

SCANNER surveys for Local Roads

User Guide and Specification

Volume 2

Advice to Local Authorities:

Procuring SCANNER surveys

Contents Amendment Record

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Acknowledgement

This SCANNER User Guide has been developed from the SCANNER specification used in 2009/10. This document was prepared by TRL, under the PCIS support contract.

It incorporates many detailed changes based on experience of using previous versions of the SCANNER specification from 2005/06 to 2009/10, the TTS specification before that in 2003/04 and 2004/05 and a wide range of comments from interested parties.

It includes the results of research on developing SCANNER commissioned by the Department for Transport on behalf of the UK Roads Board.

The previous SCANNER specifications were based on the original "TRACS Type Surveys for the Principal Road Network – Specification and Advice Note" produced for the UK Roads Board by the Chris Britton Consultancy and TRL Limited.

Throughout the development of the TTS and SCANNER specifications, considerable assistance and support has been given by many local authority representatives, by SCANNER survey contractors and UKPMS developers and by consultants employed by the Department for Transport on behalf of the UK Roads Board, including Chris Britton Consultancy, the Halcrow Group and Nick Lamb Consultancy.

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Foreword

This document is one of a series of five describing the requirements for SCANNER Surveys (Surface Condition Assessment of the National Network of Roads).

It replaces the revised SCANNER specification first published in March 2006, and subsequent updates of February 2007 and in 2009.

The five Volumes are:

1. Introduction to SCANNER surveys
2. Advice to Local Authorities – Procuring Surveys
3. Advice to Local Authorities – Using SCANNER Survey Results
4. Technical requirements – SCANNER Survey Data and Quality Assurance
5. Technical requirements – SCANNER Survey Parameters and Accreditation

This Volume 2 contains advice to Local Authorities about procuring SCANNER surveys under the SCANNER Specification and is to be read in conjunction with the other documents. It includes advice on preparing contact documents, inviting bids, assessing tenders, managing contracts and procuring QA services. It includes a model contact document as an annex.

Volume 1 provides a brief introduction to the requirements for SCANNER surveys, and may be read as a free standing document, as well as providing an overview of the other four volumes. It includes a glossary of terms and a list of the SCANNER parameters as annexes.

Volume 3 explains the background to SCANNER Surveys and gives further guidance on the interpretation of processed SCANNER data. It contains advice on receiving and using SCANNER data, interpreting the results for local asset management and maintenance, producing and understanding performance indicators, and reporting NRMCS results.

Volume 4 defines the technical requirements for the services to be provided by the survey contractor, including the Survey Data and the requirements for Quality Assurance procedures to ensure the Services are consistent and reliable. It also includes the specifications for audit processes, monitoring, calibration, and requirements for repeat surveys.

Volume 5 defines the technical requirements for the parameters provided by the machine developer, including acceptance and consistency testing and accreditation. It describes the requirements for accreditation of the equipment. It also describes the requirements for consistency testing and for the reporting and delivery of data from SCANNER accredited surveys.

Typical survey vehicles



Figure 1.1 Jacobs Laser RST27 vehicle



Figure 1.2 WDM RAV4 vehicle



Figure 1.3 Yotta (DCL) Roadware ARAN1 vehicle

1 Introduction

1.1 General

- 1.1.1 This document is one of a series of five describing the requirements for SCANNER Surveys (Surface Condition Assessment of the National Network of Roads). They are intended to provide local highway authorities with all the information they require to make well informed decisions about the procurement of SCANNER accredited surveys on their local road networks. They are also intended to provide survey machine developers and survey contractors with all the information they require to develop, accredit and operate automated road condition survey machines to the SCANNER specification.
- (a) They provide a brief introduction to SCANNER surveys including a glossary of terms. (Volume 1)
 - (b) They provide advice to local authorities on procuring SCANNER surveys under the SCANNER Specification and procuring independent QA services including advice on preparing contact documents, inviting bids, assessing tenders, network referencing and managing contracts. (This volume 2).
 - (c) They provide further guidance on the interpretation of processed SCANNER data including advice on receiving and using SCANNER data, interpreting the results for local asset management and maintenance, producing and understanding performance indicators, and reporting national road condition results. (Volume 3).
 - (d) They provide a full technical specification for SCANNER accredited surveys including the requirements for quality assurance and audit. (Volume 4).
 - (e) They provide the detailed technical requirements of the survey vehicles provided by the machine developer, including acceptance and consistency testing and accreditation and the delivery of survey data from SCANNER accredited surveys. (Volume 5).
- 1.1.2 They do not provide detailed technical guidance on the use of automated road condition survey data within a UKPMS accredited pavement management system. Further information is available on the PCIS website: www.PCIS.org.uk
- 1.1.3 Neither do they provide detailed technical guidance on the preparation of reports for the preparation of performance indicator reports or local maintenance management reports.

2 Procurement

2.1 General matters

- 2.1.1 The Specification presented in Volumes 4 and 5 of this set of documents should be used for the procurement of SCANNER surveys. This will ensure that SCANNER accredited surveys are procured to provide valid data for use by highway engineers in transport asset management including financial reporting, road network management, and the production of performance indicators.
- 2.1.2 It is recommended that the specification is used without amendment or alteration. Particular care must be taken to ensure the integrity of the overall system is not compromised, particularly where the production of performance indicators might be affected. Therefore, if an Employer decides to amend the specification this should only be to request additional components for local purposes, and NOT to alter or amend the essential components of the SCANNER survey specification.
- 2.1.3 There can be considerable benefits from contractual arrangements that span more than one year and/or include a reasonably long length of road for survey. For this reason local authorities should consider the advantages of multi-year contracts, and of procuring surveys as part of a consortium, rather than individually making new contractual arrangements each year.
- 2.1.4 The advantages of procuring surveys over more than one year include:
- (a) Economies of scale: spreading the local authority's costs of specifying and the contractor's costs of bidding for the contract over several years.
 - (b) Familiarity with the network: spreading the contractor's overhead costs of developing routes over several years.
 - (c) Pre-booking the timing of surveys: with a multi-year contract the contractor can plan to carry out surveys at the same time of year, to suit the local authority's road maintenance management programme. This can help meet the local authority's planning cycle, and will tend to lessen any seasonal effects on survey measurements.
- 2.1.5 However, it should be noted that the survey specification might change in future years. Therefore, where contracts cover more than one year's surveys and/or more than one class of road, some flexibility should be built in to tendering and contractual arrangements. It may be that partnering or other similar arrangements may enable greater flexibility if requirements change.
- 2.1.6 The advantages of grouping together in regional consortia include:
- (a) Economies of scale. Many of the smaller individual local authorities have relatively small road networks for survey, and it is likely that, by grouping together, savings may be achieved by reducing the Contractors' mobilisation and administrative costs, although there may be limits to the economies achieved.
 - (b) Tendering costs are reduced.
 - (c) Aggregation into larger networks could facilitate more efficient route planning and hence more efficient programming and data delivery.

- (d) The number of separate contracts required to cover all local authorities individually would impose a considerable burden on the limited number of accredited survey contractors.

2.1.7 However, there are a number of issues to consider if a consortium approach is adopted:

- (a) The total value of such a group contract may be such that more onerous procurement procedures, such as notification in the Official Journal of the European Union (OJEU), must be followed.
- (b) The individual local authorities must agree on what services are needed so that all their individual requirements can be included within a single contract.
- (c) Local authorities may wish to nominate one local authority as the “Lead Authority” to act as the main contact point for the Survey Contractor, which would be the “Employer” in terms of the SCANNER Specification.
- (d) The agreement of contractual Terms and Conditions may require discussion and approval at a senior level within Local Authorities, which may introduce delays.
- (e) All the local authorities within the consortium each have to be able to meet any contractual requirements – for example, each local authority may be required to provide similar network referencing information to the survey contractor. Alternatively, the contractor may have to accept cross-boundary changes in section definition.
- (f) Authorities may have different data processing requirements.

2.1.8 There can be considerable benefits from having contracts in place well before the start of the survey year. These include:

- (a) Securing competitive prices from survey companies, before all the survey machines become fully booked and survey rates are increased to reflect available resources.
- (b) Pre-booking the timing of surveys to suit the local authority's road maintenance management programme. This ensures surveys can be carried out within the required time scale and helps the local authority's planning cycle.

2.1.9 The SCANNER survey is an audited survey, which includes an independent quality audit, carried out by an Auditor. Although the role of Auditor was previously commissioned centrally, from April 2011 it is the responsibility of the body commissioning the survey (e.g. the Local Authority Employer) to ensure that the Audit is carried out. The requirements for this Independent Audit, and how it may be commissioned, are presented in Section 2.5.

2.2 Forms of contract

2.2.1 There are a number of forms of contract available for this type of survey; in some cases the form of contract used may have to comply with an individual local authority's rules and guidelines.

