

masterspec



Guide to Writing Specifications

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Writing specifications

This guide will help you when writing specifications, particularly those based on a standard specification system such as Masterspec. It also explains the approach taken in the Masterspec standard text to grammar and style. This will act as a guide to amending existing and writing new, specification clauses.

If not defined, or taken from a listed reference document such as a New Zealand standard, words used in Masterspec have the meaning defined by the Concise Oxford Dictionary. Writing style and punctuation generally follows the New Zealand Style Book (GP Publications 1991).

While texts on construction specifications are not common *Specifying Architecture* by John Gelder (published by NATSPEC, Australia) offers a good grounding in both the history and theory of specification writing.

Writing style

Style is the cornerstone of readability, ensuring text is relevant and capable of being clearly understood by its intended readership. Style includes a good but not pedantic approach to grammar, simple sentence structure and correct punctuation. Style also means following the sometimes neglected rules of specification writing:

clarity accuracy repetition brevity logic

Clarity means using plain English, avoiding legalese and jargon and restricting vocabulary to words in common usage. Avoid using alternatives (like excavate for dig) just to make the text more interesting. Nevertheless words should be selected to ensure that their meaning is clear and unambiguous, while phrasing should be brief and expressed in the imperative mood. Use 'Provide light fittings....' not 'The contractor shall provide light fittings...'

Accuracy Ensure consistency and accuracy by using the same simple terms throughout ('use,' 'supply,' 'submit') and employ accurate and consistent phraseology for repeated clauses. Avoid generalisations, or unclear words or phrasing. Avoid acronyms and abbreviations, unless very well known and incapable of simple error. Blanket clauses implying responsibility for the general or the unknown, must be avoided.

Don't use gender-specific words and phrases. And avoid nominating specific control functions to particular persons (say architect, engineer, surveyor) unless this is intended. In particular avoid words such as 'approve' or 'approved' unless this is an essential requirement of the contract.

Avoid redundant and misleading paragraphs; in particular poorly or loosely worded SCOPE clauses at the start of specification sections. SCOPE clauses are legally dangerous as they could be taken by a contractor or subcontractor as encapsulating everything that is required. They are best avoided altogether. At the most they should be restricted to a simple extension of the section title.

Also avoid clauses such as 'read the General section with this section,' which might imply that the specification can be broken up into individual parts – a dangerous process contractually. And don't repeat general instructions to the contractor in every section unless there is a particular concern (such as the prevalence for some workers to leave debris on site, or a specific risk of damage to adjoining work or finished work).

Avoid listing overly specific, or indefinable requirements such as 'best trade practice,' 'first class work,' or 'acceptable standard.' Only require 'approval' or 'inspection by....' where this fulfils some specific purpose.

Also carefully check secondary consultants' and specialists' specification sections to ensure consistency of meaning. Some consultants can include indefinite phrases like 'builders work,' or include contractual issues, or even monetary amounts in among the technical data.

Repetition Documents are meant to be complimentary. The principles to follow are:

- say everything, but say it only once. Repetition is inadvisable and legally dangerous
- avoid erroneous information (such as listing a standard that is not referenced in the text)
- just in case
- if something applies, include it once, If something does not apply, remove it or leave it out
- if information is on the drawings, don't repeat it in the specification, unless the subject
- requires amplification
- if an issue is covered in the conditions of contract, don't repeat it in the specification. Matters of contract and/or tender must not be included within the technical text.

Brevity You would not include irrelevant details on drawings and similarly there is no justification for including irrelevant clauses or redundant words in the specification.

Logic The Masterspec sections are set in an easily recognisable pattern, with logical and meaningful clause titles and a logical numbering system for all clauses. Cross-referencing within the specification is kept to a minimum, because of possible future changes or project-based modifications. Where unavoidable, clause names rather than numbers are used for cross referencing.

Keep matters of contract, tender and administration separate from the technical sections of the specification, except for specific instructions on quality, or for instructing/informing others (such as a sub-contractor); for example the obtaining of samples, tests and certification, the setting of standards of performance, requirements to provide guarantees, warranties, as-builts, or maintenance information. This approach allows the technical sections to be more readily used with any chosen method of pricing, administration or contract. It also adds certainty for the contractor and/or project manager when attempting to locate all relevant contract, pricing or administrative requirements.

