



**WESTERN AUSTRALIA**

**AUS SPEC #2**

**GUIDE TO USE**



# PREFACE

Any reference to Director of Technical Services, Manager – Assets, Design Manger or Project Specifier can be substituted with the equivalent within the Subdivider's Consultants' organisation structure.



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## 1. INTRODUCTION

The purpose of this AUS SPEC #2 Guide to Use is to describe the necessary procedures to compile a complete volume of project technical specifications utilising the AUS-SPEC #2 Technical Specifications for Roadworks Contracts.

The procedure assumes the reader is familiar with the AUS-SPEC #2 technical specification parts and the means of accessing these documents.

Before the compilation of the Project Specification can begin, the Director of Technical Services (Owner) must make some decisions regarding the type of Contract which will apply to the particular roadworks project in question.

Will the Contract be:

- Quality System (Assurance) or Quality Control (*Type Of Contract Control*)
- Schedule of Rates or Lump Sum (*Method of Payment*).

The choice will have a bearing as to which Quality Specification to use and also whether changes are needed to be made to the other technical specifications so that they are compatible with the type of Contract chosen.

## 2. TYPE OF CONTRACT CONTROL

### 2.1 QUALITY ASSURED CONTRACT

A Quality Assured Contract is where all the planned activities are systematically implemented within the Contractor's Quality Management System, tested and demonstrated as needed by quality audit, to provide adequate confidence that a process or product will fulfil the requirements for quality.

The Contractor (or Supplier) must have a Quality Management System in place that meets the requirements of AS/NZS ISO 9002: 1994. The Contractor engaged for a Quality Assured Contract will be required to submit a project specific Quality Plan

### 2.2 QUALITY CONTROL CONTRACT

A Quality Control Contract involves the operational techniques and activities aimed both at monitoring a process and at eliminating causes of unsatisfactory performance in order to achieve economic effectiveness. The Principal determines the testing requirements and is responsible for ensuring they are carried out.

Typically quality control testing and survey are arranged by the Contractor and the results presented to the Superintendent to demonstrate conformance to the requirements of the Technical Specifications.

The cost of quality control testing may be met by the Contractor or the Principal as determined by the specifications.

## 3. METHOD OF PAYMENT

### 3.1 SCHEDULE OF RATES CONTRACT

The AUS SPEC #2 technical roadworks specifications have been prepared in a format suitable for direct application to a Schedule of Rates Contract. In this type of contract the Contractor submits with his tender a completed Schedule of Rates providing unit rates for scheduled activities for which the Principal has provided estimated quantities. Typically the Principal is held responsible for the accuracy of quantities only to a range of  $\pm 20$  per cent. The Principal can make explicit exceptions to this criteria by nomination of specific pay items where this level of accepted accuracy is not available.

Pay Items are included at the end of each specification part which are referenced for the compilation of the Schedule of Rates and Estimated Quantities to be provided in the Tender documents. These rates and quantities are then extended to produce the Tender price.

Only those pay items required for a particular project need to be referenced in the Schedule of Rates and Estimated Quantities, all others can be ignored. There is NO NEED TO RESERVE OUT OR DELETE unused pay items in a particular project Contract. Reservation of unused Specification Clauses is sufficient (refer to Section 6(e)).

There is provision for a Pay Item for Quality Verification and Control (QCP1) and two Pay Items for Quality Assurance (QP1 and QP2) as appropriate in a Schedule of Rates Contract.

**3.2 LUMP SUM CONTRACT**

A Lump Sum Contract is one where the Contractor is responsible for the accuracy of the quantities involved in the works. The Contractor may take note of an indicative Bill of Quantities provided by the Principal or may be required to generate a set of quantities. The Contractor is held responsible to provide the completed works for a total Contract Lump Sum price. A priced Bill of Quantities is required to be submitted at tender consisting of a price for each significant item of Work, or Specification part, as selected by the Principal, which when added together makes up the Contract Lump Sum.