2.2.2 In the past the Institution of Civil Engineers Conditions of Contract (5th edition) has sometimes been used but it is probably not the best form of contract available for this type of survey. It is more complicated than necessary for this type of work, is less flexible than other forms, and has no facility for partnering, or for incorporation into larger contracts that include partnering.

- 2.2.3 The NEC contract document, "The Engineering and Construction Short Contract" may be a more suitable form of contract. It requires basic contract data, Works Information, and Site Information in a few standard forms.
- 2.2.4 A Model Contract Document, including Instructions for Tendering, a Form of Contract and compilers notes is included in Annex A.
- 2.2.5 Alternatively, given that the SCANNER process has a well-defined Specification and the deliverables can be easily defined authorities may find it acceptable to let a contract in the form of a simple letter of instruction referring to the current SCANNER specification.

2.3 Contract documents

2.3.1 The Employer (client) should specify in any contract for the provision of SCANNER accredited surveys that the survey be carried out according to the specification presented in Volumes 4 and 5 of this set of documents.

2.3.2 The Employer (client) should specify that:

- (a) The surveys may only be carried out by survey equipment which has passed an acceptance test and has a currently valid accreditation certificate, as defined in Volume 5.
- (b) The Contractor must provide the client (Employer) with a copy of a currently valid accreditation certificate before commencing any SCANNER accredited surveys on the Employer's road network.
- (c) The surveys may only be carried out by survey equipment, drivers and operators which meet the requirements of the QA and Audit process defined in Volume 4.
- (d) The surveys must be subject to external audit by an Independent Auditor for the purpose of Quality Assurance (see Section 2.5).
- (e) The Contractor is required to deliver the Quality Assurance tests and data required by the specification for SCANNER accredited surveys within the price agreed with the Employer for the surveys of the Employer's road network.
- (f) The Contractor is required to deliver any reports required by the specification for SCANNER accredited surveys to the Employer and to the Auditor promptly in accordance with the timescales defined by the specification.

Note: This includes, but is not limited to:

- *Progress reports on the survey.*
 - *Coverage reports on the coverage achieved in the measurement of each parameter.*
 - *Reports on the specific location of lengths where the Contractor was unable to obtain valid data, and the reason(s) why (for example due to speed humps).*
- (g) The contractor is required to make accredited survey data available to the appropriate national government (in England the Department for Transport) for statistical monitoring purposes.

Note: In England, this should be delivered at no extra cost to the Department for Transport (or their nominated representative). Contractors are welcome to discuss delivery mechanisms and timings specific to them with the Department to minimise burdens for both parties. However, at the latest all data for the whole year

must be provided to the Department by 30th June of the following financial year.

- 2.3.3 In addition, when defining the work to be carried out (in the tender documents) the Employer (client) should indicate:
- (a) The breakdown of the route network (possibly split between built-up and non built-up, and classification).
Note: The Employer is responsible for providing network information that is complete, accurate and in a convenient format to the Contractor. The Contractor may reflect previous experience in the quoted price. To the extent that the Employer is able to provide good quality network information, the quoted rates are likely to reflect this. There is further guidance on some of the typical network information problems in Section 3 of this Volume.
 - (b) How route fitting is to be carried out by the Contractor. In particular whether National Grid Co-ordinates should be used to define the location of Section Start and Section End points, as defined in Volume 4 of the specification. (See also Section 3 of this Volume.)
 - (c) The specific deliverables, coverage requirements and timetable (see section 2.4 below).
 - (d) How Independent Audit is to be provided (see section 2.5 below)
 - (e) What the rates of payment include (and exclude) (see section 2.6 below).
 - (f) The ownership of the results.
 - (g) Any special conditions (i.e. availability of road space etc).

2.4 Deliverables and coverage

- 2.4.1 Volume 4 of the SCANNER specification defines the minimum deliverables from the survey, which are the SCANNER HMDIF fitted to the Employers network and the reports (see section 2.3.2(f)). However, the contract should state explicitly what deliverables are required, in particular if any amendments or additions are required.
- 2.4.2 The contract should also state the date by which the deliverables are required.
Note: Although there are now more accredited machines, Contractors cannot afford to maintain much spare capacity. They have to be able to work flexibly to take advantage of weather conditions across the country. Employers should bear this in mind when setting target dates for delivery of data, and that quoted survey rates are likely to reflect the Employer's stated requirements and the extent to which any risk is transferred to the Contractor.
- 2.4.3 The Contractor should be requested to survey 100% of the specified survey length (as defined in the network provided by the Employer). However:
- (a) The Contractor may be unable to carry out surveys on certain lengths of the network. The Contractor should be required to report the lengths not surveyed and provide reasons for the missing lengths (for example if there were road works when the survey vehicle visited the site, or where part of the network was inaccessible due to physical width limits).
 - (b) The Contractor may be unable to provide valid survey data on some lengths over which SCANNER surveys are carried out. The

Contractor should be required to report on locations where data is invalid and give reasons (for example due to localised problems such as achieving sufficient survey speed or a local feature (a puddle) causing the measurement device to fail).

- 2.4.4 Volume 4 of the specification details the coverage requirements that must be achieved by the contractor in terms of the lengths that may be missed and the lengths over which invalid data is permissible. The Contractor should be required to provide the Employer with a “SCANNER coverage report” for all of their surveys.
- 2.4.5 The information provided in a “SCANNER coverage report” should include (but is not limited to):
- (a) *A SCANNER survey summary.* This gives an overall summary of the SCANNER survey and it includes a list of roads that were not surveyed and the reasons why.
 - (b) *Percentage of survey parameters delivered.* This gives an overall summary of the percentage of each survey parameter delivered from the surveys. The percentage is calculated from the total length of survey data delivered, i.e. after those identified in section a) as not surveyed, have been removed from the total.
 - (c) *Any parameters that were not delivered.* A list of locations where individual survey parameters were not deliverable from the survey (in relation to section), and the reasons why.
 - (d) *Network Issues that remain after consultation.* A list of the areas where network disputes have been identified and in the opinion of the Contractor should be investigated by the Employer.
- 2.4.6 The Employer may request the Contractor to re-survey lengths if the coverage requirements are not met and the Employer is not satisfied with the reasons for failure to achieve the requirements.

2.5 Independent Quality Audit

- 2.5.1 The SCANNER survey is an audited survey, which includes an independent quality audit. It is the responsibility of the Employer to ensure that an Independent Auditor carries out the quality audit.
- 2.5.2 The Independent Auditor may be commissioned by either the Employer or by the survey Contractor.
- 2.5.3 Where the employer directly commissions an Independent Auditor, the Employer chooses a suitable Independent Auditor to audit the Contractor’s SCANNER survey according to the requirements of Volume 4 and Volume 5 of the SCANNER specification.
- Note: In this case the Employer pays the Independent Auditor directly for providing the service.*
- 2.5.4 Where the Employer requests the Contractor to commission an Independent Auditor, the Contractor chooses a suitable Independent Auditor to audit the SCANNER surveys according to the requirements of Volume 4 and Volume 5 of the SCANNER specification.
- Note: In this case the Contractor pays the Independent Auditor for supplying the service and these charges may be passed on to the Employer.*
- It is likely that the costs for this method of procurement would be included by the Contractor in the rate per kilometre surveyed.*

Because of the ability of the Contractor to commission the services of an Independent Auditor across several SCANNER contracts, it is likely that the cost per km for this method of procurement will be significantly lower than the cost of the direct appointment of an Independent Auditor by an individual Local Authority.

- 2.5.5 Appendix B of this Volume 2 outlines the requirements for the Independent Audit. These requirements may be referred to by an Employer or a Contractor when commissioning the services of an Independent Auditor.

2.6 Rates

- 2.6.1 The documents should be clear that the rates quoted by the Contractor are for everything in connection with the Works. A suggested text would be:
- "The Contractor provides everything necessary to carry out the Works and deliver data, including but not limited to:
- (a) All overhead costs.
 - (b) Preparation and mobilisation meetings, where required.
 - (c) Provision of accredited Equipment and personnel.
 - (d) Necessary traffic control, including escort vehicles.
 - (e) Commissioning an Independent Auditor (as appropriate, see Section 2.5).
 - (f) Compliance with Quality Assurance procedures and liaison with the appointed Independent Auditor.
 - (g) Computer hardware and software including licences.
 - (h) Standing time.
 - (i) Weather delays.
 - (j) Liaison with highway authority and police.
 - (k) Provision of data to the required accuracy in an approved format (usually HMDIF) for direct input to the Employer's UKPMS system.
 - (l) Provision of data to the required accuracy in the specified format direct to the relevant national government for statistical monitoring purposes.
 - (m) After survey "feedback" meetings, where required.
- 2.6.2 "Penalties" are not permitted by contract, and liquidated damages for this type of work are rarely an effective means of guaranteeing timely delivery. An alternative to liquidated damages may be an incentive payment for delivery of acceptable valid data before a specified date. In which case risk is being transferred to the Contractor and the Contractor may choose to price accordingly.

