

SCOTTISH MINISTERS' REQUIREMENTS

SCHEDULE 6 PART 4

DESIGN AND CERTIFICATION OF OPERATIONS AND WORKS

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DESIGN AND CERTIFICATION OF OPERATIONS AND WORKS

1. INTRODUCTION

1.1 Overall Requirements

1.1.1 Schemes executed by the Operating Company may require the Operating Company to execute a Design in accordance with the provisions of an Order. For the purposes of this Contract there are three categories of Design that may be the subject of an Order:

- (i) Design for Schemes that are undertaken by the Operating Company as Operations,
- (ii) Design for Works where the Works are undertaken by Works Contractors, or
- (iii) Design for works where the works are undertaken by any other third party.

1.1.2 The Design procedure for the three classifications of Design identified above shall be identical up to the stage at which:

- (i) calculations have been completed,
- (ii) working drawings prepared, and
- (iii) all certification for the said Design has been completed and registered in the Central Office by the Operating Company.

1.1.3 The Design procedure shall not include road safety audits. Road safety audits shall be undertaken in accordance with Schedule 6 Part 3.

1.1.4 For the purpose of this Part, "Record of Determination" means the document prepared on behalf of the Director by Operating Company to record if an environmental impact assessment is required for a Design. The Director shall provide the Operating Company with a copy of the form to be used for preparing the Record of Determination.

1.1.5 For the purposes of this Part, "Checker" means the person or persons appointed by the Operating Company and consented to by the Director to undertake the Design checks required under paragraph 3.2 of this Part.

2. DESIGN

2.1 Design Brief

2.1.1 The Operating Company shall provide the Director with a brief for the Design that includes:

- (i) an outline of the Design requirement,
- (ii) a full and detailed estimate of all costs including the name and grade for each Operating Company employee involved with the Design and the number of hours per staff member for each Design task,
- (iii) a full detailed programme for the Design including all hold points,

- (iv) the Operating Company's method of approach to the Design,
- (v) the estimated costs of Design as a percentage of the overall Scheme costs,
- (vi) development of preliminary and conceptual Design options,
- (vii) recommendation of the preferred Design to the Director with justification,
- (viii) submissions and presentations, and
- (ix) the estimated cost of the Scheme at Design brief stage.

2.1.2 The Director shall consider the brief and at his discretion, request the Operating Company to amend and re-submit it.

2.1.3 The Director shall confirm the brief is acceptable and at his discretion, issue an Order for the Operating Company to execute a Design.

2.2 Design Procedure

2.2.1 The Director shall issue an Order for the Operating Company to execute a Design. The Order issued shall state the requirements for the Design, including, where appropriate, the:

- (i) production of a Design and estimated Scheme cost,
- (ii) confirmation that the brief provided by the Operating Company is acceptable to the Director or that an amended brief is required,
- (iii) programme requirements for the various parts of the procurement procedure for the Scheme including the latest date for commencement of the Design,
- (iv) development of employer's requirements for use with a Work Contractor's Design contract,
- (v) investment appraisal and whole life costings,
- (vi) value management or value engineering workshops and studies,
- (vii) requirements for the preparation of road orders, plans, schedules, environmental impact assessments and environmental statements, and
- (viii) in addition, for all Works Contracts:
 - (a) latest date for commencement of the Works,
 - (b) latest date for completion of the Works,
 - (c) estimated cost of Works,
 - (d) clarification in writing that the Operating Company shall act as the Engineer for the Scheme,
 - (e) clarification in writing to the Operating Company that the Operating Company shall supervise the Works.

2.2.2 The Design shall include:

- (i) preparation of drawings and specifications for a Scheme,
- (ii) engineering calculations for a Scheme,
- (iii) reasons for choice of materials (including replacing with the same or similar materials),

- (iv) reasons for choice of equipment,
 - (v) reasons for specifying particular standards or departures therefrom,
 - (vi) reasons for extent or scope of a Scheme,
 - (vii) reasons for the Design option developed,
 - (viii) the Health and Safety Plans in accordance with the CDM Regulations, and
 - (ix) any other requirements necessary to be included in the Design to enable the execution and completion of a Scheme.
- 2.2.3 Subject to an Order, the Operating Company shall undertake additional investigations and studies necessary for the completion of the Design including:
- (i) feasibility and option studies,
 - (ii) aesthetic review with Transport Scotland's aesthetic adviser,
 - (iii) further investigations,
 - (iv) ground investigations,
 - (v) route option proposals,
 - (vi) road safety audits,
 - (vii) business impact studies,
 - (viii) traffic impact studies,
 - (ix) economic evaluation studies, and
 - (x) any other preparation work.
- 2.2.4 Where a Design of any Scheme carried out by the Operating Company requires the acquisition or procurement of land, the Operating Company shall prepare land plans and schedules in accordance with the requirements of the Director.
- When requested by the Director, the Operating Company shall assist the Director in carrying out negotiations for the acquisition, procurement or entry to such land.
- 2.2.5 The Operating Company shall ensure all Design complies with the *Design Manual for Roads and Bridges*, the *Manual of Contract Documents for Highway Works*, the *Disability Discrimination Act: Good Practice Guide for Roads*, this Contract and any other Design requirements issued by the Director. All Design shall be certified in accordance with the certification procedures specified in this Contract. Compliance with the *Disability Discrimination Act: Good Practice Guide for Roads* shall not absolve the Operating Company from any liability under the *Disability Discrimination Act*.
- 2.2.6 Where the provisions contained within the *Disability Discrimination Act: Good Practice Guide for Roads* conflict with those of the *Design Manual for Roads and Bridges*, the Operating Company shall inform the Director and make recommendations on which provisions should be used for the Design.
- 2.2.7 The Operating Company shall require express written consent from the Director to any departure from the *Design Manual for Roads and Bridges*, the *Manual of Contract Documents for Highway Works* or the *Disability Discrimination Act: Good Practice Guide for Roads* prior to any departure being incorporated into the Design.

All departures consented to by the Director shall use the departures from standards Certificate detailed in Annex 6.4/A of this Part.

2.2.8 The Operating Company shall, as part of the Order for the Design, assess all Designs of Schemes to determine if an environmental impact assessment is required and shall notify the Director of the outcome of such assessment in a draft Record of Determination. Depending upon the scope of the Design, the draft Record of Determination shall be supported, where applicable, by either:

- (i) an environmental assessment report, or
- (ii) an environmental review report,

to be held by the Operating Company at the Central Office for all Designs prior to the completion of Design or certification.

2.2.9 The Operating Company shall hold the documents at the Central Office and shall not complete Design or certification until the Director's consent to the draft Record of Determination, draft environmental assessment report or draft environmental review report has been received.

2.2.10 Once consented to, the Record of Determination, environmental assessment report or environmental review report shall be signed by the Director before publication of statutory orders and retained at the Central Office.

