

## APPENDIX H

### QUALITY RECORDS

(05/01) The quality records required by this specification, particularly arising from sub-Clause 104.8, shall be submitted to the Overseeing Organisation as indicated below:

- 1 Category A: Records required in advance of commencement of a construction activity. These records will be considered by the Overseeing Organisation prior to granting approval. Approval of such records constitutes an Overseeing Organisation's hold point.\*  
  
Category B: Records required during the course of an activity to demonstrate compliance. Submission of these records constitutes a Contractor's hold point.  
  
Category C: Certificates required from third parties, suppliers, and specialist manufacturers. These certificates shall be provided before a product is deemed to have been received.  
  
Category D: Records required on completion of an activity.
- 2 Where Category C certificates are required and the format has not been approved by the relevant controlling body, the Contractor shall ensure they contain the following information as a minimum:
  - The supplier's name, address and telephone number
  - Serial number and date of the certificate
  - Reference to the order placed, including purchaser's order number and date placed
  - Detailed description of the product supplied, including identification marks, batch numbers and quantity
  - Any agreed concessions/non-conformities
  - Identification of test results and testing laboratory
  - The following statement, signed by the person nominated by the supplier as responsible for quality control, or his deputy -

"I certify that the supplies detailed hereon have been inspected in accordance with the conditions and requirements of the contract and unless otherwise noted below, conform in all aspects to the Specification relevant thereto".

- 3 (05/04) All recycled aggregates, including concrete containing recycled aggregate, shall comply with the 'Quality Control - Production of Re-cycled Aggregates' published by Waste and Resources Action Programme is available from WRAP, The Old Academy, 21 Horse Fair, Banbury, OX16 0AH. The document is also available on the WRAP website, <http://www.wrap.org.uk/>, to which reference is made in Clause 710.

\* These are additional to the other "hold points" required by the Contract, such as specific approvals and for "covering up".

#### PRELIMINARIES

CAT.

|      |            |  |
|------|------------|--|
| A    | 104.2      | Quality Assurance - submit. (05/01)  |
| C    | 104.4      | Quality management scheme or product certification scheme - submit certificates of conformity. |
| C    | 104.6      | Organisation's Quality Plans - submit. (11/03)   |
| C    | 104.7, 8   | Quality records - make available copies of records. (05/01)                                    |
| C    | 104.9      | British Board of Agrément certificates - submit certificates.                                  |
| A    | 104.11     | Traffic signs requiring statutory type approval - submit written evidence of approval.         |
| A, C | 104.13     | Type approval/registration - submit type approval/registration certificates.                   |
| A, C | 104.16, 18 | Provision of information - submit information and certificates.                                |

|      |        |  |
|------|--------|--|
| A    | 105.1  | Suppliers of materials - submit list. Goods or materials - give details of choice. (05/01)   |
| B, D | 105.2  | Sampling and testing - supply test results and test certificates.  |
| A    | 106.2  | Structures designed by the Contractor - submit Approval in Principle form.   |
| A    | 106.3  | Structures designed by the Contractor - submit copies of completed design certificates and drawings.   |
| A    | 106.4  | Structural elements and other features designed by the Contractor - submit proposals.  |
| A    | 117.3  | Traffic safety and management - submit proposals. (05/01)  |
| A    | 118.4  | Temporary diversions for traffic specified by the Overseeing Organisation - submit proposals. (05/01)  |
| A    | 120.1  | Recovery vehicles for breakdowns - submit certificates.  |
| A    | 120.7  | Operatives - submit certificates and driving licences. (05/01)   |
| B    | 120.8  | Submit weekly - daily record sheets for each operative. (05/01)  |
| B    | 120.19 | Information Sheets - submit in duplicate. (11/03)  |
| D    | 122.3  | Progress photographs - deliver within 4 weeks of exposure.   |
| D    | 125.15 | Temporary Closed Circuit Television (CCTV) system for monitoring traffic - daily log of incidents. (05/01)   |
| A    | 126.1  | Timber and products containing wood supplied under the Contract - documentary evidence that the timber and wood supplied or used is from a legal and sustainable source. (05/04) |