Don't specify for failure, such as specifying repairs following damage. That is for the conditions of contract to resolve.

Don't address individual matters to 'the contractor.' The whole document is addressed to that one person or entity.

Words and meanings

Words whose meanings are unclear, subjective, or even too precise, should be avoided. In the USA design professionals' insurers often issue lists of what are known as 'red flag words.' These are words which are best avoided, or words which should only be used with caution and deliberate intent. Such words include:

Administer	advise	all	any
Approve	assure	best	certify
Complete	control	direct	ensure
Equal	estimate	every	final
Full	guarantee	inspect	maximise
Minimise	none	optimise	oversee
Periodic	safe	shall	sufficient
Suitable	supervise	will	

Specification writing

The process of specification writing, conducted in parallel with design and drawing work, helps create the proper balance between client, statutory, technical and aesthetic requirements. Who should write the specification? Options in larger organisations include specialist specification writers, project managers, or members of the project design group. The principle qualifications needed are:

- familiarity with the project, including the design philosophy
- expertise in editorial, technical and contractual matters
- willingness and availability.

The Masterspec approach

Masterspec provide specification systems not off-the-shelf standard specifications. They require the specifier to vet existing data, to create a project document. All Masterspec systems are formatted to suit electronic on-screen editing. Some specifiers may prefer to prepare a manual draft, but this significantly increases the final checking process. Where a manual approach is used, always print draft sections directly off the current electronic files to ensure that the latest edition is being used as a base.

The GENERAL sections incorporate explanatory clauses on:

- The precedence of figured to scale dimensions
- Trade divisions versus specification sections
- The precedence between specifications, drawings and other documents (Note: precedence between documents is also addressed in some standard conditions of contract)
- Manufacturer's requirements/specifications/instructions/details.
- the use of capital letters as against lower case letters for descriptors (e.g. architect, owner, contractor, acceptable solution, building consent, etc). While some publications capitalise such descriptors to signify that they are a defined term, this is not grammatically correct and the Masterspec text follows the rule of "when in doubt use a lower case initial letter." Title case, where the first letter of each word in the title of a book or other publication, is also avoided.

The updating of New Zealand and overseas standards and other industry references is covered by a clause which states that current versions (at a nominated date) including all amendments, will apply. However the subsequent replacement or withdrawal of a particular standard still requires the removal and replacement of outdated references. The year of publication is not given for referenced documents, other than Acts of Parliament.

Note however that where a standard is updated between edition dates for Masterspec, clause references may also need to be amended to suit the new document as clause numbering in the new standard may have changed.

Purpose

A project specification (along with the project drawings) has at least ten different purposes:

- 1 As a briefing document and a record of decisions made.
- 2 As a design record.
- 3 A demonstration of statutory compliance.
- 4 A cost planning tool.
- 5 A tendering document.
- 6 A contract document.
- 7 A project management aid.
- 8 An on-site manual.
- 9 As evidence in disputes.
- 10 A resource for facilities management and building maintenance.

While all functions are important, the contractual function is the most critical. If your specification is to act as a legal safety-net for both you and your clients.

It must be accurate. It must not contradict itself or other related documents (drawings, schedules, other consultant's documents, standards and codes of practice, the Building Code acceptable solutions). It must avoid factual or technical errors. It also must be project-specific, if it is to be any use in illustrating compliance with the Building Code.

Writing project specifications

It has been said that designers pretend to write specifications and contractors pretend to read them. There is a strong note of truth in this statement; the principal reasons being an undervaluing of the important role of specifications in the design and construction process and the consequently dysfunctional nature of many project specifications.

Consider the physical appearance of your current project specification. It should look professional, have a robust cover, be securely bound together, but open easily at any page. Black type on white paper is preferred, with a typeface of at least 10 point size. Serif lettering is still recognised by many people as being the most legible (check any newspaper, novel, or text book) but you may personally favour another typeface. Masterspec currently favours Arial 10 point, as being one that is common to all popular word processing programmes.

Page formatting is also important, with a clear definition between divisions and clauses, the use of bold and/or upper case titles and a reasonably narrow text width for ease of reading. Double-sided printing can improve the document's professional look and reduce bulk, but production difficulties may preclude this.

