



CODE OF PRACTICE FOR SUBDIVISION AND DEVELOPMENT

**Section 1
General Requirements and Procedures**

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GENERAL

1.1.1 Functional Requirements and Performance Criteria

1.1.1.1 This Code of Practice for Subdivision and Development provides a means for producing Engineering plans, specifications and constructing the physical works that complies with the engineering aspects of the conditions set down in consents. Specific approval must be obtained from Council where an application does not comply with this Code of Practice.

1.1.2 Related Documents

- a. District Plan: sets out the objectives, policies and rules for subdivision and land development in the District.
- b. Standards: At all stages of design and construction reference shall be made in the first instance to this Code, and where applicable to the New Zealand Standards (its latest amendments). A list of relevant Standards is scheduled separately in Appendix C.

1.1.3 Precedence of the Code of Practice for Subdivision and Development

1.1.3.1 In general where there are conflicting requirements the documents shall have precedence in the following order:

- a. Resource Consent
- b. District Plan & Bylaw & Building Act (whichever is more stringent)
- c. Code of Practice
- d. New Zealand/Australian Standards
- e. New Zealand Infrastructure Management Manual (NAMS Group)

Note: Building Act requirements may take precedence in some cases.



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1.1.4 Applicant's Representative

1.1.4.1 The developer/applicant shall appoint a single Applicant's Representative who shall be responsible for submitting information required for consent, preparing and submitting engineering plans, liaison with council, monitoring/supervising construction, and certifying the As Built information and the works. The Applicant's Representative shall be a Chartered Professional Engineer, Registered Surveyor, Registered Engineering Associate or a suitably qualified person experienced in Local Government Engineering and shall provide a copy of current indemnity insurance to the value of \$1,000 000. The developer/applicant can act as the Applicant's Representative.

1.1.4.2 The Earthworks and Land Stability investigation and completion reports shall be prepared by a Chartered Professional Engineer or a suitably qualified person experienced in geotechnical engineering with at least \$1,000,000 indemnity insurance.

1.1.4.3 The Applicant's Representative shall be available for a meeting on site within 2 working days of being requested by the Council or as agreed by the parties, except in the case of emergencies in which case an immediate response may be required.

1.2 APPROVAL AND COMPLETION PROCESS

1.2.1 Before Construction Commences

1.2.1.1 The following process is to be undertaken before construction can commence:

- a. Submission of engineering plans that adequately specify the works and Materials (note any variances to the Code of Practice for Subdivision and Development) and approval of these by Council.
- b. Any required consents/permits shall be obtained before construction can commence.

1.2.2 Compliance with the Approved Plans

1.2.3 Format of Plans

1.2.3.1 Plans are to make use of computer aided draughting techniques. The end product of the draughting process is to supply Council with a drawing record of the construction process and result in a set of As-Built drawings and associated asset data compatible with Council processes. It is advantageous to the developer to initiate the draughting process with this in mind. The detail



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can be found in the Council's Asset Data Specification. Contact the Asset Database Manager for a copy.

1.2.3.2 **Basic Requirements**

All drawing work & annotation to be completed in "Model Space" and units of measure should be metres.

Drawing title blocks are to be completed in "Paper Space". The title block and/or an associated note in "Paper Space" shall include the following information:

- Contract/Sub division Number
- Date Drawn
- Street or Area Location
- Contractors Name
- Scale
- Surveyors Name
- Construction date
- Drawing amendment/issue number
- The words "As-Built Plans"
- Drawing sheet size
- Cadastral boundaries source note.

1.2.3.3 The works shall be constructed in compliance with the approved plans.

1.2.4 **Before the issue of an Engineering Release**

1.2.4.1 The following shall be completed prior to the issue of an Engineering Release (final sign off of engineering conditions):



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- a. Earthworks and bulk of top soiling exclusive of road reserves.
- b. Full road construction including footpaths.
- c. Street names and traffic signs.
- d. Stormwater, wastewater and water reticulation; inspected, tested and arrangements in place for hook-up. Note that all valve and hydrant boxes must be in place and clearly identified.
- e. Installation of electricity, street lighting and telecommunications where applicable.
- f. Provision of and certification of as-built information.

