adequacy to the Purchaser or to others who reasonably require such evidence to secure safety authorisation to operate the railway in accordance with all railway safety legislation and Applicable Laws. To facilitate this, the Manufacturer shall be required to make presentations to the Purchaser to secure the Purchaser's acceptance of the evidence of engineering safety, prior to the Manufacturer seeking approval from the appropriate approval bodies.

3.4. Engineering Safety Competency

The Manufacturer shall demonstrate, to the Purchaser's satisfaction, that the individuals involved in the demonstration of the safety adequacy of the elementary systems are suitably qualified and experienced.

3.5. Engineering Safety Manager

The Manufacturer shall appoint an appropriately experienced and competent engineering safety manager who shall be responsible for the management, coordination, quality control and assurance of the Manufacturer's engineering safety management activities (the "**Engineering Safety Manager**"). Prior to appointing the Engineering Safety Manager, the Manufacturer shall submit the CV of the Engineering Safety Manager to the Purchaser for the Purchaser's review, and, subject to the Purchaser's satisfaction, acceptance. The accepted Engineering Safety Manager will serve as the primary interface with the Purchaser on engineering safety matters.

3.6. Competency of Engineering Safety Assessors

- a. The Manufacturer shall ensure that only qualified and competent professional assessors undertake engineering safety assessment activities. The Manufacturer shall ensure that the Manufacturer's engineering safety organisation is explained in sufficient detail in the Manufacturer's SSP. The Manufacturer shall ensure that the SSP is sufficiently independent from the design and commercial delivery activities.
- b. The Manufacturer shall maintain an engineering safety staff competency matrix indicating the roles, responsibilities and records of competencies of each individual. Such matrix shall be made available by the Manufacturer for review by the Purchaser upon request.

3.7. Application of Common Safety Method Regulation ("CSM Regulation")

- a. The Manufacturer shall demonstrate that the safety and adequacy of all systems, subsystems, etc shall be carried out in compliance with the CSM Regulation and the Office of Rail and Road Guidance on the Application of the Common Safety Method on Risk Evaluation and Assessment (September 2010) as the same may be updated from time to time.

- b. For the majority of systems the risk estimation and “**ALARP**” justification shall be applied, following a recognised risk matrix approach. However, for high risk (e.g. where the unavailability of the system safety function is judged to be [potentially or] immediately life threatening), new/novel, complex or bespoke designs, the Manufacturer may be required by the CSM Regulation to undertake a full, in-depth, quantitative safety analysis.

3.8. **Safety Authority**

The role of “**Safety Authority**” shall be filled by the Railway Approvals Board – Crossrail (“**RABC**”). The terms of reference with which RABC shall be managed can be found in CRL1-RFL-O-GPS-CR001-50001.

3.9. **Hazard Management**

- a. The Manufacturer shall establish and keep updated a hazard log which shall record and manage all hazards and safety risks arising throughout the duration of this Agreement (the “**Hazard Log**”).
- b. The Manufacturer shall use the Hazard Log in accordance with the Crossrail Hazard Management Procedure (CRL1-XRL-O8-GPD-CR001-50002) to track and manage those hazards which have been identified.
- c. The identified hazards shall be recorded in the Project Wide Hazard Record (“**PWHR**”) which shall be provided by the Purchaser to the Manufacturer. The Manufacturer shall adopt and develop the PWHR as its principal engineering safety hazard management tool for the Train Works.
- d. The preliminary Crossrail PWHR is supported on the DOORS database which is managed by the web-based software platform named “Comply Serve” on behalf of Crossrail. On the Manufacturer's request, the Purchaser will provide the Manufacturer with the necessary process, procedure, access and training in order to use the “Comply Serve” platform.

3.10. **Hazard allocation and the ALARP principle**

- a. Where a hazard has been identified as the responsibility of the Manufacturer, the Manufacturer shall, in accordance with the terms of this Agreement, demonstrate that it has managed the risks associated with the hazard such that those risks are ALARP.
- b. Where a hazard has been identified as being the responsibility of a future duty holder, the Manufacturer shall reach agreement, acting reasonably, with that future duty holder to agree an appropriate strategy for managing the risks associated with the hazard such that those risks are ALARP. In the event that the Manufacturer identifies a hazard or hazard mitigation should be transferred to a future duty holder, these will be submitted to the Rolling Stock Hazard Review Panel managed by the Purchaser, for review and acceptance of transfer in accordance with the Rolling Stock Hazard Review Panel Terms of Reference (CR-MS-102-02-0002).

3.11. **Product Safety Cases**

- a. Where any system or sub-system cannot be demonstrated to be ALARP by the application of a recognised applicable standard, the Manufacturer shall develop a product safety case which the Manufacturer shall submit to RABC for acceptance in accordance with the Purchaser's Product Acceptance Process (CR-MS-103-02-0046).

3.12. **Management of interfaces**

- a. The Manufacturer acknowledges and agrees that the management of interfaces is a particular issue affecting the safety of the rail industry. The Manufacturer shall therefore produce a description of each of the interfaces, including, where appropriate,

those with infrastructure managers, other users of the Crossrail Infrastructure, neighbours of the Crossrail Infrastructure, neighbouring Railway Infrastructure and other delivery partners, and submit the same to the Purchaser for Assurance Acceptance by no later than four (4) months after the Commencement Date.

- b. The Manufacturer shall demonstrate to the Purchaser that all the risks associated with the interfaces have been reduced to a level that is ALARP. The Manufacturer will perform and report on an interface hazard analysis ("**IHA**") to set out how the engineering safety implications at internal and external interfaces will be adequately addressed and managed. The IHA will involve all relevant interfacing contractors, third parties and the Purchaser.
- c. In each safety analysis and assessment conducted by the Manufacturer, the Manufacturer shall consider the interface between the design of the Unit and the Crossrail Infrastructure. In particular the Manufacturer shall ensure that the design of the Units does not adversely affect the ability of (i) the railway undertaking to obtain a safety certificate in relation to operating the Unit on the Crossrail Infrastructure or (ii) the Infrastructure Manager of the Central Operating Section to obtain safety authorisation for the operation of the Central Operating Section.
- d. The Manufacturer shall provide to the Purchaser all necessary evidence of safety adequacy to assist the Purchaser or their nominated railway undertaking to secure authorisation to operate the railway in accordance with all Applicable Laws and TfL Standards. To facilitate this, the Manufacturer shall make presentations to the Purchaser and secure acceptance of the evidence of engineering safety from the Purchaser and the appropriate approvals bodies.

3.13. Independent safety auditing and assessment

- a. The Manufacturer shall, at its own cost, establish and implement independent safety auditing and assessments to ensure that its work and practices are in accordance with all Applicable Laws, Industry Standards and TfL Standards.
- b. The Manufacturer shall appoint a Notified Body ("**NoBo**") and Designated Body ("**DeBo**") to assess conformity of the systems and subsystems etc. with the applicable TSIs and NNTRs, and to prepare the necessary technical files to evidence this.
- c. The Manufacturer shall comply with the CSM Regulation for Risk Evaluation and Assessment to demonstrate the safety adequacy of the systems and subsystems etc. of the Train Works.
- d. The Manufacturer shall, as required by the CSM Regulation for Risk Evaluation and Assessment, appoint an Assessment Body to confirm whether the engineering safety assurance of the systems, subsystems etc. conforms and complies with the principles of the CSM Regulation.
- e. The Manufacturer shall make available to the Purchaser on a progressive basis, evidence of conformity with the TSIs and NNTRs to support safety assurance activities under the CSM Regulation.
- f. The Manufacturer will fully cooperate with the Assessment Body and provide the engineering safety evidence necessary to carry out any assessment and comply with any improvements to assure the Manufacturer's compliance with the CSM Regulation.
- g. The Manufacturer shall prepare and submit to the Purchaser an independent review relating to design and final engineering safety justification(s). The Manufacturer shall ensure that these design and final engineering safety arrangements are described in the Manufacturer's SSP.
- h. The Manufacturer shall formally report the findings of all reviews to the Purchaser within 30 days of any such review being completed.

4. ELECTROMAGNETIC COMPATIBILITY

4.1. The Manufacturer shall prepare an EMC management plan (the "**EMC Management Plan**") which shall describe the Manufacturer's approach to EMC and shall provide evidence to assure the Purchaser that:

- a. the Units comply with all Applicable Laws and Industry Standards relating to EMC;
- b. compatibility is achieved with Crossrail Infrastructure and neighbouring Railway Infrastructure (namely Docklands Light Railway, London Underground and Network Rail); and
- c. the Units are not adversely impacted by the external EMC environment.