For a lump sum Contract, pay items in the AUS SPEC #2 Specification parts are recommended to be included and an additional sentence included in the clause titled "Pay Items" under the heading "Measurement and Payment". This additional sentence comprises - *"The Pay Items listed in this section have no direct relevance to this Lump Sum Contract except for the purpose of evaluating the quantum of progress payments and variations when the Pay Items are included in the Bill of Quantities. Additionally the Pay Items included below and in the Bill of Quantities constitute a basis for the calculation of deductions when applicable."*

Additionally, the Conditions of Tendering should advise tenderers to ignore any restriction on the use of lump sums as set out in the clause titled "PAY ITEMS".

Where deductions clauses for non-conforming work are given in the Specification part, the nominated deductions shall be applied to *"the price given in the priced Bill of Quantities for that Pay Item of work as defined"*.

Similarly in the Specification text, where reference is made to "the Schedule of Rates" or "the schedule rate", the reference shall be to *"the price given in the priced Bill of Quantities for that Pay Item of work as defined"*.

**4. SCOPE OF CONTRACT TENDER DOCUMENTS**

The volume compilation involved in a set of contract tender documents for a road project and list of documents commonly referenced in the volumes is as follows:-

**Road Works Contract Documentation Volume Compilation**

Volume 1

Conditions of Contract

(AUS-SPEC #3 - not covered in this Guide)

- General Conditions of Contract
- Annexure to General Conditions of Contract
- Special Conditions of Contract



Volume 2 Technical Specifications	<ul style="list-style-type: none"> <li>• GENERAL SPECIFICATION PART</li> <li>• QUALITY SYSTEM or QUALITY CONTROL REQUIREMENTS (Part QS or QC as appropriate)</li> <li>• Roadworks Specification Parts (as required)</li> </ul>
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Volume 3 Drawings - Roadworks (Separate compilation - not covered in this Guide)	<ul style="list-style-type: none"> <li>• Project Drawings</li> <li>• Standard Drawings</li> </ul>
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Volume 4 Tender Submission Documents (AUS-SPEC #3 - not covered in this Guide)	<ul style="list-style-type: none"> <li>• Form of Tender</li> <li>• Form of Agreement</li> <li>• Schedule of Rates or Bill of Quantities</li> <li>• Declarations             <ul style="list-style-type: none"> <li>· Commitments</li> <li>· Collusive Tender</li> <li>· Bank Guarantee</li> <li>· Source Nomination</li> <li>· Subcontractors Nomination</li> </ul> </li> </ul>
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Geotechnical Information  
Environmental Impact Statement  
Traffic Information.

Four volumes are nominated and are conveniently bound separately for the complete contract documentation. Contract "exhibit" copies are permanently spine bound to illustrate completeness and fix editions for legal and contractual reasons. Working copies supplied for the project are often provided in ring binders for ease of use 'in the field'.

Information for Tenderers, Conditions of Tendering and Associated Documents such as Geotechnical Information, Environmental Impact Statements or Traffic Information are not given volume status indicating their exclusion from the formal contract document.

All tender submission documents are bound together in Volume 4 to facilitate submission, receipt and evaluation of the tenders.

**5. MANAGEMENT OF CONTRACT DOCUMENTS**

There must be a management plan in place that provides assurance that the compilation of contract documents is effective and efficient whether undertaken in-house or by use of consultant services.

The responsibilities may be assigned as follows:

- Director of Technical Services (Owner) - responsible to the General Manager to provide effective infrastructure.
- Manager-Assets (Owner) - responsible to the Director of Technical Services to manage Council's infrastructure in accordance with standards and a programme provided.
- Also responsible to provide contract documentation adequate to realise the commissioned Works in relation to an assigned timeframe and budget.

- Design Manager (Provider) - responsible to the Manager-Assets to produce the design drawings adequate for construction, complementing the specification and in compliance with the requirements and standards of the Director of Technical Services.
- additionally responsible to the Manager-Assets for the calculation of quantities in specified activities for inclusion in the Schedule of Rates or Bill of Quantities dependent on the nature of the contract.
- Project Specifier - responsible to the Manager-Assets to produce adequate specification documentation complementing the design drawings and in compliance with the requirements and standards of the Director of Technical Services.