Making it easy

A specification that is easy to navigate is more likely to be read, used and understood. The simple, repetitive layout of all Masterspec specification systems makes this as easy and straightforward as possible. The addition of a proper itemised *Table of contents*, not just a list of Contents is readily produced using normal word processing functions – and would assist users to find the information they seek.

The addition of a subject index, which tells the reader where sealants are listed, or information on flashings, would add further value. These subjects are not always logically or consistently located, or they can be located in more than one work section and the inclusion of a subject finder would overcome this.

Make your specification more professional by making it easier to use.

Specifying methods

The introduction of the performance-based New Zealand Building Act in 1992 provided a timely illustration of how a desired end result can be specified rather than the means of achieving it.

Specifying by performance

While in theory a performance based approach should permit greater innovation and competition among tenderers, the nature of most New Zealand building contracts does not allow significant benefits to occur. The cost and time involved in producing the essential performance definitions, methods of verification and confirmation of performance values is generally too high to be either practical or economic on most projects.

Nevertheless performance-based specifying of some elements is already in common use. Products such as aluminium windows, demountable partitions, suspended ceilings, some mechanical services, ready-mixed concrete and precast concrete products, are all specified quite satisfactorily by reference to performance requirements, published technical data, or to certain tested and proven capabilities. This trend is certain to increase.

Specifying by sample

Specifying by reference to a sample offers a relatively simple way to ensure a desired quality standard is met. This is particularly useful in determining the standard of naturally sourced materials such as quarried stone. Alternately a proprietary product of known quality – perhaps a particular window section or balustrade design – can be used as a benchmark for contractors to match or surpass.

The prescriptive approach

The prescriptive (or by prescription) approach is where the means to an end are set out and defined in detail. This detailed information is set out under three main headings: GENERAL, PRODUCTS and EXECUTION; with a fourth SELECTIONS used when appropriate.

Different approaches used when specifying by prescription are:

- **Descriptive** (spelling out in detail what is wanted)
- **Reference** (specifying to a code, standard or other recognised document)
- **Brand name** (nominating a particular brand, range of acceptable brands, or a specific product).

Brand name

While specifying by brand name is the most precise, it can also be restrictive and removes the opportunity for competitive purchasing. In some instances it can be better to have a range of acceptable alternatives nominated by the specifier, or in controlled circumstances, offered by the tenderer or contractor.

One justification for brand specifying is aesthetic; perhaps a certain level of quality or appearance is required by the designer, or a particular piece of hardware, or proprietary window frame is preferred based on past experience. Another justification is that specific manufacturer's requirements for installation or attachment can be built in to the specification text, ensuring that the material or product is used appropriately. Manufacturer's warranties are another potential advantage with brand specifying.

Reference

Specifying by reference to standards or codes of practice can be problematic. The wording of some standards is often not definitive enough for contractors to price accurately. Or the standard's requirements might clash with those of the contract. Standards often recommend rather than require, while levels of quality are generally set at minimum rather than optimum levels. They may also ignore any special aesthetic requirements or specific climatic conditions.

Reference specifying is best used for defining associated requirements (tests, qualifications, etc) and for describing specific material or product selections, rather than for describing the actual construction or installation process.

The Masterspec approach to specifying

The Masterspec systems, along with most current New Zealand construction specification systems, is generally prescriptive, but contains elements of the performance approach. Brand specifying is allowed as an alternative to generic description in most cases.

Specifiers should note that tenderers/contractors are ambivalent on the issue of brand specifying v's generic specifying. On the one hand they prefer the certainty offered by specifying a single brand, but on the other hand demand the freedom to offer alternatives – often from favoured suppliers, or products with which they are familiar.

Special points to note are:

- 1 Avoid including both a generic description and a branded product or material. There could possibly be a clash between the two (i.e. the branded product does not conform precisely with the generic description).
- 2 Where a branded product is specified there is generally no need to also include a requirement to comply with a New Zealand standard or other industry guide. This only leads to potential confusion as to what is required, as a standard can include a range of complying options.
- 3 Define first for the tenderer and later for the contractor, whether they have the option of offering substitute products or materials – either as of right, as tender substitutions, or under specific circumstances like non-availability. Where the specification is not “open” (i.e. the tenderer has no right to nominate alternatives) use the phrase “no substitutions” to reinforce this fact.
- 4 Offer option 3. above only with due caution. A tenderer's or contractor's view of equivalency may be somewhat looser than envisaged by the specifier. Consider instead putting forward a list of acceptable alternatives, or set out precise guidelines for the approval of any proposed alternative products, materials, or systems.

