

DEVELOPING AUS-SPEC FOR MORE SUSTAINABLE COMMUNITY ASSETS

Nandini Mehta AUS-SPEC Manager, NATSPEC, Construction Information Systems Limited, Sydney

Key Words: Assets, life cycle, specifications, update, worksections

Introduction

AUS-SPEC is the Local Government specification system for the life cycle management of assets. Developed by IPWEA and updated by NATSPEC, a not-for-profit organisation owned by Government and industry bodies. NATSPEC's major service is providing a national master specification to the construction industry. AUS-SPEC packages include design, construction and maintenance worksections (specification templates) for buildings, roadworks, urban and open spaces and public utilities. The system supports technical and contractual consistency between Councils yet allows flexibility to edit and add project specific requirements where necessary. AUS-SPEC's main aim is to provide a specification system for local government and improve the quality of construction and maintenance of their assets in Australia.

Need for specifications

The specification is an essential contract document and its primary function is to define precisely and succinctly the quality required and the processes necessary for achieving it. Preparing a specification is a core process in tendering and contracting. Specifications may include, functional requirements which define the function to be performed, performance requirements which define the physical performance expected which can be reliably measured and evaluated and technical requirements which define the technical and physical characteristics. A specification system like AUS-SPEC leads to consistencies and efficiencies across the industry. The High Court ruling in *Brodie vs Singleton Council* 2001 and the States Civil Liability Acts of 2003 identifies a need for better documentation for councils to prove adequate duty of care in any defensive situation.

Development of AUS-SPEC

In 2007 The Institute of Public Works Engineering Australia (IPWEA), Standards Australia and NATSPEC announced the engagement of NATSPEC to update, develop and distribute the AUS-SPEC range of specifications for local government. Drafts of revised worksections are externally reviewed by subscribers and industry organisations like AustStab, AAPA, ASCP, ASTT, CCAA, CMAA, Geofabrics Australasia, IECA, IPWEA NAMS, Roads and Transport Directorate, SOCC, Water Directorate and WSAA. AUS-SPEC provides specifications Templates for the design, construction and maintenance of local government assets. Since 2007 AUS-SPEC has been updated incrementally and the timeline below shows the major updates to the documents:

- **2007** – Alignment of AUS-SPEC documents to National Classification Structure and compilation of documents using a compilation software SPECbuilder Pro
- **2008** – Review of AUS-SPEC Building construction worksections in workgroup 02 and 03.
 - New NATSPEC Maintenance Reference,
 - 1 New worksection - *0167 Integrated management*.
 - Street trees included in *0257 Landscape – roadworks and street trees*.
 - 6 revised TECHguides providing guidance on using the AUS-SPEC specification system.
 - 1 New TECHnote – *DES 018 Bushfire protection*.
- **2009** – 35 Roads Reserve worksections updated - 4 Design and 31 Construction. The worksections were updated to a new standard Design and Construction *Template*.
 - Summary of Hold Points and Witness points included.

- AUS-SPEC worksections available online via SPECbuilder Live, an online version of the SPECbuilder specification compilation software.
- 1 New worksection - *1197 Street lighting*.
- 1 New TECHnote – *GEN 009 Hold points and Witness points*.
- **2010** – Public Utilities (stormwater, water & sewerage) worksections updated including 4 Design and 10 Construction worksections. Water sensitive urban design and stormwater harvesting included in relevant worksections. 1 New TECHnote – *DES 024 Water sensitive urban design*.
- **2011** – Contracts worksections updated.
 - 3 Revised TECHguides and 1 new TECHguide *TG 104 Guidelines for principals – Sample contracts*.
 - Reissued worksections: 5 Design and 11 Construction.
- **2012** – Road reserve (Maintenance) updated: 1 TECHguide and 4 worksections. Warm mix asphalt clauses added to *1144 Asphalt* worksection.
 - 2 New TECHnotes: *GEN 017 Using AUS-SPEC for asset management* and *GEN 018 Using AUS-SPEC for asset maintenance*.
- **2013** – Building maintenance and Urban and open spaces maintenance updated: 2 TECHguides and 8 worksections. 3 New Maintenance worksections and *1859 CCTV inspection of drainage conduits* developed in conjunction with IPWEA NAMS and other industry service providers in this field.
- **2014** – Building maintenance reference updated.
 - 2 New TECHnotes: *GEN 019 Using AUS-SPEC for contract documentation* and *GEN 023 Using AUS-SPEC for unsealed roads*.
- **2015** –All 54 AUS-SPEC Construction worksections in the following workgroups reviewed and reissued:
 - *02 SITE, URBAN AND OPEN SPACES*.
 - *03 STRUCTURE*.
 - *11 CONSTRUCTION - ROAD RESERVE*.
 - *13 CONSTRUCTION - PUBLIC UTILITIES*.
 - 2 New worksections: *0173 Environmental management for civil works* and *0294 Gabion walls and rock filled mattresses*.
 - 1 New TECHnote: *DES 034 Pavement stabilisation for unsealed roads*.

This major review addressed the following aims:

Local government focus: Planning, design, construction and maintenance contract documentation requirements for local government assets. Simple and easy to use.

For minor civil works: Address minimum best practice requirements.

A national document: Apply across all Australian jurisdictions. Accommodate variations for metro/regional location, climate zone or locally available materials.

A reference type specification: Minimise the customisation required. Addresses the shortage of in-house technical expertise and reduces need for outsourcing. Performance and technical requirements separated from contract management requirements. Consistency for contractors specialising in local government work.

An industry standard: Improve productivity and quality and good quality outcomes at project level.

- **2016** - The structure and content of all AUS-SPEC design worksection *Templates* in the *00 PLANNING AND DESIGN* workgroup have been systematically reviewed and reissued and developed the following new documents:
 - New TECHguide: *TG 201 Process and procedures for development and subdivision of land*.
 - New TECHnote: *NTN GEN 022 Using AUS-SPEC for asset delivery*.

Conclusion

AUS-SPEC documentation has evolved over the years and the updated specification system addresses the sustainability issues by embedding these requirements in the design, construction and maintenance worksections to create specifications for infrastructure projects. Additional reference documents provided on specific topics assist councils in improving the sustainability of their assets.