Project Controls

Master Specification

PC-QA1 Quality Management Requirements

Document Information	
K Net Number:	13521666
Document Version:	2
Document Date:	August 2020

DEPARTMENT FOR INFRASTRUCTURE AND TRANSPORT

Government of South Australia
Department for Infrastructure and Transport

Document Amendment Record

Version	Change Description	Date	Endorsement record (KNet ref.)
1	Initial issue (formerly G20)	02/05/19	
2	Minor formatting and content changes	August 2020	

Document Management

Contents

PC-QA1 Quality Management Requirements

1 General

1.1 The Contractor shall establish, implement and maintain a Quality Management System in accordance with this Contract and the requirements of AS 9001 "Quality Management Systems – Requirements".

1.2 The Contractor's Quality Management System may be integrated with other management systems.

1.3 Clause 8.3 "Design and Development of Products and Services" of AS 9001 may be excluded from the Quality System if this Contract does not include design of any part of the Works.

1.4 The definitions in AS 9000 "Quality Management Systems – Fundamentals and Vocabulary" (unless stated otherwise) and the following definitions apply to this Contract:

Term	Definition
Controlled Document	A document complying with Clause 7.5.3 "Control of Documented Information" of AS 9001 and Clause 6 "Document Control".
Hold Point	An identified point in a work-related process, beyond which the subsequent activity cannot proceed without release of the Hold Point.
Lot	Refer to Clause 5 "Product Identification and Traceability" for the definition.
Procedure	Includes Inspection and Test Plans and notwithstanding AS 9000, a reference to a procedure in this Contract is a reference to a written procedure.
System Procedure	A procedure mandated by AS 9001, other than a Technical Procedure.
Technical Procedure	A procedure describing a process in accordance with Clause 8.5 "Production and Service Provision" of AS 9001.

2 Quality System

Quality System Requirements

2.1 The Quality Management System, which includes the Quality Manual, Quality Management Plan, Controlled Documents and referenced procedures, shall be used throughout the course of the Contract to ensure that the quality of the Contractor's and any subcontractor's work complies with the requirements of the Contract.

2.2 At a minimum, the Contractor's Quality Management System shall ensure that:

a) process inputs (e.g. purchased product, constituent materials or subcontractor work) are validated as meeting the requirements of the Contract before being incorporated into the works;

b) work processes (including use of suitable equipment and work methods and the availability of adequately trained personnel) will result in conforming product;

c) appropriate procedures are in place which document how processes will be carried out, who is responsible for the activities that constitute the process and how interfacing between different activities / responsibilities is achieved;

d) work processes are validated as conforming with the Quality System and the requirements of the Contract;

e) completed work is validated as conforming with the requirements of the Contract;

f) non-conforming processes and products are identified and controlled; and

g) records demonstrating compliance with the above are generated and provided.

Contractor's Obligations

2.3 The Contractor's Quality Management System does not negate any requirement specified.

2.4 The Contractor will not be relieved from any of its liabilities or responsibilities under this Contract or any applicable legislation by:

a) the implementation and compliance with any part of the Contractor's Quality Management System;

b) the acceptance or approval (or non-acceptance or non-approval) of any part of the Contractor's Quality Management System (including acceptance of the Contractor's disposition for non-conforming product) by any person authorised under this Contract to approve or accept work under the Contract;

c) compliance with any **Hold Point** processes; or

d) the failure by any person to detect any defect or error in the Contractor's work or documentation at a **Hold Point** or during surveillance or audit.

2.5 The Principal is not obliged to make payment for work unless the work which is the subject of the payment claim has been executed in accordance with the requirements of this Part.

Quality Management Representative

2.6 The Contractor shall provide a Quality Management Representative (QMR) who is directly responsible to the Contractor's senior management and has responsibility for ensuring that the requirements of the Quality Management Plan are complied with.