2.7 Tender assessment

- 2.7.1 Most local authorities will have procedures for the procurement of services, including tender assessment or evaluation. Lowest cost may not always offer best value and some authorities will wish to evaluate tenders on the basis of quality and price.
- 2.7.2 Where an assessment is to be made on the basis of quality and price, the quality aspects to be considered and any weighting or marking scheme should be determined before tenders are sought.

2.7.3

When compiling a quality schedule an authority may wish to consider:

- (a) The quality of the SCANNER operation is rigorously controlled. The Survey Equipment (survey vehicles) must be accredited for use, the operators must be included in the Contractor's own quality system, and the surveys should follow the published Specification. Therefore the basic quality requirements should be met by any Contractor with accredited Survey Equipment. However authorities may wish to consider other aspects of quality – such as the contractor's performance demonstrated in previous year's surveys or other services provided to the authority, or in other services included with the performance of the SCANNER accredited surveys.
- (b) In addition to the key requirement of collection survey data with an accredited machine, the SCANNER survey requires that the survey data be fitted to the authority's network. The attention to detail and quality control at this stage in the process can have a significant effect on the overall quality of the survey. Therefore there is benefit in ensuring that the Contractor is able to demonstrate:
 - An understanding of the Employer's network referencing system.
 - How survey data will be fitted to the type of network chosen.
 - How route fitting, and adjustment of section lengths will be accomplished.
 - How field data, and survey notes are incorporated into processed data.
 - How invalid data will be monitored and reported.
- (c) Some Employers may wish to assess Contractors in terms of Health and Safety method statements and risk assessments, and previous safety record.

2.8 Additional items

2.8.1

Experience with processing and analysing SCANNER data has demonstrated the benefits of having forward facing video survey data (the "right of way" camera). This item is not included within Volume 4 or 5 of the SCANNER specification. However, there may be benefit (in cost and time) in gathering this video data at the same time as the SCANNER survey data.

2.8.2

Employers should consider carefully whether they will be able to get the full benefits from having consistent and reliable SCANNER survey data without forward facing video survey data. Contractors are likely to make an additional charge for video survey data.

2.8.3

However video surveys can only be recorded reliably during daylight hours (and in some well lit urban areas during the hours of darkness).

2.8.4

If a video survey is required, the Employer should include it as a specific item within the contract.

2.8.5

Some Contractors may also be able to offer added value options such as:

- (a) Inventory survey
- (b) Ground Penetrating Radar.
- (c) Additional data processing (production of defect maps etc).

(d) Determination of SCRIM categories.

If such additional items are required, the Employer should include them as specific items within the contract.

3 Network definition requirements

3.1 Defining the network

3.1.1 The Employer specifies the road network over which SCANNER accredited surveys are required by providing the Contractor with a list of the Sections that are to be surveyed. The Employer provides the following information for each Section, including:

- (a) The Road Number (if available).
- (b) The Section Label (unique identifier)
- (c) Number of carriageway lanes (and lane to be surveyed)
- (d) A label describing each Section Start Point.
- (e) The National Grid co-ordinate (OSGR) of the Section Start Point.
- (f) A label describing the Section End Point.
- (g) The National Grid co-ordinate (OSGR) of the Section End Point.
- (h) The Section Length.
- (i) A description of the Section and/or a map showing the location of the Section.
- (j) Any additional information the Contractor may require to prepare routes for the Surveys of the Employer's road network.
- (k) Information defining connectivity between sections (e.g. unique numerical codes for start and end of sections). Video (forward facing, inventory).

3.2 Unfortunately experience has shown that the provision of this information in an accurate up to date manner is not always straightforward.

3.3 Typical network problems

3.3.1 Often, network information can be poor as a result of inaccuracy in the initial establishment of the network. An inconsistent approach to developing networks has created a myriad of standards both in the creation, media, and maintenance. Few networks could be classed as perfect, and they tend to belong to local highway authorities that are active in maintenance planning. Problems include:

- (a) Multiple networks. The network provided to the contractor is different to the network in use. Often a complex conversion is required after the survey is complete.
- (b) The phantom network. A network is provided, only to turn out to be an extract from NSG or OSCAR, which needs considerable work before it can be used.
- (c) The antique network. The network which was created some years ago and has not been updated since.

3.3.2 Networks also have problems at section level such as:

- (a) Incorrect section lengths.
- (b) Contiguous sections going in different directions.
- (c) Nodes in random places that make no sense on the ground.

- (d) Combined sections that are impossible to survey.
- (e) Sections in the network that do not exist on the ground.
- (f) Sections that do exist on the ground but are not in the network.
- (g) Missing improvements such as roundabouts, new junctions etc.

3.3.3 All these errors have an effect on the SCANNER survey and are often “encountered” by the SCANNER survey contractor during either the preparation for the survey or during the data fitting process carried out after the survey. The consequent costs in loss of production and correcting the networks may be quite significant.

3.3.4 The following illustrations show some of the difficulties survey contractors have experienced on local road networks.

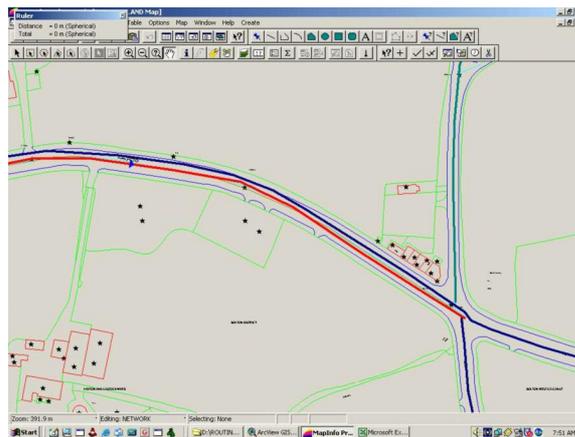


Figure 3.1 Section (shown in red) overlaps with another section (shown in blue)

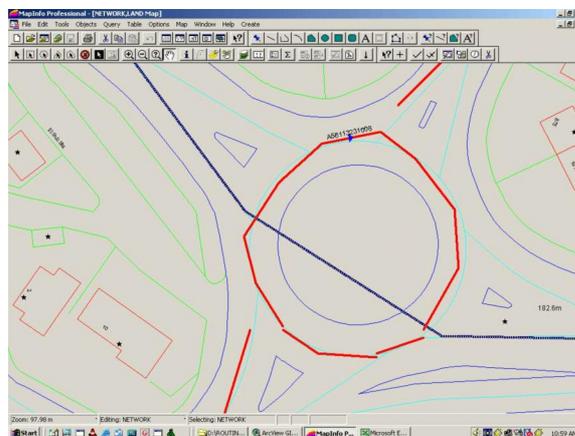


Figure 3.2 No connectivity (gaps before roundabout).

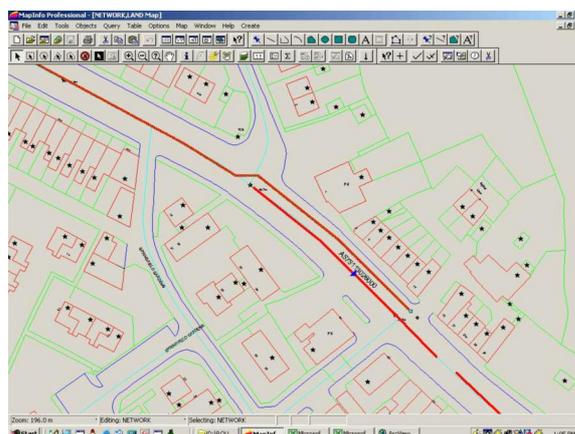


Figure 3.3 Section overlaps and no connectivity leaving a small unaccounted for section of road.

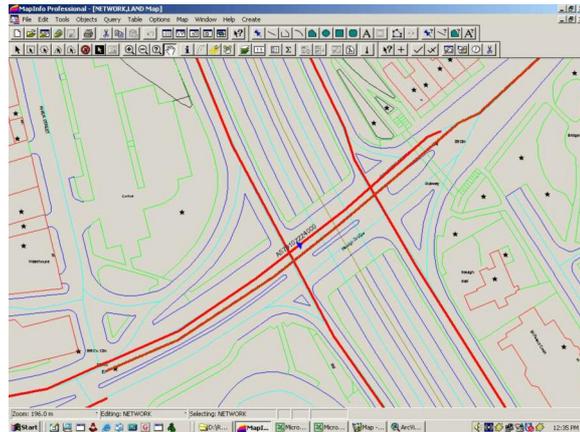


Figure 3.4 Overlapping sections. The reverse side of the dual carriageway in the wrong place. Phantom node on north side of dual section.

