ROLE DESCRIPTION

ROLE

Digital Engineer

ROLE PURPOSE

The Digital Engineer will assist with digital delivery across the Vitruvius business. This will be achieved by supporting multi-disciplinary project teams to achieve successful project outcomes, championing best practice digital engineering solutions and helping improve our internal systems and processes.

The Digital Engineer will work closely with the Digital Lead, Service Leaders and Project Leaders across the business to support engineering projects. This includes setting up project models, carrying out model federation and clash detection, managing digital information requirements and supporting modellers and designers with day-to-day digital delivery.

The Digital Engineer will help implement and standardise good practice digital solutions across Vitruvius. These solutions will deliver improvements in quality and efficiency for workflows throughout the project lifecycle, from survey field-to-model capture through to as-built capture and integration into our clients' asset management systems.

The right person will be experienced, adaptable, bringing a practical hands-on approach to Digital Engineering and ISO 19650 with a genuine interest in improving project outcomes via digitisation. The role will be split roughly 70/30 in terms of project based delivery hours and internal business support.

PURPOSE & VALUES

To be successful at Vitruvius and in this role, all employees must be aligned to and embrace our purpose and values so that we work as a collective towards a common purpose.

Our purpose: Projects that matter delivered by people who care

Our values, what we live by!

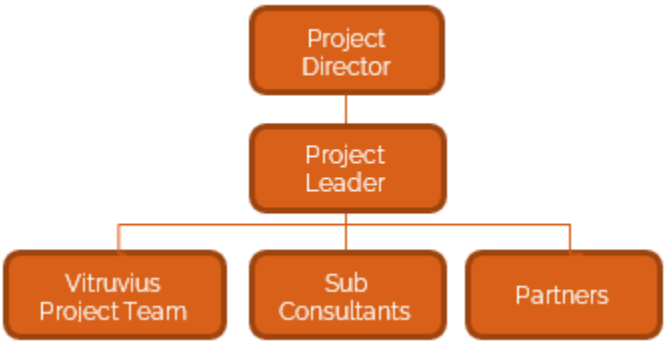


- Committed to connection
- Believe in bravery
- Continually improving
- Stronger through Teamwork
- Enjoy the adventure

ORGANISATION CONTEXT

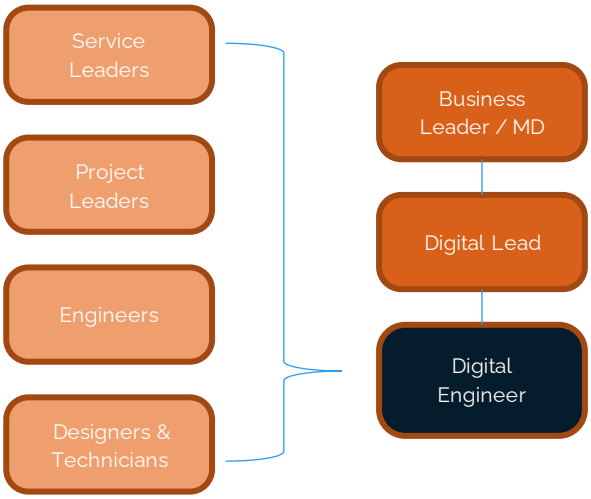
The nature of business that Vitruvius operates is to deliver client projects and we recognise that each project has different capabilities and requirements. For each project a project team is established which may be considered as a temporary organisation structure and can be illustrated below. The **Digital Engineer** will be assigned to a role within the Project Team which may include Project Engineer

or Project Leader when working on client projects, please refer to the Project Team role descriptions. The quality of delivery is critical, and every project team member is expected to fulfil the quality responsibilities of their assigned role, including applying project requirements, completing required reviews/checks, maintaining records, and escalating quality issues where needed.



KEY RELATIONSHIPS & ORGANISATION STRUCTURE

Line Manager:	Digital Lead
Indirect Line Manager:	Auckland Business Leader
Responsible for:	No direct reports
Internal relationships:	All employees
External relationships:	Key Clients, Partnership Consultants, Third Party Contractors, Public



DIMENSIONS AND SCOPE

Contract Type:	Permanent full-time
Location:	Auckland (Preferred)
Level:	5

KEY ACCOUNTABILITIES

1. HEALTH, SAFETY & WELLBEING

- Lead by example for all HSW including hazard management, incident reporting, drills and compliance
- Comply with site operating rules, processes and procedures to prevent project incidents.
- Take responsibility for personal safety and that of other employees, contractors and visitors within your work environment to avoid accidents and incidents.

2. QUALITY & IMPROVEMENT

- Promote and support consistent application of the QMS within the role's area of responsibility.
- Monitor quality performance, identify risks/issues, and escalate or act as required.
- Support corrective actions, continuous improvement, and lessons learnt.
- Ensure relevant reviews, checks, approvals, and records are completed.

