

**Drafting and Design Presentation Standards
Volume 2: Road Design Development Presentation**

Foreword

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Foreword

The *Drafting and Design Presentation Standards Manual* (DDPSM) provides guidance for designers/engineers, drafters and construction personnel in the standards for the drawing presentation for road infrastructure projects. It covers the full preconstruction and construction delivery processes for the Queensland Department of Transport and Main Roads.

The purpose of Volume 2 of the DDPSM is to provide examples of road development project drawings, which would be expected to be provided to the client and construction staff to enable them to progress with their engineering activities. This volume covers the requirements for presenting road design drawings throughout different planning and design stages, as well as covering presentation requirements for specific details and design elements for the different technical fields or disciplines (for example roads, drainage, pavement, road lighting, traffic signals, landscaping and so on). Drawings for the various fields and disciplines share many common conventions, whilst also having some field-specific conventions. Each technical discipline requires its particular drafting presentation format such as specific typical details, tables, plan layouts, cross sections, among others.

Designers are required to produce a product which can vary from concept plans for public consultation to complete set of drawings and job documentation for road infrastructure projects. While the requirement remains for a high quality end product whatever the final use of the product, the choice of materials, cost and time availability may dictate the method employed. Accuracy and clarity on the drawings will be fundamental requirements of the end product.

As microfilming is part of the method used by the Department of Transport and Main Roads to register drawings, it is essential that all drawings remain legible when reproduced in black and white.

Road design development drawings are divided into two preconstruction categories:

- concept phase drawings
- development phase drawings.

Concept phase drawings provide project information on a broad high level scale, generally for community consultation and planning purposes. Applications for concept phase drawings are:

- road corridor development planning/route planning
- project proposals, options analysis, business case
- community consultation, newsletters, public displays
- report style drawings and sketches.

Development phase drawings transfer information from the design into construction and are prepared for infrastructure projects in two separate design categories:

- preliminary design, and
- detailed design.

These design categories often overlap and complement each other.

Example drawings shown in this manual are presented to assist and guide designers, drafters and engineers in the presentation of concept phase and development phase drawings. The figures and examples shown are for presentation purposes only and may contain some details that are now superseded (for example, the use of radii rather than K values on vertical curves; or the use of Parish

and County rather than using Locality and Local Government Authority). These details have been included for ease of reference, to illustrate typical solutions, and to show the required standard of drafting presentation. For each individual project, each drawing should be drawn specifically for the agreed requirements and to suit site conditions and construction methods.

Note that the Department of Natural Resources and Mines (DNRM) no longer updates or maintains the Parish and County databases. As a consequence, the department's Engineering and Technology Branch reviewed the terms 'Parish' and 'County' and their use within the department. The review concluded that, for the Surveying, Design and GIS disciplines, the terms 'Parish' and 'County' be replaced with the terms 'Locality' and 'Local Government Authority (LGA)' respectively. Parish and County are no longer required to be shown on drawings, however 'Locality of XXX' is to be shown on the working plans and 'LGA' is to be included as part of the department's standard title blocks. The new terms 'Locality' and 'LGA' are updated fortnightly by DNRM and distributed within Transport and Main Roads as spatial datasets. Specific details and proposed implementation of the change will be progressively reflected in new versions of standards, guidelines, procedures and systems in the near future (also refer to DDPSM Volume 1 Chapter 4). If this change in any way adversely affects you or others around you, please contact Director, Geospatial Technologies on TMR_Spatial_enquiry@tmr.qld.gov.au.

The following list of manuals and guidelines should be referenced when preparing the concept and development phase designs and drawings.

The list following is not a comprehensive one as Transport and Main Roads publishes a number of additional manuals:

- *Road Planning and Design Manual*
- *Austrroads Guide to Road Design*
- *Guidelines for Road Design on Brownfield Sites*
- *Geotechnical Design Standard – Minimum Requirements*
- *Pavement Design Supplement*
- *Pavement Rehabilitation Manual*
- *Austrroads Guide to Pavement Technology*
- *Road Drainage Manual*
- *Manual of Uniform Traffic Control Devices (MUTCD)*
- *Guide to Pavement Markings*
- *Environmental Processes Manual*
- *Historical Cultural Heritage Manual*
- *Road Landscape Manual*
- *Transport Noise Management Code of Practice Volume 1 – Road Traffic Noise*
- *Drafting and Design Presentation Standards – Volume 1*
- *Drafting and Design Presentation Standards – Volume 3 – Structural Drafting Standards*
- *Design Criteria for Bridges and Other Structures*

- *Design Guide for Roadside Signs*
- *Traffic and Road Use Management Manual*
- *TRUM Technical papers and guidelines.*

This document has been produced by the Road Design Section of Engineering and Technology Branch in consultation with representatives from other engineering and technology units and departmental regions, and forms part of the Department of Transport and Main Roads Publication Series of Standards and Manuals. This manual will be revised, populated and updated on a continuing basis as new information becomes available. The technical content of this volume will be enhanced and kept relevant and useful to users if the users continue to make appropriate contributions. Feedback is therefore essential to the continued relevance of the document – email tmr.techdocs@tmr.qld.gov.au.