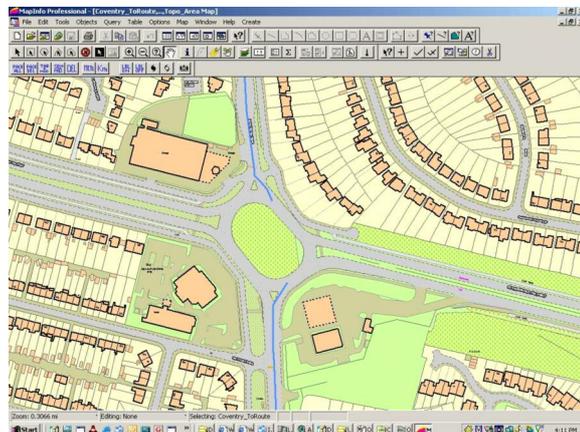


Figure 3.5 Inconsistent start/end locations resulting in the network length being longer than measured length (the sections start and end in the roundabout).

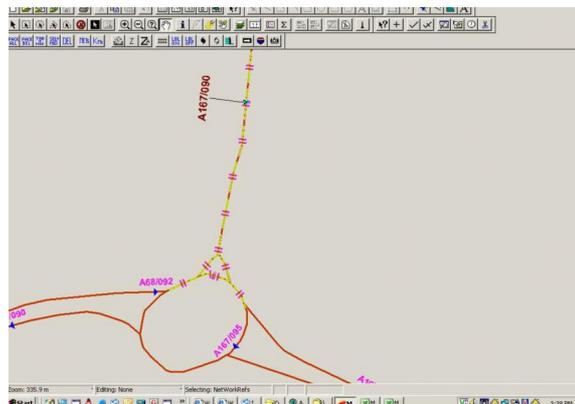


Figure 3.6 One section (A167/090) includes half a roundabout and both sides of the splitter island.

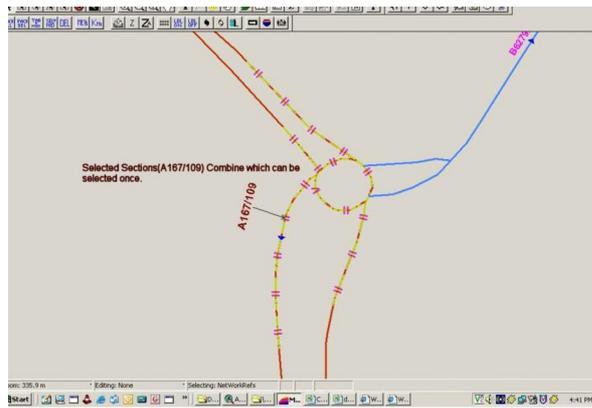


Figure 3.7 One section (A167/109) covers an area that should be 5 individual sections

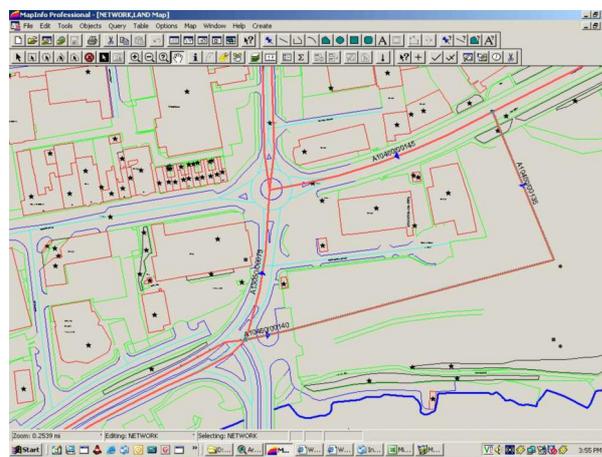


Figure 3.8 Sections on approach to roundabout end in the centre of the roundabout.

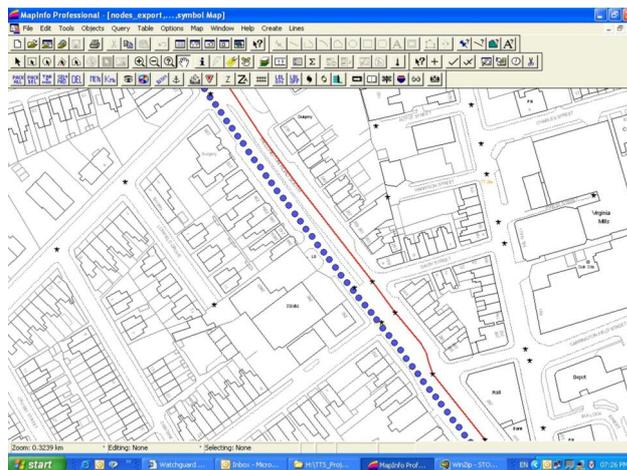


Figure 3.9 Dual carriageway. The reverse direction is networked (in the wrong direction) and the forward direction missed. (Red line = network, Blue dots = SCANNER vehicle track.)

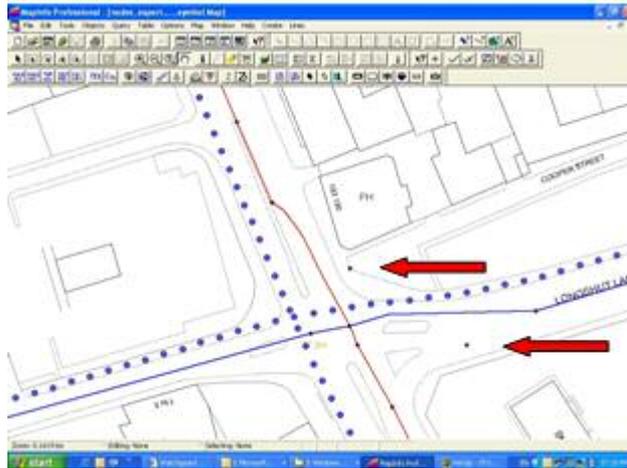


Figure 3.10 Missing dual carriageway section in network and section nodes (which are shown as small stars near the red arrows) are in incorrect positions.

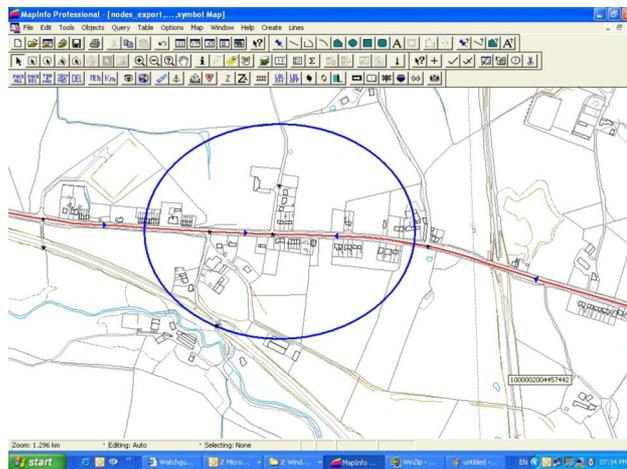


Figure 3.11 Directions of sections is incorrect. The sections on the left of the circle run to the east whilst the sections on the right of the circle run to the west.

3.4 The effect of network problems

- 3.4.1 The quality of the defined road network greatly affects survey and data processing performance. Network problems cause delay and lead to additional costs for both contractors, and their local authority clients
- 3.4.2 SCANNER survey data is fitted to the provided network following the completion of the survey. Two factors can have a particular effect on the success of the fitting process
- 3.4.3 **Section start and end points.**
 - (a) Historically the survey contractors recorded the location of section start or end points using manual event recorders (“push button”). The accuracy of the locations at which these points are recorded was related to the quality of the information provided by the employer (authority) describing the locations of these points. Accurate descriptions were therefore essential within the network definition. However, the accuracy is also affected by the efficiency of the survey operator in identifying (at traffic speed) the locations described in the network definition and experience showed the accuracy was variable and sometimes inadequate.

- (b) Increasingly the survey contractors have recorded the location of these points using geographical information provided by the employer in the form of Ordnance Survey Grid Co-ordinates of the section change points. These co-ordinates are used by the survey contractor in post-processing to insert the section start points into the data stream, using the GPS locations recorded continuously during the survey. This approach is potentially much more accurate and reliable than the “push button” method. Authorities are encouraged to provide this geographical information where available.

- 3.4.4 **Section lengths.** Particularly significant problems can arise when the network sections lengths are inaccurate. Following the survey the SCANNER survey contractor compares the section lengths recorded in the survey with those provided by the Employer. The length recorded by SCANNER for each section will often differ from the network length provided, and each difference has to be investigated individually. Often the error is insignificant and so the data is stretched or shrunk to fit the network length, a process called “rubber-banding”. Limits are defined in Volume 4 of this specification for the amount of rubber-banding that should be applied to the data. However some errors are inexplicable, such as where the vehicle started and ended in the correct place but the network length is completely different. These types of errors are reported to the Employer for the network to be amended. In some cases, because historical data is loaded, the Employer does not want the network changed so the data is, incorrectly, forced to fit. This has a detrimental effect on data quality and in particular on the use of the data in assessing changes in the condition of the network.
- 3.4.5 Further guidance on defining the location of section start and end points is given in Volume 4, Section 3.
- 3.4.6 The continuing existence of network problems means that the Contractor will have issues when fitting the SCANNER data. Employers should check the quality of the SCANNER data shortly after data delivery. Data fitting issues encountered by the Contractor will increase the potential of the data being of a lower quality. Therefore Employers should keep their networks up to date and act on feedback from the Contractor where differences are noted. An accurate and up to date road network definition is most likely to provide the highest quality SCANNER data.