The specification form

A project specification should collect design decisions and allocate them according to the required construction sequence. Information must also be easy to locate and simple to co-ordinate with project drawings and related documents.

Drawings convey information in a graphic form and are usually the preferred means for providing information on “where” and “how.” Qualitative or “what” information is often best described in writing. When this qualitative information is gathered together the document is called a specification.

Lists or schedules of information (hardware or window schedules) are often a combination of graphic and written data. Such schedules may be located either within the specification or on the drawings.

A schedule or bill of quantities is sometimes needed to define how much, in terms of quantity and cost. The schedule of quantities and the specification can be combined, but this seldom if ever occurs today. There is also less use of a schedule of quantity as a contract document, especially on smaller projects, where they are seen more as a pricing tool and are often prepared by or on behalf of the contractor or developer.

Different ways

Historically, a specification contained a preliminaries and general section, which linked matters of tender and contract and defined the various administrative, compliance and quality issues. This was followed by a series of trade sections, set roughly in the sequence work occurred on site. Today your project specification is likely to still generally follow this traditional pattern (with some changes to suit current construction practice) but must also allow for the many different ways a specification can be employed:

- during the design process
- as part of a pricing mechanism
- as a contractual (legal) document:
 - designer to client
 - owner to contractor
 - contractor to subcontractor or supplier
- as a means of compliance document
- as a guide to construction and contract administration
- as a record of what has been built
- for facilities management.

Different forms

At one time designers and their clients did not need to know how the construction contract was divided up. This is no longer the case. The contractor may now be the designer's client, or the form of contract may give the contractor greater power to determine not only how the building is constructed, but also what it will be built of. A specification must also allow for varying methods of:

- documentation
- tendering/pricing procedure
- forms of contract
- trade-related as against element- or material-related building skills
- discrete sections of the material and supply industry
- separate contracts and contractors
- different (and changing) contract strategies
- different methods of working, applying, fixing
- the purchase of off-the shelf building components
- the contractor's (and various subcontractors') influence on design
- changes occurring during construction, due to cost restraints or changing technology.

The future

In the future, further subdivision of specification data may occur, dividing data into smaller and smaller units. This will provide greater flexibility and allow information to be formed and reformed into the most convenient and appropriate packages. Such repackaging may not be static and change may occur at any time during the construction process.

The employment of work sections as the most logical and convenient piece of information is already being re-examined internationally. The future may well see a move towards an element-based and/or object oriented view of construction data. It is also likely that a closer relationship between the graphic data produced using a CAD package and the related specification data will occur at some time in the future.

Classification and coding

Masterspec employs the CBI classification and coding system. CBI is consistent with CAWS (Common Arrangement of Work Sections) the classification system used by the UK National Building Specification. CBI is also compatible with the overarching UK classification system Uniclass (Unified Classification for the Construction Industry) with the CBI headings replacing the CAWS headings used in Table J.

Work section codes

Work sections are identified by a 4-digit numeric code. The first digit signifies the class:

1. **General**
2. **Site**
3. **Structure**
4. **Enclosure**
5. **Interior**
6. **Finish**
7. **Services**
8. **External**

The remaining three digits define each work section within the overall class designation. For example:

1. **2 211 Removing vegetation**
 2. **2 221 Excavation**
 3. **2 222 Backfilling**
 4. **2 223 Removing subsurface constructions**
- etc...

General sections

Associated with but not forming part of CBI is a standard format for General issues. This is presented on two levels, the first comprising:

1. **The project**
2. **Documentation**
3. **Establishment**
4. **Temporary works and services**
5. **Project management**
6. **Construction**

Under each of these numbered headings are a series of sub-headings, designed to place relevant data in the same order and location each time. This initially acts as a check-list for inclusion of all relevant issues and later offers users of the project specification a greater degree of certainty in locating required information. For example:

1. **The project**
 - Description of work
 - Personnel
 - Site description
 - Site features and restrictions

While the first level is individually numbered (1, 2, 3, 4, etc) the second level names are listed as signposts only, with the legal decimal numbering continuing on with only one decimal point.

Section format

A major concern for users of specifications (contractors, territorial authorities, subcontractors and suppliers) is first discovering details of a particular requirement or supply item, and then being confident that all aspects have been found.

