

SCHEDULE 11

Monitoring

SCHEDULE 11

Monitoring

1. The Service Provider shall carry out those inspections, surveys, tests and assessments that it is required to carry out during the Contract Term, pursuant to clause 6 (*Surveys and Inspections*) of this Contract and in accordance with Method Statement 13 (*Inspections, Assessments and Monitoring*).
2. This schedule 11 sets out the specific Monitoring Methods required to monitor performance of the Services described in schedule 2 (*Output Specification*). In respect of each Monitoring Method set out within this schedule 11, the Service Provider shall carry out monitoring against the Performance Targets as set out in schedule 2 (*Output Specification*). In addition, in respect of certain Performance Targets as set out below, the Service Provider shall carry out monitoring as specifically described in this schedule 11.

3. Monitoring Method A

The Service Provider shall carry out those inspections, surveys, tests and assessments to enable the Service Provider and the Authority to run the NCI Calculation Methodology, the FWCI Calculation Methodology, the KBCI Calculation Methodology, the VGCI Calculation Methodology and the CTCI Calculation Methodology at least once by 1 November of each Contract Year.

4. Monitoring Method B

The Service Provider shall carry out Structural Assessments in accordance with paragraph 14.3.4 of Method Statement 13 (*Inspections, Assessments and Monitoring*).

5. Monitoring Method C

The Service Provider shall carry out photometric tests in accordance with Method Statement 2 (*Network and Infrastructure Condition*).

6. Monitoring Method D

The Service Provider shall provide to the Authority, as part of the Annual Service Report:

6.1 statements confirming that:

6.1.1 Street Lighting has been replaced or upgraded in accordance with the Street Lighting Required Outcomes set out in this Contract;

- 6.1.2 Street Lighting that has been upgraded is being remotely monitored within two years of such upgrade;
- 6.1.3 Traffic Signal Controllers have been replaced in accordance with the requirements of this Contract, together with a detailed analysis of the age profile of all Traffic Signal Controllers situated on the Project Network on the date that this annual statement is submitted;
- 6.1.4 all materials used in the performance of the Services that are required pursuant to Performance Standard 1B have been used in accordance with:
 - 6.1.4.1 the requirements of such Performance Standard 1B; and
 - 6.1.4.2 the Annual Programme for the relevant Contract Year (as such Annual Programme is amended or updated pursuant to clause 11 (*Service Provider Programmes*)) of this Contract;
- 6.1.5 the correct type of paint and thermoplastic has been laid pursuant to paragraph 2.7.7.1(b) of part 2 of schedule 2 (*Output Specification*); and
- 6.1.6 all Road Markings are located and aligned in accordance with the Traffic Signs and General Directions 2002 (paragraph 2.7.7.1(e) of part 2 of schedule 2 (*Output Specification*));
- 6.2 details of all Traffic Regulation Orders that have been:
 - 6.2.1 applied for by the Service Provider; and
 - 6.2.2 granted by the Authority,in the preceding Contract Year;
- 6.3 all information relating to the Service Provider's obligations pursuant to paragraphs 2.7.4.1(f) and (g) of part 2 of schedule 2 (*Output Specification*); and
- 6.4 a summary (in such form as the Parties shall agree (acting reasonably) on or prior to the Planned Service Commencement Date) of the instances where the Service Provider has failed to comply with its obligation to provide the Services in accordance with schedule 2 (*Output Specification*) in respect of those Performance

Targets that were due to be monitored in the Contract Year to which the relevant Annual Service Report applies in accordance with the requirements of this Contract;

together with all supporting information that the Authority may (acting reasonably) require in support of such confirmation (including, without limitation, any information contained in the Management Information System).

7. Monitoring Method E

The Service Provider shall carry out those General Inspections and / or Principal Inspections that it is required to carry out during the Contract Term.