(05/04) **ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)**

|      |                   |   |
|------|-------------------|---|
| C    | 402.6 (v) and 408 | Destructive testing of welds - provide copies of certified reports for earlier contracts. (05/04) |
| C    | 402.10            | Provide evidence of tensile tests. (05/04)  |
| A    | 403.15            | Anchorages in drilled holes - provide evidence of capability. (05/04)                             |
| B, D | 404.4             | Post foundation tests - submit test results. (05/04)  |

**DRAINAGE AND SERVICE DUCTS**

|         |        |  |
|---------|--------|--|
| D       | 501.3  | Pipes for drainage - provide a schedule.   |
| A, B, C | 503.3  | When recycled coarse aggregate or recycled concrete aggregate is used, provide the results required in Clause 710. (05/04) |
| D       | 506.1  | Connecting to existing drains - record positions and submit records.   |
| D       | 509.5  | Foul and filter drains - supply recording of survey by CCTV (excluding fin and narrow filter drains). (11/04)              |
| C       | 514.12 | Fin drains - supply consignment details.   |
| C       | 515.8  | Narrow filter drains - supply consignment details.   |
| A       | 516.2  | Combined drainage and kerb systems - provide evidence of suitability of application. (11/04)                               |
| A       | 517.2  | Linear drainage channel systems - provide evidence of suitability. (11/04)   |
| A       | 518.2  | Thermoplastics structured wall pipes and fittings - submit complete information sheets. (05/01)                            |

|   |                       |  |
|---|-----------------------|--|
| B | 520.3, 11, 13, 17, 21 | The cleaning of existing drainage systems - report any localised blockages, obstructions and any damage and defects and defects to the bridge drainage system. (11/03) |
| B | 521.14                | Jetting of piped drainage systems - report presence of any perforated pipes and porous concrete pipes. (11/03)   |

## EARTHWORKS

|         |        |   |
|---------|--------|---|
| A, B, C | 601.18 | Pulverised-fuel ash - make available to the Overseeing Organisation a record of the type and source of the material and the name of the power station from which it was obtained and a certificate of results of tests showing that the material complies with the requirements of Table 6/1. (11/04) |
| A       | 609.2  | Geotextiles - provide evidence of durability.   |
| A       | 613.5  | Capping - provide test records substantiating compliance with criteria.   |
| B, D    | 629.2  | Instrumentation - supply results of monitoring.   |
| B       | 630.6  | Vibrated stone columns - report if ground conditions differ from those expected.  |
| A       | 637.3  | In situ resistivity tests - give notice of date, time and location. (11/04)   |
| A       | 638.4  | In situ redox potential tests - give notice of testing arrangements.  |

## ROAD PAVEMENTS - GENERAL

|         |        |  |
|---------|--------|--|
| A       | 709.7  | Cold milling extensive areas - programme to be notified in advance. (05/01)  |
| B       | 709.11 | Location and depth of objects - report within 6 hours. (11/03)   |
| A, B, C | 710    | When recycled coarse aggregate or recycled concrete aggregate is used, provide the results required in Clause 710. (05/04) |
| B       | 711.6  | Installation and quality control procedures - make available results from BBA surveillance visits. (05/01)                 |
| B       | 715.9  | Saw-cutting of concrete pavement - submit report within 18 hours of saw-cut failure. (05/01)                               |
| B       | 716    | Required crack pattern - report within two hours if pattern is not established. (05/01)                                    |

## ROAD PAVEMENTS - (11/04) UNBOUND, CEMENT AND OTHER HYDRAULICALLY BOUND MIXTURES

|      |                     |   |
|------|---------------------|---|
| A, C | 802.12              | Submit construction proposals for trafficking trials for review and acceptance five days in advance of construction. (11/04)  |
| A, C | 802.18              | Report on the Trafficking Trial, to the Overseeing Organisation, stating how the use of the unbound mixture was validated. Overseeing Organisation to accept or otherwise within two working days of receiving the Trafficking Trial area report. (11/04) |
| A    | 810.5               | Provide the Overseeing Organisation with the information detailed in the 'Designation and Description' clause of the relevant BS EN for the selected HBM. (11/04)   |
| A, C | 813.3, 817.1, 817.4 | Provide, at least 10 days ahead, a method statement and a demonstration area (800 m <sup>2</sup> ) for the production and construction of HMB. (11/04)  |