The Management Titles included above may vary from Council to Council due to differing management structures, however, there will be professional officers in each Council with one or more of the assigned responsibilities described above.

Figure 1 shows the sequence of activities and personnel involvement required for the full contract document compilation and the point of incorporation of AUS-SPEC #2.

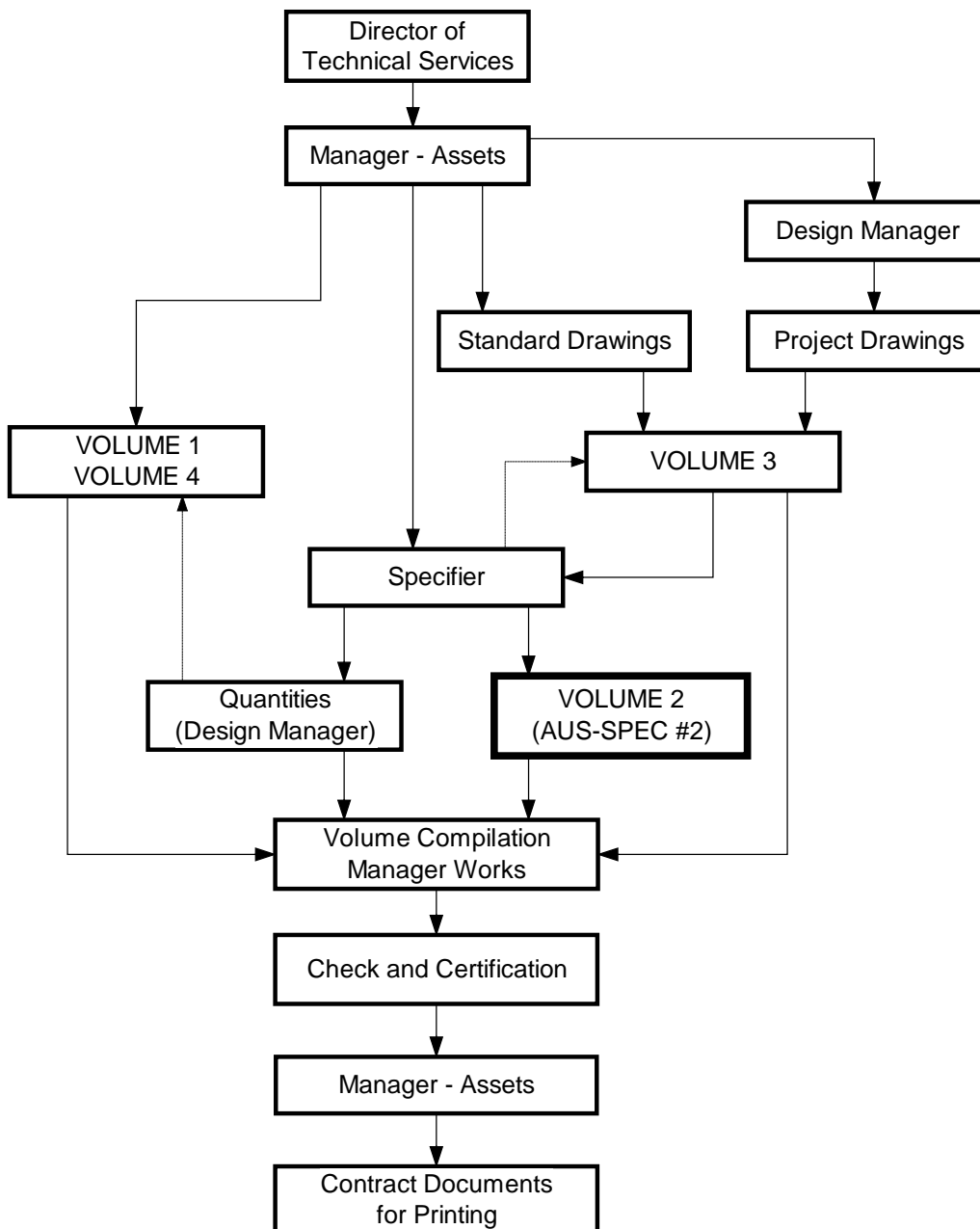


Figure 1.