Construction managers need to know what tests are required, while subcontractors need to know whether an approved installer is called for. Suppliers need to find information on, for example, fixings and flashings needed to complete a particular building element. The Masterspec format helps this to occur naturally and easily.

The Masterspec format uses the internationally-recognised terms: GENERAL, PRODUCTS and EXECUTION, with a fourth SELECTIONS added when needed. PRODUCTS (a more all-encompassing term) has replaced MATERIALS, with EXECUTION replacing the more gender-specific WORKMANSHIP. The Masterspec format is presented on three levels. The first two levels are:

1.GENERAL	2.PRODUCTS	3.EXECUTION	4.SELECTIONS	<i>Level 1</i>
Scope	Materials	Conditions		<i>Level 2</i>
Documents	Components	Assembly		
Requirements	Accessories	Application		
Guarantees	Finishes	Finishing		
Performance	Equipment	Completion		

The third level lists the wide range of individual items which lie under the Level 2 headings. For example, under COMPONENTS are found JOINTERS, TAPES, FIXINGS, BRACKETS and HARDWARE. Under FINISHING are listed JOINTING, SEALING, SURFACE PREPARATION and COATING.

As with the General sections, while the first level is individually numbered (1, 2, 3, etc) the second level is listed as division headings with the legal decimal numbering continuing on with one decimal point only.

Clause numbering

Numbering within each division follows the legal-decimal system. Clauses in 1. GENERAL are numbered 1.1, 1.2, 1.3, etc; clauses in 2. PRODUCTS are numbered 2.1, 2.2, 2.3, etc.

Additional clauses can be added at the end of each division without upsetting the existing clause numbers. Alternately where clauses are added or deleted, all clauses can be re-numbered once a section has been customised.

Master specification systems

Construction specifications must be:

- technically accurate
- up to date
- simple to use
- easy to coordinate with the project drawings
- and have a logical relationship with other related documents, including schedules of quantities and standard conditions of contract and tender.

Achieving this is not an easy task, especially for the smaller design practice, which may not have access to the wide range of information sources and support structures maintained by larger organisations.

Different ways to specify

Common ways architects use to produce project specifications are:

Using raw data

Creating every project specification from raw data would clearly be unwieldy, unnecessary and expensive. However this approach still applies when specifying a new or unusual product, system, or process.

Adapting a previous specification

Adapting a specification from a previous project is an approach commonly employed by designers. However this is unlikely to provide a specifier with the comprehensive range of selections and options needed for specifying a new project. This approach can also offer a false impression that the content is up to date, when it may not have been independently reviewed for some time.

This approach is inherently flawed and should be avoided, except for projects which closely mirror their predecessor. Even then a better approach is to create an office master as a stable base for each project type.

Using an office master

Most medium-sized and larger design practices maintain some form of office master specification system. This may range from a system based on a series of standard sections, designed to be interleaved with project-specific selections and clauses, through to sophisticated computer-based systems containing a full range of clause and section options, for individual customising by the project specifier.

Using a master specification system

A master specification system takes this structured approach one step further. By maintaining access to a wide range of industry expertise, a master specification system provider can offer greater certainty that the system's database will accurately reflect industry thinking. A further critical ingredient is the ongoing maintenance of the master specification system's reference base and technical content.

Standards, codes, Acts of parliament, industry references and accepted construction practice are all subject to continuing development and change. Keeping abreast of the downstream effect of such changes is difficult if not impossible for a single design practice to achieve successfully and economically.

The additional resources available to a master specification system provider allows them to fulfil this important role. Individual specifiers can then concentrate on the core task of accurately reflecting and recording project requirements.

Master specification systems arrange information in a form which allows project specifications to be compiled in a simple, direct manner. They include only proven construction methods, standards and conditions and provide a range of suitable alternatives for building elements. They also enhance co-ordination, by following generally accepted principles for setting the boundary between specifications and other parts of project documentation.

Master specification systems assist the documentation, pricing and construction processes by offering a default standard for presenting project data. This leads to familiarity with and confidence for all parties to the construction process, in accessing and interpreting specification data.

Having a degree of independence, a master specification system's provider can act as a forum for the exchange and consideration of a wide range of industry views (both local and international) leading to a general consensus on best practice.

