

GUIDE TO SPECIFICATION PRODUCTION AND SPECIFICATION WRITING

PART 1 GUIDE TO SPECIFICATION PRODUCTION

GUIDELINES

This document provides guidance and information for In-house Technical staff and Consultants in the preparation of Project Specifications, including the Commercial and Technical sections, and document assembly.

TENDER DOCUMENT MANAGEMENT SYSTEM (TDMS)

All In-house Request For Tender (RFT) Specification documents are prepared using the Tender Document Management System. TDMS is managed by Contract and Procurement Services (CAPS).

Consultants producing Project Specifications for the Department of Infrastructure, Planning and Logistics (DIPL) should contact the Manager of Specification Services, who will brief the Consultants on the Specification processes and procedures, and provide the Consultant with access to the draft Specification material.

(A draft Consultant brief example is available, contact the Project Manager for a copy).

In-house Specification writers generally prepare the Commercial sections directly from TDMS, which allows the attachment of the Project Specific Requirements Technical sections through TDMS tools. If you require a "Scope of Works" section at the beginning of other Technical sections ensure that you select it first through TDMS tools. (TDMS will import and assemble the Technical sections through the TDMS tools function).

MASTER SPECIFICATIONS

The Technical Master Specifications used by the department for the production of Contract documentation align with the NATSPEC Specification. This format has been developed to comply with the Commercial sections available through TDMS.

ACCESS TO MASTER SPECIFICATIONS

General information relating to Specifications may be accessed from the Specification Services home page <https://infrastructure.nt.gov.au/specification-services>. In-house staff may also access the Technical Master Specifications templates through TDMS at: Z:\Tdms4\templates.

Consultants have access to Standard Specifications and other information, from the department Technical Specifications Internet site at: <https://infrastructure.nt.gov.au/specification-services/technical-specifications>.

The Building Specifications require a password for access, as they are copyright protected. To gain access and use these documents, and NATSPEC Specifications and materials; contact the Manager Specification Services.

The Specifications are continuously being updated. It is important to download the current set of documents from the department internet site for each project. (Don't place a copy on your computer desktop, as it may not be current at your next use).

RFT DOCUMENT CHECKLIST

The Request For Tender documentation checklist is a guide to take Project Officers and Consultants through the various steps in the preparation of the RFT document, including drawings (where applicable), to go to tender. Contact the Project Manager for a copy.

CONSULTANTS DRAFT SPECIFICATION

Consultants are required to edit the template Master Specification material. Insert optional clauses when generating the document. It is difficult to search for and insert information at a later time.

The draft Technical sections must be added to the document at the time of generation using the TDMS Tools function. (This allows automatic compiling of the contents page and page numbering etc.).

Forward the completed draft Specification material (including a list of the Project Specification Technical sections), to the Departmental Project Officer.

The Project Officer will prepare the draft Specification from TDMS and return it in Microsoft Word format to the Consultant. **Allow a processing time of 2 working days.**

Ensure that the Specification/s (including the draft Technical sections) are prepared early in the documentation process to allow sufficient time to complete and check the Specification/s, and co-ordinate the contents with the drawings.

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SPECIFICATION NUMBERS

Specification numbers are obtained from **Technical Records** on: **(08) 8924 7371 / (08) 8924 7351** or electronically from the **Plan Room** Internet site: <http://finke.nt.gov.au/dtw/techplans.nsf/webFrameset>. Technical Records keep electronic copies of all Specifications and drawings for contracts.

ARCHIVING REQUIREMENTS

As-Constructed / As-Installed drawings at the completion of the project (signing of the Certificate of Practical Completion) must be forwarded to Technical Records. Refer to Technical Records Archiving Requirements internet page <http://finke.nt.gov.au/dtw/techplans.nsf/webFrameset>. A CADD data transmission record form is to accompany all documentation sent to Technical Records.

QUALITY ASSURANCE

The Department has a current Quality Assurance (QA) Policy incorporated into its contracts.

Project Tiers:

Tier 1	Less than \$15k	Project Control not required. QA not required.
Tier 2	\$15k but less than \$100k	
Tier 3	\$100k but less than \$500k	Projects under \$150k - Project Control/QA not required unless complex.
Tier 4	\$500k but less than \$2M	Projects over \$150k and under \$5 million- use Project Control via TDMS.
Tier 5	\$2M and greater	Projects over \$5 million – Use the ISO 9000 series for Quality Assurance.

The Project Control section generated from TDMS will reference a suite of Project Checklists available from the Specification Services website. The Checklists include a list of Tests required, and Hold Points and Witness Points that can be edited to suit the Project. These items have to be signed off by the Superintendent. Response Schedules will automatically include the QA or Project Control Plan Proposal. This information will also be automatically added into the documents to be lodged with the Tender Form clause in the Conditions of Tendering.

