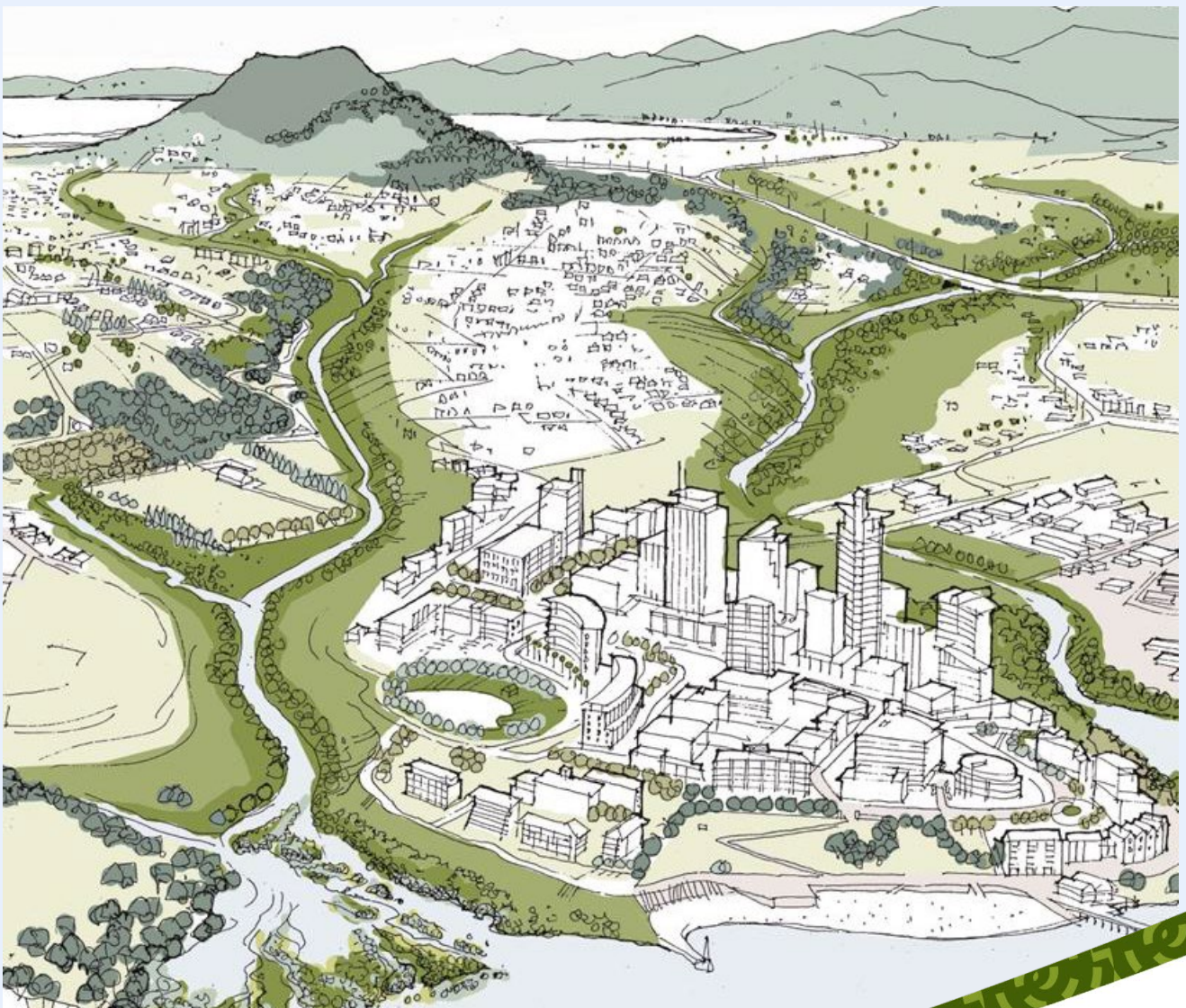


The Auckland Code of Practice for Land Development and Subdivision

Chapter 1: General Requirements

Version 1.0

December 2016



Document control

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Purpose	To provide an overview of the approvals and processes required for land development, re-development and subdivision, with particular reference to public infrastructure.
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Version history

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Approval for Version 1.0

Reviewed	Branko Veljanovski, Engineering Design Services Manager
Approved	Sarah Sinclair, Chief Engineer

Acknowledgements

Although specific to Auckland's needs, this chapter of the Code of Practice and technical chapters 2 to 7 cover many of the same matters as NZS4404:2010 - Land Development and Subdivision.

Thank you to our colleagues from Auckland Council, Auckland Transport and Watercare who have given generously of their time and expertise.

Feedback

Please email EngineeringStandards@aucklandcouncil.govt.nz with your comments and suggestions.

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1.0 General requirements

1.1 Introduction

1.1.1 Purpose of the Auckland Code of Practice for Land Development and Subdivision

Auckland Council (Council) and its Council-Controlled Organisations (CCOs)¹ are responsible for assessing that land development, re-development and subdivisions (hereafter referred to collectively as 'land development') comply with all relevant legislative requirements.

The purpose of the Auckland Code of Practice for Land Development and Subdivision (Code of Practice, or CoP) is to ensure that:

- Public infrastructure is fit-for-purpose, resilient and complies with all relevant legislative requirements
- Council and its CCOs can fulfil their statutory obligations.

The purpose of Chapter 1 of the Code of Practice is to provide developers, their agents and others involved with land development with guidance on:

- The overall requirements and process that must be followed to successfully obtain the relevant consents and approvals needed for land development
- How to comply with the various regulatory requirements that arise when designing and constructing the infrastructure needed to service land to be developed or re-developed, in particular, infrastructure or other assets that are to become public assets through a vesting process
- Any other engineering-related aspects of land development.

Chapter 1 of the Code of Practice provides the context for the technical chapters that follow and that make up the bulk of the Code. It focuses on the engineering plan approval process, which is the key mechanism for ensuring the safety and functionality of public infrastructure, and directs the reader to the specific chapters that contain the relevant technical requirements.

¹ The CCOs that, together with Council, are responsible for this Code of Practice are:

- Auckland Transport, which is responsible for public transport and transport infrastructure, and
- Watercare Services Limited (Watercare), which provides water supply and wastewater infrastructure.

1.1.2 Scope of the Auckland Code of Practice for land development and subdivision

The Code of Practice sets out the minimum technical standards for any infrastructure that is constructed by developers as part of their land development project, and that is intended to be publicly owned and operated after the asset/s has been vested in (transferred to) Council.

The Code of Practice also sets out a mechanism for achieving compliance when site-specific challenges are encountered.

Overall, the Code of Practice will assist land developers to comply with the relevant policies and rules set out in the Auckland Unitary Plan.

1.1.3 Chapter overview

The Auckland Code of Practice for Land Development and Subdivision is a 'living document'. It will be updated regularly and may be extended by adding new chapters when required. The Code of Practice is provided by Council, Auckland Transport and Watercare. It is available for download on the Auckland Design Manual website <https://www.aucklanddesignmanual.co.nz/en/developing-infrastructure/infrastructure-codes-of-practice.html>.