2.2.11 When the Director determines that an environmental impact assessment is required, the Operating Company shall ensure that the relevant statutory procedures are followed and the findings of the environmental impact assessment reported in an environmental statement.

2.2.12 Where the Design of any Scheme requires new road orders, variations to existing road orders, environmental impact assessments and subsequent environmental statements, the Operating Company shall, as part of the Design and in accordance with the *Design Manual for Roads and Bridges*:

- (i) prepare the required road orders, plans, schedules, environmental impact assessments and environmental statements, and
- (ii) submit these when required to the Director.

The Director, assisted as required by the Operating Company, shall publish environmental statements and public notices of determination and make the said road orders in accordance with the procedures referred to in the legislation.

2.2.13 The Operating Company shall prepare the pre-tender Health and Safety Plans in accordance with the CDM Regulations as part of any Design.

2.2.14 For each Scheme, the Operating Company shall record the estimated Design costs as a percentage of the overall Scheme costs. The Operating Company shall provide full justification to the Director of any instances where the percentage of estimated Design costs exceeds or is likely to exceed the average percentage of estimated Design costs for all Schemes it has undertaken.

2.2.15 When requested by the Director, the Operating Company shall provide full justification of any instances where its percentage of estimated Design costs exceeds the average percentage of estimated Design costs for all Schemes undertaken across all Units.

3. CERTIFICATION PROCEDURES

3.1 General

- 3.1.1 All Design shall be certified in accordance with the certification procedures specified in this Contract. Such certification shall be undertaken as part of the Order for the Design.
- 3.1.2 Where the Operating Company executes a Design, it shall provide certification to cover the Design or Design Element(s) where the:
- (i) Scheme(s) is subsequently executed by the Operating Company or by a Works Contractor, or
 - (ii) works are executed by others.
- 3.1.3 The certification procedures shall apply to all Operations that constitute Design or any activity that relates to specifying Operations and to the manner in which they are executed.
- 3.1.4 The technical approval of Structures shall be in accordance with the *Design Manual for Roads and Bridges* together with any other relevant Scottish Executive and Transport Scotland addendums. Prior to the Operating Company commencing a Design for:
- (i) Structures (including temporary Structures), or
 - (ii) the strengthening, structural repair or partial renewal of existing Structures,
- a Design proposal shall be submitted to the Director at the preliminary Design stage on form TA1. A copy of form TA1 is provided in Annex 6.4/A of this Part. This shall represent a hold point in the Operating Company's Quality Plan.
- No further Operations in respect of any such Design shall be executed until the Director returns form TA1 granting approval to the Operating Company. The Director's approval may include amendments that are required or conditions that are placed in connection with the approval.
- 3.1.5 The Director shall not accept modifications or qualifications to any of the Certificates and notices provided in Annex 6.4/A of this Part other than those consented to in advance and in writing.
- 3.1.6 The certification procedure associated with a part of a Design or Design Element shall be deemed to cover all aspects and stages of a Design or Design Element.
- 3.1.7 Where the value of the Scheme is less than £100,000 the Operating Company shall use the combined Design and Design check Certificate contained in Annex 6.4/A of this Part in lieu of the other Design and check Certificates.

3.2 Design Certificates and Design Check Certificates

- 3.2.1 The Design check for all Structures shall be carried out by the Operating Company in accordance with the procedures described in *Design Manual for Roads and Bridges*. Prior to executing any Design checks, the Operating Company shall submit the name of the independent Checker to the Director for written consent.
- 3.2.2 Design Certificates and Design check Certificates shall be prepared by the Operating Company for all parts of a Design or Design Element(s) including:
- (i) accommodation works,

- (ii) drainage,
- (iii) earthworks,
- (iv) environment and landscaping,
- (v) fencing and environmental barriers,
- (vi) kerbs footways and paved areas,
- (vii) lighting and electrical work,
- (viii) piling,
- (ix) road layout,
- (x) road pavements,
- (xi) road restraint systems,
- (xii) signs and road markings,
- (xiii) Structures,
- (xiv) departures from standard or aspects not covered by standards, and
- (xv) any other Design element not covered above.

3.2.3 For any part of the Scheme that has a Bid Estimate of Cost of less than or equal to £1,000,000, the Design check for all parts of the Design or all parts of the Design Elements shall be subject to a category II Design check by a Checker. In all circumstances, the Checker shall be technically independent of the Designer in accordance with the *Design Manual for Roads and Bridges*.

3.2.4 The Design check for any Operations, Works or works carried out by others with an estimated value of more than £1,000,000 shall be executed by a Checker. In all circumstances, the Checker shall be technically independent of the Designer, the Operating Company and any associated companies.

3.2.5 The Design check for all Structures Design requiring category III Design checks and for all earthworks Design shall be executed by a Checker. In all circumstances, the Checker shall be technically independent of the Designer's organisation, the Operating Company and their associated companies.

When parts of a Structure are designed by more than one Designer, a Category III Design check for the whole Structure shall be carried out by a single Checker.

3.2.6 Separate Design Certificates and Design check Certificates shall be prepared by the Operating Company for each Structure Design.

3.2.7 Where the value of the Scheme is less than £100,000 the Operating Company shall use the Combined Design and Design check Certificate.

3.2.8 Construction of any part of the Operations, Works or works that requires a Certificate in accordance with requirements of this Part shall not commence until the completed Certificate with all associated information has been recorded and contained within the Design register or Design check register.

3.3 Earthwork Certification

- 3.3.1 The Operating Company shall comply with the requirements for earthworks certification as stated in the *Design Manual for Roads and Bridges* except where such requirements have been amended or modified as stated within this Contract.

A copy of the factual report as referred to in the *Design Manual for Roads and Bridges* shall be forwarded to the relevant Scottish office of the British Geological Survey on completion of the Design.

- 3.3.2 All Operations or Works involving earthworks shall be subject to a ground investigation in accordance with the *Design Manual for Roads and Bridges* and the *Manual of Contract Documents for Highway Works*.

Subject to an Order, the Operating Company may procure ground investigations services by either the Scottish Ministers' framework agreement for ground investigation services or as required by the Order. The Scottish Ministers shall remain the Employer for all said agreements. The Director shall decide how the ground investigation services are procured and shall advise the Operating Company of his decision.

- 3.3.3 Subject to an Order, the Operating Company shall act as Engineer for any such ground investigations. The duties of the Engineer shall include preparing works orders, issuing instructions and supervision as required to permit the particular ground investigation service provider to execute and complete the works.

- 3.3.4 Prior to an Order being issued and when requested by the Director, the Operating Company shall provide for the Director's consent, a draft Design brief for ground investigations which shall include:

- (i) principal technical details,
- (ii) principal delivery dates and programme,
- (iii) preferred method of procurement for ground investigation services with full justification for the preference including the value for money assessment,
- (iv) schedule of plant and resources including cost estimates,
- (v) conflicts of interest,
- (vi) access to land,
- (vii) details of geotechnical certification route to be followed, and
- (viii) any other information required by the Director.

