Role Description
Design Engineer CAD

Cluster	Regional NSW
Agency	Department of Regional NSW
Division/Branch/Unit	Public Works Advisory and Regional Development
Classification/Grade/Band	Proposed Clerk Grade 7/8
Location	Coffs Harbour
ANZSCO Code	312211
PCAT Code	1119192
Date of Approval	May 2021
Agency Website	nsw.gov.au\regionalnsw

Agency overview

The Department of Regional NSW was formed in 2020 as a central agency for regional issues. The Department is responsible for building resilient regional economies and communities, strengthening primary industries, managing the use of regional land, overseeing the state's mineral and mining resources and ensuring government investment in regional NSW is fair and delivers positive outcomes for local communities and businesses.

Primary purpose of the role

The role provides technical expertise in civil, mechanical and electrical engineering design activities in AutoCAD, including water and wastewater related projects, pipelines, stormwater drainage design, water sensitive urban design, driveway/road design and input into engineering reports.

Key accountabilities

- Providing technical and strategic advice to clients, staff, consultants and management using modern engineering design packages such as Autodesk (AutoCAD, Civil3D, Revit), 12D, and other BIM related industry standard software.
- Contributing to the development and implementation of innovative and leading-edge engineering and asset management outcomes, leveraging one's established design technology, project management and change management experience.
- Completing a range of civil, mechanical and electrical digital deliverables (e.g. including layouts, roads and drainage, earthworks, water retaining structures, buildings, etc.) to client requirements on time, cost and quality.
- Working seamlessly with other engineering disciplines and project managers to obtain relevant information from clients and stakeholders and assess any constraints and design standards.
- Utilising one's strong written and verbal communication skills to contribute to the next evolution of a technologically progressive, creative and freethinking function.
- Producing design products in accordance with Australian, PWA's departmental CAD Manual and Council/ Agency standards and specifications, and reviewing CAD/digital data deliverables prepared by other engineering disciplines to finalise prior to submission.

Key challenges

- Working within a team environment and projects across numerous disciplines in NSW, whilst promoting and sustaining a client-centric culture with high-end outputs.
- Delivering high-quality technical advice and innovative projects within agreed time, budget and financial parameters and with consideration of emerging industry and technical trends and Governmental and regulatory requirements.
- Creating and maintaining strong working relationships with clients and industry stakeholders in an environment of strong competition while managing current workloads.

Key relationships

Who	Why
Internal	
Senior Digital Engineering Manager	• Provide expert advice and guidance on issues, opportunities, and the development of PWA's construction/engineering technology roadmap • Develop and propose effective business development proposals • Escalate issues, keep informed, advise, receive guidance and instructions • Provide input into discussions and decisions regarding service delivery and operational improvement
Engineering and PM Colleagues; Survey and Spatial, Project Controls and Business Systems, Infrastructure Advisory teams within PWA.	• Inspire and motivate colleagues to deliver relevant business improvement and strategic initiatives across PWA • Work collaboratively to achieve business outcomes • Guide, support and train staff as required • Review work and proposals of team members and other business units where relevant • Contribute to discussions and decisions regarding integrated solution and system development, and cross-PWA information management • Participate in meetings to share information and solutions on a day to day basis and on strategic issues
External	
Clients	• Develop an understanding of key needs, issues and priorities • Provide expert advice to achieve progressive, cost effective solutions • Respond to queries and resolve issues • Provide expert services relating to water infrastructure and other asset classes • Manage the flow of information, seek clarification and provide advice and responses to ensure prompt resolution of issues • Provide advice and options for system integration, data structures and management for clients • Build partnerships with client agencies and industry to provide high-level technical strategies, design, analysis and review • Seek/maintain specialist knowledge/advice and collaborate on infrastructure and software relevant platforms and keep up with best practice

Role dimensions

Decision making

This role has autonomy and makes decisions that are under their direct control. It refers to the Senior Manager for decisions that require significant change to program outcomes or timeframes or are likely to escalate or require submission to a higher level of management. This role is fully accountable for the delivery of work assignments on time and to expectations in terms of quality, deliverables and outcomes.

Reporting line

Senior Digital Engineering Manager, Business Operation Group

Direct reports

0

Budget/Expenditure

As per the DRNSW Financial Delegations

Essential requirements

- Accredited Engineering degree, Advanced Diploma of Engineering, or demonstrated skills and experience relevant to civil and built infrastructure.
- AutoCAD Certificate or equivalent experience in detailed design drafting and modelling using Autodesk and Bentley software systems.
- Experience with BIM and Collaboration Software, including Navisworks, InfraWorks, Revit, and ProjectWise.
- Proven experience in detailed design and documentation in 3D of civil/structural, mechanical and electrical works, including pumping stations, treatment plants, layouts, pipes, roads and drainage, earthworks, and water retaining structures.
- Knowledge of project/design management of all phases of design for complex multi-disciplinary water and other engineering projects.
- A valid NSW Driver's license and willingness to drive to remote locations which may include overnight stays.