## ROAD PAVEMENTS - BITUMINOUS BOUND MATERIALS

|      |                |  |
|------|----------------|--|
| A    | 902.6          | Hot rolled asphalt binder course and base - submit testing regime and limiting values. (11/04)   |
| A    | 910.1          | Recipe mix - notification prior to use.  |
| A    | 911.1          | Design mix - notification prior to use.  |
| A    | 918.2          | Slurry surfacing incorporating microsurfacing - provide design proposal and quality plan. (05/01)  |
| A    | 918.3          | Mixture tests - Appendix 7/7.  |
| A    | 918.6          | Slurry surface incorporating microsurfacing - provide test certificate for aggregates. (11/03)   |
| B    | 918.9          | Slurry surfacing incorporating microsurfacing - provide test certificate for machine.  |
| B, D | 918.25         | Slurry surfacing incorporating microsurfacing - records of amount and area of slurry used.   |
| D    | 918.29         | Slurry surfacing incorporating microsurfacing - supply 'As Built' manual within 30 days.   |
| A    | 919.4, 922.7   | Surface dressing: recipe specification - binder sprayer - provide test certificate prior to spraying. (11/03)  |
| A    | 919.5, 922.8   | Chippings - provide test certificate before work commences. (11/03)  |
| A    | 919.6, 922.9   | Chipping spreader - provide test certificates before use. (11/03)  |
| B    | 919.12, 922.14 | Binder and chipping tests - report results within 24 hours. (05/01)  |
| D    | 919.18         | Provide 'As Built' manual within 30 days. (05/01)  |
| A    | 920.2, 4       | Bond coats and bituminous sprays - seek approval of the Overseeing Organisation if British Board of Agrément HAPAS Certificates have not been issued. (05/01)                        |
| A    | 920.5          | Bond coats, tack coats and bituminous sprays - copy of completed binder data sheet prior to the application of the product. (05/01)  |
| B    | 920.9          | Accuracy of application - report rate of spread within 7 days. (05/01)   |
| A    | 920.12         | Overlaying concrete surfaces - submit evidence of suitability of the bond or tack coats prior to the commencement of work. (11/03)   |
| C    | 920.14         | Bond of overlaying concrete surfaces - provide evidence that bond has been in a BBA/HAPAS Roads and Bridges Certificate or the Torque bond test is carried out and reported. (11/04) |
| D    | 922.18         | Surface dressing: Design, application and end product performance - provide 'As Built' manual within 30 days.  |
| A    | 924.4          | High friction surfacing - provide test certificate for aggregate. (11/03)  |
| B    | 924.6          | High friction surfacing - quantities, areas and coverage to be reported within 3 days.   |
| B    | 926.14         | Additional coarse aggregate - amount to be notified.   |
| A    | 928.22         | Complex shear modulus and phase angle tests - provide report, graphs and data.   |
| B, D | 929.13         | Design, compaction and compliance test - provide test sheets and results within 28 days. (11/04)   |
| B, D | 929.24         | Final nuclear density test - two copies of test results to be provided within 24 hours. (11/04)  |