- 3.3.5 A geotechnical interpretative report, compiled in accordance with the *Manual of Contract Documents for Highway Works*, shall be prepared and incorporated into the Design by the Designer for all earthworks including piling.

The Design check of the earthworks Design including the design check of the interpretative report shall be carried out by a Checker. Prior to executing any design checks, the Operating Company shall submit the name of the independent Checker to the Director for written consent.

Where, in accordance with *Design Manual for Roads and Bridges* the ground investigation is categorised as category B, the independent check shall be carried out by the Director's appointed independent geotechnical checker. Such

independent check shall be completed prior to completion of a Scheme Design and prior to tendering of a Works Contract.

The Operating Company shall forward a copy of the independent check Certificate to the Director upon receiving sign off from the independent geotechnical checker.

3.4 The Staged Procedure for Design Interim Certificates and Design Check Interim Certificates

3.4.1 The parts of a Design or Design Element(s) that require Design Certificates and Design check Certificates may each be phased in order to:

- (i) accommodate the Operating Company's phasing of the Design or the phasing of the Operations, Works or works, and
- (ii) enable construction of a phased Design or Design Element(s) to proceed.

3.4.2 When a phased method of certification is adopted by the Designer, the following procedure shall apply:

- (i) for each phase of a Design or Design Element, the Operating Company shall produce a schedule of the further divided parts of a Design or Design Element that it proposes to certify. Any such schedules shall have the written consent of the Designer and the Checker before being implemented and incorporated into the Design register,
- (ii) the Operating Company shall provide and maintain within the Design register the status of all Design interim Certificates and Design check interim Certificates for each phase of the Design or Design Element,
- (iii) each Design interim Certificate for each further phase of the Design or Design Element shall be signed and dated by the Designer and the Operating Company. Each Design check interim Certificate shall be signed and dated by the Checker and the Operating Company with original signatures,
- (iv) the Design register shall also contain all required completed interim certificates and include cross-references to locations where all information referred to within the Design interim Certificate is stored,
- (v) construction of any part of the Operations, Works or works for each phase of the Design or Design Element requiring certification shall not commence until the completed Design interim Certificates with all associated information is recorded and contained within the Design register.

3.4.3 Once all Design interim Certificates and Design check interim Certificates for a part of a Design or Design Element have been completed, the Operating Company shall complete a Design Certificate and Design check Certificate.

3.4.4 The Operating Company shall record and maintain in the Design register, the original signed and dated Design Certificates and Design check Certificates for each part of the Design or Design Element with original signatures, along with one copy of all relevant drawings, schedules and numbered appendices.

The Design register shall also contain all:

- (i) Design interim Certificates,
- (ii) Design Certificates,

- (iii) completed Design and Design check Certificates including cross-references to locations where all information referred to within the Certificates is stored, and
- (iv) Records kept and maintained including relevant drawings, schedules and numbers appendices and any other relevant documents.

The Design register shall be stored at the Central Office.

3.5 Information to be provided with Design Certificates, Check Certificates, Design Interim Certificates and Design Check Interim Certificates

3.5.1 The Operating Company shall ensure the scale of any plans, sections and other drawings are relevant to the part of a Design being certified and show the true disposition of all features that may influence a Design or Design Element including:

- (i) for fencing and environmental barriers, road restraint systems, drainage, earthworks, road pavement, kerbs, footways and paved areas, signs and road markings, lighting and electrical works, environmental and landscaping, and accommodation works:
 - (a) plans showing the layout and extent of the certified part of the Design or Design Element,
 - (b) drawings showing typical and or specific cross-sections, and
 - (c) any other schedule or supporting information associated with the part of the Design or Design Element that is listed in the numbered appendices within the specification used in the Works Contract.
- (ii) for road layout:
 - (a) plans of the road layout to a scale of not less than 1:1250 showing road intersections Structures and road interchanges,
 - (b) longitudinal sections of the Trunk Road including but not limited to side roads, and
 - (c) any other schedules or supporting information (including signed off departures) associated with the part of the Design or Design Element that are listed in the numbered appendices within the specification of a Works Contract, Operations Instructions or Site Operations Instructions,
- (iii) for Structures:
 - (a) all drawings issued for construction of the Structures.

3.6 Design Construction Completion Certificates

3.6.1 The Operating Company shall complete and sign each construction Certificate detailed in Annex 6.4/A of this Part within five Working Days of completion of the Site construction of the identified part of the Design or Design Element. For the purposes of this Certificate, completion shall be the completion of the Operations excluding the Defects Correction Period, as relevant for the particular Scheme.

3.7 Construction Completion Certificates

- 3.7.1 The Operating Company shall complete and sign the required construction completion Certificates detailed in Annex 6.4/A of this Part within five Working Days of completion of the Operations or Works.

3.8 Maintenance Certificates

- 3.8.1 The Operating Company shall complete and sign the maintenance Certificate detailed in Annex 6.4/A of this Part within five Working Days of completion of the maintenance period of the Operations or Works Contract.

3.9 Design Defects Correction Certificate

The Operating Company shall complete and sign the Design Defects correction Certificate detailed in Annex 6.4/A of this Part within five Working Days of completion of a correction of a Defect or Non-Conformance relating to a Design or Design Element.

3.10 Consultation Certificate

- 3.10.1 The Operating Company shall consult and comply with the requirements of affected third parties including public bodies, Undertakers, authorities and other relevant companies during the execution of this Contract. Upon obtaining written consent from the relevant third party, the Operating Company shall prepare and sign consultation Certificates countersigned by the appropriate third party.

The Operating Company shall retain all correspondence with such parties confirming such consultations in the Central Office.

- 3.10.2 The Operating Company shall not commence or procure the commencement of any Operations or Works Contracts that could affect the interests of any third party until this consultation procedure has been completed.

3.11 Road Safety Audit Certificate

- 3.11.1 When a road safety audit is required, a Road Safety Audit Certificate as provided in Annex 6.4/A of this Part shall be completed and appended to the Design or combined Design and check Certificate as relevant by the Operating Company.

3.12 Certificate for Departure from Standard or Aspects Not Covered by Standards

- 3.12.1 The Operating Company shall not incorporate any departure from the requirements stated in the *Design Manual for Roads and Bridges*, the *Manual of Contract Documents for Highway Works* and the *Disability Discrimination Act: A Good Practice Guide for Roads* into a Design, Operations, Works Contract or works until:

- (i) written consent has been obtained from the Director, and
- (ii) a signed copy of the departures from standard form in Annex 6.4/A of this Part has been received from the Director.