8. Monitoring Method F

The Service Provider shall, as part of the Actual Monthly Monitoring Report, submit:

- 8.1 a detailed summary (in such form as the Parties shall agree (acting reasonably) on or prior to the Planned Service Commencement Date) of the instances where the Service Provider has failed to comply with its obligation to provide the Services in accordance with schedule 2 (*Output Specification*) in respect of those Performance Targets that were due to be monitored in the Month to which the relevant Actual Monthly Monitoring Report applies in accordance with the requirements of this Contract; and
- 8.2 all supporting information that the Authority may (acting reasonably) require in support of such confirmation (including without limitation any information contained in the Management Information System).

9. Monitoring Method G

The Service Provider shall carry out outage detection cycles in accordance with Method Statement 3 (*Network Performance*).

10. Monitoring Method H

The Service Provider shall carry out those Safety Inspections that it is required to carry out during the Contract Term.

11. Monitoring Method I

The Service Provider shall carry out those Special Inspections that it is required to carry out during the Contract Term.

12. Monitoring Method J

The Service Provider shall carry out those Service Inspections that it is required to carry out during the Contract Term pursuant to clause 6 (*Surveys and Inspections*) of this Contract provided that:

- 12.1 in relation to those Service Inspections which are carried out in order to monitor the Performance Target set out in paragraphs 2.7.7.1(c), 2.7.7.1(d) and 2.16.17.1 of part 2 of schedule 2 (*Output Specification*), such Service Inspections shall be carried out on those Project Network Parts that are selected at random by the Authority no more than once annually and notified to the Service Provider by the Authority within a reasonable time to allow the Service Provider to include such Service Inspections in the Annual Programme (as such Annual Programme is updated or amended from time to time in accordance with this Contract);
- 12.2 in relation to those Service Inspections which are carried out in order to monitor the Performance Target set in paragraph 2.7.9.1(a) of part 2 of schedule 2 (*Output Specification*), such Service Inspections shall be carried out following wet weather conditions; and
- 12.3 in relation to those Service Inspections which are carried out in order to monitor the Performance Target set in paragraphs 2.7.9.1(b) and 2.7.9.2 of part 2 of schedule 2 (*Output Specification*), such Service Inspections shall be carried out:
 - 12.3.1 within one (1) hour of an Event Storm; and
 - 12.3.2 on those Project Network Parts that are selected at random by the Authority no more than once annually and notified to the Service Provider by the Authority within sufficient time to allow the Service Provider to include such Service Inspections within the Annual Programme (as such Annual Programme is updated or amended from time to time in accordance with this Contract).

13. Monitoring Method K

The Service Provider shall, within five (5) Business Days of the completion of any works:

- 13.1 involving the removal or replacement of Traffic Signs pursuant to paragraph 2.7.6.1(g) of part 2 of schedule 2 (*Output Specification*);

13.2 involving the replacement of Road Markings pursuant to paragraph 2.7.7.1(f) of part 2 of schedule 2 (*Output Specification*); and

13.3 carried out as a result of the Service Provider complying with its obligations set out in paragraph 2.12.3 of part 2 of schedule 2 (*Output Specification*),

issue a certificate to the Authority confirming that all such works are complete so that they comply with the applicable requirements of schedule 2 (*Output Specification*).

14. Monitoring Method L

The Service Provider shall carry out a DVI once in the first Contract Year and then biennially thereafter.

15. Monitoring Method M

The Service Provider shall submit to the Authority a weekly report setting out in full all details of the Service Provider's performance in respect of the following:

15.1 (in respect of Festive Decorations) paragraphs 2.10.3.1 and 2.10.3.2 of part 2 of schedule 2 (*Output Specification*) and paragraphs 1.3, 1.5, 1.7, 1.9 and 1.10 of part 5 of schedule 14 (*Call-Off Agreements*) during the Festive Period;

15.2 (in respect of tree removals as a result of a Category 1 Defect) paragraph 2.3.13 of part 3B of schedule 2 (*Output Specification*);

15.3 (in respect of Traffic Management measures) paragraphs 2.11, 2.12 and 2.16 of part 7 of schedule 2 (*Output Specification*);

15.4 (in respect of Customer Care Targets and the Authority Weekly Briefing) paragraphs 2.8 and 2.10.1 of part 8 of schedule 2 (*Output Specification*);

15.5 (in respect of Special Event Services) paragraph 1.8 of part 2 of schedule 14 part 5 of schedule 14 (*Call-Off Agreements*);

15.6 (in respect of instruction from the Authority to plant additional Highway trees) paragraph 1 of part 4 of schedule 14 (*Call-Off Agreements*).