## 6. COMPILATION OF TECHNICAL SPECIFICATIONS

The AUS-SPEC #2 parts will be available as word processor format files (Word for Windows Version 6.0) on diskettes or on-line dependent on the facilities available to the Specifier.

The compilation process by the Specifier will comprise:

- (a) Selecting specification parts required.

Select only those AUS-SPEC #2 specification parts which are applicable to the project. A full list of AUS-SPEC #2 Specifications is included in ANNEXURE A of this Guide.

- (b) Editing clauses where necessary

Editing of clauses by deletion and/or additional script should be discouraged to benefit from uniformity across Australian Councils but is available to the specifier. Additional script within clauses shall be shown in italics.

An amendments register will be compiled by the Specifier to indicate the location and nature of such editing and will be provided as a "fly leaf" to each Technical Specification Part in a project specific compilation.

Each Council needs to determine a policy to authorise and monitor such editing. The AUS-SPEC uniformity criteria requires that clause numbering is preserved for the original document topic to facilitate universally convenient reference by readers.

(c) Completing all relevant sections marked 'to be completed by Compiler'.

Some specifications, 101 - GENERAL in particular, require project specific input from the Compiler. This scripting should be prepared early in the compilation process.

(d) Adding Special Requirements clauses where required.

Where a project contains items of work of a specific or unique nature not covered by the existing clauses, the reserved Special Requirements clauses are utilised to provide the necessary specification coverage. Additional pay items may also need to be created in the Pay Items Clause to cover the measurement and payment for the additional items.

(e) 'Reserve' out clauses not required for the particular project.

The continuity of the clause numbering within each specification part is to be maintained. Clauses which are not required for a particular contract are deleted by replacing the clause title with the word 'RESERVED', as utilised in the Special Requirements section of the specifications. All text within reserved clauses can then be deleted. Sub-clauses may be RESERVED in the same manner.

(f) Completing job specific annexures to complement the specification.

Special project performance requirements are detailed in Annexures which are referenced to standard criteria contained within the Specification Part and included at the rear of each Specification Part.

(g) Quality Check

The Manager-Assets will be required to review specification compilations and will be required to provide a certification for the Director of Technical Services that the specification documentation has been checked as adequate for the scope and nature of the work, is expressed in plain English, and is practical to build to a programme and budget. ANNEXURE B of this guide provides a checklist proforma.

A hold point is to be established on advertising of tenders based on the prerequisite that a satisfactory check of the specification has been executed and a certification provided for the Director of Technical Services. Application for the release of this hold point shall be prepared by the Manager-Assets. Release of the hold point will be by the authority of the Director Technical Services for a specific contract.

## 7. REGISTRATION OF CONTRACT DOCUMENT PREPARATION

The preparation of contract tender documents for a contract of estimated value exceeding \$50,000 will be required to be approved by the Director and registered with the General Manager and accordingly assigned a contract title and number to be utilised consistently throughout project management.

Such title and number shall be cited in arranging access to up-to-date technical specification parts by application to the Manager-Assets and registering the project on the Council Contract Administration System.

**8. REVIEW OF COUNCIL DOCUMENTATION (MAJOR WORKS)**

For projects estimated to have a capital cost exceeding \$100,000 the Manager - Assets checklist will be completed by a party independent of the compilation team. The Manager - Assets will certify that Council's procedures have been followed and that this has been verified by the independent check.

**9. SECURITY OF DOCUMENTATION**

The Manager-Assets and Design Manager shall be responsible for security of all the copies of Contract document components and plans, ensuring that steps are taken to avoid any "leakage" in advance of tender documents being released.

Electronic copy of all documentation will be, secured by the Manager-Assets and, provided for the archiving system of the Director of Technical Services.

