

or such other source as the Manufacturer may demonstrate to the Purchaser's satisfaction is equivalent.

1.6 **"Timber"**

Means wood from trees that have been felled for that purpose, but excludes any item where the manufacturing processes applied to it has obscured the wood element, (by way of example only, paper would not be treated as timber). Where the term Timber is used as a generic term it includes both Virgin Timber and Recycled Timber.

1.7 **"Purchaser"**

Means London Underground Limited.

1.8 **"Virgin Timber"**

Timber supplied or used in performance of the Agreement that is not Recycled Timber.

1.9 **"Independent Report"**

Means an independent report by an individual or body:

- (A) whose organisation, systems and procedures conform to:
 - (i) ISO Guide 65:1996 (EN 45011:1998); and
 - (ii) general requirements for bodies operating product certification systems; and
- (B) who is accredited to audit against forest management standards by a national or international body whose organisation, systems and procedures conform to ISO Guide 61 General Requirements for Assessment and Accreditation of Certification Bodies.

2. **MANUFACTURER'S OBLIGATIONS AND THE PURCHASER'S RIGHTS**

2.1 The Manufacturer shall ensure that all Timber supplied or used in the performance of the Agreement shall be Sustainable Timber. If it is not practicable for the Agreement to meet this condition the Manufacturer must inform the Purchaser in writing prior to the supply of any Timber that is not Sustainable Timber, and stating the reason for the inability to comply with this condition. The Purchaser reserves the right, in its absolute discretion, to approve the use of Timber that is not Sustainable Timber. Where the Purchaser exercises its right to reject any Timber, the provisions of paragraph 2.4 of this Schedule 17 Part C shall apply.

2.2 Without prejudice to paragraphs 2.1 and 4.2 of this Schedule 17 Part C, all Virgin Timber procured by the Manufacturer for supply or use in performance of the Agreement shall be Legal Timber.

2.3 The Manufacturer shall ensure that Virgin Timber it procures for supply or use in performance of the Agreement shall not have derived from any species of tree that is protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES") unless the supplier can prove, by producing official documentation, that he has complied with the CITES requirements that permit trading in the particular species of tree so listed under CITES.

- 2.4 The Purchaser reserves the right to reject at any time any Timber that does not comply with the conditions of this Agreement or the Specification. Where the Purchaser exercises its right to reject any Timber, the Manufacturer shall supply contractually compliant alternative Timber, at no additional cost to the Purchaser and without causing delay to the performance of the Agreement.
- 2.5 The Manufacturer shall maintain records of all Timber supplied and used in the performance of the Agreement. Such information shall be made available to the Purchaser promptly if requested at any time.

3. **PURCHASER'S REPORTING REQUIREMENTS**

- 3.1 Unless the Purchaser has given its written approval in accordance with paragraph 2.1 of this Schedule 17 Part C that Timber that is not Sustainable Timber may be used, then, if requested, the Manufacturer shall promptly provide evidence to the Purchaser's satisfaction that the Timber is Sustainable Timber.
- 3.2 Upon a request by the Purchaser referred to in paragraph 3.1 of this Schedule 17 Part C, in the event that the Manufacturer does not promptly provide such evidence, or the evidence provided does not satisfy the Purchaser's requirements, then (and without prejudice to paragraph 4.1 of this Schedule 17 Part C), the Purchaser reserves the right to retain 25% of any monies payable to the Manufacturer under the Agreement until such date as the Purchaser is in receipt of such evidence and the Purchaser is satisfied that the evidence establishes that the Timber is Sustainable Timber .
- 3.3 The Manufacturer shall report quarterly on its use of Sustainable Timber in the performance of the Agreement, in accordance with Appendix A of this Schedule 17 Part C.
- 3.4 The Manufacturer shall report on the amount of Timber that has been supplied to the Purchaser in accordance with paragraph 2.1 of this Schedule 17 Part C which is not Sustainable Timber.