4.2. The Manufacturer shall ensure that the EMC Management Plan includes (without limitation) the following:

- a. the Industry Standards to be adopted;
- b. organisation of the EMC team including the position within the Manufacturer's organisation;
- c. the arrangements for EMC surveys and coupling studies;
- d. the proposals for an EMI hazard analysis and EMI hazard log addressing, as a minimum;
 - i. all Plant/Materials/Equipment/Systems, including that of others, that are susceptible to or are a source of EMI;
 - ii. the likely interference mechanisms;
 - iii. the likely consequences if interference takes place;
 - iv. the proposed EMI mitigation measures if required;
 - v. threats not covered by standards requiring additional tests;
- e. details of the degraded modes and fault conditions to be assessed within the overall EMC strategy;
- f. an EMC test plan to validate the EMC performance;
- g. arrangements for liaison and exchange of information with the Purchaser and its nominees, delivery partners and contractors developing the Crossrail Infrastructure;
- h. support & collaboration with the signalling equipment supplier, as required, to achieve the overall plant EMC design and acceptance, including, the supply of data & information, cable routing, power quality requirements, earthing and bonding, equipment & antenna positioning, hazard identification & EMI suppression; and
- i. arrangements for obtaining acceptance/approval from neighbouring Railway Infrastructure (namely, Docklands Light Railway, London Underground and Network Rail).

4.3. The Manufacturer shall submit an EMC technical file upon completion of all testing documenting the above activities and confirming EMC with the Purchaser and the infrastructure managers of neighbouring Railway Infrastructure.

5. PROGRESSIVE ASSURANCE

5.1. Engineering "V" Life-Cycle

- a. During the Assurance Period the Manufacturer shall implement systems engineering techniques to control and reduce the risks associated with the interaction between the Units, the Central Operating Section and the other routes over which the Units are required to run. The Manufacturer shall perform its obligations under this Agreement in a manner that minimises, to the extent reasonably practicable, such risks and facilitates the Take Over of the Units by the Purchaser.
- b. During the Assurance Period the Manufacturer shall implement an engineering "V" life-cycle model in accordance with BS EN 50126: 1999 (Railway Applications — The specification and demonstration of Reliability, Availability, Maintainability and Safety).
- c. In complying with this paragraph 5.1 the Manufacturer shall conduct stage gate reviews ("**Stage Gate Reviews**") at the end of each of the stages that it has identified in its engineering "V" life-cycle model in respect of the design, manufacture, testing, commissioning, assembly and supply of the Units to ensure that Progressive Assurance is being conducted effectively and to enable co-ordination with the Crossrail project.

As a minimum the Manufacturer shall conduct a Stage Gate Review at the end of each of the following stages (each a "**Stage**") in the order that they occur in the Contract Programme:

- i. Preliminary Design (as described in paragraph 16.6);
 - ii. Detailed Design (as described in paragraph 16.7);
 - iii. commencement of Infrastructure Testing of each Unit² (as a complete train) on both applicable Network Rail infrastructure and the Crossrail Infrastructure;
 - iv. commencement of operation of each Unit under its own power on applicable Network Rail infrastructure and the Crossrail Infrastructure;
 - v. Take Over of each of the Units.
- d. As part of the systems engineering techniques implemented by the Manufacturer pursuant to paragraph 5.1.a, the Manufacturer shall, at the end of each Stage, undertake as part of the Stage Gate Review an interdisciplinary review of each subsystem, so as to ensure its effective integration and/or interaction with the other subsystems and so that evidence is available to confirm, to the Purchaser's reasonable satisfaction, the completion of all of the deliverables and any outstanding issues for the relevant Stage.
 - e. The Manufacturer shall prepare a progressive ESM report to confirm the status of engineering safety management activities is acceptable. The Manufacturer shall update the ESM report as necessary and present the ESM report as part of the Stage Gate Review.
 - f. As part of the systems engineering techniques implemented by the Manufacturer pursuant to paragraph 5.1.a, the Manufacturer shall, at the end of each Stage, provide progressive verification and validation evidence to confirm the requirements listed in the TRS are being met.
 - g. The Manufacturer shall notify the Purchaser in writing when it has completed a Stage Gate Review and upon receipt of such notice the Purchaser shall promptly arrange a close-out meeting with the Manufacturer to confirm that all relevant deliverables and outstanding issues (if any) have been completed to the reasonable satisfaction of the Purchaser.

² We have provided for a stage gate review for each Unit on the basis that each Unit will be Taken Over individually. TfL to confirm.

- h. The Manufacturer shall assist the Purchaser with the integration of the Units and the Crossrail Infrastructure. Such assistance shall include as a minimum and without prejudice to clause 5.3 of the Agreement or the requirements of Part 1 of Schedule 1B (Management of Delivery):
 - i. the provision of requested information and data (including interface data) to the Purchaser;
 - ii. the review of information and data (including interface data) provided by the Purchaser, or the delivery partners; and
 - iii. attendance by the Manufacturer (and, where appropriate, any of its key Subcontractors) at meetings with any of the Purchaser, their nominated railway undertaking and the delivery partners.

6. RELIABILITY AND RESILIENCE

- 6.1. The Manufacturer shall ensure that all aspects of the design and manufacture of the Units and their subsystems meet the required Mean Time Between Service Affecting Failure ("**MTBSAF**") and Shift Completion Rate, as described in the TRS. The Manufacturer shall provide to the Purchaser for Assurance Acceptance a reliability, availability and maintainability plan ("**RAM Management Plan**") setting out how the Manufacturer will meet the RAM Predictions. The Manufacturer will show how the RAM Management Plan complies with BS EN 50126:1999.
- 6.2. The Manufacturer shall, in support of the RAM objectives, include an MTBSAF prediction of the system which shall include the following:
 - a. demonstration of an understanding of the system's operational requirements in relation to RAM;
 - b. the effects of potential failures of the Goods;
 - c. corrective and preventive maintenance times and redundancies built into the design; and
 - d. reliability performance at physical and functional interfaces between the Train Works and the Crossrail Infrastructure.
- 6.3. The Manufacturer shall, in preparing the RAM Management Plan, follow the approach of BS EN 50126:1999 "Railway applications - The specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS)".
- 6.4. To support the achievement of RAM design targets, the Manufacturer shall identify in the RAM Management Plan requirements for reliability growth. This shall include establishing reliability growth plans for the system and for subsystems.
- 6.5. The Manufacturer shall ensure that the RAM Management Plan, as a minimum, describes the following:
 - a. organisation of the RAM team including the position held by each individual within the Manufacturer's organisation;
 - b. management of RAM related interfaces with the Crossrail Infrastructure;
 - c. provisions and procedures for providing feedback to and interacting with other disciplines in the Manufacturer's team, e.g. safety engineering, design, maintenance and commissioning;
 - d. approach to condition monitoring opportunities to benefit RAM;

- e. planned RAM assessments to demonstrate that the system's RAM requirements are met by the Manufacturer's design;
 - f. RAM methods to be used;
 - g. management of Subcontractors' RAM requirements, (including RAM Specifications);
 - h. identification of long lead spare Spares and Parts, critical to meeting the RAM targets;
 - i. validation of RAM requirements during manufacture, installation, commissioning and maintenance;
 - j. RAM Demonstration Plan, (high level strategy for this initial stage);
 - k. approach to development and procurement cost management;
 - l. record keeping of RAM assessments; and
 - m. high level Schedule for deliverables.
- 6.6. The Manufacturer shall submit any further revisions to the RAM Management Plan to the Purchaser for Assurance Acceptance.
- 6.7. Defect and Corrective Action Recording
- a. During the Assurance Period, the Manufacturer shall establish and implement a defect and corrective action recording system that records and enables the analysis of all relevant information and data created by the Manufacturer and/or its Subcontractors in performing its obligations under this Agreement.
 - b. The Manufacturer shall ensure that it records all actual or suspected errors, non-conformances, failures, defects, incidents and accidents arising in relation to, or in connection with, the Units, and/or any other item of the Goods and/or any process relating to the design, manufacture, testing, commissioning and supply of the Units and/or any other item of the Goods together with details of any remedial actions taken by the Manufacturer and/or its Subcontractors.
 - c. The Manufacturer shall ensure that the RAM Plan or the TAP describes the process for such defect and corrective action recording system to be implemented by the Manufacturer.

7. CONFIGURATION MANAGEMENT

- 7.1. The Manufacturer shall establish, implement and maintain a configuration management system that complies with the requirements of ISO 10007:2003 (Quality management systems – Guidelines for configuration management).
- 7.2. The Manufacturer shall ensure that the TAP contains a strategy that describes the configuration management system proposed to be established and implemented by the Manufacturer in accordance with paragraph 7.1 ("**Configuration Management Strategy**").

8. TECHNICAL CHANGE CONTROL

- 8.1. For the duration of this Agreement, the Manufacturer shall establish and implement a process ("**Technical Change Control Process**") that shall enable the Manufacturer to manage, in a structured manner, any change to the design solution, function and/or any technical aspect of the Units or any item of Goods as a result of a Variation or otherwise. The TAP shall describe the Technical Change Control Process to be implemented by the Manufacturer.