3.13 Records and Registers

- 3.13.1 The Operating Company shall provide, maintain and store within the Central Office from the date a relevant Scheme has been identified:

- (i) A register of:
 - (a) approval in principle form,

- (b) Design Certificate,
- (c) Design check Certificate,
- (d) Design interim and check Certificate,
- (e) Design construction completion Certificate,
- (f) construction completion Certificate,
- (g) construction completion Certificate for supervision of Works,
- (h) maintenance Certificate,
- (i) maintenance Certificate (supervision of Works),
- (j) Design Defects correction Certificate,
- (k) consultation Certificate,
- (l) variation order/change instruction Certificate,
- (m) road safety audit, and
- (n) departure from standard Certificates.

The register shall record the current status of all Certificates.

- (ii) The original of each certificate as required, signed and dated by the persons referred to there in.
- (iii) All originals of all supporting documents referred to within each register and Certificate required by this Contract.

Such information shall include drawings schedules numbered appendices and any other information required.

3.13.2 The Operating Company shall produce and maintain a register of all Works Contract Instructions in the contract control and management function of the Integrated Roads Information System in accordance with the requirements of Schedule 4 Part 1.

3.13.3 Subject to an Order, for each Works Contract the Operating Company shall execute the following duties and produce the following registers on Site, for inspection at any time by the Director and the Performance Audit Group:

- (i) Site instructions,
- (ii) variation orders,
- (iii) drawings for the Works including updates certified by the Engineer,
- (iv) reinforcement schedules,
- (v) dayworks Records,
- (vi) Certificates,
- (vii) payment Records,
- (viii) measurement progress including but not limited to dipping Records for each pavement layer to demonstrate correct thickness of each bound and unbound layer,
- (ix) extensions of time claimed by the Works Contractor,

- (x) extensions of time granted by the Engineer,
- (xi) claims for payment by the Works Contractor,
- (xii) new Works items and rates and prices,
- (xiii) site diaries and test results including but not limited to:
 - (a) reports on Works Contractor's progress,
 - (b) weather conditions,
 - (c) requests for and results of inspections of workmanship,
 - (d) the Engineer's confirmation of compliance with the relevant specification at each stage of construction, and
 - (e) traffic management inspections,
- (xiv) the presence of the Engineer's representative on the site of the Works for each day that Site Works are in progress,
- (xv) Health and Safety file as required by Schedule 6 Part 2 which shall incorporate any of the above Records on completion of Works on Site, and
- (xvi) any other items relevant to any particular Works Contract.

All such registers shall be verified and signed each month by the Operating Company.

On completion of Works, the on Site Records shall be registered in the Works Contract register as required by this Contract.

3.13.4 The Operating Company shall maintain all Records, including material and workmanship testing Certificates, to ensure that it can demonstrate:

- (i) that the Works Contractor has complied with the requirements of the Works Contract, or
- (ii) that the Operating Company has complied with the requirements of this Contract, for any Scheme carried out as Operations.

3.13.5 Testing certification shall be maintained at the Central Office and shall be available within five Working Days of the test being completed, irrespective of whether it was carried out as Operations or under a Works Contract.

All such testing certification and testing Records shall be maintained in an easily identifiable file separate from other Scheme Records at the Central Office.

Where the testing certification reports a non-conforming product, the Operating Company shall clearly record in the Non-Conformance register within five Working Days of receipt of the Certificate what action has been taken in relation to the non-conforming product.

This is Annex 6.4/A to Schedule 6 Part 4 referred to in the foregoing Agreement between Scottish Ministers and Scotland TranServ being a Joint Venture comprising of Balfour Beatty Civil Engineering Limited and Mouchel Limited.

SCOTTISH MINISTERS' REQUIREMENTS

SCHEDULE 6 PART 4

DESIGN AND CERTIFICATION OF OPERATIONS AND WORKS

ANNEX 6.4/A – Certificates in Relation to Certification Procedures

SCOTTISH MINISTERS' REQUIREMENTS

SCHEDULE 6 PART 4

DESIGN AND CERTIFICATION OF OPERATIONS AND WORKS

ANNEX 6.4/A – Certificates In Relation To Certification Procedures

CONTENTS

Approval in Principle form and notes	Certificate No: TA1
Design Interim Certificate: Structures	Certificate No: DIC(S)
Design Check Interim Certificate: Structures	Certificate No: DCIC(S)
Design Certificate: Structures	Certificate No: DC(S)
Design Check Certificate: Structures	Certificate No: DCC(S)
Design Interim Certificate: Earthworks	Certificate No: DIC(EW)
Design Check Interim Certificate: Earthworks	Certificate No: DCIC(EW)
Design Certificate: Earthworks	Certificate No: DC(EW)
Design Check Certificate: Earthworks	Certificate No: DCC(EW)
Design Interim Certificate: Road Restraint Systems	Certificate No: DIC(RRS)
Design Check Interim Certificate: Road Restraint Systems	Certificate No: DCIC(RRS)
Design Certificate: Road Restraint Systems	Certificate No: DC(RRS)
Design Check Certificate: Road Restraint Systems	Certificate No: DCC(RRS)
Design Interim Certificate: Other Part of Design or Design Element	Certificate No: DIC(*)
Design Check Interim Certificate: Other Part of Design or Design Element	Certificate No: DCIC(*)
Design Certificate: Other Part of Design or Design Element	Certificate No: DC(*)
Design Check Certificate: Other Part of Design or Design Element	Certificate No: DCC(*)
Combined Design and Design Check Certificate	Certificate No: DC/DCC
Road Safety Audit (as Appendix to DC or DC/CC)	Certificate No: RSAC
Design Construction Completion Certificate	Certificate No: DCCComp
Construction Completion Certificate	Certificate No: CCompC
Construction Completion Certificate for Supervision of Works	Certificate No: CCSupW
Maintenance Certificate	Certificate No: MC
Maintenance Certificate (Supervision of Works)	Certificate No: MCSupW
Design Defects Correction Certificate	Certificate No: DesDCC
Consultation Certificate	Certificate No: ConsultC
Variation Order/Change Instruction Pro-forma	Certificate No: VO/CI
Departure from Standard Templates	Certificate No: DfS(S)
	Certificate No: DfS(R)

NOTE:

(S) denotes Structures certificate

(EW) denotes Earthworks certificate

(RRS) denotes Road Restraint System certificate

(R) denotes Roads certificate

(*) denotes ability to use certificate as part of phased construction activities

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

APPROVAL IN PRINCIPLE

FORM TA1

Order Reference

Scheme Identifier.....

1. NAME OF SCHEME

1.1 Type of Road (from TD 27)

1.2 Permitted traffic speed (for a bridge give over and/or under).

1.3 Existing restrictions

2. NAME OF STRUCTURE

2.1 Obstacle crossed.

3. PROPOSED STRUCTURE

3.1 Description of Structure

3.2 Structural type)

3.3 Foundation type) Include reasons for choice

3.4 Span arrangements)

3.5 Articulation arrangements)

3.6 Parapet type

3.7 Proposed arrangements for inspection and maintenance / Inspection for Assessment*

3.7.1 Traffic management

3.7.2 Access

3.7.3^A Intrusive or further investigations proposed

3.8 Sustainability issues considered. Materials and finishes/Material strengths assumed and basis of assumptions

3.9 Risks and hazards considered

3.10^{D*} Estimated cost of proposed Structure together with other structural forms considered, including where appropriate manufactured structure, and the reasons for their rejection including comparative whole life costs with date of estimates.