Approaches to specifying

Different approaches to specifying can be employed within a single master specification system:

The subtractive approach

Where the specifier deletes what doesn't apply, using a series of standard work sections.

This approach is particularly suited to preparing specifications based on a requirement to comply, or to confirm compliance with, a prescriptive code or universal standard.

Even under New Zealand's performance-based approach to building controls, project specifications will still contain a strong prescriptive element. Most projects will also require the addition of project-specific data and/or instruction, making a purely subtractive approach unworkable.

The additive approach

Where selections are made from a library of standard clauses, with the specifier adding project clauses and selections.

The additive approach allows the specifier to mix and match clauses from the total specification database to accurately reflect the project in hand. Being able to add project-specific selections and project-based descriptive clauses, enhances the ability of a specifier to produce a truly customised specification.

Recommended approach

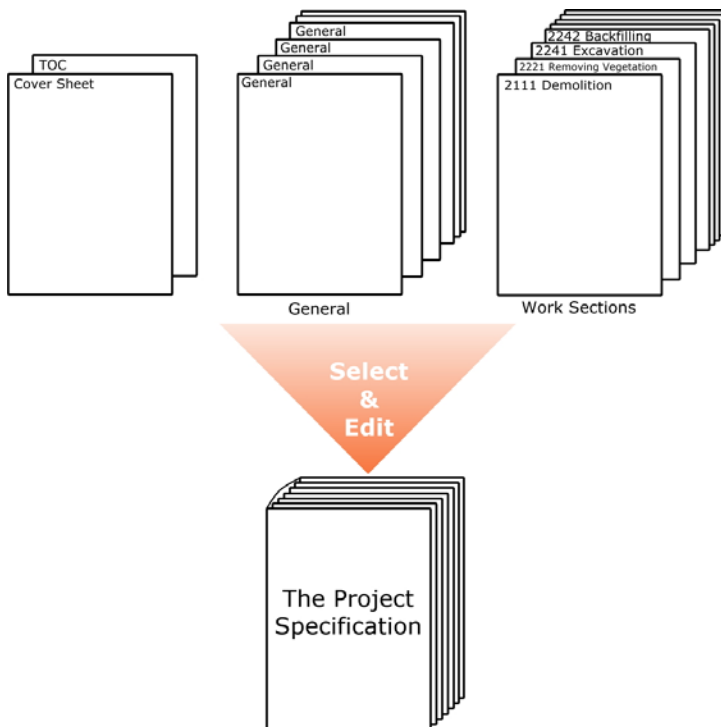
Master specification systems, such as Masterspec - particularly while they are presented as a series of individual word processing files – are generally customised using a mixture of subtractive and additive techniques.

While a truly additive system may seem to offer advantages in terms of producing a truly customised end product with minimum effort, this is unlikely to be practical unless or until a change is made to a database specification system. Currently this change is not favoured by specifiers, due to the perceived need to learn and retain new computer skills.

Why not a standard specification? Even for those designers involved in one type of project, a standard specification will not provide the project-specific document current building control mechanisms demand. Significant differences will also arise from one project to another, due to site constraints, or individual client preferences.

Whatever customising technique is used, the same three elements need to be brought together to make up the final document:

- standard forms
- a General section and
- a series of technical work sections.



Other advantages of a master specification system

A master specification system, particularly a nationally recognised system, provides uniformity in presentation and formulation and by using standardised terminology and definitions, ensures that they are more widely accepted and understood.

Having access to such a system allows specifiers to keep up to date with changes in regulations, codes, standards, work practices, products and technology. The system will also reflect an industry consensus on what comprises current best practice, through the provision of updated text, guidance notes and regular news bulletins on topical issues.

Risk management

The use of a nationally recognised system is an important risk management device. It encourages the production of consistent, concise and easily understood specification clauses, minimises ambiguities (which are generally held against the specifier in a court of law) and offers clients greater certainty that their specification will produce the quality required and expected.

Master specification systems achieve this by maintaining a library of standard clauses, developed using available knowledge and experience (local and overseas) from which project specifications can be created. Such nationally based systems can also be instrumental in bringing about standardised descriptions of the same thing for the same purpose, adding to clarity of interpretation.

Advantages for the construction team

Master specification systems assist all members of the construction team, by providing channels of communication between research and development and day to day practice in the construction industry.