- 8.2. The Manufacturer shall ensure that the Technical Change Control Process includes a process for the categorisation of technical changes which is consistent with the Unit Design Area Breakdown Structure.
- 8.3. Where a document, drawing and/or other information that has been granted Assurance Acceptance by the Purchaser requires amendment in connection with a Variation, a permitted Design change or other requirement of this Agreement, the Manufacturer shall make such amendments as it considers necessary and submit the amended drawing, document and/or information to the Purchaser for Assurance Acceptance.

9. SYSTEMS INTEGRATION AND INTERFACE MANAGEMENT

- 9.1. During the Assurance Period, the Manufacturer shall establish and implement a systems integration management process that enables it to:
- a. demonstrate compatibility of the Units, Parts and subsystems with all parts of the Crossrail Infrastructure and record all actions that are necessary to address any incompatibility; and
 - b. attend all meetings and provide all necessary information in order to satisfy the requirements of the Purchaser and fully participate, engage, and coordinate the relevant parties in attending such meetings and providing all necessary information.
- 9.2. Upon request, the Manufacturer shall provide information in relation to its systems integration and management process to the Purchaser for the purposes of Progressive Assurance.
- 9.3. The Manufacturer shall work iteratively with all relevant third parties, delivery partners and Crossrail contractors in order to manage all system interfaces with the Units.

10. STANDARDS MANAGEMENT

- 10.1. During the Assurance Period, the Manufacturer shall establish and implement a standards management process that shall include the following:
- a. the creation and maintenance of a matrix that lists all applicable Industry Standards and TfL Standards that apply to the performance by the Manufacturer of its obligations under this Agreement (the "**Standards Matrix**");
 - b. a process for establishing and managing the recording of any changes to Industry Standards, using the Standards Matrix to identify Industry Standards that have changed after a specified date and the version of each Industry Standard being complied with by the Manufacturer at any point in time; and
 - c. enables evidence of compliance by the Manufacturer with each of the Industry Standards listed in the Standards Matrix.
- 10.2. The Manufacturer shall include the standards management process it has established in accordance with this paragraph 10 as part of the TAP.

11. REQUIREMENTS MANAGEMENT

During the Assurance Period, the Manufacturer shall establish and implement a management system that records the Manufacturer's compliance with each of the requirements set out in the TRS and, where appropriate, to generate more detailed requirements to be used in the design of the Units (the "**Requirements Management System**").

12. HUMAN FACTORS

The Manufacturer shall establish a human factors plan which describes the Manufacturer's approach to incorporating human factor requirements into the Design of the Units, which shall comply with applicable Industry Standards and best practice.

13. TESTING AND COMMISSIONING

- 13.1. The Manufacturer shall submit to the Purchaser for Assurance Acceptance a testing and commissioning strategy (the "**Test Plan**") that, as a minimum, shall detail the following:
- a. the overall plan for testing and commissioning leading to Take Over;
 - b. the various phases of testing as further detailed in paragraphs 13.2 to 13.4 (the "**Tests**");
 - c. the testing sequence and logic, including the interface with others;
 - d. the processes for the management of the testing and commissioning activities.
- 13.2. The Test Plan submitted for Assurance Acceptance pursuant to paragraph 13.1 above shall include, in relation to the Static Tests, as a minimum the following detail:
- a. the proposed systems and subsystems tests required;
 - b. the pass/fail criteria;
 - c. any proposed cross-acceptance from previous test results; and
 - d. the testing programme.
- 13.3. The Test Plan submitted for Assurance Acceptance pursuant to paragraph 13.1 above shall include, in relation to the Dynamic Tests, as a minimum the following detail:
- a. the proposed systems and subsystems tests required (e.g. gauging, braking, EMC, traction performance etc);
 - b. the pass/fail criteria;
 - c. any proposed cross-acceptance from previous test results; and
 - d. the testing programme.
- 13.4. The Test Plan submitted for Assurance Acceptance pursuant to paragraph 13.1 above shall include, in relation to the Infrastructure Tests, as a minimum the following detail:
- a. the commissioning testing required (e.g. signalling integration testing, gauging);
 - b. the pass/fail criteria;
 - c. any proposed cross-acceptance from previous testing; and
 - d. the test programme.

14. INTEROPERABILITY

- 14.1. The Manufacturer shall be the Project Entity under the Railways (Interoperability) Regulations 2011 and is responsible for demonstrating compliance with these regulations and any applicable technical standards for interoperability. The Manufacturer shall be responsible for gaining Authorisation to Place into Service (APIS) from the Office of Rail and Road by submitting a statement of compliance supported by a technical file which is signed by the NoBo and DeBo and which is supported by a safety report from an Assessment Body.

15. COMPATIBILITY

The Manufacturer shall comply with Railway Group Standard GE/RT8270 in demonstrating compatibility with both Network Rail infrastructure and the Crossrail Infrastructure. In accordance with this standard the Manufacturer shall be the "Proposer" for the introduction

of the Units and shall be responsible for gaining any effected parties to buy-in to the proposed change.

16. DESIGN ASSURANCE

16.1. The Manufacturer shall, throughout the Design phase, use Progressive Assurance to demonstrate to the reasonable satisfaction of the Purchaser that the proposed design of the Units satisfies the requirements specified in the TRS.

16.2. Design Management Plan

The Manufacturer shall prepare a Unit design management plan (the "**Design Management Plan**") which shall, as a minimum, contain:

- a. the Design strategy, which will describe how the Manufacturer will produce an integrated, assured, certified design;
- b. the design organisation the Manufacturer plans to put in place to undertake the Design;
- c. the Design Area Breakdown Structure;
- d. the Design Submission Programme as described in paragraph 16.5; and
- e. the Design review and verification procedures and the link with the Stage Gate Reviews.

16.3. The Manufacturer shall submit the Design Management Plan to the Purchaser for Assurance Acceptance within four weeks from the Commencement Date and any further revisions to the Design Management Plan shall be submitted to the Purchaser for Assurance Acceptance.

16.4. Design Phases

- a. In order to ensure that the design of the Units meets the Purchaser's requirements, the Manufacturer shall submit certain design information to the Purchaser in a two stage process as follows:
 - i. a Preliminary Design phase; and
 - ii. a Detailed Design Phase.
- b. The detailed scope of each of the Preliminary Design Phase and the Detailed Design Phase is described below in paragraphs 16.6 and 16.7 respectively.
- c. The permitted Design changes which may be notified by the Purchaser to the Manufacturer in accordance with Schedule 1B (Management of Delivery) of this Agreement.

16.5. Design Submission Programme

The Manufacturer shall submit to the Purchaser for Assurance Acceptance the Design Submission Programme which shall include, as a minimum, the following:

- a. a description of the mechanical and/or electrical systems and other subsystems covered by each Unit Design area; and
- b. a programme for the preparation and completion of the design of the Units ("**Design Submission Programme**") which:
 - i. is consistent with the Contract Programme and indicates the proposed dates when the Manufacturer intends to submit the Preliminary Design Submissions

and the Detailed Design Submissions to the Purchaser for Assurance Acceptance; and

- ii. indicates the proposed duration of the Preliminary Design Phase and the Detailed Design Phase.

16.6. Preliminary Design Phase

- a. During the Preliminary Design Phase, the Manufacturer shall submit the relevant submissions ("**Preliminary Design Submissions**") to the Purchaser for Assurance Acceptance in accordance with the Design Submission Programme. The Preliminary Design Submissions shall include, as a minimum:
 - i. a list of the requirements to be adopted by the Manufacturer in undertaking the design of the Units;
 - ii. a justification that the requirements specified in sub-paragraph i above are consistent with the TRS and all Applicable Laws, Industry Standards and TfL Standards that the Manufacturer proposes to comply with in designing, manufacturing, commissioning and testing the Units;
 - iii. a description of the overall concept of the design together with evidence that it satisfies the requirements specified in sub-paragraph i above;
 - iv. the manner in which the requirements specified in sub-paragraph i above will be verified;
 - v. an up-to-date list of the major equipment Subcontractors and any other important subcontractors or suppliers that will be involved in the design, manufacture, commissioning, testing and supply of the Units;
 - vi. a summary of any new or novel technology to be utilised in the Units and evidence that such technology does not materially affect the risk of the Manufacturer being unable to perform its obligations under this Agreement; and
 - vii. a list of the principal interfaces with the Unit design.
- b. When the Preliminary Design Submissions have each been granted Assurance Acceptance by the Purchaser, the Parties shall hold a close-out meeting. Unless agreed by the Parties at the close-out meeting held pursuant to this paragraph 16.6, the Purchaser shall, no later than five (5) Working Days after the completion of the close-out meeting, notify the Manufacturer in writing that the Preliminary Design Phase has been completed, together with any outstanding Purchaser comments to be addressed by the Manufacturer pursuant to the Assurance Acceptance process.