3.11^{D*} Proposed arrangements for construction

3.11.1 Traffic management

3.11.2 Service diversions

3.11.3 Interface with existing structures

3.12^{A*} Tear of construction

3.11^{A*} Reason for assessment

3.12^{A*} Part of structure to be assessed

4. DESIGN/ASSESSMENT CRITERIA

4.1 Live Loading, Headroom

4.1.1 HA loading

4.1.2 HB loading units

4.1.3 Footway or footbridge live loading.

4.1.4 Provision for exceptional abnormal loads.

4.1.4.1 Gross weight tonnes on vehicle No

4.1.4.2 Axle load and spacing

4.1.4.3 Air cushion tonnes overmx.....metres.

4.1.4.4 Location of vehicle track on deck cross-section.

4.1.5 Any special loading not covered above.

4.1.6 Department heavy or high load route requirements and arrangements being made to preserve the route.

4.1.7 Minimum headroom providedmetres.

4.1.8 Relevant Authorities consulted and any special conditions required.

4.2 List of relevant documents from the TAS (dated from Annex B of BD 2).

4.2.1 Additional relevant Design Manual for Roads and Bridges Standards published since the above edition of the TAS including amendments.

4.3 Proposed departures from standards given in 4.2 and 4.2.1

4.4 Proposed methods of dealing with aspects not covered by standards in 4.2 and 4.2.1.

5. STRUCTURAL ANALYSIS

5.1 Methods of analysis proposed for superstructure, substructure and foundations.

5.2 Description and diagram of idealised structure to be used for analysis.

5.3 Assumptions intended for calculation of structural element stiffness.

5.4 Proposed earth pressure coefficients (ka, ko and kp) to be used in Design/Assessment* for earth retaining elements.

6. GROUND CONDITIONS

6.1 Acceptance of interpretative recommendations of the soils report to be used in the Design/Assessment* and reasons for any proposed departures.

- 6.2 Describe foundations fully including the reasons for adoption of allowable and proposed bearing pressures/pile loads, strata in which foundations are located, provision for skin friction effects on piles and for lateral pressures due to compression of underlying strata.
- 6.3 Differential settlement to be allowed for in Design/Assessment* for Structure.
- 6.4 Anticipated ground movements or settlement due to embankment loading, mineral extraction, flowing water, and measures proposed to deal with these effect as far as they affect the Structure.
- 6.5 Results of tests of ground water and any counteracting measures proposed.

7. DESIGN CHECKS

- 7.1 Proposed category of structure.
- 7.2 If Category III, name of proposed Independent Checkers.
- 7.3 Erection proposals or temporary works for which the Contractor shall be required to arrange an independent check listing the parts of the Structure affected with reasons for recommending an independent Design check.

8. DRAWINGS AND DOCUMENTS

- 8.1 List of drawings (and their numbers) and documents including departures accompanying the submission
- 8.2^{A*} List of construction and record drawings (including numbers) to be used in the assessment
- 8.3^{A*} List of pile driving or other construction records
- 8.4^{A*} List of previous inspection and assessment reports

9. THE ABOVE IS SUBMITTED FOR ACCEPTANCE

Signed

Firm

Name
Designer/Assessment* (Team leader)

Date

Signed
(On behalf of the Operating Company)

Operating Company

Name
(Block Capitals)

Date

10. THE ABOVE DEPARTURES FROM STANDARDS / ASPECTS FROM STANDARDS ARE REJECTED / AGREED

Signed
Director (Bridges Section)

Name Date
(Block Capitals)

11. THE ABOVE IS ACCEPTED SUBJECT TO THE AMENDMENTS AND CONDITIONS SHOWN BELOW

Signed
Director (Bridges Section)

Name Date
(Block Capitals)

A = Assessment AIP D = Design AIP * = Delete as appropriate

INSTRUCTIONS FOR THE OPERATING COMPANY'S COMPLETION OF APPROVAL IN PRINCIPLE FORM TA1 AND ASSOCIATED DOCUMENTS

- 1.1 The form TA1 shall be completed and submitted in accordance with Standard BD 2 of *Design Manual for Roads and Bridges*, using the form as amended within this schedule.
- 1.2 Annex A, Annexes A2 to A7 within BD2 of the *Design Manual for Roads and Bridges* are not required.
- 1.3 Appendix A, TECHNICAL APPROVAL SCHEDULE, shall include but not be limited to
 - (i) Annex B to BD/02 – model TAS schedule
 - (ii) Annex B1 – schedules of documents relating to design and assessment of highway bridges and structures
 - (iii) Alpha-numerical index as per *Design Manual for Roads and Bridges*
 - (a) BA Series
 - (b) BD Series
 - (c) BE Series
 - (d) Scottish Addenda
 - (e) Scottish Executive Enterprise and Lifelong Learning Department

Interim Amendments

- 1.4 The alpha-numerical index as per Design Manual for Roads and Bridges Volume 1 Section 0 Part 2 referred to in paragraph 1.4 above shall be reproduced clearly identifying the standards which apply by striking through the standards that do not apply.
- 1.5 Annex B, Annexes B2 to B4 are not required.
- 1.5 Annex B1, add Scottish Addenda to Departmental Standards and Advice Notes to the list contained therein.

MODEL CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN INTERIM CERTIFICATE: STRUCTURES

CERTIFICATE No: DIC(S).....

Structure No.....

Order Reference.....

Route.....

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design of the following further divided part of the Design or Design Element namely:

..... **(Name of further divided part of Structure)**

..... **(Name of Structure)**

that reasonable professional skill and care has been taken by us with a view to securing that the further divided part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and bar bending schedules bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate(s).

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company.

Signed: Firm:

DESIGNER (Team leader for Designer)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date:

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CHECK INTERIM CERTIFICATE: STRUCTURES

CERTIFICATE NO: DCIC(S).....

Order Reference.....

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the check of the following further divided part for the Design or Design Element namely:

..... **(Name of further divided part of Structure)**

..... **(Name of Structure)**

that reasonable professional skill and care has been taken by us in carrying out the independent Design check of the part of the Design or Design Element with a view to securing that the further divided part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and bar bending schedules bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element and shall not affect the completion of the Check Certificate(s).

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

CHECKER (Team leader for Checker)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CERTIFICATE : STRUCTURES

CERTIFICATE NO : DC(S).....

Order Reference.....

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design of the following part of the Design or Design Element namely

.....

(Name of Structure)

that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and bar bending schedules bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element.
- (iv) where required a Safety Audit Certificate for Stage *[2] *[3] is attached

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

DESIGNER (Team leader for Designer)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date:

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CHECK CERTIFICATE : STRUCTURES CERTIFICATE NO : DCC(S).....