After inserting Technical content use the TDMS tools function **Hold/Witness Points** to compile a list of Hold Points and Witness Points. These points are picked up from the relevant clause or sub clause titles, which will include the words – Witness Points or Hold Points as required.

When using the Standard Specification books Hold Points and Witness Points schedules are available from the Specification Services webpage:

<https://infrastructure.nt.gov.au/specification-services/technical-specifications>.

The schedules are listed in the supplementary documents section for each of the Standard Specifications.

FINAL DRAFT

A final draft of the Specification document is required for the final documentation review. This Specification document must be approved by the Project Officer.

Use the RFT checklist to ensure that all the necessary actions have been performed.

ISSUE OF TENDER DOCUMENTS

On the final check of all Project documentation all documents will be forwarded electronically in PDF format and some in Word and Excel format.

PROJECT DRAWING/S

Provide PDF copies of drawings in A3 size format and provide the drawings in CAD format in AutoCAD or MicroStation.

ELECTRONIC RECORDS

All Contract documentation must be forwarded to Technical Records electronically, in APRO by the Project Officer.

ADDENDA

Any addenda issued are to be processed through the TDMS “Contract Forms Authority for Addendum” document.

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PART 2 GUIDE TO TECHNICAL SPECIFICATION WRITING

GUIDELINES

This Guideline document provides assistance and information for Technical staff, Consultants, Contractors and Builders in the preparation of Project Specifications and the writing of new Specification sections.

SPECIFICATION FORMAT

TDMS will automatically format the document with consecutive section, clause, sub-clause and page numbers throughout the document, including updating the table of contents. If you add the Technical sections at a later date, these will need to be inserted manually (one by one) into the document using TDMS tools.

Consultants must use the draft Master Specification sections when writing new sections for a project. New sections must be written using Departmental styles and formats. The use of word processing styles has made Specification Formatting a simple task. Refer to TDMS Technical Document Blank Template, at internet site:

<https://infrastructure.nt.gov.au/specification-services/tenderers-contractors-consultants-assistance>.

This enables new sections to be formatted more simply, to match existing Specification sections.

INSERTING SECTIONS (manually)

To insert a section manually, insert a section break (**Page Layout** tab – **Breaks** – **Section Break – Next Page**) in the required position. Type in the section heading using the **Heading 1** style, clause heading using the **Heading 2** style and sub-clause heading using the **Heading 3** style. Non heading text is to be in Body text or Normal text style.

SPECIFICATION EDITING


When preparing a RFT Specification document and calling up the Standard Specification books, Project Specific Requirements (PSRs) must be inserted into the Specification document using TDMS tools. PSRs are used to reference specific items or materials for the works being carried out and must be edited by the Project Officer preparing the document.

When preparing a RFT Specification document from the Technical Master Specification templates, selections of specific items or materials are documented within each generated work section. Work sections are inserted through TDMS tools.

Edit the Technical content only. Do not alter the text of the Commercial sections.

GUIDE NOTES

Each Master Specification template section has guide notes in hidden text to guide and prompt Specification writers for developing the Specification, and to assist with the selection of specific items. These guide notes are in **Green italics** in [square brackets], and indented to start at the centre of the page.

To view guide notes, hidden formatting and hidden text click the **Home** tab and click **Show/Hide**  button. Guide-notes do not appear in the final Project Specifications.

NUMBERING

The numbering is sequential in Project Specifications, following-on from the preliminaries and Quality Assurance sections (where applicable). The numbering is automatically closed up, when sections are deleted. Clauses and sub-clauses are numbered sequentially within sections, and are automatically closed up when clauses are deleted.

Roads Master Specification sections and clauses are numbered to a maximum of 3 levels. For example 3.2.1 - where 3 is the section number, 2 is the clause number and 1 is the sub-clause number.

In Buildings Specifications only sections and clauses are numbered. Paragraphs within a clause are highlighted using key words.

IMPERATIVE MOOD STYLE

The Specification should be addressed to the Contractor in the Direct Instruction style; Imperative mood of the verb; second person, singular; subject suppressed.

The Imperative mood style is adopted as policy by all the major National and Guide Specifications including, Masterspec (USA), NBS (UK), CSC (Canada) and NATSPEC - Australia. (It is difficult for lawyers to misread unintended meanings into this writing style).

For example write "Supply and Install", rather than "you shall Supply and Install", or "Supply and Install shall be done". The active verb is usually the first word in each sentence. The words "the Contractor shall" are usually made redundant, by putting the verb in the Imperative mood.