16. Monitoring Method N

The Service Provider shall carry out those arboricultural inspections that it is required to carry out during the Contract Term.

17. Monitoring Method O

The Service Provider shall submit to the Authority on a daily basis (and in accordance with the relevant provisions of part 4 of schedule 2 (*Output Specification*)) during the Winter Maintenance Period:

- 17.1 details of the member of staff whom the Service Provider is required to provide pursuant to paragraph 2.1.2 of part 4 of schedule 2 (*Output Specification*);
- 17.2 the Daily Actions List;
- 17.3 the Updated Daily Actions List; and
- 17.4 the Daily Actions Report.

APPENDIX 1 TO SCHEDULE 11 (MONITORING)

MIS Sub-System	Critical Fields	Initial Accuracy Test (undertaken monthly until expiry of the Moratorium Period for each sub-system)	Monthly Accuracy Test (undertaken monthly prior to the preparation of the draft Monthly Monitoring Report)
Project Network Inventory	- Project Network Part Description (e.g.: Sign, Gully) - Location (E & N) within both the Project Network Inventory and the GIS - Current status (i.e. if a Project Network Part has been installed but is not yet fully operable, this needs to be recorded on the Project Network Inventory but stated as such).	During the Mobilisation Period and the first Contract Year, the Service Provider shall carry out a gap analysis of the existing Project Network Inventory and shall then undertake data collection to bring it up to the 99% accuracy required. During the data collection, the Service Provider shall procure that all its subcontractor(s) undertake quality checks of the data on a daily basis based on a 2% sample. Where data fails to meet the 99% accuracy requirement, the Service Provider shall reject all work for that day and shall procure that it is resubmitted. When the subcontractor is satisfied the quality requirements have been met and demonstrated to the Service Provider's satisfaction, the Service Provider shall procure that its asset manager ("AM") undertakes his own initial 5% audit checks of the data submitted by the sub contractor and if this random sample of data fails to meet the requirements the whole batch of data will be rejected. Where the AM is satisfied that the quality levels are consistent and meet the 99% accuracy requirement for a period of at least twelve (12) Months then the random sample will be reduced to 2%. The Service Provider shall ensure that the audit covers the accuracy of the critical fields as a minimum. The Service Provider shall ensure that all data is	On completion of the Project Network Inventory update, the Service Provider shall procure that all changes to the asset inventory are identified by the works ordering process or through the Authority for Authority works (including HWA Works and New Build) and Third Party works. These will be flagged and the Service Provider shall ensure that the AM undertakes inventory updating for these works. Where possible, the Service Provider shall procure that any changes by the Service Provider are automated within the MIS. Audit Process: The Service Provider shall ensure that the AM produces a report of all changes to the Project Network within the previous Month and undertakes a random 2% sample for checking. The Service Provider shall ensure that this includes site visits to check data accuracy and also checks of the accuracy of off site information recorded within the MIS. The Service Provider shall ensure that any errors detected are rectified. Rectification Process (does not form part of the Monthly Accuracy Test): Where accuracy falls below the required 99%, the Service Provider shall ensure that a further 2% sample is audited and the total of all