16.7. Detailed Design Phase

- a. During the Detailed Design Phase the Manufacturer shall submit the submissions described in this paragraph 16.7 ("**Detailed Design Submissions**") to the Purchaser for Assurance Acceptance in accordance with the Design Submission Programme. The Detailed Design Submissions as a minimum shall include:
 - i. evidence that the design of the Units satisfies the TRS, Applicable Laws, Industry Standards and TfL Standards and the other requirements specified in this Agreement;
 - ii. design assurance documentation to the reasonable satisfaction of the Purchaser and, if part of the design is service-proven, previous service history to demonstrate that the part of the design is compatible with the intended application, where:

- A. a component is an existing component in use in another application and has (where required for that use) obtained the Relevant Consents; and
 - B. the Manufacturer is able to demonstrate to the reasonable satisfaction of the Purchaser that the technical, safety and operational functions of the component in respect of the other application are the same as those specified in the TRS,
 - C. the Manufacturer shall be entitled to submit as supporting evidence to the assurance documentation any certificates, consents, approvals and/or other equivalent information provided by a NoBo or DeBo or a Competent Authority and/or any other evidence acceptable to the Purchaser (acting reasonably) in respect of that component;
- iii. evidence that the Design and maintenance plan are compatible with each other.
- b. When each Detailed Design Submission has been granted Assurance Acceptance by the Purchaser, the Parties shall hold a close-out meeting. Unless agreed by the Parties at such close-out meeting, the Purchaser shall, no later than five (5) Working Days after the close-out meeting, notify the Manufacturer in writing that the Detailed Design Phase has been completed.

17. UNIT LOG BOOK

- 17.1. The Manufacturer shall produce and maintain a log book for each Unit, which shall be in both hard copy and electronic form, the format of which shall be agreed between the Parties prior to the Manufacturer commencing manufacture of such Unit and the content of which shall include, as a minimum, the following details:
- a. build records including technical data such as reference sheets for build records, dimensional and setting checks and for signed-off inspection and Factory and Type Test documentation including EMC testing;
 - b. equipment serialisation of serial-numbered components (including mechanical, pneumatic and electrical items and any other items agreed between the Parties) and configuration charts;
 - c. reference sheets for functional test records;
 - d. reference sheets for Dynamic Test records;
 - e. reference sheets for commissioning test records and records of maintenance carried out by the Manufacturer prior to Take Over;
 - f. the status of modifications, mandatory modifications and any Variations, including records of Software version numbers;
 - g. certificates issued by any NoBo, DeBo or Assessment Body and the statements of compatibility;
 - h. records of Performance Failures;
 - i. records of any agreed derogations or concessions; and
 - j. work required to be carried out prior to provisional acceptance of a Unit.
- 17.2. The Manufacturer shall ensure that each reference sheet relating to testing in the Unit Log Book includes, as a minimum, the following information:
- a. the date of each test;
 - b. the test procedure number and issue level for the relevant test; and

c. the result of that test.

- 17.3. The Manufacturer shall note in the Unit Log Book any preconditions that have been notified to it by the Purchaser.

Schedule 4

Contract Variation Procedure

- 1 The cost of any Variation Order shall be agreed between the parties taking account of the reasons why the Variation Order was required.
- 2 The Company may propose a variation by completing and issuing the relevant Variation form using ASITE (or when ASITE is not used, by completing Part A of the Variation Proposal in Appendix 1 and supplying three (3) copies of it to the Supplier). Within five (5) Working Days of receipt, or such other time as may be agreed by the Company, the Supplier shall respond to the Variation by using ASITE (or when ASITE is not used, by completing Part B of the Variation Proposal and shall supply two (2) copies of the Variation Proposal to the Company). The Company shall be entitled, at any time within thirty (30) days of receipt, to instruct and authorise the Supplier to proceed with the variation on the terms so set out by each party by using ASITE (or when ASITE is not used, by completing and signing Part C of one copy of the Variation Proposal (which, following such signature, will be referred to as a **"Variation Order"**) and supplying such Variation Order to the Supplier). The relevant part(s) of the Contract shall thereupon be varied accordingly.
- 3 The Supplier may propose a variation, by means of the relevant form in ASITE (or when ASITE is not used, after requesting the issue by the Company of a Variation Proposal variation number, by completing Parts A and B of a Variation Proposal and supplying two (2) copies of it to the Company). The Company shall be entitled, at any time within thirty (30) days of receipt, to instruct the Supplier to proceed with the variation on the terms so set out by the Supplier by issuing an instruction via ASITE (or when ASITE is not used, by completing and signing Part C of one copy of the Variation Proposal (which, following such signature, will be referred to as a **"Variation Order"**) and supplying such Variation Order to the Supplier). The relevant part(s) of the Contract shall thereupon be varied accordingly.
- 4 The Supplier may indicate in a Variation Proposal that the price is an estimated price but, if it does so, it shall supply a firm price to the Company in writing (via ASITE when used) at least seven (7) days before the expiry of the time within which the Company is entitled to instruct the Supplier to proceed with the variation.
- 5 The price indicated by the Supplier must be the full price and shall cover all costs associated with the variation. If appropriate a range of prices may be shown corresponding to the quantity of Goods to be supplied.
- 6 In an emergency, both parties shall use their reasonable endeavours to expedite the actions permitted or required under the Contract Variation Procedure.

- 7 The Company will not accept any retrospective claims for additional work caused by a variation which has not been approved by the Company in accordance with the Contract Variation Procedure before the commencement of such additional work.
- 8 All authorised additional work resulting from any Variation Proposal shall be priced in accordance with any applicable rates set out in Schedule 2 (Prices).
9. The Supplier shall at all times act reasonably and shall price each Variation Proposal at the least possible additional cost to the Company that it is reasonably and economically practicable for the Supplier to offer and which has the least possible impact on the terms of the Contract, including, but not limited to the Specification.
- 10 Strict adherence to the procedure described in this Schedule 4 shall be a condition precedent to any addition to the price for the Goods. If the Supplier does not adhere to each paragraph in this Schedule 4 then the Supplier shall not be entitled to any addition to the Contract Price notwithstanding that the Supplier may have supplied additional or varied Goods.

Appendix 1**Form of Variation Proposal/Variation Order (where ASITE not used)**

To:	From:
------------	--------------

Contract Reference:**Variation Number:****Variation Title:**

PART A (TO BE COMPLETED BY THE ORIGINATOR OF THE VARIATION ORDER)	
Description of change:	
Reason for changes and impact (if any) on Contract:	
Variation Proposal Authorised by:	Proposal Date:
PART B (TO BE COMPLETED BY THE SUPPLIER)	
Price Breakdown	
Note: If a further breakdown is needed please append details as a separate sheet.	
Effect(s) on Contract Programme (if applicable)	
Expected Delivery Date:	
Supplier's Representative:	
Print Name:	Signature: Date:
Completed document to be returned to the Company's Representative	

PART C (TO BE COMPLETED BY THE COMPANY'S REPRESENTATIVE)**Comment on Parts A and B:**

Variation Authorisation

Company's Representative:**Print Name:****Signature:****Date:**

Schedule 5

Contract Programme

Within the period stated in Schedule 1 the Supplier shall, in accordance with Clause 4.1, submit a programme to the Company for the Company's acceptance.

The programme shall be revised in accordance with Clause 4.5

Schedule 6

Company IPR

- 1 In respect of a monitoring vehicle to be manufactured by Plasser UK Limited:
 - (a) all drawings, diagrams and other information that show details of how the Goods will be mounted on to the monitoring vehicle (including the dimensions of any bolts or fasteners to be fitted into the Goods).
- 2 Any other Intellectual Property Rights that are required by the Supplier solely for the purpose of enabling the Supplier to design the Goods in a way that enables the Goods to be mounted on to other equipment (as more particularly described in the Specification) and produce any documentation in relation thereto.

Schedule 7

Deed of Novation

THIS DEED is made day of 201[]

BETWEEN:

TRANSPORT FOR LONDON, a statutory corporation established under the Greater London Authority Act 1999 whose principal office is at Windsor House, 42-50 Victoria Street, London SW1H 0TL (the "**Company**"); and

[] a company registered in [England and Wales] under number [] and having its registered office at [] (the "**Supplier**"); and

[] a company registered in [England and Wales] under number [] and having its registered office at [] (the "**New Company**").

WHEREAS:

- (A) The Company has an agreement dated [] and referenced [insert contract number] with the Supplier for the provision of [describe in brief the scope of work/services] (the "**Contract**").
- (B) The Company wishes to transfer [part of] its benefit and burden under the Contract to the New Company.
- (C) The Supplier and the New Company have agreed to such transfer upon the terms and conditions of this Deed.

IT IS AGREED AS FOLLOWS:

1. In this Deed:

1.1 "**Transfer Date**" means [].

