Update on core competencies for Eng BIM Pro and Eng BIM Coord

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香港工程師學會

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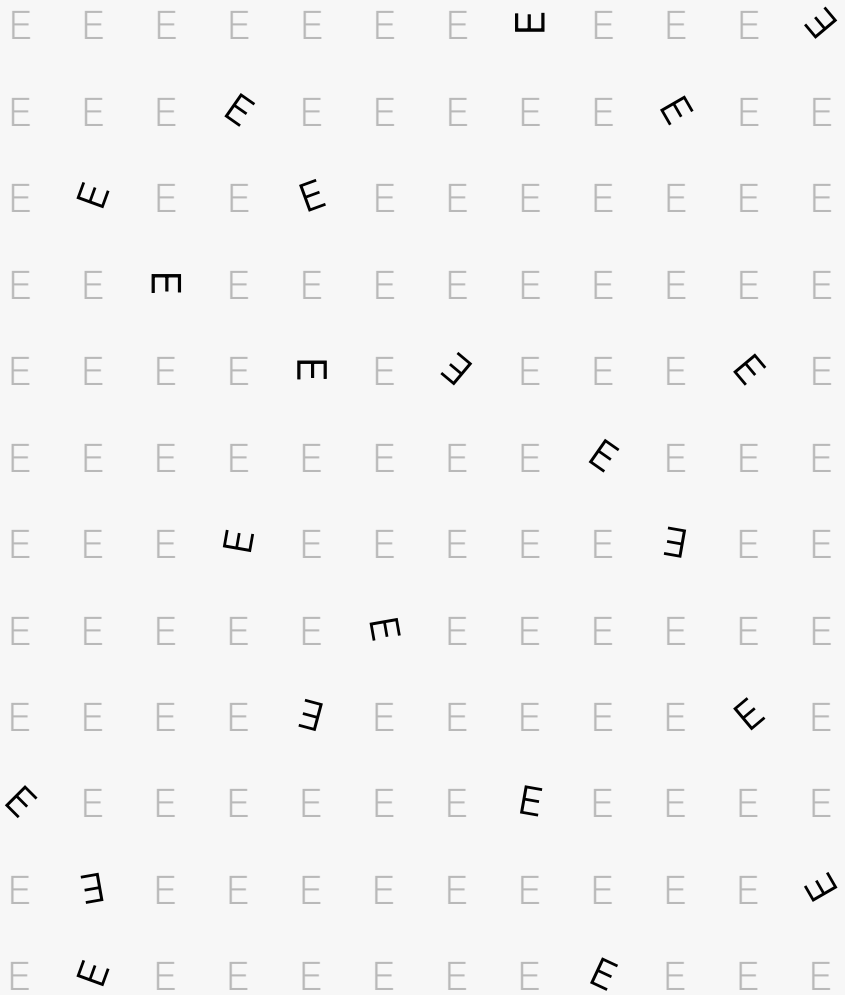


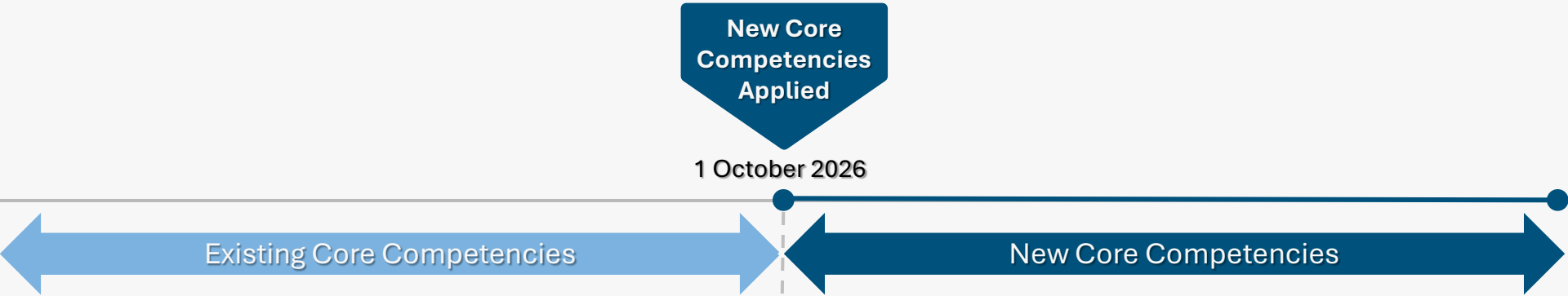
Background

To keep pace with Industry needs, The Construction Industry Council (CIC) has proposed a new enhancement to the core competency requirements for CCBM and CCBC, which will take effect on 1 October 2026. In alignment with these changes, corresponding updates to the core competencies for Eng BIM Pro and Eng BIM Coord of the HKIE will be implemented.

