

7.2.1 Job Dashboards

Senior Architect

Megatrends impacting the Job Role in Short to Medium-Term

COVID-19	Multi-Skilling	Sustainable Construction/ Buildings	Value Chain Aggregation & Integration	Workforce Challenges
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Technology Trends impacting the Job Role in Short to Medium-Term

BIM Technology	Data Analytics & AI	Digital Twin	Remote Monitoring
VR/AR	5G, IoT & Smart Buildings	Modular Construction	

Impact Assessment

M

MEDIUM

degree of change in tasks

Today

This job role is responsible for reviewing the pre-design and design phases of the project, and providing direction on the design development and documentation processes. Job holders review contract and procurement methods, project schedules and designs to ensure regulatory compliance.

In the Future

This job role may be impacted by technology, which **changes the way project review is performed**. Job holders need to be familiar with evolving trends and technologies so as to be able to **provide direction across design development and documentation processes, and facilitate close collaboration across the value chain** that is enabled by technology and trends towards aggregation and integration. Job holders may be expected to have a continued focus on **incorporating environmental sustainability and ensuring compliance to regulatory requirements**.

Job Tasks Today	Impact at Task-level / Future view of Job Tasks		Time Horizon
Review deliverables for feasibility and design phase	M	<div><div>▶ Job holders will continue to review design developments and provide resolution where required. As the use of digital tools and platforms (e.g., BIM Technology) is expected to grow in adoption, an understanding of the tools and platforms will be required for job holders to be able to effectively review outcomes and drive the design process.</div><div>▶ Job holders see the prevalence of digital tools (e.g., RPA, AI) to perform review of design development compliance checks in adherence to government and client's requirements and standards. Job holders will thus need to shift focus to addressing non-compliance effectively and efficiently.</div></div>	Short-term
Review documentation and tendering	L	<div><div>▶ Job holders may need to understand smart contracting technologies (e.g., Blockchain) to review contract administration, procurement methods and selection of building contracts.</div></div>	Long-term

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Job Tasks Today	Impact at Task-level / Future view of Job Tasks		Time Horizon
Oversee meetings and handover for construction and completion	L	<ul style="list-style-type: none"> With greater integration and aggregation across the sector's value chain, job holders may be required to place greater emphasis on identifying opportunities for engagement and collaboration with specialists. 	Short-term
	M	<ul style="list-style-type: none"> Job holders may need to develop capabilities to leverage digital tools and platforms (e.g., BIM Technology) in collaboration and communication with architectural professionals and builders for design documentation and management, to review construction designs by builders and oversee handover of projects, in compliance with authorities' requirements. 	Short-term
Manage people and organisational functions	L	<ul style="list-style-type: none"> Job holders may need an understanding and application of digital tools and platforms to effectively drive coordination across project teams and other relevant parties. Job holders will need to continuously keep up to date with skills in-demand and apply the knowledge to identifying technical and business recruitment, training and development needs for the organisation. 	Short-term
Implement continuous improvement initiatives	M	<ul style="list-style-type: none"> Job holders will continue to drive implementation of continuous improvement initiatives across architectural services, technologies, and environmental sustainability and green building strategies. Job holders may leverage digital tools (e.g., Data Analytics) to conduct effective cost-benefit analyses and viability assessments of initiatives to drive successful implementation. 	Short-term
Develop drawings*	L	<ul style="list-style-type: none"> Job holders will still be required to develop shop drawings, while Artificial Intelligence and RPA can accelerate the development by reducing time to consolidate and/or gather required foundational information. 	Medium-term
	L	<ul style="list-style-type: none"> Job holders will still need to develop as-built drawings, while RPA can accelerate the development of as-built drawings by consolidating changes occurred across the entire construction process for documentation. 	Medium-term

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The following TSCs have been identified as in-demand/emerging for the job role going forward:

In-demand Technical Skills and Competencies		
Building Information Modelling Application	Critical Thinking	Data Collection and Analysis
Design for Maintainability	Design for Manufacturing and Assembly	Integrated Digital Delivery Application
People Management	Project Risk Management	Regulatory Submission and Clearance
Stakeholder Management	Technology Application	Technology Scanning
Emerging Technical Skills and Competencies		
Design Sustainability and Ethics Management		