With effect from the Transfer Date:

- 2.1 the New Company undertakes to perform the obligations of the Company under the Contract and be bound by its terms in every way as if the New Company is and had been named at all times as a party to the Contract in lieu of the Company;

- 2.2 the Supplier releases and discharges the Company from all demands and claims whatsoever in respect of the Contract and accepts the liability of the New Company in relation to the Contract in lieu of the liability of the Company and agrees to be bound by the terms of the Contract in every way as if the New Company were and had been a party to the Contract at all times in lieu of the Company;
- 2.3 for the avoidance of doubt, it is hereby expressly agreed that:
- 2.3.1 any and all rights, claims, counter-claims, demands and other remedies of the Supplier against the Company accrued under or in connection with the Contract prior to the date hereof shall be exercisable and enforceable by the Supplier against the New Company; and
- 2.3.2 any and all rights, claims, counter-claims, demands and other remedies of the Company against the Supplier accrued under or in connection with the Contract prior to the date hereof shall be exercisable by the New Company against the Supplier.
- 2.4 the Company transfers its rights and obligations under the Contract to the New Company.
2. A person who is not a party to this Deed may not enforce any of its terms by virtue of the Contracts (Rights of Third Parties) Act 1999.

Executed as a deed by the parties and delivered on the date of this Deed

Executed as a deed by affixing the Common Seal of)

Transport for London)

in the presence of: -)

.....

[Authorised Signatory]

Executed as a Deed by [SUPPLIER])

acting by)

) Authorised Signatory

and

).....

) Authorised Signatory

Executed as a Deed by [NEW COMPANY]

)

acting by

)

) Authorised Signatory

and

).....

) Authorised Signatory

Schedule 8

Form of Parent Company Guarantee and Performance Bond

Not Used FORM OF ON DEMAND PERFORMANCE BOND WITH ANNEX 1

Not Used

ANNEX 1

Not Used

Schedule 9
Form of Collateral Warranty

Not Usrd

Schedule 10 **Escrow**
Form of Escrow Agreement



SingleLicensee
EscrowAgreement

Date: []

Owner: []

AgreementNumber: []

Notice: The parties to this Agreement are obliged to inform NCC Group of any changes to the Escrow Materials or in their circumstances (including change of name, registered office, contact details or change of owner of the intellectual property in the Escrow Materials)

EscrowAgreementDated: [●]

Between:

- (1) [●] whose registered office is at [●] (Company Registration Number: [●]) ("**Owner**");
- (2) **TRANSPORTFORLONDON**, a statutory corporation established under the Greater London Authority Act 1999 of Windsor House, 42-50 Victoria Street, London SW1H 0TL ("**Licensee**"); and
- (3) **NCC GROUP ESCROW LIMITED** a company registered in England whose registered office is at Manchester Technology Centre, Oxford Road, Manchester M1 7EF, ENGLAND (CRN: 3081952) ("**NCCGroup**").

Background:

- (A) The Licensee has been granted a licence to use the Software which comprises computer programs.
- (B) Certain technical information and/or documentation relating to the Software is the confidential information and intellectual property of the Owner or a third party.
- (C) The Owner acknowledges that in certain circumstances, such information and/or documentation would be required by the Licensee in order for it to continue to exercise its rights under the Licence Agreement.
- (D) The parties therefore agree that such information and/or documentation should be placed with a trusted third party, NCC Group, so that such information and/or documentation can be released to the Licensee should certain circumstances arise.

Agreement:

In consideration of the mutual undertakings and obligations contained in this Agreement, the parties agree that:

1 DefinitionsandInterpretation

- 1.1 In this Agreement the following terms shall have the following meanings:

"**Agreement**" means the terms and conditions of this escrow agreement set out below, including the schedules hereto.

"**Confidential Information**" means all technical and/or commercial information not in the public domain and which is designated in writing as confidential by any party together with all other information of any party which may reasonably be regarded as confidential information.

"**EscrowMaterials**" means the Software and Source Code

"**Full Verification**" means the tests and processes forming NCC Group's Full Verification service and/or such other tests and processes as may be agreed between the parties for the verification of the Escrow Materials.

"**IndependentExpert**" means a suitably qualified and independent solicitor or barrister.

"**Integrity Testing**" means those tests and processes forming NCC Group's Integrity Testing service, in so far as they can be applied to the Escrow Materials.

"**Intellectual Property Rights**" mean any copyright, patents, design patents, registered designs, design rights, utility models, trademarks, service marks, trade secrets, know how, database rights, moral rights, confidential information, trade or business names, domain names, and any other rights of a similar nature including industrial and proprietary rights and other similar protected rights in any country or jurisdiction together with all registrations, applications to register and rights to apply for registration of any of the aforementioned rights and any licences of or in respect of such rights.

"**Licence**" means the licence granted to the Licensee to use the Software.

"**Licence Agreement**" means the agreement listed in schedule 3 under which the Licensee was granted the Licence.

"OrderForm" means the order form setting out the details of the order placed with NCC Group for setting up this Agreement.

"Release Purposes" means the purposes of understanding, maintaining, modifying and correcting the Software exclusively for and on behalf of the Licensee together with such other purposes (if any) as are permitted under the Licence Agreement.

"ReleaseEvents" has the meaning given to it in Clause 6.1 of this Agreement.

"Software" means the software package together with any updates and upgrades thereto and new versions thereof licensed to the Licensee under the Licence Agreement.

"Source Code" means the computer programming code of the Software in human readable form and such other material and documentation (including updates and upgrades thereto and new versions thereof) as are necessary to be delivered or deposited to comply with clause 2 of this Agreement.

1.2 This Agreement shall be interpreted in accordance with the following:

- 1.2.1 headings are for ease of reference only and shall not be taken into consideration in the interpretation of this Agreement;
- 1.2.2 all references to clauses and schedules are references to clauses and schedules of this Agreement; and
- 1.2.3 all references to a party or parties are references to a party or parties to this Agreement.

2 Owner's Duties and Warranties

2.1 The Owner shall:

- 2.1.1 deliver a copy of the Escrow Materials each time there is a change to such item of Escrow Materials;
- 2.1.2 ensure that each item of the Escrow Materials deposited with the NCC Group comprises the latest version of such item of information or documentation used by the Licensee and, where such item comprises the Source Code, ensure that each copy of the Source Code comprises the Source Code of the latest version of the Software used by the Licensee;
- 2.1.3 deliver to NCC Group a replacement copy of the relevant Escrow Materials within 30 days after the anniversary of the last delivery of the relevant Escrow Materials to ensure that the integrity of the Escrow Material media is maintained;
- 2.1.4 deliver a replacement copy of the Escrow Materials to NCC Group within 14 days of a notice given to it by NCC Group under the provisions of clause 4.1.3;
- 2.1.5 deliver with each deposit of the Escrow Materials the following information:
 - 2.1.5.1 details of the deposit including, where applicable, the full name of the relevant Escrow Material (i.e. the original name as set out under schedule 1 together with any new names given to the Escrow Materials by the Owner), version details, media type, backup command/software used, compression used, archive hardware and operating system details; and
 - 2.1.5.2 password/encryption details required to access the Escrow Materials;
 - 2.1.5.3 any other information or documentation required to be disclosed under any Licence Agreement or to facilitate the use of any of the Escrow Materials.
- 2.1.6 deliver with each deposit of the Source Code the following technical information (where applicable):
 - 2.1.6.1 documentation describing the procedures for building, compiling and installing the software, including names and versions of the development tools;
 - 2.1.6.2 software design information (e.g. module names and functionality); and

2.1.6.3 name and contact details of employees with knowledge of how to maintain and support the Source Code; and

2.1.7 if required by the Licensee, deposit a backup copy of the object code of any third party software package and any other information or documentation required to access, install, build or compile or otherwise use the Source Code.

2.2 The Owner warrants to both NCC Group and the Licensee at the time of each deposit of the Escrow Materials with NCC Group that:

2.2.1 other than with regard to any Escrow Materials owned by the Licensee by virtue of the provisions of the Licence Agreement, or any escrow materials owned by third parties it owns the Intellectual Property Rights in the Escrow Materials;

2.2.2 in respect of any Escrow Material owned by third parties, it has been granted valid and ongoing rights under licence by the third party owner(s) thereof to deal with such Third Party Material in the manner anticipated under this Agreement and that the Owner has the express authority of such third party owner(s) to deposit the Escrow Material under this Agreement as evidenced by a signed letter of authorisation in the form required by NCC Group;

2.2.3 in entering into this Agreement and performing its obligations under it, it is not in breach of any of its ongoing express or implied obligations to any third party(s);

2.2.4 the Source Code deposited under clause 2.1 contains all information in human-readable form (except for any third party object code deposited pursuant to clause 2.1.8) and is on suitable media to enable a reasonably skilled programmer or analyst to understand, maintain, modify and correct the Software; and

2.2.5 in respect of any third party object code that the Owner, at its option, or, at the request of the Licensee, deposits with NCC Group in conjunction with the Source Code pursuant to clause 2.1.7, it has the full right and authority to do so.