MIS Sub-System	Critical Fields	Initial Accuracy Test (undertaken monthly until expiry of the Moratorium Period for each sub-system) date and time stamped to allow the data to be reconciled with changes made by the Service Provider after data collection has occurred. The Service Provider shall ensure that data is validated for accuracy during loading into the system to trap any obvious errors The Parties acknowledge and agree that rules will be written for this process once the MIS Sub-Systems are developed and in operation.	Monthly Accuracy Test (undertaken monthly prior to the preparation of the draft Monthly Monitoring Report) samples are aggregated and the accuracy calculation repeated. The Service Provider shall repeat this sampling and correction process until the 99% accuracy figure is achieved.
Powered Apparatus Inventory	▪ Description ▪ Location (E & N) within both the Powered Apparatus Inventory and the GIS ▪ Current status (i.e. if Powered Apparatus has been installed but is not yet fully operable, this needs to be recorded on the Powered Apparatus Inventory but stated as such) ▪ Metered or Unmetered ▪ Nature of power requirement ▪ Power consumption	During the Mobilisation Period and the first Contract Year, the Service Provider shall carry out a gap analysis of the existing Powered Apparatus Inventory and shall then undertake data collection to bring it up to the 99% accuracy required. During the data collection, the Service Provider shall procure that all its subcontractor(s) undertake quality checks of the data on a daily basis based on a 2% sample. Where data fails to meet the 99% accuracy requirement, the Service Provider shall reject all work for that day and shall procure that it is resubmitted. When the subcontractor is satisfied the quality requirements have been met and demonstrated to the Service Provider's satisfaction, the Service Provider shall procure that its asset manager ("AM") undertakes his own initial 5% audit checks of the data submitted by the sub contractor and if this random sample of data fails to meet the requirements the whole batch of data will be rejected. Where the AM is satisfied that the	On completion of the Powered Apparatus Inventory update, the Service Provider shall procure that all changes to the asset inventory are identified by the works ordering process or through the Authority for Authority works (including HWA Works and New Build) and Third Party works. These will be flagged and the Service Provider shall ensure that the AM undertakes inventory updating for these works. Where possible, the Service Provider shall procure that any changes by the Service Provider are automated within the MIS. Audit Process: The Service Provider shall ensure that the AM produces a report of all changes to the Project Network within the previous Month and undertakes a random 2% sample for checking. The Service Provider shall ensure that this includes site visits to check data accuracy and also checks of the accuracy of off site information recorded within the MIS. The Service Provider shall ensure that any errors

MIS Sub-System	Critical Fields	Initial Accuracy Test	Monthly Accuracy Test
		(undertaken monthly until expiry of the Moratorium Period for each sub-system) quality levels are consistent and meet the 99% accuracy requirement for a period of at least twelve (12) Months then the random sample will be reduced to 2%. The Service Provider shall ensure that the audit covers the accuracy of the critical fields as a minimum. The Service Provider shall ensure that all data is date and time stamped to allow the data to be reconciled with changes made by the Service Provider after data collection has occurred. The Service Provider shall ensure that data is validated for accuracy during loading into the system to trap any obvious errors The Parties acknowledge and agree that rules will be written for this process once the MIS Sub-Systems are developed and in operation.	(undertaken monthly prior to the preparation of the draft Monthly Monitoring Report) detected are rectified. Rectification Process (does not form part of the Monthly Accuracy Test): Where accuracy falls below the required 99%, the Service Provider shall ensure that a further 2% sample is audited and the total of all samples are aggregated and the accuracy calculation repeated. The Service Provider shall repeat this sampling and correction process until the 99% accuracy figure is achieved.
Underground Apparatus Inventory	▪ Description ▪ Location (linear feature) within both the Underground Apparatus Inventory and the GIS ▪ Current status (i.e. if a Underground Apparatus has been installed / located but is not fully operable, this needs to be recorded on the Underground Apparatus Inventory stated as such)	At the Service Commencement Date, the Service Provider shall take the Authority's records to populate this inventory. The Service Provider shall not be required to validate this information unless the Service Provider has cause to work on such Underground Apparatus in the course of providing the Services. Following the Service Commencement Date and until the expiry of the relevant Moratorium Period the Service Provider shall make records of the Underground Apparatus upon which it has cause to work. The Service Provider shall ensure that the accuracy of the recorded information is validated prior to	Each Month, the Service Provider shall procure that a reconciliation is carried out by the Asset Manager to: 1. Determine the number and nature of any work carried out on Underground Apparatus 2. Ensure that records of such work have been kept 3. Ensure that such records are transferred to the Underground Apparatus Inventory. The Service Provider shall measure accuracy by comparing the total number of records from the critical fields in the Underground Apparatus Inventory with any records noted as missing in 3. above.