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PLAIN LANGUAGE

Everyday language is easily understood by both the Layman and the Specialist. Familiar and precise words and terms are to be used, rather than vague or abstract words and terms. Un-necessary words should be avoided. Clearly convey the meaning, and avoid using Legal or Commercial phrases.

TECHNICAL TERMS

Technical terms should only be used when there is no other equivalent everyday term or phrase. Use the same Technical term or phrase as those used in Australian Standards References. Use the same term or phrase for the same item or items, in the same context, throughout the document.

LISTS

Where several items need to be itemised within a single paragraph, the items need to be in List or Point or Alpha format.

Specification styles contain a heading for lists. These are set back from the margin (indented) and follow a dash or a bracketed, lower case letter.

For example;

Spread Topsoil to the following typical depths:

- Planting areas: 300 mm
 - Irrigated grassed areas generally: 150 mm
- or
- (a) Grass areas: 100 mm

KEY WORDS

A key word followed by a colon (:) readily identifies the content of a paragraph. This allows the faster scanning of the text by the reader. Key words may also be used to make reference to an Australian Standard, etc.

For example;

Cement: to AS 3972, type GP.

TABLES

Keep tables in the portrait or upright format (when possible) and keep the complete table on one page. If a table overruns the page, repeat the table headings on the following page.

ABBREVIATIONS

NATSPEC and department policy is to avoid using uncommon, confusing or unusual abbreviations. Only use universally and Construction Industry accepted abbreviations.

For example: NPWC3, NATA, PVC etc.

REPETITION

- Write information only once within the contract documents.
- Do not repeat or paraphrase (repeating information, written in a different style, may lead to confusion).
- Do not repeat Conditions of Contract or Preliminaries in the Technical Specification.
- Do not copy Specification Text onto the Drawings.

CROSS REFERENCES

It is not necessary to continuously make cross references to items specified elsewhere in the Specification document.

Each item of the Specification text is part of the Contract in its own right.

Consistent formatting of Master Specifications allows users to become familiar with the location of commonly specified items.

A cross reference is only necessary when calling up text from another part of the Specification, into a context where it would not otherwise apply or where its application may be in doubt.

When using cross references do not refer to clause or section numbers. The numbering changes in the Master Specification as the Project Specification is edited. Refer to the clause or section by word reference.

For example;

“Refer to the EXCAVATION clause in the EARTHWORKS section”.

Always check that where a cross reference is made the section referred to is included in the Project Specification.

BY OTHERS

Use the words “by others” in a Project Specification to mean that it is not required in that contract.

Do not use the words “by others” to mean “by another trade” within that contract. Project Specifications are a set of instructions to the Contractor. The Contractor will determine the tasks assigned to the trades.

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UNLESS OTHERWISE SPECIFIED

Do not use the phrase “unless otherwise specified” as it requires the reader to scan the whole Project Specification to check for any exceptions. Specify the general requirements and clearly identify any exceptions in the relevant section of the Specification.

SUPERINTENDENT

Refer only to the Superintendent (or to the Principal in specific cases) and not to the Superintendent’s representative, the Engineer, the Architect or the Supervisor.

The Contract is administered by the Superintendent who will seek the assistance of the relevant Specialists when required.

OR EQUIVALENT

Do not use the words “or equivalent” or “or equal” as this is covered in the Proprietary Items clause in the Conditions of Contract.

SPECIFICATION OF NUMBERS

Use numerals instead of words, except when one number follows another. In that case use dash to separate the word from the numeral.

For example use;

- Provide 6 copies
or
- Use five – 12 mm bolts.

If a number is written as a word do not repeat it in brackets as a numeral.

For example do not use “Provide six (6) copies”

STRUCTURE OF SECTIONS

The Department’s Technical Master Specifications are structured in a methodical format. When writing new Specification sections write them using the same manner and format.

An example of the structure and format and general flow of a typical Specification section is as follows;

- Section Title
- General clauses
- References
- Materials and standards
- Inspections, approvals and tests
- Construction generally
- Unique construction
- Completion and commissioning.

TEXT FORMATTING

Do not insert large blocks of text into the Specification without attention to the formatting. Remember that the Specification needs to be easy to interpret and read by Consultants, Contractors, Builders and administrative staff in the field.

Break up the text into simple and logical sentences, and group into relevant paragraphs, clauses and sub-clauses.

STANDARDS AND DEFINITIONS

Where Specifications are published in book form (for example the Standard Specification for Small Building Works) the Australian Standards are listed at the back of the book.

Definitions are generally listed in the first Section of a Specification published in book form. Definitions are also listed in early clauses in Conditions of Contract Sections.

FURTHER INFORMATION

For further information or assistance regarding the production of Project Specifications documentation:

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