3 Licensee's Responsibilities and Undertakings

3.1 The Licensee shall notify NCC Group of any change to the Escrow Materials that necessitates a replacement deposit of the Escrow Materials.

3.2 In the event that the Escrow Materials are released under clause 6, the Licensee shall, subject to the terms of the Licence Agreement:

3.2.1 keep the Escrow Materials confidential at all times and ensure that any other person to whom the Escrow Materials is disclosed pursuant to clause 3.2.3 does the same;

3.2.2 use the Escrow Materials only for the Release Purposes;

3.2.3 not disclose the Escrow Materials to any person save as permitted under the terms of any relevant Licence Agreement or as otherwise required for the Release Purposes;

3.2.4 hold all media containing the Escrow Materials in a safe and secure environment when not in use; and

3.2.5 forthwith destroy the Escrow Materials should the Licensee cease to be entitled to use the Escrow Materials under the terms of the Licence Agreement.

3.3 In the event that the Escrow Materials are released under clause 6, it shall be the responsibility of the Licensee to obtain the necessary licences to utilise the object code of any third party material deposited by the Owner pursuant to clause 2.1.7.

4 NCC Group's Duties

4.1 NCC Group shall:

4.1.1 at all times during the term of this Agreement, retain the latest deposit of the Escrow Materials in a safe and secure environment;

4.1.2 inform the Owner and the Licensee of the receipt of any deposit of the Escrow Materials by sending to both parties a copy of the Integrity Testing report or Full Verification report (as the case may be) generated from the testing processes carried out under clause 10; and

- 4.1.3 notify the Owner and the Licensee if it becomes aware at any time during the term of this Agreement that the copy of the Escrow Materials held by it has been lost, damaged or destroyed so that a replacement may be obtained.
- 4.2 In the event of failure by the Owner to deposit any Escrow Materials with NCC Group, NCC Group shall not be responsible for procuring such deposit and may, at its sole discretion, notify the Licensee of the Owner's failure to deposit any Escrow Materials.
- 4.3 NCC Group may appoint agents, contractors or sub-contractors as it deems fit to carry out the Integrity Testing and the Full Verification processes. NCC Group shall ensure that any such agents, contractors and sub-contractors are bound by the same confidentiality obligations as are contained in clause 8.
- 4.4 NCC Group has the right to make such copies of the Escrow Materials as may be necessary solely for the purposes of this Agreement.

5 Payment

- 5.1 The parties shall pay NCC Group's standard fees to be advised and charges as published from time to time or as otherwise agreed, in the proportions set out in schedule 2. NCC Group's fees as published are exclusive of value added tax.
- 5.2 NCC Group shall be entitled to review and vary its standard fees and charges for its services under this Agreement from time to time but no more than once a year and only upon 45 days written notice to the parties.
- 5.3 All invoices are payable within 30 days from the date of invoice. NCC Group reserves the right to charge interest in respect of the late payment of any sum due under this Agreement (both before and after judgement) at the rate of 2% per annum over the prevailing base rate of HSBC Bank Plc accruing on a daily basis from the due date therefor until full payment.

6 ReleaseEvents

- 6.1 Subject to: (i) the remaining provisions of this clause 6 and (ii) the receipt by NCC Group of its release fee and any other fees and interest (if any) outstanding under this Agreement, NCC Group will release the Escrow Materials to a duly authorised officer of the Licensee if any of the following events ("**ReleaseEvent(s)**") occur:
 - 6.1.1 if the Owner is a company:
 - 6.1.1.1 an order is made for the winding up of the Owner, the Owner passes a resolution for winding up (other than for the purposes of a solvent reconstruction or amalgamation) or a liquidator of the Owner is appointed; or
 - 6.1.1.2 an order is made for the appointment of an administrator of the Owner or an administrator of the Owner is appointed; or
 - 6.1.1.3 the Owner enters into a compromise or arrangement with creditors; or
 - 6.1.1.4 the Owner has a receiver, administrative receiver or manager appointed over all or any part of its assets or undertaking; or
 - 6.1.1.5 the Owner is dissolved; or
 - 6.1.4 any similar or analogous proceedings or event to those in clauses 6.1.1 above occurs in respect of the Owner within any jurisdiction outside England; or
 - 6.1.5 the Owner ceases to carry on its business or the part of its business which relates to the Escrow Materials;
- 6.2 The Licensee must notify NCC Group of the Release Event specified in clause 6.1 by delivering to NCC Group a statutory or notarised declaration ("**Declaration**") made by an officer of the Licensee declaring that such Release Event has occurred, setting out the facts

and circumstances of the Release Event, that the Licence Agreement and any maintenance agreement, if relevant, for the Escrow Materials was still valid and effective up to the occurrence of such Release Event and exhibiting such documentary evidence in support of the Declaration as NCC Group shall reasonably require.

6.3 Upon receipt of a Declaration from the Licensee claiming that a Release Event has occurred:

- 6.3.1 NCC Group shall submit a copy of the Declaration to the Owner by courier or other form of guaranteed delivery; and
- 6.3.2 unless within 14 days after the date of despatch of the Declaration by NCC Group, NCC Group receives a counter-notice signed by a duly authorised officer of the Owner stating that in their view no such Release Event has occurred or, if appropriate, that the event or circumstance giving rise to the Release Event has been rectified as shown by documentation in support thereof,

NCC Group will release the Escrow Materials to the Licensee for its use for the Release Purposes.

- 6.4 Upon receipt of the counter-notice from the Owner under clause 6.3.2, NCC Group shall send a copy of the counter-notice and any supporting evidence to the Licensee by courier or other form of guaranteed delivery.
- 6.5 Upon receipt by the Licensee of the counter-notice from NCC Group or, in any event, within 90 days of despatch of the counter-notice by NCC Group, the Licensee may give notice to NCC Group that they wish to invoke the dispute resolution procedure under clause 7.
- 6.6 If, within 90 days of despatch of the counter-notice by NCC Group to the Licensee, NCC Group has not been informed by the Licensee that they wish the dispute resolution procedure under clause 7 to apply, the Declaration submitted by the Licensee will be deemed to be no longer valid and the Licensee shall be deemed to have waived their right to release of the Escrow Materials for the particular reason or event specified in the original Declaration.
- 6.7 For the avoidance of doubt, where a Release Event has occurred under clauses 6.1.1 to 6.1.5, a subsequent assignment of the Intellectual Property Rights in the Escrow Materials shall not prejudice the Licensee's right to release of the Escrow Materials and its use for the Release Purposes.

7 Disputes

- 7.1 NCC Group shall notify the Owner of the Licensee's request for dispute resolution. Unless the Owner or the Licensee objects, NCC Group's Chief Executive Officer for the time being will appoint an Independent Expert to resolve the dispute. If the Owner or the Licensee objects to this appointment, they shall endeavour to appoint a mutually acceptable Independent Expert within 7 days of registering their objection. If they fail to appoint an Independent Expert within this 7 day period, NCC Group shall request that the President of The Law Society appoints an Independent Expert to resolve the dispute. Any appointment of an Independent Expert under this clause shall be binding upon the parties.
- 7.2 Within 5 working days of the appointment of the Independent Expert, the Owner and the Licensee shall each provide full written submissions to the Independent Expert together with all relevant documentary evidence in their possession in support of their claim.
- 7.3 The Independent Expert shall be requested to give a decision on the matter within 14 days of the date of referral or as soon as practicable thereafter and to send a copy of that decision to the Owner, Licensee and NCC Group. The Independent Expert's decision shall be final and binding on all parties and shall not be subject to appeal to a court in legal proceedings except in the case of manifest error.
- 7.4 If the Independent Expert's decision is in favour of the Licensee, NCC Group is hereby authorised to release and deliver the Escrow Materials to the Licensee within 5 working days of the decision being notified by the Independent Expert to the parties.
- 7.5 The parties hereby agree that the costs and expenses of the Independent Expert shall be borne by the party against whom the decision of the Independent Expert is given.

8 Confidentiality

- 8.1 The Escrow Materials shall remain at all times the confidential and intellectual property of its owner.

- 8.2 Subject to the terms of the Licence Agreement, in the event that NCC Group releases the Escrow Materials to the Licensee, the Licensee shall be permitted to use the Escrow Materials only for the Release Purposes.
- 8.3 NCC Group agrees to keep all Confidential Information relating to the Escrow Materials that comes into its possession or to its knowledge under this Agreement in strictest confidence and secrecy. NCC Group further agrees not to make use of such information and/or documentation other than for the purposes of this Agreement and, unless the parties should agree otherwise in writing, will not disclose or release it other than in accordance with the terms of this Agreement.