4. **VERIFICATION**

4.1 **Evidence of Sustainable Timber**

The Purchaser reserves the right to determine whether the evidence supplied by the Manufacturer is sufficient to satisfy it that the Specification and other terms and conditions of this Agreement have been fully complied with. In the event that the Purchaser is not so satisfied, the Manufacturer shall, on written request by the Purchaser, commission and meet the costs of an Independent Report to:

- 4.1.1 verify the source of the Timber; and
- 4.1.2 assess whether the forests of origin were managed in accordance with the specified local laws and regulations.

4.2 **Evidence of Legal Timber**

- 4.2.1 The Manufacturer shall, before delivering any Virgin Timber under this Agreement, obtain documentary evidence to the Purchaser's satisfaction that the Timber is both Legal and Sustainable Timber. If requested in writing by the Purchaser, the Manufacturer shall submit such documentary evidence to the Purchaser either prior to delivery or at such other times as the Purchaser may require. For the avoidance of doubt, the Manufacturer shall identify, as part of

the evidence submitted, a chain of custody from the source of the Timber through to delivery of the final product.

- 4.2.2 The Purchaser reserves the right at any time during the execution of the Agreement and for a period of six (6) years from final delivery of any Timber under the Agreement to require the Manufacturer to produce the evidence required for the Purchaser's inspection within 14 days of the Purchaser's written request.

Appendix A

Aim of KPI:

Implement the Purchaser's Sustainable Timber Policy

Implement the Purchaser's environmental objective: Reduce resource consumption & improve green procurement

| | |
|-------------------------|--|
| Reporting period | |
| Date | |
| Completed by | |
| Title | |

| Desired Outcome | Service Performance Indicator | Quantity (KG) | Value (£) | % of good represented | Reporting Frequency | objective | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------------|-----------|-----------------------|--------------------------------|-----------------------------------------------------------|--------|--------|--------|--------|--------|
| Reduce resource consumption and improve green procurement (TfL Env' KPI) | Timber complies with Sustainable Timber definition and obligations as per the Agreement. | | | | Quarterly, with Annual report. | Increase/maintain % of sustainable timber supplied | | | | | |
| Reduce resource consumption and improve green procurement (TfL Env' KPI) | Timber does NOT comply with Sustainable Timber definition and obligations as per the Agreement | | | | Quarterly, with Annual report. | Reduce amount of Non Sustainable Timber procured. | | | | | |

SCHEDULE 18: TRAINING

1. GENERAL REQUIREMENTS FOR TRAINING

- 1.1 The Manufacturer shall provide, or procure the provision of, training in accordance with this Schedule 18 to the breadth and depth required to enable:
 - 1.1.1 the Purchaser's trainers to acquire all relevant knowledge and skills to carry out training of the Purchaser's staff to:
 - (A) enable operation and maintenance of the Replacement Systems as well as equipment used to carry out Tests for the Replacement Systems;
 - (B) conduct fault finding; and
 - (C) remove, replace and subsequently test all components of the Replacement Systems;
 - (D) enable operation of the Replacement Systems by the train driver;
 - 1.1.2 the Installer's trainers to acquire all relevant knowledge and skills to carry out training of the Purchaser's staff to:
 - (A) conduct the installation of the Replacement Systems;
 - (B) enable Testing of the Replacement Systems; and
 - (C) operate and maintain the equipment used to carry out Testing for the Replacement Systems; and
 - 1.1.3 provide any required information to enable the Purchaser to train its train drivers and other operational staff as required.
- 1.2 The Manufacturer shall also be required to train any person nominated by the Purchaser.
- 1.3 The introduction of technical enhancements in the Replacement Systems or any other changes, such as those arising from the rectification of Manufacturer Defects, shall be analysed by the Manufacturer, in consultation with the Purchaser, to determine whether further training is required. Any such training identified shall fall within the provisions of this Agreement and shall be provided by the Manufacturer at no additional cost to the Purchaser.
- 1.4 For the avoidance of doubt, the Manufacturer shall comply with its obligations under this Schedule 18 at its own cost and shall not be entitled to any adjustment to the Contract Price, unless expressly stated otherwise in this Schedule 18.
- 1.5 The Manufacturer shall be responsible for the modification of the training approach, materials and resources in consultation with the Purchaser, taking account of training pass/fail rates and in-service operations and maintenance experience.
- 1.6 The Manufacturer shall, as part of the Training Programme (as defined below), and for the Purchaser's subsequent use for training, provide all tools and equipment associated with the Replacement Systems for which training is being provided.
- 1.7 Training shall be provided on the set-up, use and maintenance of all:
 - 1.7.1 tools provided to support training; and
 - 1.7.2 e-learning and equipment, including diagnostic equipment and off-Train equipment testing and analysis tools.
- 1.8 The training provided by the Manufacturer shall cover the operation and maintenance of the Replacement Systems under normal, abnormal, degraded and emergency conditions and shall address all normal modes of operation, the symptoms of failure modes, corrective actions to be taken, safety precautions, the level of intervention that is permissible by the Purchaser and the events that would necessitate the Manufacturer's involvement. Such training shall include, but shall not be limited to:

- 1.8.1 the location, purpose and function of all systems and components relevant for the following activities associated with the Replacement Systems;
 - 1.8.2 the operation and maintenance (including all instructions and processes for installation, operation and maintenance, fault diagnosis, rectification and testing) of the Replacement Systems;
 - 1.8.3 system interfaces and associated failure modes and effects;
 - 1.8.4 calibration, adjustment and use of Special Tools;
 - 1.8.5 the Replacement Systems Design, performance limits and capability (to ensure that the Purchaser has the capability to undertake specialist engineers' investigations); and
 - 1.8.6 such other content that the Manufacturer shall propose and the Purchaser shall agree.
- 1.9 All training shall be accompanied by a full suite of documentation approved by the Purchaser including but not limited to:
- 1.9.1 installation, operator and maintainer manuals (including detailed instructions for the installation, operation and maintenance of the Replacement Systems, including training tools and equipment);
 - 1.9.2 the documentation necessary to provide specialist engineers with all necessary information to enable them to carry out incident investigations on the Replacement Systems being supplied;
 - 1.9.3 an emergency breakdown manual; and
 - 1.9.4 Training Materials (as defined below) including Training Plans (as defined below), detailed trainers' notes, presentation materials (which may include slides, models and other relevant materials), formative and summative assessments and trainee material (including for example, handbooks).
- 1.10 The Manufacturer shall be responsible for the provision of an adequate number of appropriately skilled trainers to complete all aspects of the analysis, design, development, delivery and evaluation of training (including, when required by the Purchaser, competency assessments) to meet the provision of the Training Programme.
- 1.11 Training delivery venues shall be at a nominated venue of the Purchaser.
- 1.12 In order to facilitate the development of technology based training (such as simulation or computer based training) by the Purchaser, the Manufacturer shall provide all required technical information, including documentation such as illustrations, schematics, display screen captures, training manuals and design information relating to the design parameters, installation, operation and maintenance of the Replacement System.

2. GENERAL REQUIREMENTS FOR TRAINING OF THE INSTALLER:

- 2.1 For installation of the Replacement Systems, the required method of training is a "train-the-trainer" approach. The Manufacturer must provide sufficient training to all of the Installer's designated training personnel (such personnel to be nominated by the Purchaser) to ensure that such personnel acquire the required knowledge and skills to enable them to train all staff who are involved in the installation of the Replacement Systems.
- 2.2 The Manufacturer shall provide appropriate training in advance of the commencement of installation, which shall be sufficient to ensure the Installer is trained and supported fully in:
 - 2.2.1 its integration of the test rig;
 - 2.2.2 its testing of the Replacement Systems on the test rig; and
 - 2.2.3 its installation of the Replacement Systems onto the Trains (including "on Train" system testing).

2.3 The Manufacturer shall provide ongoing support throughout the testing and installation process in accordance with Schedule 3A (*Continuing Support*).

2.4 The number of times each individual training course is delivered shall be dependent upon:

2.4.1 the maximum number of attendees, being 4 personnel per "train-the-trainer" course, up to a maximum of 10 employees; and

2.4.2 the actual number of personnel that the Purchaser elects to attend.