1.3 ENGINEERING PLAN APPROVAL

1.3.1 Engineering Plan Approval Process

1.3.1.1 Engineering plans and specifications are checked for compliance with resource consents and the Code of Practice for Subdivision and Development. Approval of complying documents shall be given by the Council in writing. Any specific engineering plans that vary from the Code may be approved by Council.

1.3.1.2 If alterations to the submitted plans are required, the plans and documents will be returned with a request that updated plans be resubmitted. If amendments are required which are of a minor nature only, these will be endorsed on all copies of the plans.

1.3.1.3 One full set of engineering plans are required to be submitted with the application. Two complete sets of stamped approved plans and specifications will be returned to the Applicant's Representative. One copy of the approved plans and specifications shall be submitted with the 224(c) application.

1.3.1.4 During construction, a copy of the set of stamped approved plans shall be kept on site at all times, together with a copy of the resource consent.

Preferred scales for engineering and services plans and long sections:

Horizontal	1:1000	1:500	1:250
Vertical	1:200	1:100	1:50
Cross Sections - Horizontal and Vertical	1:100	1:50	



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1.3.2 Required Drawings

1.3.2.1 The following drawings are required to be submitted with the application for engineering plan approval, where applicable, to indicate the full nature and extent of the proposed works:

- a. *Locality plan*: Showing location of work in relation to existing roads and features, to enable the site to be easily located.
- b. *Stage development plan*: Where a site is to be developed in stages, each stage must include a plan showing how the particular stage relates to the site as a whole and also to other stages. The proposed staging is to be clearly identified and shown in drawings at the resource consent application stage.
- c. *Setting out Plan*: Where source of survey information is shown and includes the setting out of any benchmarks in relation to the developed area.
- d. *General Roding Works Plan*: Plans showing proposed horizontal alignment, kerbs, benchmark positions, setting out data, co-ordinates etc.

1.3.2.2 Detailed plans with contours of intersections, cul-de-sac heads, parking bays.

- 1.3.2.3 Long-section showing at maximum 20m intervals: existing ground levels, proposed final levels, cuts and fills, grades, vertical curve details, horizontal curves and services.
- i. Any affected existing services shall be accurately located in the field by pot-holing or other buried service location techniques and shall be shown on cross sections.
 - ii. Street lighting layout: A separate plan showing location and Lux contours of each street light, plus location of cables.
 - iii. Earthworks and silt control plan: Separate plan showing existing and final contours, areas of cutting and filling together with depths relative to original ground level.



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- iv. Structural detail drawings.
- v. Ducting Plan: showing ducts for telecommunications, electricity, traffic lights, water connections etc.
- vi. Road signs and markings plan: including street names.
- vii. Pump station details.

1.3.3 Landscaping Plans

- 1.3.3.1 Refer to Parks and Reserves Section of this Code (Section 8) for details of requirements for landscaping plans and works on reserve areas.

1.3.4 Documentation

- 1.3.4.1 The following documentation (where applicable) is required to be submitted with the application for engineering plan approval:
 - a. Stormwater Catchment Plan and calculations: showing the catchment of each drainage system and over land flow paths, minimum floor levels for lots adjacent to flow paths, long sections and cross sections where necessary, as well as any likely downstream effects.
 - b. Wastewater catchment plan and calculations: if trunk wastewater mains are to be constructed, or if requested.
 - c. Existing drains: Where an existing private drain is to become part of the public system and the condition of the drainage line is in doubt, a video inspection and pressure test is required. Repairs or replacement shall be undertaken at the applicant's expense.
 - d. Road pavement design calculations.
 - e. Structural calculations.
 - f. Geotechnical stability calculations.



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- g. A design producer statement that states that all works have been designed in accordance with the appropriate standards and sound engineering practice (refer Schedule 1A NZS 4404:2010).
- h. Quality Plan: The Supervising Engineer shall submit an appropriate Quality Plan relevant to the nature of the application (eg. TQS 2 for roading work) and shall indicate a programme of inspection that should demonstrate an adequate level of inspection will be undertaken.
- i. Test results to support roading, pavement design, structural or geotechnical calculations.
- j. Written confirmation that the following items have or will be included in the physical works contract:
 - i. Construction management plan outlining methods to control dust and noise.
 - ii. Health and safety plan identifying any potential hazards and proposed measures of dealing with them.
 - iii. Copy of Earthworks and Silt Control plan submitted to the Regional Council.
- k. Identification of any work intended to be undertaken on other land owners' land e.g. where uncertified unsuitable fill or tree stumps are to be placed in reserves.
- l. Identification on a plan of any proposal to open cut excavate in existing roads. A road opening permit must be obtained from the Thames Coromandel District Council.
- m. Contract Specifications.
- n. Any resource consents associated with the works.