Chapter	Title	Content
1	General Requirements and Procedures	<p>This chapter outlines the statutory framework that underpins the key approval processes for land development – resource consents, engineering plan approval and building consents – and other matters that should be considered when undertaking land development.</p> <p>Although the Code of Practice is primarily a technical document setting out the minimum requirements for the engineering and infrastructure-related aspects of land development, Chapter 1 provides a brief outline of the other approval processes involved to provide context, and to show how these are related to each other.</p>
2	Earthworks and Geotechnical Requirements	<p>Chapter 2 addresses the minimum requirements for the assessment of land stability and the design and control of the earthworks that are necessary to create a suitable platform for the construction of buildings (including residential dwellings), roads, infrastructure and other structures. In particular, this chapter sets out design requirements, describes how works are approved, the standards to be met in construction and final documentation procedures.</p>
3	Transport	<p>This chapter provides detail on the minimum standards that ensure that the function, condition and useful service life of transport assets is consistently achieved across the region. The standards cover all areas of transport including, but not limited to, transport planning, road classifications, road elements and layouts, signs, road marking, parking, public transport, pedestrian and cycling facilities, earthworks, landscaping, structures, street amenity, lighting, access, maintenance, traffic management and vesting of assets.</p> <p>This chapter is prepared and owned by Auckland Transport, which is responsible for maintaining the information therein.</p>

Chapter	Title	Content
4	Stormwater	The stormwater chapter sets out the minimum standards for the design and construction of new public stormwater assets, and assets that are to be vested in Council ownership, and describes approaches to achieving required performance outcomes. In particular, Chapter 4 provides guidance on how to work with Council to obtain engineering plan approval for stormwater assets.
5	Wastewater	<p>This chapter sets out minimum standards for the provision of wastewater infrastructure within the context of land development and subdivision. It specifies the standards that must be complied with to obtain Watercare's approval for connecting new wastewater infrastructure and the subsequent vesting of such infrastructure.</p> <p>This chapter is prepared and owned by Watercare, which is responsible for maintaining the information therein.</p>
6	Water	<p>Chapter 6 provides the minimum standards for the provision of water supply infrastructure, in a manner similar to Chapter 5.</p> <p>This chapter is prepared and owned by Watercare, which is responsible for maintaining the information therein.</p>
7	Green Infrastructure and Landscaping	This chapter is currently being developed. It will set out minimum requirements for the design, construction and maintenance of green infrastructure (trees, shrubs, grasses and aquatic plants) in parks and public open spaces that are intended to be vested in Council as part of the land development process.
8	Integrated Provision of Infrastructure Utilities	<p>Chapter 8 is currently being scoped. It is expected that this chapter will address how the different utilities (such as stormwater, wastewater, water supply, power, telecommunications and gas) can be provided in the most efficient and integrated manner by setting out staging, combined trenching requirements and related matters.</p> <p>The title of this chapter is subject to change.</p>

A glossary and list of abbreviations are also provided. Further chapters and/or appendices may be added in the future.

1.1.4 Future revisions

The Auckland Code of Practice for Land Development and Subdivision, either in its entirety or individual chapters will be updated and revised periodically, generally in response to changes in legislation, policies, national standards, technologies and feedback from practitioners and users.

Where such revisions are significant, key stakeholders will be consulted and provided with the opportunity to provide feedback.

A feedback form for general use is available to download from

<https://www.aucklanddesignmanual.co.nz/en/developing-infrastructure/infrastructure-codes-of-practice.html>.

It is the responsibility of the reader to ensure that they are using the current version of the Code of Practice, which can be accessed at <https://www.aucklanddesignmanual.co.nz/en/developing-infrastructure/infrastructure-codes-of-practice.html>.

1.2 Statutory framework

1.2.1 Context

Everyone involved in land development, including Council as the regulatory authority and Council and its CCOs as service delivery organisations (service providers) and public infrastructure asset owners (asset owners), is subject to a range of statutory obligations. The Auckland Code of Practice for Land Development and Subdivision has been developed to assist with meeting these obligations, which are set out below.

Statutory requirements apply in the form of legislation, National Environmental Policies and Standards under the Resource Management Act 1991 (RMA), the Auckland Unitary Plan, and local bylaws.

1.2.2 Resource Management Act 1991

The RMA is the principal legislation controlling the development of land. It provides for both national (National Policy Statements and National Environmental Standards) and local (regional and district plans) regulatory instruments to set specific rules and regulations governing subdivision and land use to achieve the sustainable management of its natural and physical resources. The Act also identifies matters of national importance (Section 6), which includes the protection of historic heritage from inappropriate subdivision, use, and development, and acknowledges the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.

In Auckland, the RMA is implemented through the Auckland Unitary Plan.

In recent years, the RMA has undergone a number of reforms. The reform proposals currently under way (Resource Legislation Amendment Bill 2015) are particularly significant with respect to land development activities. Among other things, the Bill seeks to introduce a new regulation-making power to permit specified land uses so as to avoid unreasonable restrictions on land use for residential development. If and when these proposed changes pass into law, the relevant chapters of this Code of Practice will be updated accordingly.

1.2.2.1 National Policy Statements

National Policy Statements are prepared under the RMA and state objectives and policies for matters of national significance. Local authorities are obliged to include these into their planning documents. At present, four National Policy Statements are in force, of which the first two are particularly relevant for land development:

- 1) New Zealand Coastal Policy Statement

- 2) National Policy Statement for Freshwater Management
- 3) National Policy Statement for Renewable Electricity Generation
- 4) National Policy Statement on Electricity Transmission.

The National Policy Statement on Urban Development Capacity 2016 will come into effect on 1 December 2016, with all objectives and certain policies having immediate legal effect. The balance of this National Policy Statement comes into force in stages over the next two years (until 31 December 2018).

1.2.2.2 National Environmental Standards

National Environmental Standards are regulations issued under Section 43 of the RMA. They prescribe technical standards, methods and/or other requirements for environmental matters. Local authorities are required to enforce these standards, but can also impose stricter standards.

The following standards are currently in force, and have a direct influence on the resource consent process:

- 1) National Environmental Standards for Air Quality
- 2) National Environmental Standard for Sources of Drinking Water
- 3) National Environmental Standards for Telecommunication Facilities
- 4) National Environmental Standard for Electricity Transmission Activities
- 5) National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health.

1.2.3 Building Act 2004, Building Regulations 1992 and Building Code

The Building Act provides a national framework for building control to ensure that buildings and associated infrastructure are safe, sanitary and have suitable means of escape from fire. The Building Regulations (and the Building Code contained in the Regulations) set out the mandatory requirements and performance criteria that buildings, including relevant infrastructure components, need to comply with. Council is a regulatory authority under the Building Act, and is responsible for ensuring that buildings and structures comply with the Act and the Building Code.

The building consent process is an integral part of most land development activities.

1.2.4 Local Government Acts 2002 and 1974

The Local Government Act 2002 provides the general framework and powers under which New Zealand's local authorities operate. The legislation addresses governance issues as well as providing a framework for consultation, planning, decision-making, financial management, and reporting (such as long-term plans, annual plans and annual reports). It is directly relevant to this Code of Practice because it also sets out a range of obligations, restrictions and powers that potentially affect land development, primarily related to water services and access to services.

The Local Government Act also provides local authorities with the power to make bylaws. Several bylaws related to infrastructure exist in Auckland.

Under the Local Government Act, Council and its CCOs are also required to ensure that their assets are managed prudently and efficiently². This includes infrastructure assets that become public assets through a vesting process. Council, Auckland Transport and Watercare are therefore obligated by law to ensure that the infrastructure assets they accept are fit-for-purpose and do not impose an undue burden on the community. In order to satisfy themselves that this is the case, approvals other than resource consents, building consents and engineering plan approval may be required as part of the land development process.

Although most of the Local Government Act 1974 was repealed when the Local Government Act 2002 was enacted, some sections (providing for the management of roads, transport, navigation, drainage, rivers and waste management) still apply.

1.2.5 Heritage New Zealand Pouhere Taonga Act 2014

This Act regulates the modification of archaeological sites on all land and provides for substantial penalties for unauthorised destruction, damage, or modification of these sites. The Act is administered by Heritage New Zealand, which issues four types of Archaeological Authorities³. It is advisable to investigate whether an Archaeological Authority from Heritage New Zealand may be required when developing land, because the Act's provisions apply regardless of whether:

- The site is registered or recorded by Council in planning documents
- The land on which the site is located is designated
- The activity is permitted under the Auckland Unitary Plan (including legacy plans where these still apply)
- A resource or building consent has been granted.

1.2.6 The Reserves Act 1977 and Conservation Act 1987

The Reserves Act provides for the preservation and management of reserves, while the Conservation Act is the primary tool for managing land for conservation, through the Department of Conservation. Where land development potentially involves conservation land or reserves, the provisions of these Acts are likely to be relevant, especially with respect to covenants, easements (Section 48 of the Reserves Act) or land exchanges or disposal (Section 15 of the Reserves Act). Under the RMA, any land vested on subdivision as a reserve shall be subject to the Reserves Act.

The Resource Legislation Amendment Bill 2015 aims to amend both of these Acts to avoid duplication and clarify roles and responsibilities.

² Local Government Act 2002, Section 14(1)(g) and Section 101(1)

³ General Authority, General Authority for a site where the effect will be no more than minor, Scientific Authority and Exploratory Authority.