9 Intellectual Property Rights

- 9.1 The release of the Escrow Materials to the Licensee will not act as an assignment of any Intellectual Property Rights that the Owner or any third party possesses in the Escrow Materials.
- 9.2 The Intellectual Property Rights in the Integrity Testing report and any Full Verification report shall remain vested in NCC Group. The Owner and the Licensee shall each be granted a non-exclusive right and licence to use such report for the purposes of this Agreement and their own internal purposes only.

10 Integrity Testing and Full Verification

- 10.1 NCC Group shall bear no obligation or responsibility to any party to this Agreement or person, firm, company or entity whatsoever to determine the existence, relevance, completeness, accuracy, operation, effectiveness, functionality or any other aspect of the Escrow Materials received by NCC Group under this Agreement.
- 10.2 As soon as practicable after the Escrow Materials has been deposited with NCC Group, NCC Group shall apply its Integrity Testing processes to the Material.
- 10.3 Any party to this Agreement shall be entitled to require NCC Group to carry out a Full Verification. Subject to clause 10.4, NCC Group's prevailing fees and charges for the Full Verification processes and all reasonable expenses incurred by NCC Group in carrying out the Full Verification processes shall be payable by the requesting party.
- 10.4 If the Escrow Materials fail to satisfy NCC Group's Full Verification tests as a result of being defective or incomplete in content, NCC Group's fees, charges and expenses in relation to the Full Verification tests shall be paid by the Owner.
- 10.5 Should the Escrow Materials deposited fail to satisfy NCC Group's Integrity Testing or Full Verification tests under clauses 10.2 or 10.3, the Owner shall, within 14 days of the receipt of the notice of test failure from NCC Group, deposit such new, corrected or revised Escrow Materials as shall be necessary to ensure its compliance with its warranties and obligations in clause 2. If the Owner fails to make such deposit of the new, corrected or revised Escrow Materials, NCC Group will issue a report to the Licensee detailing the problem with the Escrow Materials as revealed by the relevant tests.

11 NCC Group's Liability

- 11.1 Nothing in this clause 11 excludes or limits the liability of NCC Group for:-
 - 11.1.1 fraud or fraudulent misrepresentation;
 - 11.1.2 death or personal injury caused by NCC Group's (or its employees', agents' or sub-contractors') negligence; or
 - 11.1.3 any matter for which it is not permitted by law to exclude or limit, or to attempt to exclude or limit, its liability.

Without prejudice to clauses 11.1.1 to 11.1.3 (inclusive), the following provisions set out the entire financial liability of NCC Group (including any liability for the acts or omissions of its employees, agents and sub-contractors) arising out of or in connection with this Agreement, whether in contract, tort, misrepresentation, under statute or otherwise, howsoever caused including (without limitation) by negligence and also including (without limitation) any liability arising from a breach of, or a failure to perform or defect or delay in performance of, any of NCC Group's obligations under this Agreement.

- 11.2 NCC Group shall not be liable for any loss or damage caused to the other parties except to the extent that such loss or damage is caused by the negligent acts or negligent omissions of or a

breach of any contractual duty by NCC Group, its employees, agents or sub-contractors in performing its obligations under this Agreement and in such event NCC Group's maximum aggregate liability arising out of or in connection with this Agreement, whether in contract, tort, misrepresentation, under statute or otherwise, howsoever caused including (without limitation) by negligence and also including (without limitation) any liability arising from a breach of, or a failure to perform or defect or delay in performance of, any of NCC Group's obligations under this Agreement, shall be limited to £2,500,000 (two million five hundred thousand pounds).

11.3 Subject to clause 11.1 NCC Group shall not be liable to the other parties for any;

11.3.1 indirect, consequential and/or special loss or damage;

11.3.2 loss of profit (direct or indirect);

11.3.3 lost of revenue, loss of production or loss of business (in each case whether direct or indirect);

11.3.4 loss of goodwill, loss of reputation, or loss of opportunity (in each case whether direct or indirect);

11.3.5 loss of anticipated saving or loss of margin (in each case whether direct or indirect); and/or

11.3.6 loss or damage arising out of any failure by the Owner to keep full and up to date back-ups and security copies of any Escrow Materials delivered under this Agreement,

arising out of or in connection with this Agreement, whether in contract, tort, misrepresentation, under statute or otherwise, howsoever caused including (without limitation) by negligence and also including (without limitation) any liability arising from a breach of, or a failure to perform or defect or delay in performance of, any of NCC Group's obligations under this Agreement.

11.4 NCC Group shall not be liable in any way to the Owner or the Licensee for acting in accordance with the terms of this Agreement and specifically (without limitation) for acting upon any notice, written request, waiver, consent, receipt, statutory declaration or any other document furnished to it pursuant to and in accordance with this Agreement.

11.5 NCC Group shall not be required to make any investigation into and shall be entitled in good faith without incurring any liability to the Owner or the Licensee to assume (without requesting evidence thereof) the validity, authenticity, veracity and due and authorised execution of any documents, written requests, waivers, consents, receipts, statutory declarations or notices received by it in respect of this Agreement.

12 Indemnity

12.1 Save for any claim falling within the provisions of clause 11.1.1, the Owner and the Licensee jointly and severally agree at all times to indemnify and hold harmless NCC Group in respect of all of its legal and all other costs, fees and expenses incurred directly or indirectly as a result of being brought into or otherwise becoming involved in any form of dispute resolution proceedings or any litigation of any kind between the Owner and the Licensee in relation to this Agreement to the extent that this Agreement does not otherwise provide for reimbursement of such costs.

12.2 The Owner shall assume all liability and shall at all times indemnify and hold harmless NCC Group and its officers, agents, sub-contractors and employees from and against any and all liability, loss, damages, costs, legal costs, professional and other expenses and any other liabilities of whatever nature, awarded against or agreed to be paid or otherwise suffered, incurred or sustained by NCC Group, whether direct, indirect or consequential as a result of or in connection with any claim by any third party(s) for alleged or actual infringement of Intellectual Property Rights arising out of or in connection with all and any acts or omissions of NCC Group in respect of the Escrow Materials as contemplated under this Agreement.

13 TermandTermination

13.1 This Agreement shall continue until terminated in accordance with this clause 13.

13.2 If the Owner or the Licensee, as the case may be, fails to pay an invoice addressed to it for services under this Agreement within 30 days of its issue, NCC Group reserves the right to give that party written notice to pay the outstanding invoice within 30 days. If the Licensee has not paid its invoice by the expiry of the 30 day notice period, this Agreement will automatically immediately terminate. If the Owner has not paid its invoice by the expiry of the 30 day notice period, NCC Group will give the Licensee a period of 15 days to pay the Owner's invoice. If the Owner's invoice has not been paid by the expiry of the 15 day optional payment period given to the Licensee, this Agreement will automatically immediately terminate. Any amounts owed by the Owner but paid by the Licensee will be recoverable by the Licensee direct from the

- Owner as a debt and, if requested, NCC Group shall provide appropriate documentation to assist in such recovery.
- 13.3 Upon termination under the provisions of clause 13.2, for 30 days from the date of termination NCC Group will make the Escrow Materials available for collection by the Owner or its agents from the premises of NCC Group during office hours. After such 30 day period NCC Group will destroy the Escrow Materials.
- 13.4 Notwithstanding any other provision of this clause 13, NCC Group may terminate this Agreement by giving 30 days written notice to the Owner and the Licensee. In that event, the Owner and the Licensee shall appoint a mutually acceptable new custodian on similar terms and conditions to those contained herein. If a new custodian is not appointed within 14 days of delivery of such notice, the Owner or the Licensee shall be entitled to request the President for the time being of the British Computer Society (or successor body) to appoint a suitable new custodian upon such terms and conditions as he/she shall require. Such appointment shall be final and binding on the Owner and the Licensee. If NCC Group is notified of the new custodian within the notice period, NCC Group will forthwith deliver the Escrow Materials to the new custodian. If NCC Group is not notified of the new custodian within the notice period, NCC Group will return the Escrow Materials to the Owner.
- 13.5 The Licensee may terminate this Agreement at any time by giving written notice to NCC Group. Upon such termination, NCC Group will return the Escrow Materials to the Owner.
- 13.6 If NCC Group discovers that a Release Event has occurred and the Licensee has failed to exercise its right to claim for release of the Escrow Materials under clause 6.2, NCC Group shall have the right to terminate this Agreement upon 30 days written notice to the Owner and the Licensee. The Licensee shall have the option of applying for release in accordance with clause 6 during this notice period, but if it fails to do so, upon the expiry of this notice period, this Agreement shall automatically terminate and, unless otherwise instructed by the Owner or the Assignee prior to expiry of the notice period, NCC Group shall destroy the Escrow Materials.
- 13.7 If the Intellectual Property Rights in the Escrow Materials have been assigned to a third party and the proviso in clause 6.1.6 applies such that there has been no Release Event under that clause NCC Group shall be entitled to terminate this Agreement immediately by written notice to the Owner and the Licensee and upon such termination, unless otherwise instructed by the Owner or the Assignee, NCC Group shall destroy the Escrow Materials.
- 13.8 If the Licence has expired or has been lawfully terminated, then the Licensee shall give notice to NCC Group within 14 days thereof to terminate this Agreement, failing which, the Owner shall be entitled to give written notice to NCC Group to terminate this Agreement. Upon receipt of such a notice from the Owner, NCC Group shall notify the Licensee of the Owner's notice to terminate. Unless within 14 days of NCC Group giving such notice to the Licensee, NCC Group receives a counter-notice signed by a duly authorised officer of the Licensee disputing the termination of the Licence Agreement, then the Licensee shall be deemed to have consented to such termination and this Agreement shall immediately automatically terminate. Any disputes arising under this clause shall be dealt with in accordance with the dispute resolution procedure in clause 7. Upon termination under this clause, NCC Group shall return the Escrow Materials to the Owner.
- 13.9 Subject to clause 13.8, the Owner may only terminate this Agreement with the written consent of the Licensee.
- 13.10 This Agreement shall automatically immediately terminate upon release of the Escrow Materials to the Licensee in accordance with clause 6.
- 13.11 If this Agreement is superseded and replaced by a new agreement in respect of the Escrow Materials, this Agreement shall, upon the coming into force of the new agreement, automatically terminate. The relevant party or parties shall request NCC Group to either transfer the Escrow Materials to the new agreement or ask the owner under the new agreement to deposit new material. If new material is deposited, upon its receipt, NCC Group shall, unless otherwise instructed, destroy the Escrow Materials.
- 13.12 The provisions of clauses 1, 3.2, 3.3, 5, 8, 9, 10.1, 11, 12, 13.12 to 13.14 (inclusive) and 14 shall continue in full force after termination of this Agreement.