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1.4 CONSTRUCTION

1.4.1 Commencement of Works

1.4.1.1 Engineering works may not commence on any subdivision or land development unless resource consent (where applicable), engineering plan approval, and all other necessary consents or permits have been obtained.

1.4.1.2 A pre-construction meeting must be held with Council. Council will check that pre-construction conditions have been met before work may proceed.

1.4.1.3 Council shall be given 5 working days' notice by the Applicant of the intention to commence work. A minimum of 2 working days' notice shall be given for pre-construction meetings, final inspections or other inspections.

1.4.2 Supervision and Setting Out

1.4.2.1 The Applicant's Representative is to be engaged prior to commencement of any works, and shall supervise all engineering works and their setting out. The protection of any survey benchmarks during the duration of the works is mandatory.

1.4.2.2 In an urban or industrial environment where each development is consisting of more than 15 Lots or greater than 1 hectare in area, three survey benchmarks are to be established and registered with LINZ's (Land Information New Zealand) Geodetic network to an Order of 5 or better. Heights are to be published in the local MSL datum (Auckland Vertical Datum 1946, where appropriate) LINZ have advised they will process Order 5 marks within 5 working days provided their "Guidelines for Order 5 Survey Marks" is followed diligently. These benchmarks are to be protected and utilised throughout the course of the development.

1.4.3 Maintenance of Standards

1.4.3.1 It is the developer/applicant's responsibility, both directly and through his or her appointed representative, to ensure that all physical construction work carried out directly or by contractors or sub-contractors is at all times in accordance with the approved engineering plans.

1.4.4 Deviation from Approved Plans

1.4.4.1 Any deviations from the approved engineering plans, which may be necessary to meet particular circumstances, must be referred to Council for specific



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approval. A field amendment may be agreed to or an amended design may be requested. Such requests shall be documented and a variation issued.

1.4.5 Inspections

1.4.5.1 A Quality Assurance Programme indicating inspection procedure and self-audit compliance is to be agreed before commencement of the works. In addition Council will audit compliance with the conditions of consent by both site inspections and checking of associated documentation to the extent necessary, to ensure the work is completed in accordance with the approved engineering plans and specifications at to Council's standards. Council will undertake inspections and checking of conditions for a fee based on the hourly charge out rate for Council's representative carrying out the conditions auditing. The applicant shall notify Council at least two working days prior to commencing various stages of the works to enable audit inspections to be carried out.

1.4.5.2 Auditing of the site works shall be carried out as follows:

- a. Roding
 - i. Following shaping of roading and footpath subgrade prior to placement of sub base material.
 - ii. Following metalling up, prior to pouring of kerb and channel.
 - iii. Following completion of sub-base construction. This surface is to be tested with a Benkelman Beam, or other approved method, and the results submitted to Council for approval.
- b. Services
 - i. Testing of water, wastewater and stormwater mains and laterals.
 - ii. Following completion of required works. Disinfecting of water mains.
- c. Trenching
 - i. Prior to backfilling of service trenches.



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- d. Footpaths
 - i. Prior to pouring of footpaths.
- e. Entrances/Rights of Way
 - i. On completion of construction (excavation/compacted fill) to subgrade.
 - ii. Following compaction of base course prior to final surfacing.
- f. Additional Inspections: Where additional inspections are required due to faulty workmanship or work not being ready (contrary to the receipt of notification), such inspections will be carried out for an additional fee, for the additional hours required.

1.4.6 Emergency

- 1.4.6.1 If during construction works any situation arises whereby the security of the public or private property, or the operation of any public facility is endangered, Council may instruct the developer/applicant to carry out such remedial measures required to remove the danger. Any work so ordered to be done shall be at the expense of the developer/applicant.

1.4.7 Fencing

- 1.4.7.1 Temporary fencing shall be erected in accordance with the Health and Safety plan by the developer/applicant to protect the general public, particularly children, from all danger areas in the development including silt ponds. Signs shall be erected warning persons of the danger in the area.



