

# Role Description

## Digital Engineering Lead

Cluster	Education
Agency	NSW Department of Education
Division/Branch/Unit	SINSW/Infrastructure Delivery/Design for Manufacture and Assembly
Role number	246352
Classification/Grade/Band	Clerk Grade 9/10
ANZSCO Code	511112
PCAT Code	1322492
Date of Approval	13 March 2023
Agency Website	<a href="http://education.nsw.gov.au">education.nsw.gov.au</a> <a href="http://schoolinfrastructure.nsw.gov.au">schoolinfrastructure.nsw.gov.au</a>

### Agency overview

The NSW Department of Education serves the community by providing world-class education for students of all ages.

We ensure young children get the best start in life by supporting and regulating the early childhood education sector. We are the largest provider of public education in Australia with responsibility for delivering high-quality public education to two-thirds of the NSW student population. We are committed to fostering vibrant, sustainable and high-performing vocational and higher education sectors.

We are responsible for enacting NSW Government policy, driving improvement in education, and overseeing policy, funding and compliance issues relating to non-government schools. We respect and value Aboriginal and Torres Strait Islander people as First Peoples of Australia.

School Infrastructure NSW (SINSW) is delivering new school buildings, major upgrades and maintenance strategies to ensure every school-aged child has access to high quality education facilities at their local public school. This encompasses the largest investment in public education infrastructure in the history of NSW.

### Primary purpose of the role

Provide technical expertise in the development and implementation of a common digital platform for Modern Methods of Construction (MMC) and a standard digital design for new and sustainable school infrastructure.

Collaborate and consult with stakeholders to support the effective delivery of infrastructure projects in accordance with Digital Engineering/BIM processes and relevant departmental policies, standards and legislative requirements.

### Key accountabilities

- Lead the provision of technical advice and expertise in the use and application of the latest digital technologies, Building Information Modelling (BIM) processes and digital engineering standards for new and sustainable school infrastructure.

- Contribute to the development of innovative digital engineering systems, tools and processes for MMC design implementation, from master planning through to detailed design phases, including during early contractor involvement phases should they be required.
- Develop and maintain collaborative relationships with internal and external stakeholders to collect and collate BIM data, leverage expertise and inform evidence-based digital design and development.
- Contribute to the ongoing development and management of the MMC 'Kit of Parts' program to meet quality assurance standards, timelines and objectives.
- Identify, anticipate and resolve complex digital engineering issues and priorities to mitigate risks and deliver improved MMC project outcomes.
- Facilitate proactive identification of value-add MMC and Digital Engineering innovation to promote and foster an environment for MMC design excellence.
- Monitor, review and evaluate the effectiveness of digital innovations and provide recommendations and practical advice to support ongoing continuous improvement.
- Contribute to the planning and delivery of MMC digital projects and initiatives as directed and apply best practice project management methodologies to support the achievement of program and organisational objectives.

## Key challenges

- Managing consultations and negotiations with diverse stakeholders, within agreed timelines, given their varying expectations, viewpoints and interests.
- Implementing innovative and sustainable digital solutions that are high quality, cost effective and deliver improved educational and learning outcomes.
- Maintaining technical knowledge and currency of Digital Engineering and BIM process developments for use and application in a complex, specialised educational environment.

## Key relationships

Who	Why
<b>Internal</b>	
Director, Modern Methods of Construction; Digital Engineering Manager	<ul style="list-style-type: none"> <li>• Receive advice, guidance, instructions and performance feedback.</li> <li>• Report on progress towards business objectives and discuss future directions.</li> <li>• Provide sound advice and contribute to decision making.</li> <li>• Identify emerging issues/risks and their implications and propose solutions.</li> </ul>
Work team	<ul style="list-style-type: none"> <li>• Support the team and work collaboratively to contribute to achieving the team's business outcomes.</li> <li>• Participate in meetings, share information and provide input on issues.</li> </ul>
Customers/Stakeholders, including various SINSW business units and teams: <ul style="list-style-type: none"> <li>- EFSG/Design and Infrastructure Standards team;</li> <li>- Infrastructure Planning/Delivery project teams;</li> <li>- Sustainability;</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and maintain collaborative working relationships and open channels of communication.</li> <li>• Provide technical advice, guidance and recommendations on best practice digital technologies, innovations and standards.</li> <li>• Collaborate to understand business requirements, challenges, risks and opportunities.</li> <li>• Optimise engagement to define mutual interests, manage expectations and achieve defined outcomes.</li> </ul>

Who	Why
- Asset Management Units (AMU's)	
<b>External</b>	
Customers/Stakeholders	<ul style="list-style-type: none"> <li>• Develop and maintain collaborative working relationships and explore joint initiatives and opportunities.</li> <li>• Optimise engagement to define mutual interests, manage expectations and achieve defined outcomes.</li> </ul>
Vendors, contractors and suppliers	<ul style="list-style-type: none"> <li>• Liaise and engage with on project requirements and deliverables.</li> <li>• Monitor the provision of services to ensure effective program delivery.</li> </ul>
Industry professionals/consultants	<ul style="list-style-type: none"> <li>• Seek and maintain specialist knowledge.</li> <li>• Keep up-to-date with industry trends and developments.</li> </ul>

## Role dimensions

### Decision making

This role acts independently in performing its core work functions and applies specialised knowledge, skills and professional judgement to achieve outcomes. Is fully accountable for the delivery of work assignments on time and to expectations in terms of quality, deliverables and outcomes.

In matters that are sensitive, high-risk or business critical, the role consults with the Director to agree on a suitable course of action.

### Reporting line

Director, Modern Methods of Construction

### Direct reports

Nil

### Budget/Expenditure

Budget - Nil

Financial delegation – in accordance with the Department's policy as prescribed for a Clerk Grade 9/10.