- 13.13 On and after termination of this Agreement, the Owner and/or the Licensee (as appropriate) shall remain liable to NCC Group for payment in full of any fees and interest which have become due but which have not been paid as at the date of termination.
- 13.14 The termination of this Agreement, however arising, shall be without prejudice to the rights accrued to the parties prior to termination.

14 General

- 14.1 A party shall notify the other parties to this Agreement, within 30 days of its occurrence, of any of the following:
- 14.1.1 a change of its name, registered office, contact address or other contact details; and
 - 14.1.2 any material change in its circumstances that may affect the validity or operation of this Agreement.
- 14.2 Within 14 days of any assignment or transfer by the Owner of any part of its Intellectual Property Rights in the Escrow Materials, the Owner shall notify:
- 14.2.1 NCC Group and the Licensee of such assignment and the identity of the Assignee;
- 14.3 The formation, existence, construction, performance, validity and all other aspects of this Agreement shall be governed by and construed in accordance with the laws of England and the parties submit to the exclusive jurisdiction of the English courts.
- 14.4 This Agreement, together with the Order Form and any relevant NCC Group standard terms and conditions represent the whole agreement relating to the escrow arrangements between NCC Group and the other parties for the Escrow Materials and shall supersede all prior agreements, discussions, arrangements, representations, negotiations and undertakings. In the event of any conflict between any of these documents, the terms of this Agreement shall prevail.
- 14.5 Unless the provisions of this Agreement otherwise provide, any notice or other communication required or permitted to be given or made in writing hereunder shall be validly given or made if delivered by hand or courier or if despatched by first class recorded delivery (airmail if overseas) addressed to the address specified for the parties in this Agreement (or such other address as may be notified to the parties from time to time) or if sent by facsimile message to such facsimile number as has been notified to the parties from time to time and shall be deemed to have been received:
- (i) if delivered by hand or courier, at the time of delivery;
 - (ii) if sent by first class recorded delivery (airmail if overseas), 2 business days after posting (6 days if sent by airmail);
 - (iii) if sent by facsimile, at the time of completion of the transmission of the facsimile with facsimile machine confirmation of transmission to the correct facsimile number of all pages of the notice.
- 14.6 The Owner and the Licensee shall not assign, transfer or subcontract this Agreement or any rights or obligations thereunder without the prior written consent of the other parties.
- 14.7 NCC Group shall be entitled to transfer or assign this Agreement upon written notice to both the Owner and the Licensee.
- 14.8 This Agreement shall be binding upon and survive for the benefit of the successors in title and permitted assigns of the parties.
- 14.9 If any provision of this Agreement is declared too broad in any respect to permit enforcement to its full extent, the parties agree that such provision shall be enforced to the maximum extent permitted by law and that such provision shall be deemed to be varied accordingly. If any provision of this Agreement is found by any court, tribunal or administrative body of competent jurisdiction to be wholly or partly illegal, invalid, void or unenforceable, it shall, to the extent of such illegality, invalidity or unenforceability, be deemed severable and the remaining part of the provision and the rest of the provisions of this Agreement shall continue in full force and effect.
- 14.10 Save as expressly provided in this Agreement, no amendment or variation of this Agreement shall be effective unless in writing and signed by a duly authorised representative of each of the parties to it.

- 14.11 The parties shall not be liable to each other or be deemed to be in breach of this Agreement by reason of any delay in performing, or failure to perform, any of their obligations under this Agreement if the delay or failure was for a reason beyond that party's reasonable control (including, without limitation, fire, flood, explosion, epidemic, riot, civil commotion, any strike, lockout or other industrial action, act of God, war or warlike hostilities or threat of war, terrorist activities, accidental or malicious damage, or any prohibition or restriction by any governments or other legal authority which affects this Agreement and which is not in force on the date of this Agreement). A party claiming to be unable to perform its obligations under this Agreement (either on time or at all) in any of the circumstances set out above must notify the other parties of the nature and extent of the circumstances in question as soon as practicable. If such circumstances continue for more than six months, any of the other parties shall be entitled to terminate this Agreement by giving one month's notice in writing.
- 14.12 No waiver by any party of any breach of any provisions of this Agreement shall be deemed to be a waiver of any subsequent or other breach and, subject to clause 6.6, no failure to exercise or delay in exercising any right or remedy under this Agreement shall constitute a waiver thereof.
- 14.13 This Agreement is not intended to create any right under the Contracts (Rights of Third Parties) Act 1999 which is enforceable by any person who is not a party to this Agreement and the rights of any third party under the said act are hereby expressly excluded.
- 14.14 This Agreement may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement.

Signed for and on behalf of DMA S.r.l

Name:
|.....

Position: | (Authorised Signatory)

Signed for and on behalf of TRANSPORTFORLONDON

Name:
|.....

Position: | (Authorised Signatory)

Signed for and on behalf of NCCGROUPESCROWLIMITED

Name:
|.....

Position: | (Authorised Signatory)

Schedule1
NOTUSED

Schedule2
NCCGroup'sFees

	DESCRIPTION	OWNER	LICENSEE
1	Annual Fee (payable on completion of this Agreement and in advance of each anniversary thereafter)	100%	Nil
2	Scheduled Update Fee (2 nd and subsequent scheduled deposits in any one year, payable on completion of this Agreement and in advance of each anniversary thereafter)	100%	Nil
3	Unscheduled Update Fee (per unscheduled deposit)	100%	Nil
4	Release Fee (plus NCC Group's reasonable expenses)	100%	Nil

Additional fees will be payable to NCC Group by the Licensee (unless otherwise agreed between the parties) for the following where applicable:

- Storage Fee for deposits in excess of 1 cubic foot;
- Any novation or replacement of this Agreement at the request of the Owner or the Licensee;
- Integrity Testing Fee for deposits consisting of more than 5 media items.

Schedule3
LicenceAgreement

[Insert full details of the agreement related to the Escrow Materials.]

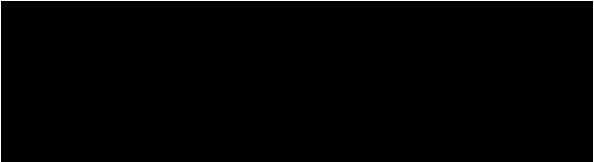
APPENDIX 1 Escrow Materials

The source code to any Software forming part of the Supplier's IPR, together with any programmers' notes and other documentation reasonably required to set up the test system and operate the source code in object code form and to maintain and adapt the source code.

EXECUTION PAGE:

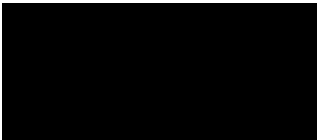
Executed as a deed by the parties and delivered on the date of this Contract

Executed as a deed by affixing the Common Seal of)
Transport for London)
)



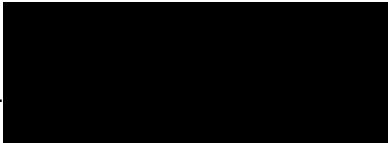
[Authorised Signatory]

Executed as a Deed by
DMA S.r.l)
acting by)
)



) Authorised Signatory

and)



) Authorised Signatory