2.7 At all times, the duties of the QMR with regard to ensuring compliance with this Part shall take precedence over any other activity undertaken by the QMR. Additional requirements for the QMR may be specified in this Contract.

3 Quality Management Plan

3.1 The Contractor shall develop, implement and comply with a Quality Management Plan for the work under the Contract. The Quality Management Plan is a Controlled Document and shall reference all procedures applicable to the Contractor's work.

3.2 If not provided beforehand, the Contractor shall submit controlled copies of the accepted Quality Management Plan and referenced procedures and work instructions prior to the commencement of work. Unless specified otherwise, the number of controlled copies submitted shall be one.

3.3 No later than 5 working days prior to commencing any testing work, the Contractor shall submit the Quality Management Plan of any subcontractor undertaking testing on this Contract.

3.4 The Contractor shall undertake surveillance, audit and review of its Quality Management Plan and report on all non-conformances in accordance with the requirements of the Contract.

3.5 At a minimum, the Quality Management Plan shall include:

a) a statement of the Contractor's policy on Quality Management;

b) the organisation structure for the management of the project with details of the specific responsibilities and authorities of key personnel, including the responsibilities and authorities of the Quality Management Representative with respect to quality matters;

c) a register of Technical and System Procedures, giving title, identifier and revision status of all procedures necessary for execution of the work under the Contract;

d) the method(s) proposed to assure the quality of all subcontractor's products or services in order to comply with the requirements of the Contract;

e) the approach to be taken regarding inspection and testing (including a register of Inspection and Test Plans) and the method of notification of all off-site testing and manufacture of items to be included in the permanent works; and

f) the audit schedule proposed for the Contractor's Quality System and external audits proposed for subcontractors and suppliers.

4 Document Control

4.1 Controlled Documents include the Quality Manual, Quality Procedures, Technical Procedures, Inspection and Test Plans, all management plans required under this Contract (such as the Contractor's Environmental Management Plan, Quality Management Plan and Safety Management Plan) and any document specified as a Controlled Document.

4.2 Further to Clause 7.5.3 "Control of Documented Information" of AS 9001, the Contractor shall develop, implement and comply with the Controlled Documents.

4.3 Where the Controlled Documents are in draft status, the Contractor shall develop the Controlled Documents so that the final version is provided to the Principal within the timeframes specified in the Contract. If no timeframe is specified, the Controlled Documents shall be provided at least 14 days prior to the commencement of any activity related to the relevant part of the Controlled Documents.

4.4 Provision of each Controlled Document shall constitute a **Hold Point** (refer to Clause 8 "Hold Points").

4.5 The Contractor acknowledges that the Controlled Documents may require ongoing development, amendment and updating throughout the Contract.

4.6 The Contractor shall update a Controlled Document as soon as practicable if it:

a) does not adequately address the requirements of the Contract;

b) is causing non-conformity; or

c) no longer reflects the current practice of the Contractor.

4.7 The Principal owes no duty to the Contractor to review any Controlled Document submitted by the Contractor for compliance with this Contract or legislation.

4.8 The Contractor shall provide copies of any proposed amendment to a Controlled Document prior to its implementation. The Contractor's Document Control procedure shall ensure that only the current version of a Controlled Document is used.

4.9 Contract documents issued to the Contractor on behalf of the Principal shall be controlled by the Contractor.

5 Product Identification and Traceability

Definition

5.1 A "Lot" consists of any part of the Works which:

a) has been constructed and / or manufactured under uniform conditions;

b) is substantially homogeneous with respect to material and general appearance;

c) is of a uniform quality without obvious changes in attribute values; and

d) has been defined by the Contractor as a Lot.

