

Position Title	Senior Design Engineer
Reporting to	Design Team Leader
Unit	Infrastructure
Date last updated	May 2019

# **Values and Principles**

Our principles of being inclusive, ambitious, enabling, open, bold and guardians support goals that enable a new vision for Palmerston North: *small city benefits, big city ambition*. Our current values are evolving under a transformation programme to reflect this aspiration for the city to reach its potential and capitalise on its strengths. We believe it is essential to be a leader, treat each other with respect and dignity, take responsibility for our own actions, and have a positive, friendly and professional approach.

#### **Context**

The Infrastructure Unit of Council is responsible for the stewardship of Council's infrastructural assets (roading, parking, water, waste services, parks, community facilities and property) as well as the delivery of all the services. The Unit's focus is on long-term services planning enabled by effective asset management planning, long-term and annual programming of maintenance, renewal and capital development works, operation of the infrastructure services and in-house support for design and delivery of the capital programme.

The Council utilises its investment in infrastructural assets to deliver best value services to its community through advanced asset management practices and through multi-disciplinary contributions from other Units within the Council Organisation.

## The Transport & Infrastructure Division

The Transport and Infrastructure Division is responsible for the overall management of the transport and three waters activities including pedestrian, cycling, public and vehicle transport as well as stormwater, wastewater and water supply.

In addition to operational management, the division is responsible for delivery of the capital programme in these activities including both renewals and new asset provision. Management of the three waters services is shared with the Water Operations Division.

The activities of the division are organised into five teams with dedicated team leaders as follows:

External Liaison and Development Team - Responsible for all infrastructure Unit interactions with
external clients in relation to new building, land and sub-division consents as well as processing
requests for new or altered water services connections and vehicle crossings. In addition, this team
manages the activities of contractors in the road corridor through an on-line permit system and
manages the issue of and compliance for consents issued for trade waste, stormwater discharge and
water take from Council managed networks.



- Design Team Responsible for providing internal services to complete a range of investigation, design and review functions for other parts of the Infrastructure Unit. Key deliverables include design review of building consents, as well as survey, investigation, design and draughting for roading, three waters and parks as well as property related projects.
- Delivery Team Responsible for project delivery within the Transport and Infrastructure Division, by undertaking project and contract management of the full range of transport and three waters projects.
- Activity and Investigation Team Responsible for the management of the activities of the division in
  their role as project sponsors and budget holders. The team is also responsible for undertaking
  detailed planning and investigation of programmes and projects as part of scoping for delivery.
  Other duties include operations management in the transport area and policy and bylaw
  development and implementation.
- **Civil Construction Team** Comprises the in-house Council team responsible for construction of a wide range of civil works. Main focus is renewal and upgrade of city wide three waters pipe networks and pump stations as well as city wide footpath and concrete works at the city cemetery.

# **Main Purpose**

The Senior Design Engineer will report directly to the Design Team Leader. This position is responsible for undertaking design and investigation in their area of expertise on projects assigned from other divisions within the Infrastructure Unit. Key functions will include undertaking project planning, investigation and scoping, detailed design, documentation and providing support for procurement on the full range of projects being delivered by Council. The role will be a senior one and will be expected to provide mentoring support to junior staff as well as peer review and checking of designs completed by other team members. The position is based at the Civic Administration Building.

# **Key Areas of Responsibility**

#### **Project Planning and Investigation**

- Develop project scopes including problem and outcome definitions in collaboration with the project sponsor and budget holder
- Identify and scope consent, permit and approval requirements for the project
- Develop indicative project schedules and rough order costs using standard templates and to industry accepted formats to enable confirmation of implementation feasibility and budget provision
- Lead and complete investigations to define and inform projects, including managing external consultants and third party providers as required e.g. geotechnical investigations
- Support the preparation of initial business case documentation to support approval processes and funding applications
- Prepare risk plans and project execution plans to inform the final project



#### **Project Design and Documentation**

- Complete design work in the specific areas of technical competence ensuring that work is checked and reviewed by a suitably skilled and experience internal or external reviewer
- Complete design documentation including drawings, specifications, contract and tender documentation as well as robust project costs estimates in accordance with the relevant standards
- Provide regular updates and reports to the project sponsor on design progress and cost compared to budget
- Support project procurement by preparing a procurement plan and providing support to the tender or quotation process by answering technical queries and participating in the evaluation process
- Support project delivery by providing advice on specific contract queries as they arise in a timely manner
- Ensure all designs, documentation and procurement process meet professional ethical standards and comply with Council's policies and procedures
- Certify invoices for payments where these relate to investigation and/or sub-consultants engaged to complete key elements of design or project scoping
- Undertake Safety in Design exercises on all projects to ensure infrastructure solutions can be constructed, operated, maintained and decommissioned safely with undue risk for contractors and staff

#### **Training and Support**

- Take responsibility for personal development and learning to ensure the technical competence is maintained in the areas required for the role
- Support colleagues and junior staff by completing checks and reviews of all work completed by another team member prior to issue to the client
- Act in the role of mentor to junior staff e.g. graduates, cadets or trainees to ensure their work is of adequate quality and the learning outcomes are achieved

**Please note:** Key areas of responsibility are likely to develop and change over the course of an employee's tenure at Council as the employee grows in skills and competencies. These key tasks and areas of responsibility are not an exhaustive list, nor will they remain static. The annual Performance, Planning and Evaluation (PPE) will supersede this job description. In addition, employees may be asked to do tasks outside of this description as and when required.