Timeline for the Revision

Effective Date

- 1 October 2026
- Members who submit their applications for Eng BIM Pro and Eng BIM Coord on or after this date will be assessed according to the updated core competencies.



Engineering BIM Professional (Eng BIM Pro)

Revised Core Competencies of CCBM (CIC) and Eng BIM Pro (HKIE)

Core Competencies		CCBM	Eng BIM Pro
1			Possess the professional knowledge and expertise to serve as a BIM Team Leader in Engineering Practice, implementing BIM methodologies across various project stages.
2	**BIM Initiation**	Ability to describe BIM concepts, definitions and scopes, BIM standards and guidelines in the Hong Kong and global contexts. [Level 2]	(i) Adeptness in initiating and leading the adoption of BIM standards (including ISO 19650) and methodologies specifically within engineering projects, ensuring alignment with local and global contexts. [Level 2]
			(ii) Ability to describe BIM concepts, definitions and scopes, BIM standards and guidelines in the Hong Kong and global contexts. [Level 2]
3	**BIM Software and Technologies**	Ability to describe BIM software/platforms and their modelling and digital information development processes, and various technologies associated with BIM. [Level 2]	(i) Proficiency in evaluating and selecting appropriate BIM software, platforms, and emerging technologies (e.g., AI, Digital Twins, CSDI) to optimize engineering information production and modelling workflows. [Level 2]
			(ii) Ability to describe BIM software/platforms and their modelling and digital information development processes, and various technologies associated with BIM. [Level 2]
4	**BIM Uses and Processes**	Ability to explain BIM uses, processes and BIM software/platform utilisation, and to design and manage end-to-end BIM project workflows. [Level 4]	(i) Expertise in formulating and managing engineering-specific BIM uses, workflows, and information requirements (OIR, AIR, EIR) throughout the project lifecycle to ensure successful delivery. [Level 4]
			(ii) Ability to explain BIM uses, processes and BIM software/platform utilisation, and to design and manage end-to-end BIM project workflows. [Level 4]

Revised Core Competencies of CCBM (CIC) and Eng BIM Pro (HKIE)

Core Competencies		CCBM	Eng BIM Pro
5	**Digital Information Management, Collaboration and Integration**	Ability to plan, establish and manage Common Data Environment and data quality control systems for effective digital information management, exchange and utilisation in BIM projects. [Level 4]	(i) Competency in establishing and governing the Common Data Environment (CDE) and quality assurance procedures to ensure data integrity across multi-disciplinary engineering collaborations. [Level 4]
			(ii) Ability to plan, establish and manage Common Data Environment and data quality control systems for effective digital information management, exchange and utilisation in BIM projects. [Level 4]
6	**Commercial and Contractual Aspects**	Ability to explain commercial and financial considerations, and comply with contractual issues related to BIM implementation. [Level 4]	(i) Expertise in strategically advising on commercial implications, resource management, and contractual liabilities related to BIM implementation in engineering contracts. [Level 4]
			(ii) Ability to explain commercial and financial considerations, and comply with contractual issues related to BIM implementation. [Level 4]
7	**Communication Skills**	Ability to apply effective interpersonal and communication skills in diverse professional settings, including presentations, meetings, reporting, training material development, etc. [Level 4]	Ability to apply effective communication skills to facilitate cross-disciplinary engineering coordination, conduct training, and present technical BIM solutions to stakeholders. [Level 4]
8	**Leadership, Management and Integrity Aspects**	Ability to lead and manage subordinates for BIM implementation with professionalism, integrity and ethical behaviour upholding a high CIC standard.	Capability to lead and manage BIM teams with professionalism, upholding engineering ethics and integrity while fostering a collaborative culture. **This is a newly added core competency of Eng BIM Pro.*

