

Construction Industry Council

Committee on Building Information Modelling

Meeting No. 003/19 of the Committee on Building Information Modelling (Com-BIM) was held on Tuesday, 10 September 2019 at 2:30pm at the Board Room, 29/F, Tower 2, Enterprise Square Five (MegaBox), 38 Wang Chiu Road, Kowloon Bay, Kowloon, Hong Kong

Present	:	Ada FUNG	(AF)	Chairperson
		Stephen LAI Yuk-fai	(SLI)	
		Kenneth MO Kon-fei	(KM)	
		Thomas CHAN Tak-yeung	(CTY)	
		YU Sai-yen	(SYYu)	
		Kelvin WONG	(KWKw)	Airport Authority Hong Kong (AAHK)
		Bruce LAW	(BLw)	The Association of Architectural Practices (AAP)
		Karen CHENG	(KCKI)	Architectural Services Department (ArchSD)
		Patrick WONG Ka-ho	(WKH)	Buildings Department (BD)
		Terence LAM Tat-ming	(TmL)	Civil Engineering and Development Department (CEDD)
		FUNG Siu-man	(SmF)	The Chinese University of Hong Kong (CUHK)
		Bernard WONG Lap-pong	(LPWg)	Drainage Services Department (DSD)
		Steve CHAN	(CHY)	Electrical and Mechanical Services Department (EMSD)
		Alvin LAI	(ALai)	Hospital Authority (HA)
		Daniel CHONG Kwok-ming	(DCg)	The Hong Kong Federation of Electrical and Mechanical Contractors Limited (HKFEMC)
		Benny CHOW Ka-ming	(BCw)	Hong Kong Green Building Council (HKGBC)
		Andrew CHAN Ching-leung	(ACCl)	Hong Kong General Building Contractors Association (HKGBCA)
		Dennis LEUNG	(DsLg)	Hong Kong Housing Authority (HKHA)
		SO Ching	(CSO)	The Hong Kong Institute of Architects (HKIA)

	Kevin WONG	(KWg)	Hong Kong Institute of Building Information Modelling (HKIBIM)
	Sunny CHOI Shing-lam	(SLC)	The Hong Kong Institute of Surveyors (HKIS)
	NG Chun-keung	(NCK)	Hong Kong Institute of Utilities Specialist (HKIUS)
	Jack CHENG	(JCCp)	The Hong Kong University of Science and Technology (HKUST)
	HO Ka-chun	(KcH)	Highways Department (HyD)
	Kelvin KUO	(KKuo)	Chartered Institution of Civil Engineering Surveyors (Hong Kong Region) (ICES(HK))
	Nelson YAM Hon Fun	(NYHf)	Lands Department (LandsD)
	Silas LIU Kam-ming	(SLKm)	Planning Department (PlanD)
	JoonOh SEO	(JOS)	The Hong Kong Polytechnic University (PolyU)
	Eric POON Shun-wing	(EPSW)	Urban Renewal Authority (URA)
	LO Wing-hong	(LoWH)	Vocational Training Council (VTC)
	Antonio CHAN	(AoCn)	Water Supplies Department (WSD)
In Attendance :	Keith YIM	(KYm)	Association of Consultant Quantity Surveyors (ACQS)
	Terence KONG	(TKHw)	Independent Checking Unit, Housing Department (ICU)
	Marcin KLOCEK	(mK)	MTR Corporation Limited (MTRC)
	Aileen TSANG	(TPK)	Buildings Department (BD)
	TSE Wai-kin	(TWK)	Civil Engineering and Development Department (CEDD)
	Richard PANG	(RPg)	Director - Industry Development
	Alex HO	(AHKK)	Senior Manager – Building Information Modelling
	Rocky CHO	(RYC)	Senior Manager - Construction Procurement
	KF LAU	(LKF)	Manager - Building Information Modelling
	Serina LAU	(SLau)	Manager - Building Information Modelling

	Ron NG	(RNCw)	Manager - Building Information Modelling
	George WONG	(GWck)	Manager - Building Information Modelling
	Stephen NGAI	(SnNi)	Manager - Centre for Professional Development, HKIC
	Andy LI	(AyLi)	Senior Officer - Construction Productivity
Apologies	: CHUNG Kwok-fai	(CKFi)	
	Ivan FU Chin-shing	(FI)	
	Clement CHUNG	(CtCg)	The Association of Consulting Engineers of Hong Kong (ACEHK)
	Sammy NG	(SNTy)	bSHK
	Billy WONG	(BWCb)	The Hong Kong Construction Association (HKCA)
	Franki YEUNG	(FY)	Hong Kong Housing Society (HKHS)
	Calvin FU Po-wa	(CFPw)	The Hong Kong Institution of Engineers (HKIE)
	Steve ROWLINSON	(SR)	The University of Hong Kong (HKU)
	Andrew SIMPSON	(ASn)	West Kowloon Cultural District Authority (WKCDA)
	Simon J GALLAGHER	(SJG)	Chartered Institute of Architectural Technologists (Hong Kong Centre) (CIAT)

MINUTES

Action

3.1 Confirmation of the Minutes of Meeting No. 002/19 of the Com-BIM

Members took note of the Paper CIC/BIM/M/002/19 with some minor comments from the Urban Renewal Authority (URA) and confirmed the Minutes of meeting No. 002/19 of the Com-BIM on Tuesday, 11 June 2019.