MIS Sub-System	Critical Fields	Initial Accuracy Test (undertaken monthly until expiry of the Moratorium Period for each sub-system)	Monthly Accuracy Test (undertaken monthly prior to the preparation of the draft Monthly Monitoring Report)
		inclusion in the Underground Apparatus Inventory by a competent person with the relevant skill and experience who is independent of the person who recorded the information. Therefore, the Service Provider shall ensure that each record of Underground Apparatus carries two signatures. The Service Provider shall procure that the AM ensures that each record of Underground Apparatus is added to the Underground Apparatus Inventory to meet the requirements of paragraph 2.2.2.3(b) of part 8 of schedule 2 (<i>Output Specification</i>). At expiry of the relevant Moratorium Period, the Service Provider shall measure accuracy by comparing the number of individual records with the number of records held on the inventory and reconciling that number with the records handed over from the Authority together with the works undertaken since the Service Commencement Date.	Once all critical fields in relation to missing records are added to the Underground Apparatus Inventory it shall be deemed to be 100% accurate.
Routine Maintenance and Management System	▪ Safety Inspections and Service Inspections ▪ Works orders start dates, end dates, location and details of work undertaken	Safety Inspections and Service Inspections carried out to the required timescales and to the times shown in the Annual Programme. Audit Process: The methodology for ensuring the accuracy of the Safety Inspections and Service Inspections and response times is set out in Method Statement 13 and the Service Provider shall comply with such methodology. The Service Provider shall undertake a 5% sample comparing programmed Safety	The Service Provider shall undertake a 2% audit sample of records for the previous Month as described under initial accuracy checks.

MIS Sub-System	Critical Fields	Initial Accuracy Test (undertaken monthly until expiry of the Moratorium Period for each sub-system)	Monthly Accuracy Test (undertaken monthly prior to the preparation of the draft Monthly Monitoring Report)
		Inspections and Service Inspections and completed Safety Inspections and Service Inspections to determine accuracy of the records stored within the MIS. For works order accuracy the Service Provider shall check 5% of all orders to ensure that all critical fields are correctly completed and within time scales set out in the contract and inventory changes are identified.	
Bridge Management System	▪ Description ▪ Location (E & N) within both the Bridge Management System and the GIS ▪ Last General Inspection ▪ Last Principal Inspection ▪ Works identified from surveys, testing and inspections in accordance with clause 6 and their current status of completion	The same process applies as set out above for the Project Network Inventory in respect of recording details of the Bridges and Structures and the Routine Maintenance and Management System in respect of for General Inspections and Principal Inspections.	The same process applies as set out above for the Project Network Inventory in respect of recording details of the Bridges and Structures and the Routine Maintenance and Management System in respect of for General Inspections and Principal Inspections.
Tunnel Management System	▪ Description ▪ Location (E & N) within both the Tunnel Management System and the GIS ▪ Last General Inspection ▪ Last Principal Inspection ▪ Works identified from surveys, testing and	The same process applies as set out above for the Project Network Inventory in respect of recording details of the Tunnels and the Routine Maintenance and Management System in respect of for General Inspections and Principal Inspections.	The same process applies as set out above for the Project Network Inventory in respect of recording details of the Tunnels and the Routine Maintenance and Management System in respect of for General Inspections and Principal Inspections.