3. TECHNICAL DELIVERY

- Help develop digital engineering plans and project set-up guidance to provide efficient use of resources.
- Set up project models and digital environments to Vitruvius standards on multi-disciplinary projects.
- Carry out model federation and clash detection processes and work with design teams to resolve issues.
- Manage digital information requirements and information delivery planning on projects in line with ISO 19650.
- Review and verify digital information produced by project teams to ensure a consistent and high standard.
- Support graphical and non-graphical information production planning and delivery so projects are set up for success.
- Promote continuous improvement and innovation across the portfolio of Vitruvius projects.
- Actively engage with wider industry and keep up to date with best practice.
- Provide guidance and support to CAD technicians, modellers and designers in technical delivery to ensure quality and efficient delivery.
- Assist with development and implementation of automation tools, scripts and workflows that streamline model setup, drawing production and compliance checks.
- Contribute to the Vitruvius AI Working Group to help design and test prompt-based tools (e.g. for model review, QA validation or metadata tagging) that support rather than replace sound engineering judgement.
- Prepare internal documentation, training and support tools for automation solutions.
- Help track digital delivery KPIs and use automation/analytics to improve decision-making and productivity.

- Support the delivery of our GIS based environment – enhancing the way we utilise spatial information in project delivery.

4. INTERNAL

- Contribute to the Digital Management Group (DMG) as required, including supporting the selection, implementation and maintenance of new software tools that meet the company's needs and future-proof our delivery.
- Contribute to the ongoing development of our Digital Framework and Standards and their integration with our quality management system.
- Support digital auditing on projects to help ensure compliance across the company.
- Stay updated with the latest digital and AI technologies and tools to improve workflows and deliverables.
- Identify and champion continuous improvement in digital delivery.
- Draft procedures and standards as required to enhance and ensure relevance and consistency.
- Provide software configuration and development support for the DMG
- Share knowledge with and support technicians, modellers and designers.
- Provide training and support to digital software users.

5. PROJECT MANAGEMENT

Where the Digital Engineer is assigned a digital delivery role within a Project Team , the Digital Engineer:

- Acts in accordance with the Project Team responsibilities outlined in the role description when undertaking a project role
- Follows the quality procedure in the Project Delivery Framework (PDF) and the Digital Framework.
- Fulfils project-based Digital Engineer responsibilities, including applying ISO 19650 best practice for information management and integrating with our clients' requirements.
- Sets up project digital environments such as Common Data Environments, federation and clash detection processes, asset data attribution processes and validation dashboards.
- Supports team members to understand and follow the PDF.
- Ensures documents and major digital assets are complete, current and stored appropriately
- Identifies potential scope creep and raises it with the Project Leader or Digital Lead
- Keeps their own work planner up to date and manages their time to meet billability targets

6. INTERNAL AND EXTERNAL RELATIONSHIP MANAGEMENT

- Support Project Leaders and the Digital Lead in client interactions on Digital Engineering matters
- Provide timely and direct feedback to team members and colleagues
- Identifies opportunities to cross-sell the Vitruvius service offering and passes them on to the relevant Leaders

PERSONAL PROFILE AND SPECIFICATIONS

1. KNOWLEDGE AND EXPERIENCE

Essential	Desirable
• 3+ Years CAD design experience in infrastructure, land development and/or water resources • 3+ Years working on projects of varying scale and complexity • Good working knowledge of New Zealand design codes and practices • Experience (3+ years) with Autodesk authoring applications (or Bentley equivalents) and at least one of Navisworks, Autodesk Forma or Revizto. • Practical experience applying information management and Digital Engineering standards on projects. • Experience working on projects using ISO 19650 best practice. • Experience in model federation and clash detection on multi-disciplinary projects • Exposure to AI tools and how they can support engineering workflows	• Experience developing scripts or automation to improve modelling workflows (e.g. Python, Dynamo). • Experience with 12D and/or Bentley software • Experience in configuration and development of AI platforms and tools in support of engineering workflows • Experience in multiple coding languages (e.g. Python, JavaScript or C#). • Experience working with 12D Synergy or another Common Data Environment. • Knowledge and experience of modern survey tools • Experience in training and supporting software users. • Experience with Revit.

2. SKILLS, QUALIFICATIONS, AND TECHNICAL COMPETENCE

Essential	Desirable
• High level of computer literacy • Excellent English written and verbal communication skills	• Information Management certification (ISO 19650) • Computation certificate (e.g. Dynamo, Python or JavaScript) • A degree or diploma in civil or digital engineering (or equivalent)

3. BEHAVIOURAL COMPETENCE

Essential	Desirable

• Able to problem solve and take action • Well organised planner able to manage multiple objectives • Excellent written and oral English communication skills • Able to adapt and respond to change • High level of integrity • Self-motivated and self-directed • Able to work reliably and autonomously with minimal supervision • Open to new ideas and ways of working • Builds strong working relationships	• A pro-active approach to learning and development