1.2.7 The Health and Safety at Work Act 2015 and Regulations (2016)

This Act seeks to protect workers and other persons from harm to their health, safety and welfare by eliminating or minimising risks arising from work or equipment. It is of particular relevance with respect to the design and construction of infrastructure. For example, infrastructure design significantly influences future requirements for maintenance and operation, and therefore plays a key role in creating a safe workplace for those undertaking operation, maintenance and demolition activities. Health and safety in the workplace is therefore not only a matter of safe work practices and procedures, but should also be supported by good design decisions.

The Act also requires collaboration between stakeholders involved in managing a site or a workplace.

1.2.8 Public Works Act 1981

Council must comply with the Public Works Act 1981, which sets out the procedures for the acquisition of land for government and local works.

1.2.9 Auckland Unitary Plan

All land development activities are subject to assessment against the statutory requirements set out in the Auckland Unitary Plan and - until the sections of the Plan that are under appeal become fully operative – the relevant provisions in the legacy plans. The Plan replaces the previous Regional Policy Statement and 13 district and regional plans and provides the regulatory framework for the management of Auckland's natural and physical resources.

The provisions of the Auckland Unitary Plan are implemented through the resource consent process. Some land development activities are Permitted Activities under the Plan; however, other approvals may still be required and Council should be consulted to ensure that all necessary approvals are identified and are being sought (Section 1.5.7).

1.2.10 Bylaws

1.2.10.1 Stormwater Bylaw 2015

The Auckland Council Stormwater Bylaw came into effect on 1 November 2015. Its key purpose is to provide a consistent regulatory approach for managing the public stormwater network across Auckland. The bylaw:

- Ensures that the public stormwater network and private stormwater systems are of a consistently high standard throughout Auckland
- Requires on-site stormwater devices on private land to be well maintained, as they form part of the wider stormwater network
- Manages activities on private property that have adverse impacts on the public stormwater network
- Enables Council to develop stormwater controls for specific areas and local issues.

1.2.10.2 Water Supply and Wastewater Network Bylaw 2015

The Auckland Council Water Supply and Wastewater Network Bylaw 2015 became operational on 1 July 2015. It is administered by Watercare on behalf of Council to:

- Protect the public water supply and wastewater networks from damage, misuse and interference
- Protect water quality and prohibit inflow, unpermitted infiltration and the discharge of stormwater to the wastewater network
- Manage the provision of reliable, safe and efficient water supply and wastewater services in Auckland to standards set by Watercare
- Connect and disconnect water and wastewater services
- Define the point of supply.

1.2.10.3 Auckland Transport bylaws

Auckland Transport administers a number of operative bylaws governing issues related to transportation within the Auckland region:

- Traffic Bylaw 2013, which allows Auckland Transport to set requirements for parking and control of traffic on roads under the care, control, or management of Auckland Transport
- Election Signs Bylaw 2013, which sets out provisions to regulate election signs to be displayed on specified public sites, on vehicles and on private sites
- Speed Limits Bylaw 2012, which determines the speed limits applicable in Auckland
- Public Safety and Nuisance Bylaw 2013, which controls activities on roads and public transport infrastructure
- Trading and Events in Public Places Bylaw 2013, which regulates trading in public places (including the regulation of mobile shops) and road-related matters, including enhancing road safety and protection of the environment
- Signage Bylaw 2015, which seeks to ensure signage does not compromise vehicular or pedestrian safety by introducing general requirements for all signage (except election signs).

1.3 Additional considerations

1.3.1 Safety in Design

Safety in Design is a practice that integrates risk management techniques into the design process to identify, assess and mitigate health and safety risks to people over the life of an asset. The Safety in Design principle generally extends to incorporating safety in construction, safety in ongoing operation and maintenance and safe disposal and demolition. Over the last 20 years, internationally, it has been increasingly recognised as best practice. In New Zealand, Safety in Design is addressed in the Health and Safety at Work Act 2015, in particular Section 39 (design responsibilities) and Section 34 (consultation).

Safety in Design should commence early in the design process to eliminate, substantially reduce or mitigate a hazard by considering the full life cycle of an asset or project in order to minimise the risks of death, injury or illness to those who will construct, operate, maintain, inspect, decommission and demolish the asset.

Safety in Design requires effective collaboration between 'Person(s) Conducting a Business or Undertaking', including engineers, health and safety professionals, regulators, operational and construction staff and other decision makers. Recording and reporting of the Safety in Design process is critical to inform future design, construction and operation teams to prepare for and manage risks. This information is also important for the future asset owners⁴ for asset and risk management.

Council and its CCOs will not accept assets that are considered to be unsafe to use, maintain or operate. Where infrastructure is to be vested in Council as part of the land development process, Safety in Design requirements should be addressed during the Pre-Application Phase (Section 1.5.7) and throughout construction.

1.3.2 Urban design protocol

The New Zealand Urban Design Protocol (published by the Ministry for the Environment in 2005) seeks to ensure that the design of the buildings, places, spaces and networks that make up New Zealand's towns and cities are suitable and appropriate for the community as a whole now and in the future. The relevant chapters of this Code of Practice include minimum requirements and recommended best practice that support the urban design protocol principles, which are:

- 1) Context: seeing that buildings, places, and spaces are part of the whole town or city
- 2) Character: reflecting and enhancing the distinctive character, heritage, and identity of our urban environment
- 3) Choice: ensuring diversity and choice for people

⁴ Public infrastructure asset owners are:

- Council for stormwater assets, parks, public open space and other community facilities
- Auckland Transport for any transport-related assets such as roads and footpaths
- Watercare for any water supply and wastewater assets.

- 4) Connections: enhancing how different networks link together for people
- 5) Creativity: encouraging innovative and imaginative solutions
- 6) Custodianship: ensuring design is environmentally sustainable, safe, and healthy
- 7) Collaboration: communicating and sharing knowledge across sectors, professions, and with communities.

1.3.3 Auckland Design Manual

The Auckland Design Manual supports the implementation of Council's obligations as a signatory to the Ministry for the Environment's Urban Design Protocol, and the Auckland Unitary Plan. It is a 'best practice' resource for everyone involved in design, building and development to either share their design approaches, or to seek inspiration, tools and best practice advice from others. The manual continues to evolve and develop.

While the Auckland Unitary Plan provides the regulatory framework for future growth, the Auckland Design Manual is an information resource describing how to achieve the quality outcomes sought by the Plan.

The Auckland Design Manual website, <http://www.aucklanddesignmanual.co.nz/> is also the portal for all information and documentation associated with this Code of Practice.

1.3.4 Technical and guideline publications

Council, its CCOs and other organisations provide numerous publications on technical requirements and guidance documents that are relevant to various aspects of land development. These can be found through the Auckland Design Manual website.

The publications are subject to revisions to ensure that they provide up-to-date information. It is the responsibility of developers and designers to make certain that they are using a current version of all publications.

1.3.5 Water sensitive design

Water sensitive design, also referred to as Integrated Stormwater Management Approach, is both a design approach and a range of structural techniques that can be applied to urban development, particularly with respect to stormwater management. Water sensitive design provides an opportunity to identify and recognise natural components such as vegetation and soil structure and to integrate these into the design of new developments to minimise environmental impacts or enhance natural features. The integration of natural processes in the design stage of a development can result in more attractive, multi-functional landscapes with greater social, environmental, cultural, and transport outcomes, as well as contribute to greater resilience of infrastructure. The incorporation of water sensitive design principles is supported through the regulatory framework of the Auckland Unitary Plan and is Council's preferred approach for designing and constructing public infrastructure.

Specific information and requirements with respect to water sensitive design are set out in the relevant chapters of this Code of Practice.

Further information is provided in Auckland Council Guideline Document GD2015/004: Water Sensitive Design for Stormwater (known as GD04), which can be downloaded from the Auckland Design Manual website.

1.3.6 Natural hazards

Auckland is affected by a wide range of natural hazards, ranging from those that tend to recur within shorter time spans to those that occur rarely such as volcanic eruptions, tsunamis and earthquakes. To understand these hazards, Council has adopted a risk-based approach (risk is defined as a result of the likelihood and consequences of an event occurring) and is developing a strategic framework for building resilience to natural hazard events into our built environment and communities (Natural Hazards Risk Management Action Plan, 2017). Within this framework, the risk associated with some hazards is expected to increase as the result of climate change over time.