4 Working with the contractor

4.1 General matters

- 4.1.1 At the start of each survey season there is a period of preparation and mobilisation when detailed project programmes will be developed and resources allocated to deliver the services required by the contract.

4.2 Network referencing

- 4.2.1 Preparation for surveys includes compiling a network to provide to the Contractor for locating surveys. The network may need revision as a result of feedback from the Contractor and also as a result of works on the network (junction improvements etc). A reliable road network definition is **essential** for efficient surveys and accurate data fitting.
- 4.2.2 Where the same Contractor is used for a number of years, updates to the defined road network should be passed to the Contractor before each year's survey in order to update the survey routes and plan the programme of work.

4.3 Preparation and mobilisation

- 4.3.1 The preparation and mobilisation period includes the preparation, calibration and validation of all equipment by the Contractor, who is responsible for ensuring the equipment complies with the Accreditation and Acceptance criteria.

4.4 Preparation and mobilisation meetings

- 4.4.1 If the Contractor is expected to attend preparation and mobilisation meetings that the Employer may reasonably require at the Employer's premises with the Employer's Agent and others during preparation and mobilisation periods then the Employer should specifically include this requirement in the contract documents.

4.5 Activities after surveys

- 4.5.1 It is recommended that follow up meetings are held between Employer and Contractor during the process. These meetings should provide two-way feedback on how the surveys progressed and to highlight any issues that may have arisen. These could be either with the supply of information (during preparation and mobilisation), the actual surveys, data processing or the fitting of it to the Employer's network. Successful resolution of these issues will only improve the efficiency of the whole process and resulting data quality. If the contractor is expected to attend feedback meetings then the Employer should specifically include this requirement in the contract documents.

5 Health and Safety

5.1 General matters

- 5.1.1 SCANNER surveys will not usually be covered by CDM regulations. It is, therefore, not appropriate to appoint the survey Contractor as Principal Contractor.
- 5.1.2 However, Contractors may be expected to provide Health and Safety records, method statements and risk assessments as part of the tender information and to comply with any specific requirements of the Employer.

Annex A

Model Contract Document

Engineering and Construction

Short Contract

PROCUREMENT OF SCANNER SURVEYS: INSTRUCTIONS FOR TENDERING

THIS PAGE DOES NOT FORM PART OF THE CONTRACT DOCUMENT: COMPILER'S NOTES ONLY

This Instructions for Tendering document is the first Part of a Model Contract Document (MCD) for the procurement of SCANNER Surveys. The MCD also includes a model Contract. The MCD should be used in conjunction with the Specification for SCANNER Surveys, which in Volume 1, contains further general advice.

In the following model, items in bold square brackets [?????] will require specific input by the compiler. The following notes refer to items referenced in the text.

Note 1.1 Tender evaluation will only be included where the Employer wishes to include a value/quality aspect in the tender procedure, or for instance, where early delivery may override price. There should be a clear statement in the Instructions for Tendering about what information is required and how it will be used in assessment. SCANNER Surveys are covered by Accreditation, QA procedures, and Audit on behalf of the Department for Transport. There should be no need for further QA assessment at tender stage. Further guidance is included in Volume 1 of the Specification.

Note 1.2 A brief description of the area in which the surveys are located, and the types of route to be surveyed are all that is required here. The description should state if the contract is for more than one year, or is for several authorities in consortium.

Note 1.3 See also MCD Part 2 Note 2.14. Adequate data for tendering should be supplied at tender stage (route types, lengths etc). Full network information (nodes, links etc) should be supplied to the successful tenderer.

Note 1.4 Some form of contract price fluctuation may be required where the contract is for more than one year. See also MCD Part 2 Note 2.10

Short Contract

A contract between *[Local Authority]*

And

for *[SCANNER Surveys and Data Processing]*

Volume 1 Instructions for Tendering

Contents

Part 1 - Instructions [Tender Evaluation: See Note 1.1]
for Tendering

Part 2 – Forms not Declaration Relating to Anti-Collusive
forming part of the Tendering

Contract Checklist for Return of Tenders

SCANNER SURVEYS

General Information & Instructions for Tendering

General Information

Description and Location of Works

1. The Council has decided to invite tenders for the collection of SCANNER data on *[...Roads See Note 1.2]*
2. *[The Network to be surveyed has been referenced and data is to be collected using this reference system. The Council will supply the Contractor with a data file containing all references. The reference data will not be issued with the tender documents. See Note 1.3].*

Instructions for Tendering

1. Tenderers are advised to consider the specification with great care and to satisfy themselves as to the nature and extent of the requirements involved.
2. Although the information given on road lengths to be surveyed is given in good faith, the Council accepts no liability for the accuracy of the information provided.
3. The tender documents must be treated as private and confidential. Tenderers should not disclose the fact that they have been invited to tender nor release details of the tender document other than on an 'In Confidence' basis to those who have a legitimate need to know or whom they need to consult for the preparation of the tender. Any collusive tendering by a tenderer is grounds for disqualification without prejudice to any criminal liability or civil remedies open to the Authority.
4. Tenderers should note that the contract does not include provision for variation of price. *[See Note 1.4]*
5. The tender should be made on the Contractor's Offer and Anti-Collusive Certificate incorporated in the Tender documents. It should be signed by the tenderer and submitted with the Price List which shall be fully priced and totalled in ink, and accompanied by the Conditions of Contract..
6. The tender and supporting documents must be returned in a sealed package, addressed to:-

[Name]

[Address]

so as to arrive no later than

[Date]

The envelope must not bear any mark which identifies the tenderer. This is particularly relevant if the tenderer usually franks his mail with a company address or logo or if he uses a courier service whose label has a space for "sender" (which should be left blank).

Tenders delivered by hand should be taken to:

[???

where a receipt will be issued. Failure to comply with these requirements will lead to automatic disqualification of the tender.

7. No unauthorised alteration or addition should be made to the Form of Tender, the Bill of Quantities or to any other tender documents. Tenders must not be qualified but must be submitted strictly in accordance with the tender documents. Tenders must not be accompanied by statements that could be construed as rendering the tender equivocal and/or placing it on a different footing from other tenders. Only tenders submitted without alteration and without qualification will be accepted for consideration. The Council's decision on whether or not a tender is acceptable will be final.
8. Tenders are advised to clarify any doubts or points of difficulty with *[??]* at least *[5]* working days before the date fixed for receipts of tenders. Requests for clarification shall be submitted in writing to:

Marked for the attention of:

[???

9. If it is decided to amend the Tender Documents, all Tenderers shall be notified accordingly and the time for tendering may be extended if it is felt necessary
10. Tenderers are required to keep tenders valid for acceptance for a period of 60 days from the closing date of receipt of tenders.
11. Tenderers must submit with their tender details of the terms of insurance they propose to effect, or which they already hold or intend to use, to meet the Conditions of Contract.
12. Tenderers must submit their Health & Safety policy with special consideration given to traffic speed surveys.
13. From January 2005 onwards the Council is required to comply with the Freedom of Information Act 2000 (the "Act") which imposes on the Council a duty to respond to a request for information, and, subject to the provisions of the Act, to disclose that information. If you consider that any of this information to be submitted in your

proposal/tender should not be disclosed because of its commercial sensitivity, this should be stated together with the reason for any request under the Act relating to that information.

Please note that the Council will not disclose personal data as defined under the Data Protection Act 1998 without the consent of the person to whom the data relates, unless the provisions of the Data Protection Act 1998 permit such disclosure.

SCANNER Surveys and Data Processing

Anti-Collusion Certificate

1. We certify that this tender is made in good faith, and that we have not fixed or adjusted the amount of the tender by or under or in accordance with any agreement or arrangement with any other person. We also certify that we have not and we undertake that we will not before the award of any contract for the work:-
 - i) (a) communicate to any person (outside this consortium) other than The Secretary of State or a person duly authorised by him in that behalf the amount or approximate amount of the tender or proposed tender, except where the disclosure, in confidence, of the approximate amount of the tender was necessary to obtain insurance premium quotations required for the preparation of the tender;

(b) enter into any agreement or arrangement with any person (outside this consortium) that they shall refrain from tendering, that they shall withdraw any tender once offered or vary the amount or any tender to be submitted.
 - ii) Pay, give or offer to pay or give any sum of money or other valuable consideration directly or indirectly to any person (outside this consortium) for doing or having done or causing or having caused to be done in relation to any other tender or proposed tender for the work, any act or thing of the sort described at i) (a) or (b) above.
- 2) We further certify that the principles described in paragraphs 1 i) and ii) above have been, or will be, brought to the attention of all sub-contractors, suppliers and associated companies providing services or materials connected with the tender and any contract entered into with such sub-contractors, suppliers or associated companies will be made on the basis of compliance with the above principles by all parties.
- 3) In this certificate, the word 'person' includes any persons and any body or association, corporate or unincorporated; 'any agreement or arrangement' includes any transaction, formal or informal and whether legally binding or not; and 'the work' means the work in relation to which this tender is made.