Comparisons of New and Existing Core Competencies of Eng BIM Pro

Core Competencies		Existing	New
1		Possess the professional knowledge and expertise to serve as a BIM Team Leader in Engineering Practice, implementing BIM methodologies across various project stages.	Possess the professional knowledge and expertise to serve as a BIM Team Leader in Engineering Practice, implementing BIM methodologies across various project stages.
2	**BIM Initiation**	(i) Adeptness in initiating BIM application and spearheading the BIM process for projects and/or client organisations, comprehensively comprehending BIM concept definitions and scope, as well as BIM standards and guidelines within both the Hong Kong and global contexts. [Level 2]	(i) Adeptness in initiating and leading the adoption of BIM standards (including ISO 19650) and methodologies specifically within engineering projects, ensuring alignment with local and global contexts. [Level 2]
		(ii) Ability to describe BIM concept definitions and scope, BIM standards and guidelines in the Hong Kong and global contexts. [Level 2]	(ii) Ability to describe BIM concepts, definitions and scopes, BIM standards and guidelines in the Hong Kong and global contexts. [Level 2]
3	**BIM Software and Technologies**	(i) Proficiency in consulting or deciding on the BIM information production method and procedures. [Level 2]	(i) Proficiency in evaluating and selecting appropriate BIM software, platforms, and emerging technologies (e.g., AI, Digital Twins, CSDI) to optimize engineering information production and modelling workflows. [Level 2]
		(ii) Ability to explain BIM software and the modelling process, and current and upcoming technologies. [Level 2]	(ii) Ability to describe BIM software/platforms and their modelling and digital information development processes, and various technologies associated with BIM. [Level 2]
4	**BIM Uses and Processes**	(i) Proficiency in advising or deciding on the BIM Uses and BIM software applications to manage and handle information production and deliver. [Level 4]	(i) Expertise in formulating and managing engineering-specific BIM uses, workflows, and information requirements (OIR, AIR, EIR) throughout the project lifecycle to ensure successful delivery. [Level 4]
		(ii) Ability to understand BIM uses and BIM software applications, and to design and manage the overall process of a BIM project. [Level 4]	(ii) Ability to explain BIM uses, processes and BIM software/platform utilisation, and to design and manage end-to-end BIM project workflows. [Level 4]

Comparisons of New and Existing Core Competencies of Eng BIM Pro

Core Competencies		Existing	New
5	**Digital Information Management, Collaboration and Integration**	(i) Competency in planning and executing the establishment of a Common Data Environment (CDE) solution and workflow to achieve quality information delivery [Level 4]	(i) Competency in establishing and governing the Common Data Environment (CDE) and quality assurance procedures to ensure data integrity across multi-disciplinary engineering collaborations. [Level 4]
		(ii) Ability to plan and execute the setting-up of a common data environment and data quality control system for effective use and sharing of digital information in a BIM project. [Level 4]	(ii) Ability to plan, establish and manage Common Data Environment and data quality control systems for effective digital information management, exchange and utilisation in BIM projects. [Level 4]
6	**Commercial and Contractual Aspects**	(i) Expertise in advising on the financial and commercial considerations of BIM, as well as BIM-related contractual matters [Level 2]	(i) Expertise in strategically advising on commercial implications, resource management, and contractual liabilities related to BIM implementation in engineering contracts. [Level 4]
		(ii) Ability to describe commercial and financial issues of BIM as well as BIM-related contractual issues. [Level 2]	(ii) Ability to explain commercial and financial considerations, and comply with contractual issues related to BIM implementation. [Level 4]
7	**Communication Skills**	Ability to apply effective interpersonal and communication skills in a variety of public and interpersonal settings, such as presentations, meetings, report/training material writing, etc. [Level 4]	Ability to apply effective communication skills to facilitate cross-disciplinary engineering coordination, conduct training, and present technical BIM solutions to stakeholders. [Level 4]
8	**Leadership, Management and Integrity Aspects**		Capability to lead and manage BIM teams with professionalism, upholding engineering ethics and integrity while fostering a collaborative culture. **This is a newly added core competency of Eng BIM Pro.*

Engineering BIM Coordinator (Eng BIM Coord)

Revised Core Competencies of CCBC (CIC) and Eng BIM Coord (HKIE)

Core Competencies		CCBC	Eng BIM Coord
1			Possess the knowledge and capabilities in their respective engineering disciplines, functioning as an Eng BIM Coordinator in projects to facilitate horizontal coordination of project information between parties and disciplines, as well as vertical coordination between professionals and BIM technicians, across various project stages.
2	**BIM Initiation**	Ability to describe BIM concepts, definitions and scopes, BIM standards and guidelines in Hong Kong and global contexts. [Level 2]	Understand and apply BIM standards, guidelines, and concepts within the context of engineering disciplines. [Level 2]
3	**BIM Software and Technologies**	Ability to operate BIM software/platforms in the modelling processes and digital information development, and describe various technologies associated with BIM. [Level 3]	Proficiency in operating BIM software/platforms for engineering modelling and understanding associated technologies to support digital information development. [Level 3]
4	**BIM Uses and Processes**	Ability to understand BIM uses, processes, apply BIM software/platform in project contexts, and execute and administer assigned BIM tasks for individual or cross-disciplinary coordination. [Level 3]	Competency in executing and administering assigned BIM uses and coordination tasks to support engineering design and construction delivery. [Level 3]