The Auckland Unitary Plan provides the regulatory framework for managing natural hazards in chapter E36, focusing on risk management and mitigation and specifically referring to managing land use and subdivision to avoid (where practicable), or not increase, natural hazard risk. A natural hazards risk management approach is therefore expected to be incorporated into the design and implementation of land development proposals.

1.3.7 Climate change

Climate change is expected to increase the likelihood and magnitude of some natural hazards in the future, and Auckland's infrastructure must be sufficiently resilient to withstand increasingly severe hazard events. Recent amendments to the RMA 1991, the Local Government Act 2002 and the Building Act 2004 require local authorities to have particular regard to the effects of climate change when making decisions under these Acts.

The Government is reviewing the updated assessment of the science of climate change in the Intergovernmental Panel on Climate Change Working Group I Report, and will then determine whether a National Environmental Standard on future sea-level rise is required.

To ensure that infrastructure for land development and subdivision is capable of providing for the impact of sea level rise, the increased frequency of extreme weather events and other natural hazard events exacerbated by climate change, Council expects that climate change-focused risk management processes are incorporated into the design of infrastructure and hazard risk management for new developments.

Specific information on this aspect is provided in the relevant chapters of this Code of Practice.

1.4 Requirement for professional qualifications and competencies

Council and its CCOs require that the engineering and other technical aspects of land development projects that need engineering plan approval are undertaken, supervised and certified by 'Suitably Qualified and Experienced Persons'. In general, the required level of competency and qualifications is commensurate with the scale of the project and the overall risk.

The specific qualification and competency requirements are either set out in the relevant chapters of this Code of Practice, or are specified in related documents available from the relevant asset owner. Qualification and competency requirements may be updated from time to time and it is the responsibility of the land developer and their agents to ensure that current requirements are complied with.

The Auckland Unitary Plan⁵ defines a Suitably Qualified and Experienced Person as "A person who can provide sufficient evidence to demonstrate their suitability and competence". Such evidence is likely to include, but not be limited to:

- Formal and relevant qualifications
- Several years of experience in the field/area of expertise
- Demonstrated competence in the practice area, appropriate to the type and scale of project
- Membership of an applicable professional organisation, as specified in the relevant chapter(s) of this Code of Practice or associated documents and required by Council and/or the relevant asset owner
- Evidence of continued professional development, such as evidence of successful completion of technical courses, assignments or projects
- Knowledge of, and proficiency in, quality assurance policies and procedures
- Demonstrated knowledge of and compliance with the requirements of the Health and Safety at Work Act 2015
- Declarations of any potential conflicts of interest
- Access to and demonstrated experience in the use of appropriate equipment.

Appropriate levels of professional indemnity insurance based on the value of construction and/or the land development project, and proof of insurance will also be required.

Even where certification by a qualified professional is not specifically required as part of an application for resource consent, building consent or engineering plan approval, Council generally advises that professional advice and support is sought as this will likely result in shorter project timeframes as well as cost savings over the long run. A brief general overview of the professional services required or recommended for different stages of the land development process is shown in Table 1.

⁵ Proposed Auckland Unitary Plan Decisions Version, 19 August 2016.

Generally, the qualification required corresponds with the nature of the work or development component that is being certified. To cover all stages of design, construction and completion more than one certificate or producer statement may be required in order to obtain final engineering plan approval. For example, an electrical engineer cannot sign off on a civil structural work component, or vice versa.

In all cases, the provisions of this Code of Practice or other documents such as the Auckland Unitary Plan do not reduce the responsibility of any professional to exercise their professional and/or engineering judgement and devise appropriate solutions for the particular requirements, for example site conditions, of each development.

Table 1: Overview of professional qualifications relevant for various aspects of the land development process

Process component	Task	Required Qualification
Planning	<ul style="list-style-type: none"> Preparation of plan change, structure plan or similar 	<ul style="list-style-type: none"> Planning professional (recommended)
Resource consents	<ul style="list-style-type: none"> Preparation of consent application(s) and assessment of effects on the environment 	<ul style="list-style-type: none"> Planning professional (recommended) Engineering professional (depending on the scope of the project) (recommended) Landscaping professional (if the project involves walkways, plantings and similar in public open space) (recommended)
Engineering plan approval	Stage 1 – Design: <ul style="list-style-type: none"> Geotechnical Investigations Design calculations and report Design certificates and producer statements 	<ul style="list-style-type: none"> Investigations - Engineering geology professional Design and calculations – Engineering professional Geospatial drawings – Surveying professional Technical drawings – Suitably qualified and experienced technical draughtsman Landscaping drawings – Landscaping professional
	Stage 2 – Construction <ul style="list-style-type: none"> Construction quality control, monitoring and certification Material quality control and certifications Testing of materials and structures 	<ul style="list-style-type: none"> Suitably qualified and experienced persons or engineering professional, as specified
	Stage 3 – Completion and handover	<ul style="list-style-type: none"> The relevant professional responsible for the design (Stage 1)
Building consent	<ul style="list-style-type: none"> Preparation of consent application, drawings and plans Producer statements 	<ul style="list-style-type: none"> Architect or other design professional Engineering professional Persons listed in Council's Approved (Producer Statement) Author Register as being suitable for certain work

1.5 Land development approval requirements

1.5.1 Introduction

Land development is subject to a wide range of approvals under several pieces of legislation. In general, the services of relevant professionals such as planners and engineers should be secured to clearly determine the full range of land development approval requirements, and Council's advice should be sought from the outset (Section 1.5.7).

The relevant chapters of this Code of Practice contain detailed information and minimum standards that must be complied with in order to obtain engineering plan approval for any infrastructure that is to be vested in Council as public infrastructure, as well as engineering detail relating to other aspects of land development.

However, the engineering plan approval process does not occur in isolation and is embedded in a wider set of regulatory and other requirements. This section provides a brief overview of the various consents and approvals that are likely to be required for land development projects.

1.5.2 The planning process

In some instances – often related to greenfield development and depending on the scale of the proposed development – one or more land use planning processes may precede the consenting and infrastructure approval process. Although not immediately relevant to obtaining engineering plan approval, the provisions contained in such plans may affect the subsequent consenting requirements and influence timeframes for land development. Land use planning projects may be initiated by the land developer(s) or Council, and can include:

- **Private or public plan changes**, which seek to change existing or introduce new provisions to an operative district or regional plan (in Auckland, the Auckland Unitary Plan), for example to rezone land to provide for residential expansion or rural residential development, the creation of a business park or a new town development, or to amend rules relating to building design controls.
- **Area plans and master plans**. In Auckland, Council seeks to develop 21 area plans based on the same geographic areas as local boards. These plans aim to provide long-term strategic direction to progressively inform land use policy in the Auckland Unitary Plan.
- **Precinct plans**, which guide development and land use for particular parts of an area. These plans are aimed at managing residential use of the land and also set out future planning aspirations for small site-specific areas.
- **Structure plans**, which establish the pattern of land use and the transport and services network within a defined area, and will be developed for areas zoned 'Future Urban' in the Auckland Unitary Plan. A structure plan may also be prepared where a landowner seeks to re-zone large areas of land. Structure plans are incorporated in to the Auckland Unitary Plan by way of a plan change, and can be initiated by Council or private entities.

1.5.3 Resource Consents

Depending on the scale of the proposed land development, one or more resource consents will be required. There are five types of resource consent:

- 1) **Subdivision consents**, which are needed to obtain separate titles for parcels of land, including cross-leases and unit titles
- 2) **Land use consents**, which authorise general land use as well as the use of lakes and river beds
- 3) **Coastal permits**, which are consents that authorise activities in the coastal marine area such as building, reclamation, depositing of any substance, disturbing the foreshore or seabed, introducing plants, occupying the coastal marine area and removing natural material, discharging contaminants to the coastal marine area; and the take, use, damming or diversion of coastal water
- 4) **Water permits**, which authorise the taking, diversion, damming or use of water
- 5) **Discharge permits**, which authorise the discharge of contaminants into the environment (air, land or water).

For land development activities, the most likely consents that will be needed are subdivision and land use consents.