Dated thisday of.....20.....

Signature.....In capacity of

Duly authorised to sign tenders and acknowledge the contents of the Anti-Collusion Certificate for and on behalf of:-

Postal address:-.....

Fax No:-..... Telephone No:-.....

SCANNER Surveys and Data Processing

Check list for return of Tenders

- *Tender Document Volume 2 completed, ie*
 - Contractor's Offer*
 - Form of Agreement*
 - Price List*
- ***[Tender evaluation Information See Note 1.1]***
- *Health and Safety Policy*
- *Completed declaration relating to Collusive Tendering*
- *Details of the Tenderer's insurance policies.*

Engineering and Construction

Short Contract

PROCUREMENT OF SCANNER SURVEYS: CONTRACT DOCUMENT

THIS PAGE DOES NOT FORM PART OF THE CONTRACT DOCUMENT: COMPILER'S NOTES ONLY

This contract document is the second Part of a Model Contract Document (MCD) for the procurement of SCANNER Surveys. The MCD also includes a model for Instructions for Tendering. The MCD should be used in conjunction with the Specification for SCANNER Surveys, which in Volume 1, contains further general advice.

In the following model, items in bold square brackets **[????]** will require specific input by the compiler. The following notes refer to items referenced in the text.

Note 2.1 As much information as possible should be given at tender stage; network summary, network lengths, directions of survey and lanes to survey etc. Most tenderers will find a network route plan, marked with survey lengths, useful for planning. It is only necessary to provide full network data to the successful Contractor (see "Works Information 6"). Where the contract is to be for more than one year it may not be possible to give full information at tender stage but a proposed breakdown of future work (possibly by classification and length) should be included to allow tenderers to price properly; a plan or description, indicating the limits of the network should be included.

Note 2.2 Completion dates should be reasonable, taking into account the time of tender, and that contractors have to operate nationally. Where the contract is for more than one year separate dates will be required.

Note 2.3 There should be no need for a long period before the Defects Date as once the data is loaded defects are likely to be obvious. Where the contract is for more than one year there will need to be more than one Defects Date. The Defects Date may be specified as ?? weeks after each year's Completion Date.

Note 2.4 The Defects Correction Period should be short enough to allow the Employer to have corrections made in a timely manner, but long enough for the Contractor to be able to

respond, bearing in mind he will have left the site.

Note 2.5 Delay Damages are not easy to quantify but most Employers will require Delay Damages to be included, even if only as an "incentive". Delay Damages should reflect actual financial loss or expense; they should not be treated as a penalty. Many employers already have formulae for "liquidated damages" they may wish to use.

Note 2.6 Because of the nature of the work, and the requirement to deliver in the required format prior to payment, conventional monthly remeasure is not appropriate. In most cases the assessment date should be the date of delivery of compliant data. NB: where the contract covers more than one year, or several employers in consortium, separate dates will be required.

Note 2.7 Given the discrete and short term nature of the work most Employers will find Retention unnecessary.

Note 2.8 It is easier to leave the Adjudicator "to be agreed". There is no guarantee any nominated person will be available in the future.

Note 2.9 Enter an interest rate only if a rate of 0.5% per complete week of delay is less than current commercial interest rate.

Note 2.10 Separate rates may be required for different classes of route, or for different areas in a consortium. Where the contract is for more than one year some form of annual contract price fluctuation may be required, or the tenderer may be required to quote annual uplifts. Fixed costs for the period of the contract could be used, but the tenderers will have to price the risk and this may be counter-productive.

Note 2.11 Processed data will usually be required in HMDIF Format for loading into the Employer's PMS system. Whilst HMDIF should load to any UKPMS compliant system, where there is a consortium the different systems for each part of the networks should be quoted.

Note 2.12 As SCANNER Surveys are designed to operate at or near normal road speed, restrictions should be few. However, any restrictions on roadspace or timings of surveys should be quoted here (known closures, festivals, etc).

Note 2.13 It is unnecessary to request a rigid programme from the Contractor, who should be allowed to programme works in the most efficient manner to take account of traffic and weather conditions. The Contractor should always inform the Employer when he is trafficking the Employer's network.

Note 2.14 Providing the tenderers have been given adequate information for tendering it will only be necessary to provide full network data (nodes, links etc) to the successful tenderer (Contractor).

- a new
- engineering contract
- document

Engineering and Construction

Short Contract

A contract between *[insert name of Local Authority]*

and *[insert name of Supplier]*

for SCANNER surveys

Contents

Contract forms;
Contract data
The *Contractor's* Offer
The *Employer's* Acceptance
Price List
Works Information
Site Information

Contract Data

The *Employer* is

Name

Address

Telephone

Employer's Delegate

Email address

The *works* are ***[SCANNER Surveys and data processing] as outlined in the specification included in the Works Information ("Specification").***

The *site* is ***[As shown on Drgs ?? and/or Schedule See Note 2.1]***

The *starting date* is ***[x/x/20xx]***

The *completion date* is ***[x/x/ 20xx]*** ***[See Note 2.2]***

The *period for reply* is ***[??]*** weeks

The *defects date* is ***[13]*** weeks after completion ***[See note 2.3]***

The *defects correction period* is ***[8]*** Weeks ***[See note 2.4]***

The *delay damages* are ***{Quote figure or give*** ***[See note 2.5]***

The *assessment day* is the ***[completion date]*** ***[See note 2.6]***

The *retention* is ***[Nil ?; Retention probably not appropriate. See Note 2.7.]***

The *Adjudicator* is ***[Either....to be agreed or the Employer may add a list for agreement by the***

Name

Address

Telephone

Fax

E-mail address

Contract Data

The interest on late payment is *[??%....0.5% per complete week of delay See Note 2.9]*

The *Employer* provides this
insurance None

The minimum amount of cover for

the third insurance stated in the
Insurance Table is *[£ 2,000,000.00]*

The *tribunal* is Arbitration

If the *tribunal* is arbitration, the
arbitration procedure is

The Institution of Civil Engineers Arbitration Procedure 1997
or any amendment or modification in force when the Arbitrator
is appointed

The *conditions of contract* are the first edition (July 1999) of the NEC Engineering and

Construction Short Contract, as amended and supplemented by the following conditions. In the event of any conflict between the Short Contract and the following conditions, the following conditions shall apply.

Z1	For the purposes of the Contract (Rights of Third Parties) Act 1999, nothing in this Contract confers or purports to confer on a third party any benefit or any right to enforce a term of this Contract.
Z2	Corrupt Gifts and Payments of Commission
Z2.1	The <i>Contractor</i> does not, and the <i>Contractor</i> procures that none of its employees, contractors and any other persons deployed by the <i>Contractor</i> in connection with the <i>works</i>

	<p>("Employees");:</p> <p>(a) offer or give or agree to the giving to any person in the service of the <i>Employer</i> any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other Contract with the <i>Employer</i> or for showing or forbearing to show favour or disfavour of any person in relation to this or any other Contract with the <i>Employer</i>; or</p> <p>(b) enter into this or any other Contract with the <i>Employer</i> in connection with which commission has been paid or agreed to be paid by him or on his behalf or to his knowledge, unless before the Contract is made particulars of any such commission and of the terms and conditions of any agreement for the payment thereof have been disclosed in writing to the <i>Employer</i>.</p>
Z2.2	<p>Any breach of the above prohibitions or the commission of any offence under the Prevention of Corruption Acts 1889 to 1916 or the giving of any fee or reward the receipt of which is an offence under sub-section (2) of Section 117 of the Local Government Act 1972 by the <i>Contractor</i> or any <i>Employee</i> (whether such breach or offence is with or without the knowledge of the <i>Contractor</i>) in relation to this or any other Contract with the <i>Employer</i> shall entitle the <i>Employer</i> to terminate in accordance with Condition 9. In that case the <i>Contractor</i> is not entitled to payments on the Contract or Contracts beyond those (if any) provided for by Condition 9.</p>
Z3	<p>Intellectual Property Rights and Data</p>
Z3.1	<p>For the purposes of this Condition: (a) "<i>Data</i>" means all data, information, text, drawings, codes, diagrams, images or sounds which are embodied in any electronic or tangible medium and which are processed by, or generated by, the <i>Contractor</i> under this Contract or otherwise generated by or on behalf of the <i>Employer</i>, and (b) "<i>Intellectual Property Rights</i>" means any patents, trade secrets, trade marks, service marks, trade names, copyrights and other rights in works of authorship (including rights in computer software), moral and artists' rights, design rights, trade or business names, domain names, know-how, database rights and semi-conductor topography rights and whether any of the foregoing are registered or unregistered and all rights or forms of protection of a similar nature in any country.</p>
Z3.2	<p>Each Party acknowledges that all <i>Intellectual Property Rights</i> owned by the other Party at the date of this Contract remain the property of that Party. Each Party grants the other a licence to use such <i>Intellectual Property Rights</i> to the extent that, and for so long as, such use is necessary for the purposes of this Contract.</p>
Z3.3	<p>All <i>Intellectual Property Rights</i> created by the <i>Contractor</i> in connection with this Contract ("<i>Developed IPR</i>") are vested in the <i>Employer</i> absolutely upon the creation of such <i>Developed IPR</i>.</p>