Order Reference.....

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the check of the following part of the Design or Design Element namely

.....

(Name of Structure)

that reasonable professional skill and care has been taken by us in carrying out the independent Design check of the part of the Design or Design Element with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and bar bending schedules bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:
CHECKER (Team leader for Checker)

Name: Date:
(Block Capitals)

Signed: Firm:
(On behalf of the Operating Company)

Name: Date:
(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN INTERIM CERTIFICATE: EARTHWORKS CERTIFICATE NO: DIC(EW).....

Order Reference.....

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design of the following further divided part of the Design or Design Element namely

.....

(Name of further divided part of the Earthworks)

.....

(Name of part of Earthworks or Earthworks Element)

that reasonable professional skill and care has been taken by us with a view to securing that the further divided part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the Whole Design or Design Element shall not affect the completion of the Design Certificate(s).
- (iv) has been the subject of an interpretative geotechnical report and that the conclusions of that report have been taken into account in the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

DESIGNER (Team leader for Designer)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date:

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CHECK INTERIM CERTIFICATE: EARTHWORKS CERTIFICATE NO : DCIC(EW),.....

Order Reference.....

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the check of the following further divided part of the Design or Design Element namely

.....

(Name of further divided part of the Earthworks)

.....

(Name of part of Earthworks or Earthworks Element)

that reasonable professional skill and care has been taken by us in carrying out the independent Design check of the Design or Design Element (including the interpretative geotechnical report referred to in (iv) below) with a view to securing that the further divided part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element and shall not affect the completion of the Check Certificate(s)
- (iv) has been the subject of an interpretative geotechnical report and that the conclusions of that report have been taken into account in the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

CHECKER (Team leader for Checker)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date:

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CERTIFICATE: EARTHWORKS

CERTIFICATE NO: DC(EW).....

Order Reference.....

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design of the following part of the Design or Design Element namely

.....

(Name of Earthworks or Earthwork's Element)

that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element.
- (iv) has been the subject of an interpretative geotechnical report and that the conclusions of that report have been taken into account in the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

DESIGNER (Team leader for Designer)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date:

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CHECK CERTIFICATE: EARTHWORKS CERTIFICATE NO: DCC(EW).....

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the check of the following part of the Design or Design Element namely

.....

(Name of Earthworks or Earthworks Element)

that reasonable professional skill and care has been taken by us in carrying out the independent Design check of the Design or Design Element (including the interpretative geotechnical report referred to in (iv) below) with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not detrimental to the whole Design or Design Element.
- (iv) has been the subject of an interpretative geotechnical report and that the conclusions of that report have been taken into account in the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

CHECKER (Team leader for Checker)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN INTERIM CERTIFICATE: ROAD RESTRAINT SYSTEMS CERTIFICATE NO: DIC(RRS)...

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design of the following further divided part of the Design or Design Element namely

.....

(Name of further divided part of Safety Road Restraint System or Element)

.....

(Name of part of Road Restraint System or Element)

that reasonable professional skill and care has been taken by us with a view to securing that the further divided part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate(s).
- (iv) that all aspects of the Design or Design Element of the Road Restraint System on the Contract have been developed by the use of a risk assessment approach.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

DESIGNER (Team leader for Designer)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date:

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

**DESIGN CHECK INTERIM CERTIFICATE: ROAD RESTRAINT SYSTEMS CERTIFICATE NO:
DCIC(RRS).....**

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the check of the following further divided part of the Design or Design Element namely

.....
(Name of further divided part of Road Restraint System or Element)

.....
(Name of part of Road Restraint System or Element)

that reasonable professional skill and care has been taken by us in carrying out the independent Design check of the Design or Design Element with a view to securing that the further divided part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element and shall not affect the completion of the Check Certificate(s).
- (iv) that all aspects of the Design or Design Element of the Road Restraint System on the Contract have been developed by the use of a risk assessment approach.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

CHECKER (Team leader for Checker)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date:

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CERTIFICATE: ROAD RESTRAINT SYSTEMS CERTIFICATE NO: DC(RRS).....

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design of the following part of the Design or Design Element namely

.....

(Name of Part of Road Restraint System or Element)

that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate(s).
- (iv) that all aspects of the Design or Design Element of the Road Restraint System on the Contract have been developed by the use of a risk assessment approach.

iv) where required a Safety Audit Certificate for Stage *[2] *[3] is attached

** delete as appropriate*

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

DESIGNER (Team leader for Designer)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name: Date:

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

**DESIGN CHECK CERTIFICATE: ROAD RESTRAINT SYSTEMS CERTIFICATE NO:
DCC(RRS)..**

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the check of the following part of the Design or Design Element namely

.....

(Name of Part of the Road Restraint System or Element)

that reasonable professional skill and care has been taken by us in carrying out the independent Design check of the part of the Design or Design Element with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element
- (iv) that all aspects of the Design or Design Element of the Road Restraint System on the Contract have been developed by the use of a risk assessment approach.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

CHECKER (Team leader for Checker)

Name: Date:

(Block Capitals)

Signed: Firm:

(On behalf of the Operating Company)

Name..... Date

(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN INTERIM CERTIFICATE:

CERTIFICATE NO: DIC(*).....

OTHER PART OF DESIGN OR DESIGN ELEMENT

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design of the following part of the Design or Design Element namely:

.....

(Name of further divided part of Design or Design Element)

.....

(Name of Part of the Design or Design Element)

that reasonable professional skill and care has been taken by us with a view to securing that the further divided part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

DESIGNER (Team leader for Designer)

Name: Date:

(Block Capitals)

Signed: Firm:

(Operating Company)

Name: Date:

(Block Capitals)

* Insert Description of part of Design or Design Element:

Accommodation Works	(A)	Lighting and Electrical Works	(L)
Drainage	(D)	Road Pavements	(P)
Environmental and Landscaping	(E)	Road Layout	(RL)
Earthworks	(EW)	Signs and Road Markings	(SRM)
Fencing and Environmental Barriers	(F)	Piling	(X)
Kerbs, Footways and Paved Areas	(K)	Any other relevant parts of Design or Design Element	(Y)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CHECK INTERIM CERTIFICATE:

CERTIFICATE NO: DCIC(*).....

OTHER PART OF DESIGN OR DESIGN ELEMENT

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the check of the following further divided part of the Design or Design Element namely:

.....

(Name of further divided part of Design or Design Element)

.....