Identification

5.2 Further to Clause 8.5.2 "Identification and Traceability" of AS 9001, the Contractor shall implement a Lot Management System which:

a) enables each Lot to be identified on Site;

b) records measurements / quantities (where appropriate) associated with the Lot;

c) records the part numbers (and where appropriate, individual serial numbers) of manufactured items incorporated into the Works;

d) identifies all Records associated with the Lot;

e) identifies the item number in the payment schedules which is applicable to the Lot;

f) records the status of the Lot (including any Non-Conformance Reports); and

g) notifies the Principal that a Lot is ready to be closed (i.e. work on the Lot is complete and all Records are available to demonstrate compliance with this Contract).

5.3 Before work commences on a Lot on Site, the Contractor shall predetermine the bounds of that Lot and if requested, provide written advice of the predetermined bounds and its identification.

5.4 At any time, the Contractor may redefine the bounds of a Lot so that the Lot complies with Sub-clause 5.1 “Definition”.

Traceability

5.5 Traceability is required for all critical manufactured items, including structural concrete, steel, pavement materials, bituminous products and pavement marking materials, where these form part of the Works.

5.6 The trace shall start at the point of manufacture and finish at the location where the product is incorporated into the Works.

5.7 Records shall be kept from the time of manufacture and include testing details, storage details (where appropriate) and location of placement so that the Lot can be identified at all times.

6 Inspection and Testing

Responsibility for Testing

6.1 The Contractor is responsible for verifying that its work complies with the requirements of this Contract. This includes undertaking all necessary testing, inspection, commissioning (where appropriate) and examination.

Inspection and Test Plans

6.2 Further to Clause 9 “Performance Evaluation” of AS 9001, the Contractor shall develop, implement, maintain and comply with Inspection and Test Plans (ITP’s). At a minimum, these shall include:

a) description of activity and / or identification of applicable stages of construction / manufacture / commissioning;

b) clear cross referencing to:

i) the applicable clauses of the specification; and / or

ii) applicable test procedures / methods or Australian Standards used for the testing.

c) details of the method of verification for all specified requirements of the Contract, including those where verification is by control of process rather than inspection and testing at process completion;

d) test frequency, acceptance criteria and records produced demonstrating compliance;

e) details of the test equipment and where calibrated equipment is required, the calibration regime;

f) the responsibility for testing and acceptance;

g) time, date and location of the inspection / testing and / or commissioning activity;

h) a location on the ITP to record for comments;

i) applicable Hold Points;

j) details of any environmental conditions or external factors that may affect the results; and

k) identification of the involvement of any subcontractors in the process.

6.3 Provision of each ITP shall constitute a **Hold Point**.

6.4 The Contractor shall maintain a register of ITPs and include it in the Quality Management Plan.

Testing Laboratories and Standards

6.5 Unless specified otherwise, sampling and verification testing of works and products shall be conducted by laboratories appropriately accredited by NATA. The NATA accreditations held shall specifically include DPTI Test Procedures and Australian Standards referred to in this Contract.

6.6 Where a test method / procedure is specified in the Contract, the Contractor shall use that method for verification testing.

Inspection, Measuring and Test Equipment

6.7 The Contractor shall maintain a schedule of calibrated inspection, measuring and test equipment to be used on the works, giving the date of last calibration and next due calibration.

6.8 Where an item is recalibrated during the course of the Contract, the Contractor shall provide written advice of the results, any adjustments made to the equipment and the effects any adjustments have had on work completed since the previous calibration.

6.9 Inspection, measuring and test equipment shall be capable of producing the degree of accuracy specified in the Contract and any applicable accepted industry standards.

Frequency of Testing

6.10 The frequency of testing shall be appropriate to verify conformity and shall not be less than that stated in the Contract. If no minimum frequency of inspection or testing is stated in the Contract, the Contractor shall nominate appropriate frequencies in the Inspection and Test Plan(s).

6.11 Where the Contractor can demonstrate consistent process capability, the Contractor may submit a proposal to reduce the specified minimum frequency of testing by up to 50%. Any such proposal shall be supported by a statistical analysis verifying consistent process capability and product characteristics.