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1.4.8 Wastewater, Stormwater and Water Supply Connections

1.4.8.1 Connection to Council's water supply reticulation network can only be undertaken by Council's Utilities Operations and Maintenance Contractor. This connection is subject to formal application and payment of appropriate fees by the applicant. All planned connections require a Council Field Representative's approval.

1.4.8.2 Connection to Council's Wastewater or Stormwater reticulation network may be undertaken by a Council approved contractor. These connections are subject to formal application and payment of appropriate fees by the applicant. All planned connections require a Council Field Representative's approval. (see Appendix H2, H3 and H4). Every connection, upon completion, must be inspected and certified by Council's Utilities Operations and Maintenance Contractor.

1.4.9 Testing

1.4.9.1 Any work requiring testing by or in the presence of Council should be pre-tested and proved satisfactory to the Applicant's Representative before any request for official testing.

1.4.9.2 Council shall be given at least two working days' notice of being required to witness or undertake inspections or tests. Note that in the event of tests for final acceptance being unsatisfactory, subsequent re-tests and re-inspection will result in additional charges to the developer.

1.4.9.3 Council, at their discretion, may require Close Circuit Television (CCTV) inspection of underground pipes laid in the course of the development. This will include but not be limited to wastewater and stormwater pipelines. Analysis of the CCTV results must be completed prior to final acceptance of the pipeline by the Council.

1.4.9.4 The cost of the CCTV operation and analysis of the results shall be at the expense of the developer.

1.4.9.5 Council does not monitor suppliers therefore supplier approval alone is not evidence that a product is satisfactory. In some cases products need to be checked for standards markings or certificate requested from the supplier (e.g. for elastomeric joint rings). In other cases testing is required (e.g. for basecourse metal).



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1.5 COMPLETION

- 1.5.1.1 Prior to the issue of the Engineering release Certificate, As-Built information is required to have been provided and certified, and other certificates provided as per Appendix G.

1.6 MAINTENANCE BONDS

1.6.1 Responsibility of Maintenance

- 1.6.1.1 Unless specifically excluded by a consent decision, the developer/applicant shall be responsible for the maintenance of all subdivision or development works vested in Council for a period of 12 months following the date of issue of the Engineering Release Certificate.

1.6.2 Maintenance Bond

- 1.6.2.1 A maintenance bond shall be lodged with Council for the maintenance period. If the subdivision or development is to be developed in stages the developer/applicant may apply to Council for approval for the maintenance bond to be deferred, provided any maintenance work required within the 12 month maintenance period is completed prior to the issue of an Engineering Release Certificate for the subsequent stage.
- 1.6.2.2 The maintenance bond shall be for a sum assessed as a percentage of the total cost of roading, wastewater and stormwater reticulation, water supply mains, and rights of way. The bond must be lodged in cash. The bond percentage shall be as determined from the following table:



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Value of Work	Bond
≤ \$50,000	10%
\$50,001 - \$100,000	8%
\$100,001 - \$250,000	6%
>\$250,000	5%

For example, for a total construction cost of \$135,000:

Up to \$50,000	@ 10% = \$5,000
\$50,001 to \$100,000	@ 8% = \$4,000
\$100,001 to \$135,000	@ 6% = \$2,100
<i>Total bond = \$11,100</i>	

1.6.2.3 A separate bond will be required for landscape maintenance for a period of 18 months (refer to the Parks and Reserves Section 8)

1.6.3 Definition of Maintenance

1.6.3.1 Maintenance shall include appropriate and regular mowing of grass and watering of all plants and trees together with the replacement of any dead specimens. The water is to be to the account of the applicant.

1.6.4 Maintenance Certificate

1.6.4.1 At the end of the maintenance period, and provided all maintenance matters and defects have been remedied, the Council will issue a Maintenance Certificate, following which any maintenance bonds will be released.

1.7 DEFECTS

1.7.1.1 Council's receipt and acceptance of As-Built plans does not absolve the developer/applicant of any responsibility for the plans' accuracy. In the event of a connection not being found where shown on the As-Built plan, Council will verify the As-Built information with the applicant and give the applicant 48



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hours to rectify the situation. If no action has been taken within 48 hours Council will arrange for another connection to be installed and charge the applicant accordingly.

- 1.7.1.2 When public drainage and water main systems have been connected to the live system, the maintenance and operation of these becomes the responsibility of Council. However the developer/applicant remains financially responsible for any defects.