MIS Sub-System	Critical Fields	Initial Accuracy Test (undertaken monthly until expiry of the Moratorium Period for each sub-system)	Monthly Accuracy Test (undertaken monthly prior to the preparation of the draft Monthly Monitoring Report)
Structure Management System	inspections in accordance with clause 6 and their current status of completion ▪ Description ▪ Location (E & N) within both the Structure Management System and the GIS ▪ Last General Inspection ▪ Last Principal Inspection ▪ Works identified from surveys, testing and inspections in accordance with clause 6 and their current status of completion	The same process applies as set out above for the Project Network Inventory in respect of recording details of the Structures and the Routine Maintenance and Management System in respect of for General Inspections and Principal Inspections.	The same process applies as set out above for the Project Network Inventory in respect of recording details of the Structures and the Routine Maintenance and Management System in respect of for General Inspections and Principal Inspections.
Street Lighting Management System	▪ Description ▪ Location (E & N) within both the Street Lighting Management System and the GIS ▪ Current status (i.e. if Street Lighting has been installed but is not yet fully operable, this needs to be recorded on the System but stated as such) ▪ Column Height ▪ Lamp Type ▪ BSCP 520 charge code ▪ Energy supplier ▪ Scouts, electrical testing,	The same process applies as set out above for Project Network Inventory in respect of recording details of Street Lighting and the Routine Maintenance and Management System in respect of Safety Inspections and Service inspections for scouts, electrical safety tests, and structural inspections.	The same process applies as set out above for Project Network Inventory in respect of recording details of Street Lighting and the Routine Maintenance and Management System in respect of Safety Inspections and Service inspections for scouts, electrical safety tests, and structural inspections.

MIS Sub-System		Critical Fields	Initial Accuracy Test (undertaken monthly until expiry of the Moratorium Period for each sub-system)	Monthly Accuracy Test (undertaken monthly prior to the preparation of the draft Monthly Monitoring Report)
Street Works Management System		- Street works promoter name - Category of works - Location and extent - Start date - Duration - End date - Inspection Records.	The Service Provider shall ensure that its initial check of the Street Works Management System includes the testing of its ability to send and receive notices, comments, and inspection results. The Service Provider shall ensure that this includes manual checks with each major utility provider operating in the Project Area to identify notices sent by their systems and notices received on the Street Works Management System and visa versa. The Service Provider shall ensure that this check is repeated on a monthly basis. The quality of third party notices and notice content is not the responsibility of the service provider but the Service Provider shall ensure that notice quality is checked by its street works team on a regular basis and at least once a Month and where it fails to meet the requirements of ETON the Service Provider shall request that the Authority issues a fixed penalty notice.	Audit Process: The Service Provider shall carry out audits on notices and inspection records based on a 2% sample of these to check for data accuracy against the critical fields. Rectification Process: The Service Provider shall ensure that inspection records are matched against programmed and requested inspections to ensure the completeness of records.
Tree Management System		- Description - Location (E & N) within both the Tree Management System and the GIS - Current status (i.e. if a Tree has been installed but works are not yet complete, this needs to be recorded on the System but shown thus)	The same process applies as set out above for Project Network Inventory in respect of recording details of Highways Trees, the Routine Maintenance and Management System in respect of Safety Inspections of Highway Trees (and, by exception, Trees) and arboricultural inspections.	The same process applies as set out above for Project Network Inventory in respect of recording details of the Trees and Highways Trees, the Routine Maintenance and Management System in respect of Safety Inspections and arboricultural inspections

MIS Sub-System	Critical Fields	Initial Accuracy Test (undertaken monthly until expiry of the Moratorium Period for each sub-system)	Monthly Accuracy Test (undertaken monthly prior to the preparation of the draft Monthly Monitoring Report)
▪ Species ▪ Inspections ▪ Customer details ▪ Nature of enquiry ▪ Enquiry media ▪ Current status of enquiry (e.g. open / closed) ▪ Time taken to respond ▪ Time taken to close		Where data is received from a third party system (SAP CRM used by the Authority) the Service Provider will not be responsible for quality of the information recorded by the Authority. The Service Provider shall undertake checks to ensure that all calls sent from the Authority are present on its Customer Care Management System and the data recorded is accurate against the critical fields. The Service Provider shall carry out this accuracy test based on a 5% sample of data. The Service Provider shall create reports from within the MIS to report on a daily basis for call response times and close out. The Service Provider shall ensure that these reports are forwarded to the appropriate line manager to action and for the performance manager to review and rectify, where required.	The Service Provider shall ensure that an accuracy test is carried out as per the initial accuracy check but based on a 2% sample.