Discharge consents are normally required for the diversion and discharge of stormwater, and the discharge of wastewater from a wastewater network. However, discharges from stormwater and wastewater assets that are to be vested in Council as public assets⁶ may already be authorised by:

- An existing stormwater discharge consent held by Council for discharges and diversion of stormwater in certain areas or catchments
- The Auckland-wide wastewater network discharge consent held by Watercare.

Stormwater or wastewater discharges from infrastructure that is intended to remain in private ownership are likely to require discharge consent.

The Auckland Unitary Plan (and its legacy plans until it is fully operative) provides the information necessary to determine what consents are required for any given proposal. This is determined by the type and location of the activity involved. Some land development projects may require consultation with Mana Whenua⁷, which should be initiated as early as possible.

A key factor for the successful granting of consents is the quality and extent of information provided with the consent application. The Auckland Unitary Plan provides detailed guidance on the level and type of information required, which can range from the basic information common to all applications to also including a number of specialist reports and/or assessments such as ecological, cultural impact and/or heritage assessments.

⁶ For stormwater infrastructure, this could be assets that connect into the existing stormwater network or assets such as a new local stormwater network with a direct discharge to the environment.

⁷ The local Tangata Whenua ("People of the Land"); those with tribal links to Tāmaki Makaurau/Auckland.

When consents are granted, they will normally include a number of conditions addressing the mitigation of effects and/or monitoring. In most cases, a key condition of the subdivision consent is the need to obtain engineering plan approval for new infrastructure prior to commencing construction. It is therefore important that planning for infrastructure at the consenting stage includes an in-depth understanding of how to comply with the requirements of this Code of Practice, so that any challenges can be identified and addressed.

1.5.4 Building Consent

A building consent is Council's written authority to carry out building work. The work is considered to comply with the Building Code if it is completed in accordance with the plans and specifications submitted with the building consent application. Building consents are required under the Building Act 2004 for many construction activities, to ensure that the building work and the completed building or structure is safe, durable and does not endanger the health and well-being of current and potential future users. Works and structures for which a building consent is needed include, but are not limited to:

- Any structural building including new buildings, additions, alterations, accessory buildings (sheds), and re-piling
- Plumbing and drainage
- Heating (fireplaces), ventilation and air conditioning systems
- Site works for a building
- Most retaining walls and some fences
- Swimming pools
- Decks more than 1.5 m from ground level.

The statutory timeframe for processing building consent applications is 20 working days (Section 48 (1A), Building Act 2004). Once the building consent is granted, work must begin within 12 months, although extension of this timeframe for up to 12 additional months can be applied for. If a building consent is not exercised immediately, Council may undertake a review of the consent when works commence to ensure that health and safety requirements can be complied with.

When building commences, Council will undertake inspections as required while the works are being undertaken. Provided that the works comply, Council will issue a Code Compliance Certificate within two years of granting of the building consent for the particular building work.

In some circumstances, a building consent may be issued with a 'Section 37' Certificate, which prohibits work commencing until identified resource management issues have been resolved.

As is the case with resource consent applications, the provision of sufficient and high quality information is critical for the acceptance of the application and the efficiency of the consenting process. Information requirements are provided on Council's website. They range from plans, drawings and project-specific design calculations to more specialised information such as an emergency services plan for premises intended for public use.

1.5.5 Engineering plan approval

1.5.5.1 Overview

Engineering plan approval is an integral part of the land development process and is generally required by a condition of the subdivision consent. This approval seeks to ensure that any engineering works undertaken by land developers and private property owners to construct infrastructure assets that will be vested in Council and thus become public infrastructure⁸, meet the required standards. This includes ensuring that the completed assets are safe and fit for the intended purpose over the term of their design life and do not become a significant financial burden to ratepayers.

Infrastructure assets subject to engineering plan approval include, but are not limited to:

- Transport infrastructure such as roading, cycle ways and footpaths
- Water supply and wastewater infrastructure such as pipes, pump stations and ancillary assets
- Stormwater infrastructure such as pipes, swales, manholes and stormwater quality improvement devices (wetlands, ponds, rain gardens etc.)
- Natural and built structures in public spaces such as landscaping, public toilets, recreational facilities etc.

Unless engineering plan approval is obtained, the subdivision consent has not been fully complied with and no Section 224(c) Certificate⁹ can be issued.

The relevant chapters of this Code of Practice set out the detailed requirements, minimum standards and specifications that must be complied with in order to obtain engineering plan approval from Council.

The engineering plan approval is issued by Council's Development Engineering Department. The Development Engineer coordinates any specialist involvement by the relevant asset owners, depending on:

- The scale and complexity of the land development proposal, and
- Whether or not the minimum standards set out in the relevant chapters of this Code of Practice are complied with or alternative design(s) need to be considered.

⁸ Infrastructure assets that are to become publicly owned are turned over to Council through a vesting process. Council then transfers the asset(s) to Watercare if they are water supply or wastewater infrastructure, or Auckland Transport if they are roading infrastructure.

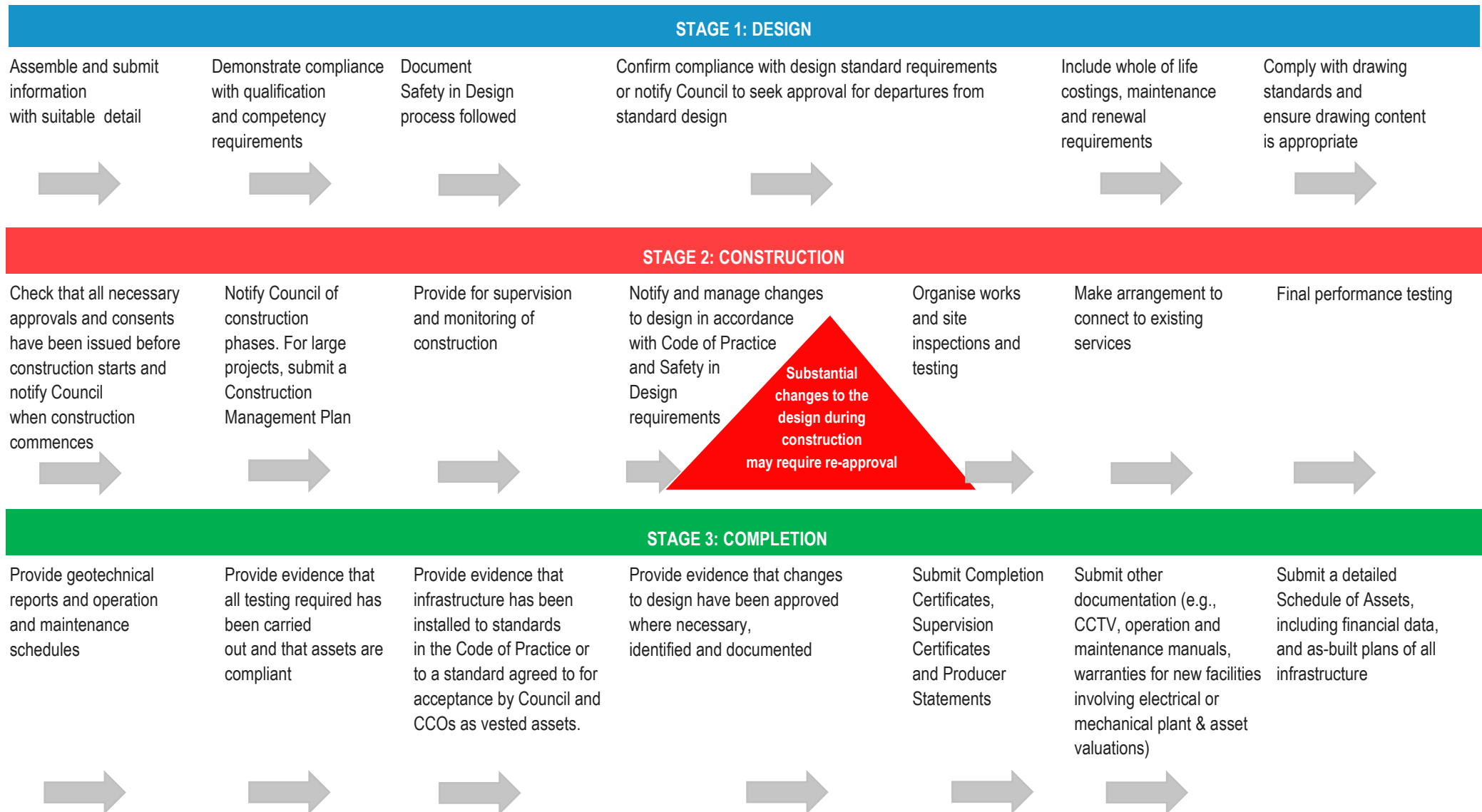
⁹ The Section 224(c) Certificate (issued under the Resource Management Act 1991) is one of the key documents needed to obtain Land Title.