## Key knowledge and experience

- Demonstrated experience in all aspects of Digital Engineering/BIM Management and Implementation with a robust knowledge of data transfer, software packages, and an understanding of ISO19650 requirements.
- Experience in day-to-day design/modelling tasks, mentoring and task/resource allocation, digital automation, BIM content development and management.
- Demonstrated industry experience on a variety of projects across built environment sectors utilising Digital Engineering/BIM processes.
- Knowledge of, and commitment to implementing the Department's [Aboriginal Education Policy](#) and upholding the [Department's Partnership Agreement with the NSW AECG](#) and to ensure quality outcomes for Aboriginal people.

## Essential requirements

- Relevant tertiary qualifications in building, digital engineering, architecture or a related built environment discipline and/or equivalent workplace experience.

## 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
<div> Personal Attributes</div>	<b>Display Resilience and Courage</b> Be open and honest, prepared to express your views, and willing to accept and commit to change	<ul style="list-style-type: none"><li>• Be flexible, show initiative and respond quickly when situations change</li><li>• Give frank and honest feedback and advice</li><li>• Listen when ideas are challenged, seek to understand the nature of the comment and respond appropriately</li><li>• Raise and work through challenging issues and seek alternatives</li><li>• Remain composed and calm under pressure and in challenging situations</li></ul>	Adept
<div> Relationships</div>	<b>Communicate Effectively</b> Communicate clearly, actively listen to others, and respond with understanding and respect	<ul style="list-style-type: none"><li>• Tailor communication to diverse audiences</li><li>• Clearly explain complex concepts and arguments to individuals and groups</li><li>• Create opportunities for others to be heard, listen attentively and encourage them to express their views</li><li>• Share information across teams and units to enable informed decision making</li><li>• Write fluently in plain English and in a range of styles and formats</li><li>• Use contemporary communication channels to share information, engage and interact with diverse audiences</li></ul>	Adept
	<b>Work Collaboratively</b> Collaborate with others and value their contribution	<ul style="list-style-type: none"><li>• Encourage a culture that recognises the value of collaboration</li><li>• Build cooperation and overcome barriers to information sharing and communication across teams and units</li><li>• Identify opportunities to leverage the strengths of others to solve issues and develop better processes and approaches to work</li><li>• Actively use collaboration tools, including digital technologies, to engage diverse audiences in solving problems and improving services</li></ul>	Adept

## FOCUS CAPABILITIES

Capability group/sets	Capability name	Behavioural indicators	Level
 Results	<b>Think and Solve Problems</b> Think, analyse and consider the broader context to develop practical solutions	<ul style="list-style-type: none"> <li>• Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues</li> <li>• Work through issues, weigh up alternatives and identify the most effective solutions in collaboration with others</li> <li>• Take account of the wider business context when considering options to resolve issues</li> <li>• Explore a range of possibilities and creative alternatives to contribute to system, process and business improvements</li> <li>• Implement systems and processes that are underpinned by high-quality research and analysis</li> <li>• Look for opportunities to design innovative solutions to meet user needs and service demands</li> <li>• Evaluate the performance and effectiveness of services, policies and programs against clear criteria</li> </ul>	Advanced
	<b>Demonstrate Accountability</b> Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines	<ul style="list-style-type: none"> <li>• Assess work outcomes and identify and share learnings to inform future actions</li> <li>• Ensure that own actions and those of others are focused on achieving organisational outcomes</li> <li>• Exercise delegations responsibly</li> <li>• Understand and apply high standards of financial probity with public monies and other resources</li> <li>• Identify and implement safe work practices, taking a systematic risk management approach to ensure own and others' health and safety</li> <li>• Conduct and report on quality control audits</li> <li>• Identify risks to successfully achieving goals, and take appropriate steps to mitigate those risks</li> </ul>	Adept
 Business Enablers	<b>Technology</b> Understand and use available technologies to maximise efficiencies and effectiveness	<ul style="list-style-type: none"> <li>• Identify opportunities to use a broad range of technologies to collaborate</li> <li>• Monitor compliance with cyber security and the use of technology policies</li> <li>• Identify ways to maximise the value of available technology to achieve business strategies and outcomes</li> <li>• Monitor compliance with the organisation's records, information and knowledge management requirements</li> </ul>	Adept

## FOCUS CAPABILITIES



Capability group/sets	Capability name	Behavioural indicators	Level
	<b>Project Management</b> Understand and apply effective project planning, coordination and control methods	<ul style="list-style-type: none"> <li>Understand all components of the project management process, including the need to consider change management to realise business benefits</li> <li>Prepare clear project proposals and accurate estimates of required costs and resources</li> <li>Establish performance outcomes and measures for key project goals, and define monitoring, reporting and communication requirements</li> <li>Identify and evaluate risks associated with the project and develop mitigation strategies</li> <li>Identify and consult stakeholders to inform the project strategy</li> <li>Communicate the project's objectives and its expected benefits</li> <li>Monitor the completion of project milestones against goals and take necessary action</li> <li>Evaluate progress and identify improvements to inform future projects</li> </ul>	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.

## COMPLEMENTARY CAPABILITIES

Capability group/sets	Capability name	Description	Level
 <b>Personal Attributes</b>	Act with Integrity	Be ethical and professional, and uphold and promote the public sector values	Intermediate
	Manage Self	Show drive and motivation, an ability to self-reflect and a commitment to learning	Adept
	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	Intermediate
 <b>Relationships</b>	Commit to Customer Service	Provide customer-focused services in line with public sector and organisational objectives	Adept
	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Adept

## COMPLEMENTARY CAPABILITIES

Capability group/sets	Capability name	Description	Level
 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
 Business Enablers	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Intermediate
	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	Intermediate