|      |        |   |
|------|--------|---|
| A    | 937.15 | Stone mastic asphalt binder course and regulating course - job mixture trial results. (05/01)   |
| B, D | 937.40 | Appendix 1/5 - two copies of test results to be provided within 14 days. (05/01)  |
| B    | 938.8  | Porous asphalt - proposed modifiers and related information.  |
| A    | 942.5  | Thin surface course systems - provide test certificates before work commences. (05/01)  |
| A    | 942.10 | Thin surface course systems - provide details of material deformation resistance before work commences. (05/01)   |
| A    | 943.3  | HRA surface course - seek approval of the Overseeing Organisation if British Board of Agrément HAPAS Certificates have not been issued. (11/03)   |
| A    | 943.5  | HRA surface course - obtain approvals before tender. (05/02)  |
| A    | 943.8  | Mixture design - submit details. (05/01)  |
| A    | 943.11 | Modified binders - details including weather conditions. (11/03)  |
| B    | 944.13 | Details of each day's production within 1 day of the material being laid. (11/04)   |
| B, D | 946.1  | China clay sand asphalt base design, compaction and compliance test - provide test sheets and results within 28 days. Final nuclear density test - two copies of test results to be provided within 24 hours. (05/02) |
| B    | 947.1  | Slate macadam base - Details of mixture design. Details of each day's production within 1 day of the material being laid. (05/02)   |
| A    | 948.2  | Cold recycled bitumen bound material - Submit details of design mix. (05/01)  |
| A    | 948.15 | Submit details of plant, etc. (05/01)   |
| A    | 948.58 | Mixture design and characterisation submitted at least one week prior to commencement of the recycling works. (05/01)   |
| A    | 950.3  | Depressions - provide details of proprietary material. (05/01)  |
| A    | 953.27 | Saturation Ageing Tensile Stiffness (SATS) Test - test report and graph, uniquely identified, to be provided to the Overseeing Organisation with the Contractor's Proposal. (11/04)                                   |

#### ROAD PAVEMENTS - CONCRETE AND CEMENT BOUND MATERIALS

|         |                                   |  |
|---------|-----------------------------------|--|
| A, B, C | 1001.6, 1001.10, 1001.11, 1001.12 | When recycled aggregate is used, provide the results required in these sub-Clauses in accordance with paragraph 3 above. (05/01) |
| A       | 1028.1                            | Trial length - submit detailed proposals.  |
| A       | 1044.2                            | Complete Appendix 10/1.  |
| A       | 1046.2                            | Submit details of design mix. (05/01)  |
| A       | 1046.10                           | Submit details of plant, etc. (05/01)  |
| A       | 1046.43                           | Mixture design and characterisation submitted at least one week prior to commencement of the recycling works. (05/01)            |

#### TRAFFIC SIGNS

|   |         |   |
|---|---------|---|
| A | 1202.5  | Fabrication of traffic signs - submit fabrication drawings etc.                       |
| A | 1212.18 | Removal of road marking - submit details. (05/01)                                     |
| A | 1213.4  | Retroreflecting road studs - submit details. (05/01)                                  |
| C | 1214.19 | Flat traffic delineators - submit test certificate.                                   |
| C | 1214.21 | Temporary cones, cylinders, FTD and other delineators - submit certification. (05/01) |



## ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS (11/03)

|      |                |   |
|------|----------------|---|
| A    | 1302.1         | Lighting columns and brackets, CCTV masts, cantilever masts and foundations - submit design and check certificates. (11/03) |
| A    | 1302.2         | Lighting columns and luminaires, CCTV masts and cantilever masts - submit designs for aesthetic approval. (11/03)           |
| A    | 1303.1         | Data sheets - provide triplicate copies for each type of column and bracket, CCTV masts and cantilever masts. (11/03)       |
| A    | 1305.10        | Anchorage in drilled holes - provide evidence of capability.  |
| A, C | 1310.1, 1310.2 | Destructive testing of welds - provide copies of reports for earlier contracts. (05/01)                                     |
| A    | 1313.7         | Materials for GFRP laminates - fillers and pigments incorporated in the resin subject to acceptance.                        |

## ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS

|   |        |   |
|---|--------|---|
| A | 1401.1 | Competent Persons Authorisation Certificate. (05/01)  |
| B | 1401.1 | Work Allocation Record. (05/01)   |
| A | 1401.5 | Electrical installations - provision of dedicated feeder pillars and agreement to need for isolation pillars. |
| D | 1402.1 | Electrical work - drawings, test certificates and manuals.  |
| D | 1402.4 | As-built drawings for traffic signs - supply copies on completion.  |
| B | 1421.1 | Underground and ducted cables - evidence of testing.  |
| A | 1424.2 | Inspection and testing - supply schedule.   |
| C | 1424.6 | Testing - provide certificate verifying compliance within BS 7671.  |