The engineering plan approval process has three stages, as shown in Figure 1:

- 1) **Design.** This stage includes assessment and approval of the proposal.
- 2) **Construction.** This stage includes monitoring and inspection, including assessment of any significant changes to the proposed asset during construction
- 3) **Completion.** This stage includes documentation and hand-over, including commissioning and maintenance requirements.

The specific technical detail and minimum standards for each type of infrastructure asset are set out in the relevant chapters of this Code of Practice. The requirements set out in the technical chapters take precedence over the summary information provided in this chapter.

Figure 1: Overview of engineering plan approval stages



1.5.5.2 Stage 1: Design

a) Processing timeframe

In contrast to the statutory timeframe prescribed by the RMA for resource consent(s) processing, there is no statutory timeframe for the assessment and granting of engineering plan approvals. However, Council has adopted a performance target of granting approval for the design of the proposed infrastructure and associated works within 20 working days from the date of receiving the engineering plan approval application, provided that Council accepts the application. Acceptance of the application is dependent on whether all necessary information (which is likely to vary in accordance with the project's complexity) has been submitted in the required format and detail.

b) Information requirements

Information to be submitted with an engineering plan approval application includes:

- 1) The completed application form, signed by a Suitably Qualified and Experienced Person and the applicant or their agent. The level and type of qualification required is set out in the relevant chapters of this Code of Practice.
- 2) Design and construction documentation including drawings, specifications, engineering standard details and calculations in accordance with the minimum standards and requirements set out in the relevant chapters of this Code of Practice.
- 3) Details of any proposed departures from the standard design required by the relevant chapters of this Code of Practice.
- 4) Three sets of plans including an A3 set, named, dated and uniquely numbered. Digital PDF files should be included. Format requirements for different types of infrastructure are set out in the relevant chapters of this Code of Practice and must be complied with.
- 5) Drawings of the proposed works on Council's service plans.
- 6) Catchment plans where appropriate (for example in relation to stormwater and wastewater drainage).
- 7) Site photographs.
- 8) A statement setting out how Safety in Design principles has been incorporated into the design to ensure that health and safety requirements can be complied with over the life of the asset.
- 9) A statement providing the whole of life costing assessment.
- 10) A signed design certificate and/or producer statement (in accordance with the requirements set out in the relevant chapters of this Code of Practice) confirming that all design work for the project has been undertaken by a Suitably Qualified and Experienced Person.
- 11) The Subdivision Staging Plan (if applicable).
- 12) The Construction Management Plan (if applicable).
- 13) Details of tree protection measures and arborist report.
- 14) An ongoing maintenance plan for planting and weed control on public open space (if applicable).
- 15) Any other information or reports requested by Council.
- 16) The fee deposit.

c) **Standard design**

Proposals that comply with Safety in Design principles and all design requirements set out in the relevant chapters of this Code of Practice, and all other relevant standards referred to therein, are deemed to be Standard Design Basis proposals.

In general, the design of any infrastructure assets should be addressed during the pre-application phase (Section 1.5.7.1), particularly for large and/or complex land development projects, to ensure that the requirements of the future asset owners can be complied with.

d) **Alternative design**

In the context of this Code of Practice, 'alternative design' refers to any infrastructure design that does not meet the Standard Design criteria. An alternative design may need to be considered to meet the circumstances and requirements peculiar to a site, or as a means of encouraging innovative design, or to meet the principle of whole-of-life costing.

Council may consider alternative design proposals, provided that the proposed design incorporates Safety in Design features and does not involve undue operation, maintenance or renewal obligations for the future asset owner(s). Alternative designs must meet the required performance outcome.

Specifications for departures from the Standard Design set out in the relevant chapters of this Code of Practice must be followed.

Approval of an alternative design does not infer approval in general of any design criteria, construction technique or material forming part of the alternative design.

e) **Whole-of-life costing**

Council will not accept designs or works that minimise construction costs to the extent that disproportionately high operation and maintenance costs will be incurred. To this end, the design application shall incorporate appropriate whole-of-life costings to enable consideration of the initial costs borne by the developer and the maintenance and replacement costs borne by the future asset owner(s). A reasonable balance shall be maintained between these short-term and long-term costs.

f) **Drawing standards**

All design drawings shall be prepared in the specified format, scale and other requirements set out in the relevant chapters of this Code of Practice.

g) **Approval of design**

Notification of design approval and endorsement of plans, specifications and other documents will be provided if and when Council has determined that the standard design meets the requirements of the relevant chapters of this Code of Practice or the alternative design has been accepted. Processing and approval of a design does not release the designer from any liability or responsibility for accuracy and compliance of the design.

Council may require the applicant to make amendments to any plans, specifications, and other documentation and to submit additional reports.

Over time, Council will progressively introduce building information modelling into the engineering plan approval process.

1.5.5.3 Stage 2: Construction

a) Commencing construction

Construction on the site shall not commence until:

- All necessary resource consents have been granted, except when no such consents are required, and conditions to be complied with prior to commencing construction have been met. Where resource consents have been appealed and appeals are unresolved, approval to commence work will need to be obtained from the Environment Court
- Building consent for the proposed works has been granted
- Engineering plan approval for the design has been obtained
- Any other approvals that may be required have been obtained, for example landowner approval (Sections 1.5.6.3-1.5.6.6).

For large and complex developments (as defined in Table 1.5.1), a Construction Management Plan may be required to facilitate construction supervision, coordinate inspections, ensure that health and safety matters are appropriately addressed and any deviations from the approved design during construction are identified and communicated in a timely manner.

A construction commencement meeting may be held prior to the start of construction.

b) Construction phases and notification requirements

Council, and in certain circumstances other relevant future asset owners, will undertake inspections at various times during the construction stage in accordance with their specific requirements to review the milestones reached during the construction process. Council will provide a key contact who must be notified prior to each new construction phase to facilitate inspection visits.

The specific requirements of individual asset owners with respect to accepted construction standards and methodologies are set out in the relevant chapters of this Code of Practice, or in related documents specified therein.

As a minimum, inspections are likely to be carried out at the following phases of construction:

- Prior to commencement of construction
- During various construction components, for example:
 - Works over structures and utilities
 - Surface and level preparations
 - Component or structural elements prior to being covered
 - Component installation prior to testing
- Specified testing
- Pre-commissioning or readying for placing into service
- Operational handover.

Specific inspection requirements, including requirements for information to be made available at each construction phase, are set out in the relevant chapters of this Code of Practice.

Where possible, inspections will be carried out within 24 hours of notification. The next construction phase shall not proceed until inspection has been completed.

Council may require the appointment of a 'developer's professional advisor' or 'Independent Qualified Person' who undertakes inspection on Council's behalf.

c) Supervision of construction

The level of supervision undertaken in connection with any construction shall be agreed between Council, its CCOs and the developer, or, if appointed, the developer's professional advisor or the Independent Qualified Person, as the case may be. Construction supervision shall be appropriate to the circumstances and take into account the:

- Scale, size and importance of the project
- Complexity of the construction
- Overall construction risk
- Experience and demonstrated skill in quality management of the person(s) undertaking the construction.

The Construction Monitoring Services information published by the Institution of Professional Engineers of New Zealand (IPENZ) and the Association of Consulting Engineers New Zealand (ACENZ) provides further information. Council and its CCOs require that supervision of individual construction phases and completion of the overall construction stage is certified by Suitably Qualified and Experienced Person(s).

d) Deviations from approved design

The Council Development Engineer shall be notified if there are any changes to and/or deviations from the approved design during construction. Such changes and/or deviations require approval and the involvement of the relevant COO or asset owner where there is a change which deviates from the Code of Practice.

e) Testing

Testing will be required for new infrastructure assets that are to be vested in Council as public infrastructure.