Capabilities for the role

The NSW public sector capability framework describes the capabilities (knowledge, skills and abilities) needed to perform a role. There are four main groups of capabilities: personal attributes, relationships, results and business enablers, with a fifth people management group of capabilities for roles with managerial responsibilities. These groups, combined with capabilities drawn from occupation-specific capability sets where relevant, work together to provide an understanding of the capabilities needed for the role.

The capabilities are separated into **focus capabilities** and **complementary capabilities**.

Focus capabilities

Focus capabilities are the capabilities considered the most important for effective performance of the role. These capabilities will be assessed at recruitment.

The focus capabilities for this role are shown below with a brief explanation of what each capability covers and the indicators describing the types of behaviours expected at each level.

FOCUS CAPABILITIES

Capability group/sets	Capability name	Behavioural indicators	Level
Personal Attributes	**Display Resilience and Courage** Be open and honest, prepared to express your views, and willing to accept and commit to change	• Be flexible, show initiative and respond quickly when situations change • Give frank and honest feedback and advice • Listen when ideas are challenged, seek to understand the nature of the comment and respond appropriately • Raise and work through challenging issues and seek alternatives • Remain composed and calm under pressure and in challenging situations	Adept
	Manage Self Show drive and motivation, an ability to self-reflect and a commitment to learning	• Adapt existing skills to new situations • Show commitment to achieving work goals • Show awareness of own strengths and areas for growth, and develop and apply new skills • Seek feedback from colleagues and stakeholders • Stay motivated when tasks become difficult	Intermediate
Relationships	**Communicate Effectively** Communicate clearly, actively listen to others, and respond with understanding and respect	• Tailor communication to diverse audiences • Clearly explain complex concepts and arguments to individuals and groups • Create opportunities for others to be heard, listen attentively and encourage them to express their views • Share information across teams and units to enable informed decision making • Write fluently in plain English and in a range of styles and formats • Use contemporary communication channels to share information, engage and interact with diverse audiences	Adept
	Commit to Customer Service Provide customer-focused services in line with public sector and organisational objectives	• Take responsibility for delivering high-quality customer-focused services • Design processes and policies based on the customer's point of view and needs • Understand and measure what is important to customers • Use data and information to monitor and improve customer service delivery • Find opportunities to cooperate with internal and external stakeholders to improve outcomes for customers • Maintain relationships with key customers in area of expertise	Adept

		• Connect and collaborate with relevant customers within the community	
Results	**Think and Solve Problems** Think, analyse and consider the broader context to develop practical solutions	• Research and apply critical-thinking techniques in analysing information, identify interrelationships and make recommendations based on relevant evidence • Anticipate, identify and address issues and potential problems that may have an impact on organisational objectives and the user experience • Apply creative-thinking techniques to generate new ideas and options to address issues and improve the user experience • Seek contributions and ideas from people with diverse backgrounds and experience • Participate in and contribute to team or unit initiatives to resolve common issues or barriers to effectiveness • Identify and share business process improvements to enhance effectiveness	Adept
Business Enablers	**Technology** Understand and use available technologies to maximise efficiencies and effectiveness	• Identify opportunities to use a broad range of technologies to collaborate • Monitor compliance with cyber security and the use of technology policies • Identify ways to maximise the value of available technology to achieve business strategies and outcomes • Monitor compliance with the organisation's records, information and knowledge management requirements	Adept
People Management	**Inspire Direction and Purpose** Communicate goals, priorities and vision, and recognise achievements	• Promote a sense of purpose, and help the team to understand the strategic direction of the organisation and the needs of customers and stakeholders • Translate broad organisational strategy and goals into tangible team goals and explain the links for the team • Ensure that team objectives and outcomes lead to the implementation of government priorities and create value for customers and stakeholders • Work to remove barriers to achieving goals	Adept

Complementary capabilities

Complementary capabilities are also identified from the Capability Framework and relevant occupation-specific capability sets. They are important to identifying performance required for the role and development opportunities.

Note: capabilities listed as 'not essential' for this role are not relevant for recruitment purposes however may be relevant for future career development.

NSW
GOVERNMENT

COMPLEMENTARY CAPABILITIES

Capability group/sets	Capability name	Description	Level
Personal Attributes	Act with Integrity	Be ethical and professional, and uphold and promote the public sector values	Intermediate
	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	Foundational
Relationships	Work Collaboratively	Collaborate with others and value their contribution	Intermediate
	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Intermediate
Results	Deliver Results	Achieve results through the efficient use of resources and a commitment to quality outcomes	Adept
	Plan and Prioritise	Plan to achieve priority outcomes and respond flexibly to changing circumstances	Intermediate
	Demonstrate Accountability	Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines	Intermediate
Business Enablers	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Foundational
	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	Intermediate
	Project Management	Understand and apply effective planning, coordination and control methods	Intermediate
People Management	Manage and Develop People	Engage and motivate staff, and develop capability and potential in others	Foundational
	Optimise Business Outcomes	Manage people and resources effectively to achieve public value	Intermediate
	Manage Reform and Change	Support, promote and champion change, and assist others to engage with change	Intermediate