Z3.4	The <i>Contractor</i> hereby assigns the <i>Developed IPR</i> so as to give effect to Condition Z3.3 and hereby agrees that such <i>Developed IPR</i> shall vest absolutely in the <i>Employer</i> immediately upon such rights coming into existence and to that end the <i>Supplier</i> hereby assigns by way of assignment of future copyright all such <i>Developed IPR</i> to the <i>Employer</i> absolutely. The <i>Contractor</i> hereby unconditionally and irrevocably waives in relation to the <i>Developed IPR</i> all moral rights conferred by Chapter IV of Part I of the Copyright, Designs and Patents Act 1988 and all author's rights of a similar kind conferred by the law of any jurisdiction and shall procure such a waiver from the <i>Employees</i> .
Z3.5	The <i>Employer</i> hereby grants to the <i>Contractor</i> a non-exclusive, non-transferable licence to use and copy the <i>Developed IPR</i> solely for the purposes of fulfilling its obligations under this Contract.
Z3.6	For the avoidance of doubt, all <i>Intellectual Property Rights</i> in the <i>Data</i> are vested in the <i>Employer</i> upon their creation absolutely and the <i>Contractor</i> obtains no rights, title and interest in the <i>Data</i> whatsoever, except that the <i>Contractor</i> is permitted to use the <i>Data</i> solely for the purposes of fulfilling its obligations under this Contract. For the avoidance of doubt, such licence terminates with immediate effect upon expiry or termination of this Contract.
Z3.7	<p>Without prejudice to the <i>Employer's</i> other rights and remedies under this Contract, if any <i>Data</i> are corrupted or lost as a result of any act or omission of the <i>Contractor</i>, the <i>Employer</i> is entitled, at its option:</p> <p>a) to require the <i>Contractor</i> at the <i>Contractor's</i> own expense to restore or procure the restoration of the <i>Data</i>; or</p> <p>b) to restore or procure the restoration of the <i>Data</i> itself and at its own cost, in which case the <i>Contractor</i> pays to the <i>Employer</i> immediately upon demand, all costs and expenses incurred by the <i>Employer</i> in respect of such restoration.</p>
Z3.8	<p>The <i>Contractor</i> undertakes:</p> <p>a) not to create, copy, implement, recreate or re-implement any <i>Data</i> or any part thereof or any work or thing similar in any material respect to the <i>Data</i> without the written consent of the <i>Employer</i> (save to the extent necessary to provide the <i>works</i>);</p> <p>b) to take reasonable precautions to preserve the security and integrity of the <i>Data</i> and to prevent any corruption or loss of <i>Data</i>; and</p> <p>c) to keep all <i>Data</i> in accordance with appropriate data retention policies and not to delete any <i>Data</i> without the <i>Employer's</i> prior written consent.</p>
Z3.9	The <i>Contractor</i> has the right to use any material provided by the <i>Employer</i> in connection with this Contract only to provide the <i>works</i> and for no other purpose. On Completion of the <i>works</i> the <i>Contractor shall</i> return to the <i>Employer</i> any such materials provided by the

	<p><i>Employer.</i></p> <p>Neither of the Parties discloses to any third party any <i>Intellectual Property Rights</i> provided to that Party by the other Party in connection with the <i>works</i> except to the extent required to carry out their duties under this Contract.</p>
	<p>This Condition Z3 shall survive expiry or termination of this Contract.</p>
Z4	<p>Publicity</p> <p>The Contractor may publicise the <i>works</i> only with the Employer's prior written agreement.</p>
Z5	<p>Quality Management System</p>
Z5.1	<p>The <i>Contractor</i> operates a quality management system in accordance with the Specification included in the Works Information.</p>
Z5.2	<p>The <i>Contractor</i> complies with any instruction received from the <i>Employer</i> to correct any failure by the Contractor to comply with the quality plan included in the Specification.</p>
Z6	<p>Confidentiality and Freedom of Information Act</p>
Z6.1	<p>The Contractor does not during the term of this Contract or at any time thereafter make use of for its own purposes, or disclose to any person (except as may be required by any applicable laws and regulations), any information contained in any material provided to it by the Employer pursuant to the Contract or prepared by the Contractor pursuant to the Contract, all of which information shall be deemed to be confidential.</p>
Z6.2	<p>The <i>Contractor</i> does not mention the <i>Employer's</i> name in connection with the Contract or disclose the existence of the Contract in any publicity or other similar communication to third parties without the <i>Employer's</i> prior consent in writing.</p>
Z6.3	<p>The <i>Contractor</i> ensures that its Employees do not disclose any information seen, read or heard during the performance of the Contract to any third party and shall indemnify and keep the <i>Employer indemnified</i> against any losses or claims arising from any such disclosure, including any costs incurred in defending or settling any claim in respect thereof.</p>
Z6.4	<p>The <i>Contractor</i> procures the compliance of its Employees with the provisions of this Condition.</p>
Z6.4	<p>This Condition shall survive the termination or expiry of this Contract.</p>
Z6.4	<p>The <i>Contractor</i> co-operates with the <i>Employer</i> to ensure compliance with the Freedom of Information Act 2000 (“the Act”). In the event that the <i>Employer</i> is required to provide information to any person as a result of a request made to it under the Act:</p> <ol style="list-style-type: none"> 1. the <i>Contractor</i> responds in a timely manner to a request from the <i>Employer</i> for such

	<p>information; and</p> <p>2. the <i>Employer</i> has the right to disclose information relating to this Contract and the <i>Contractor</i>. The <i>Employer</i> agrees that it will not without the prior written consent of the <i>Contractor</i> disclose information of the type set out in the [Schedule/Proposal etc].</p>
Z7	Exit
Z7.1	On the expiry or termination of this Contract, the <i>Contractor</i> provides to the <i>Employer</i> , as soon as reasonably practicable, in accordance with the <i>Quality Procedures</i> , copies (in such format and number as the <i>Employer</i> may specify) of the <i>Data</i> then held by the <i>Contractor</i> .
Z7.2	The <i>Contractor</i> is entitled to receive payment due up to the date of expiry or termination of this Contract.
Z7.3	This Condition Z7 shall survive expiry or termination of this Contract.
Z8	IPR Indemnity
Z8.1	The <i>Contractor</i> ensures that it has all rights necessary to assign any <i>Intellectual Property Rights</i> in accordance with Condition Z3.4, that the provision of the <i>works</i> by the <i>Contractor</i> and/or the receipt and use of the <i>works</i> by the <i>Employer</i> in accordance with the terms of this Contract shall not constitute an infringement or misappropriation of any <i>Intellectual Property Rights</i> of any third party.
Z8.2	If any person claims that the assignment by the <i>Contractor</i> pursuant to Condition Z3.4, the provision of the <i>works</i> by the <i>Contractor</i> and/or the receipt or use of the <i>works</i> by the <i>Employer</i> in accordance with the terms of this Contract constitutes an infringement or misappropriation of any <i>Intellectual Property Rights</i> , the <i>Contractor</i> shall indemnify the <i>Employer</i> and keep the <i>Employer</i> indemnified against all claims, demands, actions, costs, expenses (including but not limited to legal costs and disbursements on a full indemnity basis), losses and damages arising from or incurred by reason of any such infringement or misappropriation or allegation of such infringement or misappropriation (including, but not limited to, the defence of such alleged infringement or misappropriation).
Z8.3	<p>Where the <i>Employer</i> receives a claim in respect of which the <i>Contractor</i> has granted an indemnity to the <i>Employer</i> pursuant to Condition Z8.2:</p> <p>a) the <i>Employer</i> shall promptly notify the <i>Contractor</i> of the claim;</p> <p>b) the <i>Employer</i> shall at its own cost and expense be entitled to control the defence of the claim and any related proceedings or settlement negotiations, except that the <i>Employer</i> shall be entitled to take any action which it deems necessary if the <i>Contractor</i> fails to take action, or delays taking action, in defending or settling any such claim, proceedings or negotiations and such failure or delay may, in the reasonable opinion of the <i>Employer</i>, prejudice the interests of the <i>Employer</i>; and</p> <p>c) at the cost and expense of the <i>Contractor</i>, the <i>Employer</i> shall take all reasonable steps to</p>