Testing methods are specific to each type of infrastructure, and are set out in the relevant chapters of this Code of Practice.

In general, any infrastructure should be pre-tested by the developer and be found to perform in a satisfactory manner prior to requesting formal testing by Council and the relevant asset owners.

f) Maintenance

Where infrastructure is to be vested in Council, the developer shall, as a minimum, maintain the infrastructure until the vesting process is complete and Council has confirmed ownership. Longer periods of maintenance to be provided by the developer may be set out in the resource consent, normally until the asset has been tested and demonstrated to perform to the satisfaction of Council and its CCOs as asset owners.

Green infrastructure assets (including street trees, riparian planting and rain gardens) typically require a maintenance period to become fully established and sustainable.

g) Acceptance criteria

All infrastructure that is to be vested in Council must meet the relevant acceptance criteria for each type of asset in order to be accepted by Council and its CCOs as asset owners. Acceptance criteria are set out in the relevant chapters of this Code of Practice, and in related documents specified therein.

1.5.5.4 Stage 3: Completion**a) Final inspection**

The final inspection normally occurs in two parts:

- An inspection immediately following completion of construction, and
- A second and final inspection following the submission of all relevant and necessary documentation.

For small-scale and/or low-risk projects, Council may combine both parts into one inspection.

b) Completion documentation

Specifications detailing the format and standard of the completion documentation are provided in the relevant chapters of this Code of Practice, and in the related documents specified therein.

Completion documentation includes, but is not limited to:

- Geotechnical reports.
- As-built plans of all infrastructure, in the format (including electronic format) prescribed by the relevant chapters of this Code of Practice. All construction notes should be removed from as-built plans and data prior to submission to Council.
- Certification by a Suitably Qualified and Experienced Person (as defined in the relevant chapters of this Code of Practice) that construction has been undertaken in accordance with the approved design. Where changes to the approved design have been made during construction without approval for the change, certification that these changes do not compromise the ability of the infrastructure to comply with the requirements of this Code of Practice must be provided. Council and its CCOs will not accept infrastructure that may compromise the safety of the public or future workers, and it is recommended that any substantive design changes on site are approved by Council while work is in progress.
- Evidence that all testing required by this Code of Practice has been carried out and that the test results comply with the requirements set out in the relevant chapters of this Code of Practice.
- Evidence (such as the Final Inspection Report) that infrastructure to be vested in Council has been installed to the standards and requirements set out in the relevant chapters of this Code of Practice.
- Completion certificates and/or Producer Statements in accordance with the requirements set out in the relevant chapters of this Code of Practice.
- Other documentation required by Council and its CCOs as the relevant asset owners including, but not limited to, operation and maintenance manuals, warranties for new facilities involving electrical or mechanical plant, and asset valuations for all infrastructure to be vested in Council.
- A detailed Schedule of Assets in compliance with the specific asset standard, including costs, for capitalising vested Council assets, and a Schedule of Abandoned Assets, where applicable.

1.5.6 Other requirements

1.5.6.1 Agreement to provide service

New developments are usually connected to an existing service network (stormwater, wastewater, water supply and roading). For large and/or complex land development proposals, it is recommended that during any planning processes preceding the consenting process (such as structure planning) or the pre-application phase (Section 1.5.7) a concept design and servicing strategy is prepared that includes:

- A description of how the proposed development will be serviced with water, wastewater, stormwater and roading infrastructure
- The estimated water demand, wastewater and stormwater flows and traffic demands generated by the proposed development that will affect the existing infrastructure

- The point(s) of connection to the existing networks/infrastructure and a general layout of the proposed infrastructure
- An overview of the assets likely to be vested upon completion.

1.5.6.2 Network discharge consents

Auckland-wide wastewater network discharge consent

Existing and new discharges from the public wastewater network (wastewater overflows) are authorised under an Auckland-wide network discharge consent, which is held by Watercare. This consent also authorises wastewater overflows from public wastewater networks in some future urban areas, including those from wastewater assets to be vested in Council and subsequently transferred to Watercare. Where developer-built wastewater infrastructure is intended to be included in the Auckland-wide wastewater discharge consent, evidence that the proposed infrastructure complies with this consent will be required.

Stormwater network discharge consent(s)

Council holds a number of consents authorising existing and future stormwater diversions and discharges from the public stormwater network in some catchments, and at the time of publication, is in the process of preparing a single, Auckland-wide network discharge consent application. Depending on their location, developer-built new stormwater assets intended to be vested in Council may be covered by these consents, provided that consent conditions are complied with. Evidence of compliance will be required if a developer seeks to be included in an existing stormwater network discharge consent.

Land use consents related to stormwater flow and stormwater quality may be required even if stormwater discharges and diversions from the proposed land development project are covered by an already existing stormwater network discharge consent.

Discharges from private stormwater infrastructure that will not be vested in Council may require a separate discharge consent.

1.5.6.3 Works-over and/or build-over approval

Any works associated with land development that are carried out over, or in the vicinity of, existing public stormwater, water supply or wastewater infrastructure require permission from Council and Watercare (asset owners), because construction or excavation activities could potentially damage such assets.

For stormwater infrastructure, this permission is called build-over approval, and is typically issued as part of the building consent process. In cases where building consent is not required, build-over approval can be obtained by applying for a 'minor' engineering plan approval.

For water supply and wastewater infrastructure, the relevant permission is called works-over approval, and is issued by Watercare. Works-over approval is required for a building consent application.

Watercare will not grant permission to build over a water main or a wastewater pressure pipe. Such pipes would need to be re-located, which also requires engineering plan approval. Further information is provided in the relevant chapters of this Code of Practice.

1.5.6.4 Corridor access requests

Any works or activities that affect the normal operation of the road, footpath or berm require submission of a corridor access request before they start. The requests ensure that all work is done safely and complies with national regulations. Works that are likely to trigger the need for a corridor access request are:

- Digging, drilling, resurfacing or any other activity that will alter, or cause to be altered, the surface of the road corridor
- Placing any pipe, duct, pole, cabinet or other structure below, on or above the road corridor
- Construction of, or working in the vicinity of water or wastewater assets within the road corridor
- Building a new driveway or installing a new stormwater drain that leads into the road corridor
- Building a new fence, if the work site or equipment encroaches onto the road corridor
- Being near to or opening manhole access covers.

A related type of approval is a non-excavation corridor access request, which is required for activities such as:

- Placing a skip, bin or container
- Putting up temporary scaffolding (mobile or fixed)
- Using or parking machinery such as cranes, cherry pickers and water blasters
- Applying for a full or partial road or footpath closure to carry out work on or above the road
- Flying a drone over the road, footpath or berm
- Non-excavation activities on Level LV, Level 1, Level 2 and Level 2L roads (if carrying out that activity does not affect the normal use of the road or footpath).

Corridor access request and non-excavation corridor access request applications must be submitted online at submitica.co.nz at least 15 working days before the proposed works are scheduled to commence, to allow sufficient time for processing. Works cannot begin until Auckland Transport has issued a Works Access Permit.

1.5.6.5 Landowner approval

In some cases, it may be necessary to undertake activities or works on neighbouring land, for example where a pipe must cross someone else's land in order to connect the land to be developed to an existing public service network. Approval from the affected landowner to undertake these works will be required. If the land concerned is a park or reserve, the land is likely to be Council-owned and approval must be sought from the relevant Council department. It is recommended that this approval is sought early in the design process.

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If the affected landowner(s) is/are not willing to grant approval, consent to construct drainage over neighbouring properties can be applied for under Section 460 of the Local Government Act (1974) and Section 181 of the Local Government Act (2002). Such an application will be received by the Council Development Engineering Department, and must include evidence that attempts to obtain landowner approval for the installation of drainage through neighbouring land have been made, but that all means of obtaining the approval have been unsuccessful. Following an investigation and mediation, the application is heard by the relevant Council Committee for consideration, and can be approved or declined. The process can be long and protracted, and cannot be used as a substitute for genuine private negotiations.