(Name of Part of the Design or Design Element)

that reasonable professional skill and care has been taken by us in carrying out the independent Design check of the further divided part of the Design or Design Element with a view to securing that the further divided part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element and shall not affect the completion of the Design Certificate.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

CHECKER (Team leader for Checker)

Name: Date:

(Block Capitals)

Signed: Firm:

(Operating Company)

Name: Date:

(Block Capitals)

* Insert Description of part of Design or Design Element:

Accommodation Works	(A)	Lighting and Electrical Works	(L)
Drainage	(D)	Road Pavements	(P)
Environmental and Landscaping	(E)	Road Layout	(RL)
Earthworks	(EW)	Signs and Road Markings	(SRM)
Fencing and Environmental Barriers	(F)	Piling	(X)
Kerbs, Footways and Paved Areas	(K)	Any other relevant parts of Design or Design Element	(Y)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CERTIFICATE:

CERTIFICATE NO: DC(*).....

OTHER PART OF DESIGN OR DESIGN ELEMENT

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design of the following part of the Design or Design Element namely:

.....

(Name of Part of the Design or Design Element)

that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element.
- (iv) where required a Safety Audit Certificate for Stage **[2] **[3] is attached

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

DESIGNER (Team leader for Designer)

Name: Date:

(Block Capitals)

Signed: Firm:

(Operating Company)

Name: Date:

(Block Capitals)

** Insert Description of part of Design or Design Element:*

*** delete as appropriate*

Accommodation Works	(A)	Lighting and Electrical Works	(L)
Drainage	(D)	Road Pavements	(P)
Environmental and Landscaping	(E)	Road Layout	(RL)
Earthworks	(EW)	Signs and Road Markings	(SRM)
Fencing and Environmental Barriers	(F)	Piling	(X)
Kerbs, Footways and Paved Areas	(K)	Any other relevant parts of Design or Design Element	(Y)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CHECK CERTIFICATE:

CERTIFICATE NO: DCC(*).....

OTHER PART OF DESIGN OR DESIGN ELEMENT

Order Reference

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers' in respect of the check of the following part of the Design or Design Element namely:

.....

(Name of Design Element)

that reasonable professional skill and care has been taken by us in carrying out the independent Design check of the part of the Design or Design Element with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents bearing the unique numbers listed below:
- (iii) shall not be detrimental to the whole Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company

Signed: Firm:

CHECKER (Team leader for Checker)

Name: Date:

(Block Capitals)

Signed: Firm:

(Operating Company)

Name: Date:

(Block Capitals)

* Insert Description of part of Design or Design Element:

Accommodation Works	(A)	Lighting and Electrical Works	(L)
Drainage	(D)	Road Pavements	(P)
Environmental and Landscaping	(E)	Road Layout	(RL)
Earthworks	(EW)	Signs and Road Markings	(SRM)
Fencing and Environmental Barriers	(F)	Piling	(X)
Kerbs, Footways and Paved Areas	(K)	Any other relevant parts of Design or Design Element	(Y)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

COMBINED DESIGN AND DESIGN CHECK CERTIFICATE: CERTIFICATE NO: DC/DCC....

Scheme:.....

Order Reference.....

Scheme Identifier.....

1. We hereby certify to the Scottish Ministers in respect of the design and design check of the following part of the Design or Design Element namely:

- | | | |
|--------------------------|------------------------------------|-------|
| ☐ | Accommodation Works | (A) |
| ☐ | Road Restraint Systems | (B) |
| ☐ | Drainage | (D) |
| ☐ | Environmental and Landscaping | (E) |
| ☐ | Earthworks | (EW) |
| ☐ | Fencing and Environmental Barriers | (F) |
| ☐ | Kerb, Footways and Paved Areas | (K) |
| ☐ | Lighting and Electrical Works | (L) |
| ☐ | Road Pavements | (P) |
| ☐ | Road Layout | (RL) |
| ☐ | Signs and Road Markings | (SRM) |
| ☐ | Piling | (X) |
| ☐ | Other | (Y) |

that reasonable professional skill and care has been taken by us with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers' Requirements.
- (ii) has been accurately translated into the construction drawings and other Design documents, where applicable, bearing the unique number contained in the certificate number above.
- (iii) is not detrimental to the whole Design or Design Element.
- (iv) where applicable to earthworks (EW), has been the subject of an interpretative geotechnical report and that the conclusions of that report have been taken into account in the Design or Design Element.
- (v) where applicable to road restraint systems (B), that all aspects of the Design or Design Element of the road restraint system on the Contract have been developed by the use of a risk assessment approach.
- (vi) where required a Safety Audit Certificate for Stage *[2] *[3] is attached

** delete as appropriate*

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company.

Signed: Firm:

CHECKER (Team leader for Checker)

Name: Date:

(Block Capitals)

Signed: Firm:

(Operating Company)

Name: Date:

(Block Capitals)

To be inserted as Appendix to:

Design Certificate or the Combined Design and the Design Check Certificate

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

ROAD SAFETY AUDIT CERTIFICATE

CERTIFICATE NO: RSAC.....

Scheme:

Order Reference

Scheme Identifier.....

Form of certificate to be used by the Designer for certifying that a Safety Audit has been carried out in accordance with Schedule 1.

The Design for the Scheme has been the subject of a Road Safety Audit in accordance with Stage *[2] *[3] of the Design Manual for Roads and Bridges Standard HD 19 or equivalent and we certify that all recommendations agreed or recommended by the road safety auditors have been incorporated in the Design.

** delete as appropriate*

Signed: Firm:
CHECKER (Team leader for Checker)

Name: Date:
(Block Capitals)

Signed: Firm:
(Operating Company)

Name: Date:
(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN CONSTRUCTION COMPLETION CERTIFICATE

CERTIFICATE No: DCComp.....

(For Works Contracts and Operations executed by Operating Company)

(Issued upon completion of identified stage/element of the operations/works)

Order Reference

Scheme Identifier

We hereby certify to the Scottish Ministers in respect of the construction of the following part of the Design or Design Element:

.....

(Name of Design or Design Element)

that reasonable professional skill and care has been taken by us in supervising the construction and completion of the Design or Design Element with a view to securing that the part of the Design or Design Element:

- (i) complies with the Scottish Ministers requirements
- (ii) has been constructed in accordance with the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company.

Signed: Firm:
(Operating Company)

Name: Date:
(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

CONSTRUCTION COMPLETION CERTIFICATE

CERTIFICATE No: CCompC

(For Operations executed by Operating Company)

(Issued upon substantial completion of the operations)

Order Reference

Scheme Identifier

Scheme Name:

For Operating Company Orders

We hereby certify to the Scottish Ministers we have completed our obligations in respect of the above referenced Scheme and have executed Operations as required by the Order referenced above.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company.

Signed: Firm:
(Operating Company)

Name: Date:
(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

CONSTRUCTION COMPLETION CERTIFICATE FOR SUPERVISION OF WORKS

CERTIFICATE No: CCSupW

(Issued on substantial completion of the Works)

Order Reference.....

Scheme Identifier.....

Scheme Title:

1. We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company.
2. We hereby certify to the Scottish Ministers that we have supervised the construction and completion of the Works as defined in the Works Contract to which this Certificate relates and that we have exercised reasonable professional skill and care with a view to securing that such Works have been constructed in accordance with the requirements of the Design as set out in such Works Contract

In our opinion the Works Contractor completed the Works under the Works Contract to which this certificate relates on

<date>

Signed: Firm.....