(KKuo arrived the meeting at 2:45pm)

3.2 Matters Arising from the Previous Meeting

AHKK reported on the matters arising from the previous meeting as follows:

- (a) Agenda item 2.2 - Progress of the BIM-related Projects
- Works Departments (Civil Engineering and Development Department (CEDD), Architectural Services Department, Water Supplies Department (WSD), Highways Department, Electrical and Mechanical Services Department, Drainage Services Department (DSD)) as well as Planning Department (PlanD) would share the progress of their BIM-related projects under agenda item 3.9.
- (b) Agenda item 2.3 - Progress Report on BIM by CIC
- (i) Development of Capacity Building Initiatives
- CIC had shared the BIM models provided by CEDD, DSD and WSD with HKIC and the institutes who had signed the Memorandum of Understanding (MoU institutions) with CIC. Details would be reported by the Task Force on BIM Training under agenda item 3.6.
- (ii) Research and Development (R&D)
- Building Information Technology (BIT) submitted their application for the CIC R&D Fund with a research topic “BIM-Automation of Gross Floor Area (GFA) Calculation, Fire Safety and Prescribed Checking for General Building Plans (GBP) Preparation” on 8 August 2019. Follow-up meetings with the CIC were held on 19 August and 3 September 2019. Details of this application would be reported under agenda item 3.4.
 - For the consultancy study on the processing and collection of BIM data for the development of a digital Hong Kong, the assignment brief was being reviewed by Development Bureau (DEVB), Lands Department (LandsD), PlanD and Buildings Department (BD).

(c) Agenda item 2.4 - Progress of the Task Force on BIM Standards (Phase 2)

- A meeting between Committee on BIM (Com-BIM) and Committee on Construction Procurement to discuss the setting up of the joint Task Force between two Committees was held on 30 August 2019. RNCw reported on the scope of work, which included the BIM specifications, BIM agreement and BIM contract conditions, as well as the respective roles and responsibilities of the two Committees. The first Task Force meeting would be held in October 2019 after endorsement by two Committees in September 2019. After deliberations, Task Force Members were proposed to be formed by representatives from the following organisations:
 - 1) Airport Authority Hong Kong (AAHK)
 - 2) Association of Consulting Engineers of Hong Kong (ACEHK)
 - 3) Association of Consultant Quantity Surveyors (ACQS)
 - 4) Development Bureau (DEVB)
 - 5) Hospital Authority (HA)
 - 6) Hong Kong Construction Association (HKCA)
 - 7) Hong Kong Construction Sub-Contractors Association (HKCSA)
 - 8) Hong Kong Federation of Electrical and Mechanical Contractors (HKFEMC)
 - 9) Hong Kong General Building Contractors Association (HKGBCA)
 - 10) Hong Kong Housing Authority (HKHA)
 - 11) Hong Kong Institute of Architects (HKIA)
 - 12) Hong Kong Institute of Building Information Modelling (HKIBIM)
 - 13) Hong Kong Institution of Engineers (HKIE)
 - 14) Hong Kong Institute of Planners (HKIP)
 - 15) Hong Kong Institute of Surveyors (HKIS)
 - 16) MTR Corporation Limited (MTRC)
 - 17) Real Estate Developers Association of Hong Kong (REDA)
 - 18) CIC
- CIC was seeking LandsD's advice on the development of BIM Standards for simplified BIM (likely to be named as "sharable BIM").
- On the development of 5D BIM for Quantity Take Off (QTO), AF suggested to form a small working group. CIC was seeking HKIS's advice.

(d) Agenda item 2.7 - Presentation of BIM Adoption Roadmap

(i) HKHA

- HKHA had sent CIC 125 Revit family components and seven animation clips on construction and site safety planning.
- There was no update on BIM adoption by Estate Management Division of HKHA. TKHw reported on the progress of their BIM-related projects in the Independent Checking Unit of Housing Department. The report is attached in Annex A for Members' information.
- Representative from REDA was not available to attend this meeting. CIC Secretariat would follow up with REDA to update the progress of BIM adoption amongst their members. CIC
Secretariat
- CIC Secretariat shared the information of the BIM adoption roadmap and BIM adoption promotion, as well as the PowerPoint presentation of the last meeting with Members by email on 13 August 2019.
- CIC had received the "Roadmap on BIM Adoption Form" from LandsD on 23 August 2019 and was still waiting for the "Promotion of BIM Adoption Form" from bSHK, Hong Kong Green Building Council and HKIE. SNTy,
BCw, CFPw

(e) Agenda item 2.8 - Presentation of 5D BIM

- The work examine the user cases of Rider Levett Bucknall for further development of 5D BIM would be included in the future development of BIM Standards on QTO once the working group was formed.