For the designer it allows the logical introduction of technical and product data during appropriate stages of the design and documentation process.

For the specifier it provides the essential standard information, along with clear guidelines on the introduction of project-specific data.

For the quantity surveyor and tenderer it ensures that information is presented in a consistent sequence and pattern.

For territorial authorities and other regulatory bodies it provides a logical structure for discovering and vetting compliance data.

For contractors it provides an unambiguous guide to pricing and construction.

For project supervisors it provides access to data in a logical, co-ordinated sequence.

For the building owner it provides, because of its clear, consistent structure, a transparent statement of project content and quality.

Issues affecting specifying

There are a number of external influences on construction specifications, many of which require decisions to be made by the specifier. Such influences include:

- Codes of practice, regulations and Acts of Parliament
- Technical standards
- Conditions of contract
- Tendering practice
- Product and technical data
- Conformance (the “S” mark)
- Accreditation/certification (by the DBH)
- Appraisal (by BRANZ)
- Quality assurance (to ISO 9000)
- Ongoing reform (energy conservation, government control of resources).

Specifying quality

The specification is both a quantitative and a qualitative document. Quality is tied to the life expectancy of the project and the durability of individual elements and finishes: now subject to a degree of control under the Building Act. Quality also involves the interpretation of a client’s brief by the designer; and the desired level of quality (minimum, median, maximum) should be reflected in the specification text.

Once a contract is signed, the contractor has an obligation (to their owners or shareholders) to complete the contract as economically as possible, within the terms and conditions of the contract. On the other hand the designer (or contract administrator) has a responsibility to ensure that the client’s standards are met in terms of both quantity and quality. This potential dichotomy needs to be understood and likely contentious issues well covered, before the contract is signed.

Current and future issues

A number of current issues should be of concern to specifiers, as both legislation and public attitudes continue to develop and change:

- Is your specification intended to be “open” (i.e. allowing the tenderer/contractor to offer “equal” alternatives to materials or products specified)? Alternately is it “closed” whereby what is specified must be used? In either case, when the matter of substitutions arises, is there a set format for contractors and contract administrators to follow?
- Traditionally designers relied on all contractors being knowledgeable about the materials and

- processes specified and to always provide best trade practice. Specifiers may need to consider whether there should now be greater and more detailed guidance given on how to build as against what to build.
- The use of phrases such as “in accordance with the manufacturer’s requirements” may no longer provide adequate instruction in some cases. Further, is there an implied responsibility for the specifier/contract administrator to ensure the contractor does have and does refer to the relevant manufacturer’s reference data?
- Under the Building Act and underlying New Zealand Building Code, various building elements and finishes must provide stated levels of durability. Many manufacturers provide advice on what steps need to be taken to ensure that their products maintain these standards during the life of a building. Is there a responsibility by the specifier to ensure that the owner is made aware of these on-going responsibilities?
- Some specifiers believe that matters required by law (i.e. Acts of Parliament, Regulations, etc) have no place in a construction contract, as there are other mechanisms available for enforcing and/or overseeing such issues (for example The Health and Safety in Employment Act administered by OSH). While this principle may hold true in general, the need still remains for someone to remind the contracting parties of specific obligations on matters such as public safety, safety in employment, discovery of antiquities and the like.

These and other similar issues provide specifiers with a challenge to ensure that their specifications reflect the building owner’s expectations and their obligations. None of these issues are clear-cut, but it may not be possible to contract out of the responsibilities involved and the matters may need to be addressed. Specifiers are advised to seek legal advice as they see fit.

Changing times, changing roles

Perhaps the most significant trend to have developed in the construction industry over recent years is the decline in the designer’s influence on the construction process. An increasing number of projects now proceed through the construction phase without any involvement by the designer, either as an observer on behalf of the client, or as a technical expert.

The specification is becoming the designer’s only voice in determining what is constructed on site. Designers may need to reconsider both the breadth and depth of what they specify, to ensure that their designs are being accurately interpreted by others, without the benefit of the designer’s direct involvement.

Other traditional roles are also subject to change. The increasing influence of organisations offering management services to building owners (i.e. project managers, cost planners, project planners) is inevitably leading to those same management organisations requiring a greater say in the construction process. The recent introduction of professional managers onto the construction site, effectively replacing or at least reducing the long-held role of head contractor, will lead to significant changes in the way projects are specified in the future.