6.12 Acceptance of the proposal is at the sole discretion of the Principal and may be rescinded at any time. If the proposal is accepted and a non-conformity is detected the prior minimum frequency of testing shall be restored and a new proposal may be submitted.

7 Hold Points

General

7.1 Further to Clause 8.6 “Release of Products and Services” of AS 9001, Hold Points are specified in the Contract for the purpose of verifying that the Contractor’s work conforms to the specified requirements before subsequent work commences.

7.2 The Contractor may proceed with the subsequent work once the **Hold Point** is released.

7.3 The Quality Management Representative shall be satisfied that the Contractor’s work fully complies with the requirements of the Contract before seeking release of the **Hold Point**.

7.4 Where the Contractor’s work reaches a **Hold Point**, the Contractor shall:

a) notify the Principal accordingly;

b) provide all Records necessary to verify that the work conforms with the Contract (including identification of the applicable clause in the Contract); and

c) where appropriate, permit an inspection of the Contractor’s work.

7.5 The Contractor’s Quality System shall include a procedure for managing the **Hold Point** process, including recording the release of the **Hold Point**.

No Waiver

7.6 If the Contractor continues the Work prior to the release of an applicable **Hold Point**:

a) any such work is entirely at the Contractor's risk and does not constitute a waiver of the right not to release the **Hold Point**;

b) at the Contractor's expense (irrespective of whether the work is found to be conforming or non-conforming), the Principal may require the removal of any part of the Works for the purpose of testing, inspection or measurement; and

c) the Contractor indemnifies the Principal against any additional costs that the Principal incurs as a consequence of proceeding without release of the **Hold Point**.

7.7 Release of a **Hold Point** does not relieve the Contractor of any of its obligations under this Contract.

Response Time

7.8 The "Response Time" is determined from when all information demonstrating compliance with the **Hold Point** release requirements has been provided in an appropriate format. Within the Response Time, the party responsible for release of the **Hold Point** shall either:

a) release the **Hold Point**; or

b) provide reasons why the **Hold Point** will not be released, including details of any non-conformance.

7.9 The Contractor is deemed to have allowed for all Response Times in the Contractor's program.

7.10 Unless specified otherwise, a response time is specified in calendar days.

7.11 Where the Response Time is specified as "1 working day", the Response Time is 24 hours. However, if a Response Time of 1 working day extends over non-working days, the time for release of the **Hold Point** shall be increased by the period of non-working days.

7.12 If a Response Time has not been specified in the Contract, the Response Time is deemed to be 10 working days.

8 Records

General

8.1 Further to Clause 9 "Performance Evaluation" of AS 9001, the Contractor shall:

a) ensure all procedures generate objective evidence of compliance with the specified requirements;

b) prepare all Records necessary to demonstrate compliance with this Contract;

c) ensure all Records can be inspected at any time during the term of this Contract; and

d) ensure the Records are provided as part of Lot conformance data and can be correlated to the Contractor's claims for payment.

8.2 The Contractor's Quality Management Representative shall certify each Record within 3 working days of that Record being completed.

8.3 Records shall be forwarded to the Principal within one working day of the certification.

8.4 The Contractor agrees and acknowledges that any Record evidencing Nonconformity is not confidential.

8.5 Where payment is to be made on the basis of measured quantities, the Records submitted for each conforming Lot shall include measurement for that Lot.

Format and Presentation of Records

8.6 All Records shall be presented on standard formats in a clear and logical sequence and the data shall be summarised and tabulated.

8.7 The format shall clearly identify the type of measurement, test or inspection, the three dimensional location of the activity (where appropriate), the acceptance criteria, the applicable Lot number and date of action occurring and an analysis of results.

8.8 All samples taken shall be registered in a Sample Register. Where a sample has been taken but not tested, the reason why shall be recorded in the register.

8.9 All individual test results shall be identified in a way that differentiates between testing for control purposes and verification testing.