	co-operate with the <i>Contractor</i> in the defence of such claim, proceedings or negotiations.
Z9	Contractor Obligations
Z9.1	The <i>Contractor</i> warrants and represents that in carrying out the <i>works</i> nothing shall be introduced into any of the <i>Employer's</i> systems, including, without prejudice to the generality of the foregoing, any computer program code, computer virus, computer worm, Trojan Horse, authorisation key, licence control utility or software lock, which is intended by any person to, is likely to, or may impair the operation of the works or any of the <i>Employer's</i> systems, or that may cause loss of, or corruption or damage to, any program or data held on the <i>Employer's</i> systems.
Z10	General
Z10.1	The Parties shall, and shall use all reasonable endeavours to procure that, any necessary third party (including, but not limited to, the <i>Employees</i>) shall, do and execute and perform all such further deeds, documents, assurances, acts and things as may be reasonably required to give effect to this Contract.
Z10.2	The failure of either Party to insist upon strict performance of any provision of this Contract, or the failure of either Party to exercise any right or remedy to which it is entitled under this Contract, shall not constitute a waiver of such right or remedy and shall not cause a diminution of the obligations established by this Contract. A waiver of any breach of contract shall not constitute a waiver of any subsequent breach of contract. No waiver of any of the provisions of this Contract shall be effective unless it is expressly stated to be a waiver and communicated to the other party in writing.
Z11	Audit
	The <i>Contractor</i> grants to the <i>Employer</i> , to any auditors of the <i>Employer</i> and to their respective authorised agents the right of reasonable entry from time to time and at any time to all records, sites and/or materials of the <i>Contractor</i> relating to this Contract and shall provide all reasonable assistance to the <i>Employer</i> and its auditors and agents for the purposes of carrying out an audit of all confidentiality, activities, performance and security issues relating to this Contract.
Z12	Liability
	Delete Conditions 80 (Limitation of liability) and 81 (Indemnities) of the <i>conditions of contract</i> and replace with Conditions Z12.1 to Z12.4 that follow:
Z12.1	Neither party excludes or limits its liability to the other party in respect of death or personal injury or any other liability which by law it cannot exclude or limit.

Z12.3	The <i>Contractor</i> does not exclude or limit its liability to the <i>Employer</i> in respect of liability pursuant to a breach of Conditions Z3 (Intellectual Property Rights and Data), Z6 (Confidentiality and Freedom of Information), and Z8 (IPR Indemnity).
Z12.3	Neither Party is liable to the other party for loss of or damage to the other's property in excess of [£ 2,000,000.00] for any one event.
Z12.4	In all other circumstances a Party may recover only direct loss and the liability of the other party in respect of any one event shall be limited to £[£ 2,000,000.00] .

The *Contractor's* Offer

The Contractor is

Name

Address

Telephone

Fax

E-mail address

The percentage for overheads and profit added to the Contractor's cost for people is _____ %

The percentage for overheads and profit added to other Contractor's costs is _____ %

The *Contractor* offers to Provide the Works in accordance with the *conditions of contract*.

The offered total of the Prices is

Signed on behalf of the *Contractor*

Name

Position

Signature

Date

The *Employer's* Acceptance

The *Employer* accepts the *Contractor's* Offer to Provide the Works

Signed on behalf of the *Employer*

Name

Position

Signature

Date

Price List

PREAMBLE TO THE PRICE LIST

The prices entered against each item in the Price List shall allow for all costs of performing or procuring all activities and obligations required and described in, or that can reasonably be inferred from, the *Contract*, other than any which are specifically described in the *Contract* as costs to be borne by the *Employer*, to include but not limited to:

- All overhead costs
- All accommodation costs (temporary and permanent)
- Provision of SCANNER Accredited Equipment and personnel,
- Necessary traffic control, including escort vehicles
- Compliance with SCANNER and contractor’s Quality Assurance procedures, *{including commissioning of an Independent Auditor - delete if Independent Auditor to be commissioned directly by Employer}* and liaison with the appointed Independent Auditor
- Computer hardware and software including licences
- Standing time
- Weather delays
- Liaison with Highway Authority and Police
- Preparation of data for acceptance by UKPMS accredited system (HMDIF/BCD)
- Provision of data to the required accuracy in the specified format direct to the relevant national government for statistical monitoring purposes.

Completion is delivery of processed data in the specified format

The Price List forms the basis for payment. The amount entered against an item shall be the sum due to the *Contractor* on completion of the item. The *Employer* will not make any payment for work other than against completed items in the Price List. Completion of an item is deemed to include supplying the *Employer* with any relevant data. The *Employer* is not obliged to pay more frequently than calendar monthly.

Every item in the Price List shall be legibly priced in ink.

Item Number	Description	Unit	Quantity	Rate	Price
<i>[See Note 2.10]</i>					

The total of the Prices

Works Information

1 Description of the *works*

The *Contractor* shall carry out SCANNER Surveys on the routes listed below, in the directions shown and provide processed data in the form [*See note 2.11*]

[*Where the Contract is for more than one year it will be usual to give full details of year one with intentions for years two and onwards. See Note2.1*]

2 Drawings – [*Network drawing etc See Note 2.1*]

Works Information

3 Specification

Title	Date or revision	Tick if publicly available
SCANNER Surveys for Local Roads	[<i>January 2009</i>]	✓

4 Constraints on how the *Contractor* Provides the Works are as given in the *Specification*. [*Additional constraints are listed below. See Note 2.12*]

Site Information

[Details of roads to be surveyed are included in drawings/schedules]

Annex B

Services to be provided by an Independent Auditor

6 Services to be provided by Independent Auditor

6.1 Requirement for Quality Audit

6.1.1 The Independent Auditor is an independent service provider that audits SCANNER surveys in accordance with the current SCANNER specification.

6.1.2 The Independent Auditor:

- (a) Maintains contact with the SCANNER survey Contractor to ensure the effective performance of the SCANNER survey Contractor's quality assurance procedures, including ensuring the competence of drivers and operators;
- (b) Reviews and assesses the daily, weekly and monthly QA checks carried out by the SCANNER survey Contractor at the appropriate intervals;
- (c) Undertakes Auditor's Repeat Surveys and uses the collected data to undertake assessments of the Contractor's SCANNER data;
- (d) Undertakes random spot checks of the operation and performance of SCANNER accredited surveys, where appropriate;
- (e) Collates the data collected by the SCANNER survey contractor, and undertakes checks on this data throughout the survey period to identify potential issues at an early stage;
- (f) Monitors the SCANNER survey Contractor's progress reports;
- (g) Liaises with the Employer when necessary to resolve any issues arising from the SCANNER survey Contractor's quality assurance procedures. This may include acting as an arbiter in the event of dispute or disagreement between an Employer and their SCANNER survey contractor;

6.2 Operation of the Audit

6.2.1 In order to deliver the Audit requirements the Independent Auditor:

- (a) Establishes and maintains a technical resource capable of resolving technical issues affecting the quality of the survey, and advising on automated road condition survey technology, analysis and procedures;
- (b) Provides an Independent Survey Vehicle(s) with which to carry out Auditor's Repeat Surveys;
- (c) Undertakes the Auditing activities described in Section 6.1 above, according to the current version of the SCANNER specification;
- (d) Provides advice and consultancy services concerning any matters of acceptance, accreditation and quality assurance testing and audit requirements, on an ad hoc basis;
- (e) Provides assistance in the collation of SCANNER data for the purpose of reporting at the national level;
- (f) Publishes a summary report each survey year describing the activities carried out by the Independent Auditor in assessing the quality of the SCANNER survey Contractor(s);

- (g) Does not provide Audit services in respect of SCANNER vehicles which it uses itself (or intends to use) to offer a commercial accredited survey service.

6.2.2 The Independent Auditor is commissioned either directly by an Employer (e.g. a local authority) or by a SCANNER survey Contractor.

6.2.3 Where an Employer commissions the Independent Auditor:

- (a) The Employer confirms the extent of Audit required for their network with their selected Independent Auditor.

*Note: For the purposes of remuneration, Independent Audit charges are likely to be made on the basis of the either network size/complexity, or on the basis direct resource recharging. Because of the lack of economies of scale, **the effective cost per km may be much greater** than where an Independent Auditor is commissioned by a survey contractor.*

6.2.4 Where a SCANNER survey Contractor commissions an Independent Auditor, for efficiency and economy:

- (a) The SCANNER survey contractor may commission one Independent Auditor to carry out Quality Audits of their SCANNER surveys over a number of SCANNER survey Contracts (and hence a number of Employers) within the survey year;
- (b) The Independent Auditor may review and assess the daily, weekly and monthly QA checks carried out by the SCANNER survey Contractor on a sample basis across these Employers within each survey year.
- (c) The Independent Auditor may undertake Auditor's Repeat Surveys on a sample basis across these Employers within each survey year.

*Note: For the purposes of remuneration, Independent Audit charges are likely to be made on the basis of a cost per km surveyed. These may be passed on to the Employer as part of the SCANNER survey rates. As a result of economies of scale, **the effective cost per km may be much less** than where an Independent Auditor is commissioned by an individual Employer.*