3. **GENERAL REQUIREMENTS FOR ON-GOING MAINTENANCE:**

3.1 For ongoing maintenance and operation of the Replacement Systems, the required method of training is a "train-the-trainer" approach. The Manufacturer shall provide training and materials sufficient to ensure that:

3.1.1 those personnel nominated by the Purchaser to attend training acquire all relevant knowledge and skill in relation to the operation of the Replacement Systems, including facets relating to the function, malfunction (including the range and ramification of potential failure conditions), operation and use of the Replacement Systems that are relevant to the appropriate staff;

3.1.2 those personnel nominated by the Purchaser to attend training acquire knowledge and skills in relation to the maintenance of the Replacement Systems, including all maintenance activity over the life of the Replacement Systems that are relevant to the appropriate staff. Such activities shall include (without limitation) inspection maintenance, casualty maintenance, diagnostic and monitoring activities, fault diagnosis, fault rectification; and

3.1.3 those personnel nominated by the Purchaser to attend training acquire knowledge and skills such that they are able to train the appropriate staff as per the requirements of paragraphs 3.1.1 and 3.1.2 above.

3.2 The number of times each individual training course is delivered shall be dependent upon:

3.2.1 the maximum number of attendees, being 4 personnel per "train-the-trainer" course, up to a maximum of 10 employees; and

3.2.2 the actual number of personnel that the Purchaser elects to attend.

4. **TRAINING PROGRAMME**

4.1 The Manufacturer shall provide a training programme in accordance with the requirements of this Schedule 18. Once such a training programme has been approved by the Purchaser, it shall be the "Training Programme" for the purposes of this Schedule 18.

4.2 The Manufacturer shall ensure that the Training Programme sets out the training that shall be provided by the Manufacturer to enable the Purchaser and Installer to train their employees (or those of the Purchaser's nominees) to install, operate and maintain (as applicable) the Replacement System in accordance with the requirements of the Specification.

4.3 The Manufacturer shall ensure that the Training Programme is provided in accordance with the timescales required by this Agreement.

4.4 The Manufacturer shall ensure that the Training Programme details all training timescales associated with the:

4.4.1 production of all Training Materials;

4.4.2 delivery of all training courses and associated assessments to be provided by the Manufacturer; and

4.4.3 delivery of all deliverables under this Schedule 18.

4.5 At a minimum, in the Training Programme, the Manufacturer shall make programme provision in relation to training as follows:

4.5.1 Training Programme preparation; submission to Purchaser; Purchaser review; update and resubmission to Purchaser (if required); Purchaser approval; regular review.

4.5.2 for each training course:

- (A) completion and assurance of training needs analysis;
- (B) production of a Training Plan, including (but not limited to): preparation (incorporating Manufacturer validation/assurance), submission to Purchaser, Purchaser review, update and resubmission to Purchaser (if required), Purchaser approval;
- (C) production of technical support documentation, including: installation, preparation of operation and maintenance manuals as well as any other manuals required (incorporating Manufacturer validation/assurance), submission to Purchaser, Purchaser review, update and resubmission to Purchaser (if required), Purchaser approval;
- (D) production of Training Materials, including: preparation (incorporating Manufacturer validation/assurance), submission to Purchaser, Purchaser review, update and resubmission to Purchaser (if required), Purchaser approval;
- (E) provision of all training tools and equipment required for the training course concerned; and
- (F) delivery, evaluation and certification of the relevant training (and licensing if required) and any required competence development and assessment activities.

4.6 The Training Programme shall be reviewed in conjunction with the Purchaser and shall be maintained and updated as and when necessary or as requested by the Purchaser until Fleet Acceptance, or if later, until the provision of the last training, and re-submitted for approval to the Purchaser as required.

5. TRAINING NEEDS ANALYSIS

5.1 Training needs analysis shall be conducted in accordance with the requirements of the Specification.

6. TRAINING MATERIALS

6.1 For each training course, the Manufacturer shall submit to the Purchaser, training materials for approval (the "**Training Materials**"). Such materials shall include:

- 6.1.1 Installer, operator and maintainer documentation, including manuals and training manuals;
- 6.1.2 output of training needs analysis;
- 6.1.3 Training Plans;
- 6.1.4 presentation materials;
- 6.1.5 detailed trainer notes;
- 6.1.6 trainee materials, including handbooks, fault guides, handouts and other such materials;
- 6.1.7 tools and equipment; and
- 6.1.8 formative and summative assessments including, for the summative assessments, a matrix that cross-references each learning objective with all related assessment questions.