8.10 Where testing is carried out in accordance with NATA accreditation, all verification test results shall be in a format in accordance with the NATA accreditation held by the testing authority and shall be certified by the registered NATA authorised signatory.

8.11 All claims for payment made by the Contractor shall be accompanied by information which identifies the Records for the work which is the subject of the payment claim.

9 Control of Non-Conformance

9.1 Further to Clause 8.7 “Control of Nonconforming Outputs” of AS 9001, where the Contractor’s work does not comply with a requirement specified in this Contract, the Contractor shall issue a Non-conformance Report.

9.2 The Contractor’s procedure for the management of Nonconforming product shall include a standard form for use as the Non-conformance Report

9.3 Where a Nonconformity has been identified, the Contractor shall:

a) include the proposed method of disposition on the Non-conformance Report;

b) attach all relevant inspection and test records to the Non-conformance Report;

c) ensure that the Non-conformance Report does not relate to more than one Lot;

d) issue the Non-conformance Report within one ordinary working day of the Nonconformity being recognised; and

e) provide a copy of the Non-conformance Report to the Principal.

9.4 In the event of a Non-conformity being observed by the Principal and the Contractor does not take appropriate action when informed of the Nonconformity, a Corrective Action Request (CAR) will be issued to the Contractor.

9.5 For a Nonconformity relating to Technical Procedures or products, the Contractor shall issue a Non-Conformance Report within one working day of receipt of the CAR. For any other Nonconformities, the Contractor shall provide details of its proposed disposition as soon as practicable.

9.6 The identification of a product related Nonconformity and the subsequent issue of a Non-Conformance Report or Corrective Action Request shall constitute a **Hold Point**.

9.7 Release of the **Hold Point** is subject to acceptance of the Contractor's proposed disposition.

9.8 The Contractor shall review and analyse the cause of all Nonconformity and develop a plan of corrective action to minimise the likelihood of recurrence.

9.9 Details of such corrective action shall be entered in a Non-conformance Report or Corrective Action Request as appropriate.

10 Audit and Surveillance

General

10.1 In addition to audits arranged by the Contractor pursuant to Clause 9.2 “Internal Audit” of AS 9001, the Contractor shall allow any person authorised by the Principal to undertake audit, surveillance and / or photographic recording of the Contractor’s work (including work undertaken by subcontractors or work undertaken at locations other than at the Site).

10.2 Audit and / or surveillance may be for the purpose of verifying compliance with any aspect of the Contract.

Costs

10.3 The Contractor shall provide any reasonable assistance and access required for the purpose of undertaking audit and / or surveillance. This includes providing access to records and other relevant documentation.

10.4 Costs incurred by the Contractor resulting from providing reasonable assistance and access (including for the provision of staff or from the interruption of activities) shall be borne by the Contractor.

10.5 Except for the cost of testing (which shall be borne by the party stipulated in the Conditions of Contract), costs incurred by the Principal in connection with audits and / or surveillance will be borne by the Principal.

Notice of Audits

10.6 Audits of Technical Procedures and product may be conducted without notice. The Contractor will be provided with 7 days' notice of an audit of the System Procedures.

Product Audits

10.7 Where this Contract requires the Contractor to provide audit samples, the samples shall be delivered to the DPTI Laboratory, Walkley Heights or to another location directed by the Principal in the Adelaide metropolitan area. The samples will be stored at the Principal's expense.

10.8 The Contractor shall provide documentation to confirm that the samples have been received and include this documentation in the relevant Lot package.

10.9 All samples shall be clearly marked and be traceable to the relevant Lot in accordance with Clauses 5.5-5.7 "Traceability".

11 Hold Points

11.1 The following is a summary of Hold Points referenced in this Part:

Document Ref	Hold point	Response time
6.3	Provision of ITP	10 Working days
9.6	issue of a Non- conformance Report or Corrective Action Request	10 Working days