**ANNEXURE A**  
**LIST OF AUS-SPEC #2 SPECIFICATION PARTS**

Series	Spec No	Specification Title
QS	QS	<b>QUALITY SYSTEM</b> Quality System Requirements
	QC	Quality Control Requirements
100	101	<b>GENERAL REQUIREMENTS</b> General (Includes Site Facilities, Environmental Requirements, Utilities and Authorities)
200	201	<b>ROAD AND EARTHWORKS</b> Control of Traffic
	211	Control of Erosion and Sedimentation
	212	Clearing and Grubbing
	213	Earthworks
	220	<b>STORMWATER DRAINAGE</b> Stormwater Drainage - General
	221	Pipe Drainage
	222	Precast Box Culverts
	223	Drainage Structures
	224	Open Drains
	229	Kerb Replacement
231	231	<b>SUB-SURFACE DRAINAGE</b> Subsoil and Foundation Drains
	232	Pavement Drains
	233	Drainage Mats
241	241	<b>PAVEMENTS</b> Stabilisation
	242	Flexible Pavements
	243	Bituminous Cold Mix
	244	Sprayed Bituminous Surfacing
	245	Asphaltic Concrete
	251	Cold Milling of Asphalt & Base Course
	254	Segmental Paving
261	261	<b>ROAD FURNISHINGS</b> Pavement Markings
	262	Signposting
	263	Guide Posts
	264	Guardfence (Guardrail)
	265	Boundary Fencing
	267	Concrete Safety Barrier
271	271	<b>MISCELLANEOUS</b> Minor Concrete Works
	273	Landscaping
	274	Masonry Walls
	276	Crib Retaining Walls
300	303	<b>SERVICES</b> Service Conduits
	305	Trenchless Conduit Installation
	306	Road Openings and Restorations

**ANNEXURE B  
CHECKLIST FOR CONTRACT DOCUMENT COMPILATION**

**Contract Name:** \_\_\_\_\_ **Contract Number:** \_\_\_\_\_

- |    |   |   |                             |
|----|---|---|-----------------------------|
| 1. | Transmittal Records confirm edition dates received for all standard documents utilised for the specification compilation.           | Transmittal Dates:<br>Technical Specification | ____/____/____              |
|    |   | Standard Roadworks Drawings                   | ____/____/____              |
|    |   | Conditions of Contract                        | ____/____/____              |
|    |   | Submission Document Proformas                 | ____/____/____              |
|    |   |   | Yes      No                 |
| 2. | Scope of Contract clearly defined.  | <input type="checkbox"/> 1                    | <input type="checkbox"/> 2  |
| 3. | Physical Location and Extent of Work clearly defined.   | <input type="checkbox"/> 3                    | <input type="checkbox"/> 4  |
| 4. | Type of Contract payment clearly indicated (eg SOR, Lump Sum)   | <input type="checkbox"/> 5                    | <input type="checkbox"/> 6  |
| 5. | Quality System Requirements clearly stated, Minimum Lot Sizes and Frequency of Testing checked for appropriateness to project.      | <input type="checkbox"/> 7                    | <input type="checkbox"/> 8  |
| 6. | Measurement and Payment method clear and comprehensive.   | <input type="checkbox"/>                      | <input type="checkbox"/>    |
| 7. | Change control procedures utilised correctly for any editing of standard documents and all project specific annexures are complete. | <input type="checkbox"/> 9                    | <input type="checkbox"/> 10 |
| 8. | Cross referencing to Drawings correct.  | <input type="checkbox"/> 11                   | <input type="checkbox"/>    |
| 9. | Security of documentation assured   | <input type="checkbox"/> 12                   | <input type="checkbox"/> 13 |

Check undertaken by: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**CERTIFICATION**

Projects of estimated capital cost exceeding \$100,000 require Manager-Assets certification as below:

The contract tender document master copy has been checked by a suitably qualified and experienced person(s) who is independent of the project compilation team. The checking result is validly reflected in the checklist entries above.

Final adjustments have been made where necessary and the documentation is expected to prove adequate for the project construction.

Independent checking has been provided by: \_\_\_\_\_ *(Title)*

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

CHECKLIST CERTIFIED BY: \_\_\_\_\_ *(Signature)*  
*(Manager-Assets)*