6.2 The Purchaser shall be entitled, without further charge, to duplicate for either the Manufacturer or the Installer as many copies of the Training Materials and other materials provided as it requires.

- 6.3 The Training Materials shall be reviewed in conjunction with the Purchaser and re-submitted for approval to the Purchaser as required.
- 6.4 The Training Materials shall be maintained and updated by the Manufacturer as and when necessary or when requested by the Purchaser, until Fleet Acceptance, or if later, until the provision of the last item of training.
- 6.5 The Training Materials provided by the Manufacturer for the Purchaser shall be of sufficient quality and quantity as are reasonably necessary or desirable to permit the Purchaser's nominated trainers to undertake further training of the Purchaser's employees or those of any nominee.

7. TRAINING PLANS

- 7.1 When developing the Training Plans, the Manufacturer shall:
- 7.1.1 identify the time, location and attendee numbers for training courses, along with any pre-requisites or dependencies for attendance;
 - 7.1.2 identify each training course where recommended attendance is linked to the prior completion of another training course;
 - 7.1.3 limit the number of such dependencies in so far as it is reasonably practical; and
 - 7.1.4 provide joining instructions specifying exact details regarding timings, location, direction, pre-course information and other requirements for each course delegate.

8. TRAINING ACCREDITATION / VALIDATION

- 8.1 The Manufacturer shall provide to the Purchaser for the Purchaser's acceptance details of the training accreditation/validation process to accompany the Training Programme and Training Materials provided.

9. TRAINING DELIVERY, COST, EVALUATION AND ACCEPTANCE

- 9.1 The Manufacturer shall at no additional cost to the Purchaser meet the requirements detailed within this Schedule 18.
- 9.2 Unless otherwise agreed with the Purchaser, all training provided by the Manufacturer shall contain formative and summative immediate outcome level assessments ("**Competence Assessments**"). The Manufacturer shall provide Competence Assessments for each of the following activities:
- 9.2.1 test rig operation;
 - 9.2.2 planned preventative maintenance;
 - 9.2.3 corrective maintenance; and
 - 9.2.4 Fault and failure diagnosis and rectification maintenance.
- 9.3 The Manufacturer shall provide Competence Assessments for all staff members who have been trained by the Manufacturer pursuant to this Schedule 18.
- 9.4 The Manufacturer shall provide the Purchaser's nominees with all support required in order to achieve competence, including task coaching, task shadowing and supervised practice.
- 9.5 Once a staff member has passed the relevant Competence Assessments, the Manufacturer shall provide a licence to that staff member that proves that the staff member is competently able to train the appropriate staff as required.
- 9.6 All training shall be subject to approval by the Purchaser, once the Purchaser confirms its satisfaction with the:
- 9.6.1 final version of the Training Materials (approved by the Purchaser pursuant to the approval process as detailed within Schedule 1A); and

- 9.6.2 delivery of the training concerned (to the Purchaser's nominees), including the delivery of training evaluation and the delivery of Competence Assessments.
- 9.7 Following approval of the training by the Purchaser, should any alteration be required to the Training Materials in light of in-service operations and maintenance experience, the Manufacturer shall complete any necessary analysis and provide updated Training Materials for the approval of the Purchaser. All necessary support shall be provided by the Manufacturer to ensure that the Purchaser's nominees acquire all required knowledge and skills associated with the changes concerned.

10. ADDITIONAL TRAINING

- 10.1 At the Purchaser's request the Manufacturer shall provide further ongoing maintenance courses in accordance with paragraph 3 of this Schedule 18.
- 10.2 The cost per delegate of additional "train the trainer" Training courses shall be as set out in Part 6 of Schedule 4.
- 10.3 At the Purchaser's request the Manufacturer shall provide direct Training to its nominated personnel in accordance with paragraphs 3.1.1 and 3.1.2 of this Schedule 18.
- 10.4 The cost per delegate of additional "direct training" Training courses shall be as set out in Part 6 of Schedule 4.