Revised Core Competencies of CCBC (CIC) and Eng BIM Coord (HKIE)

Core Competencies		CCBC	Eng BIM Coord
5	**Digital Information Management, Collaboration and Integration**	Ability to execute and administer the operation of Common Data Environment and data quality control systems for effective digital information management, exchange and utilisation in BIM projects. [Level 3]	(i) Competency in administering the Common Data Environment (CDE) workflow and executing information exchange and maintain engineering data quality. [Level 3]
			(ii) Ability to execute and administer the operation of Common Data Environment and data quality control systems for effective digital information management, exchange and utilisation in BIM projects. [Level 3]
6	**Communication Skills**	Ability to apply reasonable interpersonal and communication skills in meetings, reporting, training material development, etc. [Level 3]	Ability to apply reasonable interpersonal and communication skills to participate in engineering coordination meetings and prepare BIM-related documentation. [Level 3]
7	**BIM Information Exchange knowledge**		Ability to handle the exchange of BIM information between parties with an emphasis on quality.

Comparisons of New and Existing Core Competencies of Eng BIM Coord

Core Competencies		Existing	New
1		Possess the knowledge and capabilities in their respective engineering disciplines, functioning as an Eng BIM Coordinator in projects to facilitate horizontal coordination of project information between parties and disciplines, as well as vertical coordination between professionals and BIM technicians, across various project stages.	Possess the knowledge and capabilities in their respective engineering disciplines, functioning as an Eng BIM Coordinator in projects to facilitate horizontal coordination of project information between parties and disciplines, as well as vertical coordination between professionals and BIM technicians, across various project stages.
2	**BIM Initiation**	Ability to describe BIM concept definitions and scope, BIM standards and guidelines in Hong Kong and global contexts. [Level 2]	Understand and apply BIM standards, guidelines, and concepts within the context of engineering disciplines. [Level 2]
3	**BIM Software and Technologies**	Ability to operate BIM software and the modelling process, and describe current and relevant technologies. [Level 3]	Proficiency in operating BIM software/platforms for engineering modelling and understanding associated technologies to support digital information development. [Level 3]
4	**BIM Uses and Processes**	Ability to understand BIM uses, apply BIM software applications, and to execute and administer the responsible BIM tasks for individual or cross-disciplinary BIM project coordination. [Level 3]	Competency in executing and administering assigned BIM uses and coordination tasks to support engineering design and construction delivery. [Level 3]

Comparisons of New and Existing Core Competencies of Eng BIM Coord

Core Competencies		Existing	New
5	Digital Information Management, Collaboration and Integration	(i) Competency in managing a Common Data Environment (CDE) solution and workflow in the day-to-day project information management process [Level 3]	Competency in administering the Common Data Environment (CDE) workflow and executing information exchange and maintain engineering data quality. [Level 3]
		(ii) Ability to execute and administer the operation of a CDE and data quality control system for effective use and sharing of digital information in a BIM project. [Level 3]	Ability to execute and administer the operation of Common Data Environment and data quality control systems for effective digital information management, exchange and utilisation in BIM projects. [Level 3]
6	Communication Skills	Ability to apply interpersonal and communication skills in meetings, report/ training material writing, etc. [Level 3]	Ability to apply reasonable interpersonal and communication skills to participate in engineering coordination meetings and prepare BIM-related documentation. [Level 3]
7	BIM Information Exchange knowledge	Ability to handle the exchange of BIM information between parties with an emphasis on quality.	Ability to handle the exchange of BIM information between parties with an emphasis on quality.

Minimum Level of Competency for both CCBM/CCBC and Eng BIM Pro/Coord

Minimum Level of Competency	Existing	New
Level 1	General appreciation of the subject and an understanding of how the subject may affect, or integrate with other subjects.	Demonstrate a general appreciation of the subject and how it may affect, or integrate with other subjects.
Level 2	Knowledge and understanding of the subject and its application.	Possess knowledge and understanding of the subject and be competent to describe its applications and procedures.
Level 3	Ability to perform the subject independently or under supervision.	Able to perform the subject independently or with minimal supervision.
Level 4	Ability to perform the subject without supervision and advise others.	Able to lead and execute the subject without supervision and competently advise and mentor others.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