1.5.6.6 Authority from Heritage New Zealand

Where the proposed development could affect an archaeological site, an Archaeological Authority from Heritage New Zealand must be obtained, regardless of whether the land on which the site is located is designated, the activity is permitted under the Auckland Unitary Plan or a resource or building consent has been granted.

1.5.7 The land development approval process

The key elements of the land development approval process are resource consent(s), building consent and engineering plan approval. Generally, the complexity of the overall approval process is dependent on the scale of the proposed development. Council uses four project categories to account for the differences in scale, and resulting differences in how the consenting process is managed (Table 2).

Table 2: Land development project categories

Project Category	Consenting Service Model (Resource and Building Consents)	Criteria
Simple	Fast-track service	<ul style="list-style-type: none"> Building consent applications focusing on alterations or additions, for example garages, decks, minor plumbing or drainage Works undertaken by utility operators/service providers, for example public toilets, foot bridges etc. Resource consent applications that do not involve specialist input, or input from no more than one specialist.
Custom	'Qualified customer' service	<ul style="list-style-type: none"> Generally applies to high volume and largely standardised new residential building projects Consent processing for projects of this nature largely involves pre-determined and agreed procedures. The customer has entered into a Memorandum of Understanding with Council and has a pre-approved quality assurance plan.
Standard	Standard service	<ul style="list-style-type: none"> Projects of medium or high complexity that require: <ul style="list-style-type: none"> More than one resource consent Building consent Specialist input, including engineering plan approval.

Complex	Project management service	<ul style="list-style-type: none"> • Large and/or complex projects with a budget of more than \$20 M • Projects that involve the development of social and other public infrastructure • Projects of this scale are likely to involve significant regulatory, specialist and asset owner input • Early engagement with Council and other parties is recommended to ensure that the purpose, scale and approval requirements are fully understood.
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1.5.7.1 Pre-application phase

For complex and/or large-scale land development projects ('standard' and 'complex' project categories), it is strongly recommended that the land developer and/or their agent(s) engage with Council as early as possible prior to the formal commencement of the consenting process. Council will provide advice on the likely consenting and other approval requirements, and facilitate engagement with other key parties such as the future asset owners. The purpose of this early interaction is to:

- Establish what information, approvals and other documentation are needed by Council to process the resource consent application(s), and the steps needed to secure them
- Ensure that all technical and statutory requirements for assets (including stormwater, water supply, wastewater, transport, green infrastructure and land such as parks and reserves) intended to be vested in Council are clearly understood and addressed as early as possible and taken into account at the design stage.

1.5.7.2 Pre-application meeting

The pre-application meeting is an opportunity for the applicant and all relevant departments of Council and its CCOs to discuss the proposal, address the complexities and specific requirements and identify potentially contentious matters as early as possible. Depending on the scale of the proposed development, the following parties may be represented at the pre-application meeting:

- The applicant (developer) and/or their agent(s)
- The Council resource consent officer who will manage the consenting process (regulatory officer)
- One or more Council specialists to provide technical advice on matters such as geotechnical issues, coastal marine area matters, ecological effects, seismic issues, heritage and other specialist areas
- The Council Development Engineer who leads the engineering plan approval process
- Representatives of the future asset owners (including stormwater, wastewater, water supply, roading and transport, parks and open spaces).

The purpose of the pre-application meeting is to identify:

- Resource consent requirements and associated information needs
- Site-specific constraints

- Design aspects of the proposal that may not comply with the minimum standards set out in this Code of Practice
- Complex infrastructure (such as pump stations) design issues, including aspects such as least whole of life costs and Safety in Design
- Any network and other utility connection issues that may arise, and whether an Infrastructure Funding Agreement is required
- Any matters that may arise in relation to the provision of public open space and the vesting thereof
- Any other matters that may arise and that could potentially result in time delays or cost increases, for example the need to obtain landowner approval, cultural impact assessments, specialist investigations and reports etc.
- Any specific requirements under the Building Act
- Any other consenting requirements.

1.5.7.3 Resource consent(s)

Land development projects normally require at least one resource consent, namely subdivision consent. Other resource consents may also be necessary, depending on the location and scale of the proposed project.

In general, the subdivision of land requires that the land to be developed is serviced by public utilities, including roading, stormwater infrastructure, water supply and wastewater services, power, telecommunications and - if the development is of sufficient size – public open space and/or social infrastructure. This applies regardless of whether or not the developer seeks to construct dwellings or other buildings that will also require building consent. It is therefore recommended that the developer establishes early on in the project development:

- If the relevant service providers have sufficient capacity to provide the necessary services when the land becomes available.
- That the service providers' requirements and standards with respect to any infrastructure that is intended to be vested in Council as public infrastructure can be met, to avoid delays during the engineering plan approval process.

1.5.7.4 Engineering plan approval

The application for engineering plan approval can either be lodged with the resource consent application, or after resource consents have been granted. Normally, the resource consent application(s) is lodged first, and the requirement for engineering plan approval is a condition of the subdivision consent.

Engineering plan approval is required for any infrastructure that is to be vested in Council and thus becomes a public asset, or that is to be built to a public standard. Approval is given:

- For infrastructure design
- At specific times during construction, relevant to the asset being constructed
- When all engineering/infrastructure works have been completed and all relevant documentation (for example as-built plans) has been submitted
- When a maintenance period (generally for landscaping) expires.

Final engineering plan approval is provided in the form of the Engineering Completion Certificate, which is needed to support application for the Section 224(c) Certificate or (Building) Code Compliance Certificate.

1.5.7.5 Building consent

Building consent is required if new dwellings or other buildings are to be constructed or altered as part of the land development or subdivision process. However, where the proposal involves only subdivision and provision of future utility connections and no building work is undertaken, building consent will not be needed.

At the end of the building project, Council will issue a (Building) Code Compliance Certificate if it is satisfied that the completed building work complies with the original building consent.

1.5.7.6 Vesting

A key requirement for the vesting of assets is the provision of a detailed Schedule of Assets and asset costs, which are required for capitalising vested Council assets. These documents are usually submitted as part of the completion documentation for the engineering approval process.

Once vesting has been completed, a post-completion audit may be carried out by the new asset owner(s) to verify that the new assets conform to the approved design and perform as specified. If deficiencies are found, the asset owner(s) may defer ownership and request remedial works to be undertaken.

1.5.7.7 Granting of land title

The final stage of the land development process is obtaining land title, which is issued by Land Information New Zealand under the Land Transfer Act 1952 (or the Unit Titles Act 2010).

Land Information New Zealand grants title after it has received and approved the survey (or title) plan, which is then deposited and fully merged into Landonline (the national cadastral database) to become part of the updated cadastre.

The survey plan is prepared by a licensed cadastral surveyor and submitted to Council, which checks that it conforms to the subdivision consent. Council will then issue a Section 223 Certificate, which must be submitted to Land Information New Zealand together with the survey plan and the Section 224(c) Certificate.

The Section 224(c) Certificate confirms that all conditions of the subdivision consent have been complied with, and is usually the last certificate to be issued after engineering plan approval has been granted.

1.6 Financial considerations

In Auckland, land development will incur two charges over and above the fees and charges that are required when applying for consents and seeking to connect to existing infrastructure services:

- Development contributions, which are payable to Council. Development contributions fund the additional community facilities, parks and reserves, and new or upgraded stormwater or transport infrastructure needed as a result of development projects. Development contributions are usually charged for new residential dwellings (houses and apartments), non-residential development, subdivisions, and for some changes of land use.
- Infrastructure growth charges, which are payable to Watercare. The charges contribute to funding new, or capacity upgrades to existing bulk water supply and wastewater infrastructure that will be required as a result of urban growth. Infrastructure growth charges are typically charged when a new property, or new dwelling on an existing property, connects to the water supply and/or wastewater network, or an existing non-domestic property increases its water use and/or wastewater discharge.

In some cases, Council and/or its CCOs may also require the developer to enter into an Infrastructure Funding Agreement. Examples of when an Infrastructure Funding Agreement may be entered into include:

- When the developer constructs and delivers public works/infrastructure on Council's behalf
- When the proposed development is likely to affect existing public infrastructure
- When unplanned public infrastructure is provided by the developer to service a proposed development.
- When development commitments have informed planning decisions and interact with the Auckland Unitary Plan and structure plans.