## MOTORWAY COMMUNICATIONS

|      |           |   |
|------|-----------|---|
| D    | 1504.1, 3 | Site records - provide daily records on drawings.                                       |
| A    | 1506.3    | Cables - provide quality inspection certificates and results of sheath integrity tests. |
| D    | 1513.12   | CJE - supply schedule of tests.   |
| D    | 1518.4    | Cable testing - supply test results.  |
| A, B | 1518.12   | Armoured cable testing - report damaged sheath, advance notice of repair operation.     |
| D    | 1526.1    | Electrical installations - submit inspection and completion certificates.               |
| D    | 1533.4    | Cable ducts - submit register of mandrel and air test certificates.                     |

## (05/01) STRUCTURAL CONCRETE

|      |                |  |
|------|----------------|--|
| A, C | 1709.2, 1709.6 | Surface impregnation - Certificate of Compliance and method statement accepted by the Overseeing Organisation before commencing. |
|------|----------------|--|

## (05/01) STRUCTURAL STEELWORK

|   |             |  |
|---|-------------|--|
| B | 1803(3.1.6) | Steel supplier - supply inspection documents. (05/01)                                      |
| C | 1803(4.7.1) | Welding - provide certificate verifying welders approved to BS EN 287: Part 1/ BS EN 1418. |

(05/01) **PROTECTION OF STEELWORK**

|   |        |   |
|---|--------|---|
| C | 1911.2 | Paint formulation - provide confirmation that paint formulation is registered by the manufacturer with the Overseeing Organisation. |
|---|--------|---|

**WATERPROOFING FOR CONCRETE STRUCTURES**

|   |        |  |
|---|--------|--|
| A | 2003.1 | Proprietary waterproofing systems - provide BBA Roads and Bridges Agrément Certificate appropriate to the work to be undertaken. (05/01) |
|---|--------|--|

**SPECIAL STRUCTURES**

|      |         |   |
|------|---------|---|
| A, C | 2504.6  | Compliance with Clause 304. Sustainable sourcing of timber. (11/04)   |
| A    | 2504.15 | Environmental barriers<br>- submit design for aesthetic approval.<br>- submit design calculations<br>- submit details of materials and components<br>- submit details of gates<br>- submit details of fixing. |
| D    | 2505.6  | Drainage Structures - upon completion provide a schedule showing details of all pipe types used, including quality, joints and name of manufacturer. (05/01)  |

(05/01) **LANDSCAPE AND ECOLOGY**

|      |                           |   |
|------|---------------------------|---|
| A    | 3000.1                    | Give at least 48 hours notice - Appendix 30/1.                                      |
| A    | 3000.4                    | Evidence of competency.   |
| B    | 3000.12                   | Pesticide record - Appendix 30/1.   |
| B    | 3000.14                   | Inspection reports in connection with pesticides - Appendix 30/1                    |
| A    | 3003.2                    | Evidence of formal training of operatives.  |
| B    | 3003.4                    | Record of badger setts and fox earths locations.                                    |
| C    | 3005.6                    | Supply certificates.  |
| A    | 3005.15                   | Source of turf.   |
| A    | 3006.6, 3006.7, 3006.69   | Evidence relating to planting - Appendix 30/6.                                      |
| A    | 3007.28                   | Sample Area treatment for wild flower colonisation - Appendix 30/7.                 |
| A    | 3009.25(ix), 3010.33(vii) | Report defects of individual trees in urban streets.                                |
| A, B | 3011.3, 7                 | Condition report of inlet and outlet of water bodies - Appendix 30/11.              |
| A, B | 3011.9                    | Condition report of reed beds and marginal plants - Appendix 30/11.                 |
| A, B | 3011.10                   | Report any presence of protected or rare species.                                   |
|      | 3012.5                    | Condition report of tunnels, fencing and underpasses for wildlife - Appendix 30/12. |

(05/03) **MAINTENANCE PAINTING OF STEELWORK**

|   |        |   |
|---|--------|---|
| C | 5007.2 | Paint formulation - provide confirmation that paint formulation is registered by the manufacturer with the Overseeing Organisation. |
|---|--------|---|