## Risk Management accountabilities for all employees

- Council Policies and Procedures: Ensure self and team comply with applicable council policies and procedures.
- **Environmental**: Reduce environmental impacts that may arise from work. All activities and communications must be conducted in accordance with applicable environmental laws and council policies. Promote the proactive management of environmental issues associated with conducting business.
- Health & Safety: Comply with Health and Safety obligations (e.g. observe and practice safe work
  methods, ensure your own safety and that of others, report any hazards or potential hazards
  immediately, use protective equipment and wear protective clothing provided where appropriate,
  only operate equipment that you have the necessary license and skills to operate, make unsafe



situations safe or report unsafe working conditions to your supervisor, report all accidents including near misses promptly)

• **Employment Legislation**: Comply in full with employment legislation and adherence to applicable policies in the areas of employment, EEO and recruitment.

# **Key Relationships**

#### Internal:

- Transport and Infrastructure Division Leadership Team
- Design Team Leader
- Design Team members
- Activity Managers and Investigation Engineers
- · Parks and Reserves and Property Division budget holders
- Assets and Planning Division
- Project Management Office
- Project Delivery Team
- Health and Safety, Procurement and Risk Specialists
- Other Council Units

#### **External:**

- External consultants, designers and service providers
- Neighbours, affected parties and project stakeholders
- PNCC Legal Advisors and Solicitors
- Government Departments and State Owned Enterprises
- New Zealand Police
- Schools and Educational Institutes
- Rangitane o Manawatū Representatives and other iwi as appropriate
- Other local authorities

# Typical knowledge, skills and attributes:

### **Knowledge** (qualifications and experience)

- A Bachelor's degree in Engineering in one of the key specialisations required by Council namely (Civil, Environmental, Transportation, Structural, Process)
- 7 years post qualifying experience in the specialist field
- Membership of a recognised engineering professional body (e.g. MIPENZ / MICE)
- A current New Zealand driver's licence (minimum Class 1)
- Demonstrated high level of written and oral communication skills particularly as required for report preparation and contract documentation
- High level of competence with all MS-Office applications and other specialist design software

#### **Skills and Attributes**

Ability to quickly document key elements of project scope and design accurately and robustly



- Ethical and professional approach to all aspects of the role including an awareness of obligations to wider community when designing safety critical infrastructure
- Ability to analyse complex issues and come to sound decisions
- Well-developed critical thinking and strategic problem-solving skills
- Well-developed financial and political management skills
- High degree of initiative with the ability to work autonomously with minimal supervision
- Ability to communicate with a wide range of people from varying backgrounds in an effective, sensitive and professional manner (written, over the phone, and face to face)
- Ability to work to time frames and/or under pressure whilst maintaining professionalism (both in manner and delivery of work)
- Ability to be flexible in prioritising and organising work accordingly
- Takes active responsibility for professional development and learning to maintain technical competence

#### Remuneration

- This role is graded at **SP5** on the Council's remuneration system, i.e. between **\$88,626** (85%) and **\$104,266** (100%) depending on the Manager's assessment of the skills/experience of the jobholder and any other relevant factors.
- An additional market premium of \$5,000 is payable
- In addition, a benefit entitlement of 7.5% of base salary is available.

#### Other

The position may be called to work outside normal working hours in the event of a Civil Defence emergency or exercise. The job holder will be expected to participate fully in training provided for this and any other Unit activities.

# **Competencies**

Core	
Service	<ul> <li>Recognises the diversity of customers, and adapts approach and style to meet their needs</li> <li>Offers customers a range of solutions to problems</li> <li>Demonstrates commitment to delivery of agreed solutions</li> <li>Delivers and follows up on solutions</li> <li>Seeks and gives feedback from customers</li> <li>Looks for where improvements can be made to systems and processes</li> </ul>
Communication	<ul> <li>Clearly communicates messages in a clear and concise manner</li> <li>Uses the most effective method and style of communication for the target group and the situation</li> <li>Uses active listening techniques including reflection and paraphrasing</li> <li>Shares ideas appropriately</li> <li>Recognises and minimises barriers to communication</li> </ul>
Business ethics	<ul> <li>Demonstrates integrity, honesty, and commitment</li> <li>Acts ethically in all dealings</li> <li>Is equitable and ethical in the treatment of others</li> <li>Is prudent in financial dealings</li> </ul>
Information Technology	Has an appropriate level of skill in computer software relevant to the requirements of



	the role. Is confident to try new software
	Looks for ways to improve efficiency through the use of technology - takes advantage of
	technology to achieve goals
	Proactively seeks and provides input into health and safety improvements in their work
Health & Safety	environment
	Promotes and participates in a healthy and safe work culture
	Keeps up to date with health and safety legislation and regulations relevant to the work
	they carry out
Role specific	
	Goes beyond the immediate problem presented and probes to make sure all aspects are addressed
Intellectual Capability	Able to consider the wider implications in formulating a decision
	Shows evidence of conceptual and innovative thinking
	Monitors progress and undertakes corrective actions as necessary
Project Leadership	Builds strong relationships in order to achieve the project goals
	Demonstrates resilience, able to maintain performance over an extended period
	Communicates and sells the project to key stakeholders
Professional Skills	<ul> <li>Practical experience in a field over a number of years and familiar with all facets of the profession required by PNCC</li> </ul>
Coaching and Mentoring	Takes opportunities for professional development
Organisation Excellence	Recognises opportunities for innovative solutions for organisation improvement
Organisation excellence	Defines expectations of performance and values
	Builds and maintains professional and productive relationships with key stakeholders
Relationship Building	Understands the cultural requirements of the legislation they work within
Treatment Danianing	Demonstrates sensitivity to other groups and values diversity
	Understands stakeholders' views and why they are held
	Understands the political systems and underlying drivers
Political Acumen	Understands the statutory and legal framework the Council operates within and able to
	effectively operate within this framework
	Operates in a fair, consistent, and equitable manner
Tananania	Understands team dynamics and Is an active and contributing team player in the
Teamwork	organisation
	Develops high performance project teams