



WAIMAKARIRI
DISTRICT COUNCIL

ENGINEERING CODE OF PRACTICE

PART ONE

INTRODUCTION

April 2009



Part 1: Introduction

CONTENTS

1.1	DOCUMENT PURPOSE	2
1.2	DOCUMENT COMMENTS.....	3
1.2.1	Sources.....	3
1.2.2	References	3
1.2.3	Performance Standards & Means of Compliance	3
1.2.4	Review Process.....	3
1.2.5	Notes to Readers/Disclaimer.....	3
1.2.6	Distribution.....	4

Part 1: Introduction

1.1 DOCUMENT PURPOSE

The Waimakariri District Council's Engineering Code of Practice provides controls to ensure that all infrastructure created is and will remain fit for the intended life of the asset.

The purpose of this major revision is to incorporate any structural changes in the way that the Council accepts assets and to update the technical engineering aspects of the Engineering Code of Practice to current practice, including alignment with the Christchurch City *Infrastructure Design Standards* (IDS) and *Construction Standard Specifications* (CSS). The opportunity was also taken to incorporate the application of quality assurance, to ensure that Council assets are well designed and constructed.

The parts of the CoP are summarised below:

- **Part 1: Introduction** introduces the Code and the processes involved with revising the document. It also includes those definitions and abbreviations specific to the CoP.
 - **Part 2: General Requirements** covers a number of regulatory details and sets out the process from design to acceptance by the Council of land developments.
 - **Part 3: Quality Assurance** sets out the requirements for the application of quality assurance to the construction of all assets. Each project will require the implementation of a project quality management system, with documentation and certification presented to the Council at both the design and construction stages.
 - **Part 4: Geotechnical Requirements** sets out the requirement for geotechnical input in land development and what must be considered by the geotechnical engineer. It emphasises the Council's desire to work with the landforms and preserve natural features. It also details issues to be considered under erosion, sediment and dust control.
 - **Part 5: Stormwater and Land Drainage** builds on Christchurch City's *Waterways and Wetlands Drainage Guide* (WWDG), which sits behind the CoP as a supporting document. Part 5 provides more prescriptive design and compliance criteria than is found in the *WWDG* but reinforces the emphasis on water quality and ecological protection.
 - **Part 6: Wastewater Drainage** incorporates an explanation of the Waimakariri District reticulation system. It provides the design and compliance criteria for wastewater systems. The requirements for private drains have been tied to the *New Zealand Building Code* and it references the two pumping station specifications.
 - **Part 7: Water Supply** covers the design and compliance criteria of the water reticulation. It references the Christchurch City document *Water Supply Wells, Pumping Station and Reservoir Design Specification* for larger infrastructure.
 - **Part 8: Roading** sets out both the design and compliance criteria for the road layouts e.g. road classification and the roads themselves e.g. footpaths, construction depths. It incorporates the design and construction of roads in accordance with Austroads specifications.
 - **Part 9: Utilities** covers the Council's compliance requirements for telephone, electricity and gas. It excludes the utility design itself, as this must be to the network operator's requirements.
 - **Part 10: Reserves, Streetscapes and Open Spaces** is based on NZS 4404, modified to suit the Waimakariri District context. It sets criteria for reserves, including layout, facilities, structures and furniture. It also applies to landscaping in legal roads.
 - **Part 11: Lighting** sets the Council's requirements in an environment in which private companies can carry out street lighting design and construction. It builds on AS/NZS 1158.
 - **Part 12: As-Builts** sets the Council's requirements for as-built information on completion of the development.
 - **Associated Documents** are any useful documents not included in the main body of the CoP.
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Part 1: Introduction

1.2 DOCUMENT COMMENTS

1.2.1 Sources

This Code was originally developed from a number of sources including existing Waimakariri District Council standards, Christchurch City Council standards and adapted procedures from other local authorities. The Code is based on the Christchurch City Council Infrastructure Design Standards, modified to suit local conditions and practices.

1.2.2 References

A list of referenced documents, definitions and abbreviation used in this Code is included in QP-C801, attached at the end of the CoP under *Associated Documents*.

Website addresses are provided where the referenced documents are available on-line. Please note that the links are correct at the time of publication; however, websites are subject to change without notice and those using the Code are expected to arrange their own access to documents referred to in this Code.

1.2.3 Performance Standards & Means of Compliance

This Code sets minimum requirements for planning and design, and provides scope for developers to propose alternative solutions. The Code supports the Council's Asset Management Plans to achieve appropriate engineering standards for utilities and other services, and is aligned with the District Plan.

These requirements are intended to protect the environment and those parties affected by a proposed development from physical failures that result from natural hazards and/or inadequate design and construction, and to achieve cost effective life-span performance of the Council's infrastructural systems.

1.2.4 Review Process

This issue of the Code has been extensively reviewed by the Council's engineering and asset management staff. The review has resulted in significant changes to the Code's layout and readability for better use as a reference and design tool. Consequently, and for practical reasons, changes are not individually highlighted. The Council will consider submissions for future review. The review process is detailed in the Engineering Code Review Process (QP-C802) attached under *Associated Documents*. Please send your comments and suggestions for amendments to the Code on the form QP-C802-AA. Registered recipients should record updates on the amendment sheet provided (QP-C802-AC).

1.2.5 Notes to Readers/Disclaimer

While this Code is believed to be correct at the time of publication, the Waimakariri District Council and those involved in the Code's preparation and publication do not accept liability for any consequences arising from its use. The Code has been designed to assist those performing development activities but should not be relied upon in isolation. Those using the Code will need to gather and consider information from other sources notwithstanding using their own skill and judgment.

Any enquiry in regard to interpretation of any matter in this Code should be referred to Council through Helen Field, Engineer, Technical Services Unit.



Part 1: Introduction

1.2.6 Distribution

A register of Document Users is maintained. Those registered will receive a CD containing the most recent electronic files as PDFs, the cost of which is \$40.00 including GST. Registered users will be informed of updates to the Code of Practice webpage by email. For additional information please refer to the Engineering Code Review Process attached under *Associated Documents*.