(On behalf of the Operating Company)

Name: Date:

MAINTENANCE CERTIFICATE

(For Operations executed by Operating Company)

(Issued upon completion maintenance period of the Operations)

CERTIFICATE No : MC

Order Reference

Scheme Identifier

For Operations

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company.

In our opinion we have completed our obligations to construct, complete and maintain the Operations under the Order to which this certificate relates

Signed: Firm:
(Operating Company)

Name: Date:
(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

MAINTENANCE CERTIFICATE (SUPERVISION OF WORKS)

(Issued at end of maintenance period)

CERTIFICATE No: MCSupW.....

Order Reference.....

Scheme Identifier.....

Scheme Title:

1. We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company.

We hereby certify to the Scottish Ministers that we have supervised the works as defined in the Works Contract during the Period(s) of Maintenance for such Works Contract to which this certificate relates and that we have exercised reasonable professional skill and care with a view to securing that such works have been completed in accordance with such Works Contract.

In our opinion the Works Contractor completed his obligations to construct complete and maintain the Works under the Works Contract to which this certificate relates on

<date>

Signed: Firm.....

(On behalf of the Operating Company)

Name: Date:

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DESIGN DEFECTS CORRECTION CERTIFICATE

CERTIFICATE No : DesDCC

Order Reference

Scheme Identifier

Scheme Title:

We hereby certify to the Scottish Ministers in respect of the defects and non-conformances to the following part of the Design or Design Element:

.....

(Name of Design or Design Element)

that reasonable professional skill and care has been taken by us in supervising the correction of the Defects and Non-conformances to that part of the Design or Design Element with a view to securing that the Defects and Non-conformances have been corrected and that part of the Design or Design Element now complies with the Scottish Ministers' Requirements and has now been constructed in accordance with the Design or Design Element.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in the Contract between the Scottish Ministers and the Operating Company.

Signed: Firm:
(Operating Company)

Name: Date:
(Block Capitals)

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

CONSULTATION CERTIFICATE

CERTIFICATE NO :- ConsultC.....

Order Reference.....

Scheme Identifier.....

Scheme Title

Route

CONSULTATION WITH (Name of Consultee)

1. We hereby certify to the Scottish Ministers in respect of :

.....
(Name of part of Design or Design Element)

that we have consulted with(Name of Consultee) and have ascertained that they have no objections to the part of Design or Design Element as described on the construction drawings listed in an attachment.

We agree that the words and phrases herein, unless otherwise stated, have the same meaning as attributed to them in this Contract between the Scottish Ministers and the Operating Company.

Signed:

Firm.
(On behalf of Operating Company)

Name:
(Block Capitals)

Date:

1. LIST OF CONSTRUCTION DOCUMENTS

.....

2. DECLARATION BY (Name of Consultee)

On behalf of (Name of Consultee) I confirm that
(i) consultations referred to above have been completed as indicated above.

(ii) (Name of Consultee) has no objections to the Design or Design Element as described on the drawings and documents listed in part 2 of this Consultation Certificate, and

(iii) the drawings and documents listed in part 2 of this Consultation Certificate meet all known requirements of the Consultee.

Signed

Name
(Block Capitals)

duly authorised to sign on behalf of (Name of Consultee)

Date:

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DEPARTURE FROM STANDARDS

CERTIFICATE No: DfS(S).....

(Bridges and other Highway Structures)

APPLICANT:

PROJECT TITLE:

DEPARTURE NO:

STRUCTURE REF:

SUBMISSION DATE:

1. List of Supporting Documentation

Standards:

Drawings:

Other:

2. Description of Proposed Departure

(include details of DMRB Standards and clause numbers which are being departed from)

Proposed Departure:

Clauses Being Departed From:

- Contract Version of Manual Contract for Highway Works
- Contract Version of Design Manual for Roads and Bridges
- Contract Employers' Requirements
- Other

3. Designer / Assessor justification

(include reasons why existing DMRB Standards are inappropriate)

4. Cost Implications:

(include an estimate of cost savings to the Scottish Executive as well as the effect on future maintenance costs)

5. Applicant Design Team Leader Declaration:

I declare that reasonable professional skill and care have been exercised in the preparation of this departure submission.

Signed:

Firm:

Name:

(Block Capitals with Engineering Qualifications)

Date:

6. Transport Scotland Bridges Branch - comments and recommendations:

.....

.....

.....

.....

.....

.....

.....

Signed:

Name:

(Block Capitals with Engineering Qualifications)

Date:

7. Transport Scotland Chief Bridge Engineer recommendation:

The above Departure is **approved / rejected** (*Delete as appropriate*)

Signed:

Name:

(Block Capitals with Engineering Qualifications)

Date:

MODEL OF CERTIFICATE TO BE USED BY THE OPERATING COMPANY

DEPARTURE FROM STANDARDS (Roads & Highways)

CERTIFICATE No: DfS(R)....

APPLICANT:

PROJECT TITLE:

DEPARTURE NO:

SUBMISSION DATE:

PROJECT DETAILS	
General description of project	<i>[Realignment, new road, value added maintenance etc.]</i>
Route Strategy	<i>[Details of the Scottish Executive's current strategy with respect to the route affected by the proposed Departure from Standard. Applicants should seek guidance from the relevant Scottish Executive Project Manager where necessary]</i>
Road Category & Type	<i>[Refer to TD9]</i>
Proposed Carriageway Cross Section	<i>[Carriageway, lane, verge, central reserve, footpath widths etc.]</i>
Design Speed Proposed	<i>[Add Design Speed identified in accordance with TD9/93]</i>
Future Traffic Flows & Composition	<i>[Project Details for requirements]</i>

DESCRIPTION OF DEPARTURE	
Location and Chainage	<i>[e.g. Junction of A8000/B8000, CH 1000 to CH 1050]</i>
Departure Type	<i>[e.g. Stopping Sight Distance]</i>
DMRB Reference	<i>[Volume. Section. Part paragraph No.]</i>
Required Standard	<i>[Identify Desirable Minimum Standard]</i>
Standard Provided	<i>[Identify Standard being provided and how it relates to the Desirable Minimum Standard]</i>
Associated Departures or Relaxations	<i>[Identify any other Departures or Relaxations included within the proposed project that interact with the Departure being considered]</i>
Drawing Nos.	<i>[Add Drawing Reference Numbers. Refer to Table 2.3.1 for the minimum No./scale of Drawings to be provided]</i>

JUSTIFICATION	
Detailed Justification	<i>[Justification for requirements]</i>
Safety Implications	<i>[Safety Implications for requirements]</i>
Structural Integrity	<i>[Structural Integrity for requirements]</i>

ESSENTIAL COMPENSATORY MEASURES	
Compensatory Measures	<i>[Essential Compensatory Measures for requirements]</i>