(RYC left the meeting at 3:07pm)

3.3 2020 Business Plan

AHKK briefed Members on the paper CIC/BIM/P/008/19 regarding the 2020 business plan.

In 2020, CIC targets to publish three more BIM Standards, encourage more organisations to develop their own BIM roadmap and commit to train up more BIM personnel, certify at least 100 more CIC-Certified BIM Managers (CCBM), launch the schemes for certification of BIM Coordinators and Accreditation of BIM Coordinator Courses, and organise BIM Awards and a BIM Competition, three BIM Talks and at least 80 events at the CIC BIM Space.

After deliberations, Members endorsed the proposed 2020 business plan and budget of Com-BIM. As the budget is sensitive in nature, it was only reviewed by the Council Members of Com-BIM.

AF encouraged professional bodies to make use of CIC BIM Space for organising BIM-related activities for their members. CTY suggested giving priority to the development of BIM standards and related training courses on rebar modelling as it matched with the DEVB policy. AF suggested JCCp to report on the research project “BIM-based Rebar Design Optimisation and Prefabrication Automation”.

JCCp

(AyLi and BLw arrived the meeting at 3:47pm)

3.4 Application for the CIC R&D Fund - BIM-Automation of GFA Calculation, Fire Safety and Prescribed Checking for GBP Preparation

AyLi briefed Members on the paper CIC/BIM/P/009/19 regarding the applications for the CIC R&D Fund.

Mr. Samson WONG, a representative from BIT, gave a presentation on their research proposal. In 2018, BIT collaborated with the URA to develop a programme to apply BIM in the calculation of residential saleable area. BIT proposed to apply this concept in developing a tool for automatic calculation of GFA and checking of some building codes for the preparation of GBP in residential building projects. The plug-in developed will be able to reduce the GBP preparation time from about three weeks to ten minutes, which could increase the efficiency and accuracy of GBP preparation and promote BIM adoption. With the plug-in developed for LandsD, it would enhance their efficiency on GBP approval.

After deliberations, Members supported the research proposal in principle but raised some comments including the software license type, provision of free software license to BD and Architectural Practice firms, development based on a single BIM software and possibility to share the knowledge and software logic that define the GFA calculation. The CIC Secretariat would follow up with BIT. AF suggested the Task Force on BIM Standards (Phase 2) to look into the research project to ensure the work would align with the BIM standards.

[Post-meeting Notes: The CIC Secretariat sent the response of BIT to Members on 25 September 2019.]

(TmL left the meeting at 3:55pm)

(AyLi, EPSW, KWKw, SLI left the meeting at 4:45pm)

3.5 Progress of the Task Force on BIM Standards (TF-BS) (Phase 2)

JCCp briefed Members on the paper CIC/BIM/P/010/19 and gave a presentation on the progress of the TF-BS (Phase 2).

“CIC BIM Standards for Mechanical, Electrical and Plumbing (MEP)”, “CIC BIM Standards for Underground Utilities”, “CIC BIM Standards – General” and “CIC Production of BIM Object Guide General Requirements” were endorsed by Task Force Members on 22 August 2019 and approved by Com-BIM Members in principle.

For the “CIC BIM Standards for Statutory Plan Submission”, two stakeholder engagement consultation seminars for the final draft of Phase A (Superstructure Plan, Foundation Plan and Demolition Plan) were held on 26 and 27 August 2019. Final draft of Phase B (Excavation and Lateral Support Plan, Site Formation Plan and Ground Investigation Plan) and Phase C (Drainage Plan) would be ready by September 2019 and November 2019 respectively.

Major enhancement of the “CIC BIM Standards – General” would be carried out in 2020.

Members took note of the progress of the TF-BS (Phase 2).

3.6 Progress of the Task Force on BIM Training (TF-BT)

SLC, on behalf of the Chairperson of the TF-BT, briefed Members on the paper CIC/BIM/P/011/19 regarding the progress of the TF-BT.

CIC had shared the BIM models, Employer’s Information Requirements and BIM Project Execution Plan collected from Works Departments with the MoU institutions for their BIM courses development. CIC had collected from the MoU institutions information on their BIM training courses and was consolidating the data.

HKIA would organise a top-up BIM training course which was scheduled to be offered in early 2020 for their members. HKIS signed a MoU with the Hong Kong Institute of Vocational Education on 4 July 2019. They would organise two certificate courses on BIM for Quantity Surveyors in late 2019.

AF suggested HKIE and HKIS to consider organising accredited top-up BIM training courses for their members in the future. HKIE, HKIS

The Task Force had discussed the skill and competence requirements for BIM coordinators. CIC would engage key industry stakeholders on the proposed certified BIM coordinator schemes.

In responding to an email received from DCg, representative from the HKFEMC, on 6 September 2019, GWck reported there were 607 training seats related to Building Services/ MEP in Hong Kong. AF suggested HKIC to consider providing more training places. HKIC

CTY supplemented that DEVB had taken the initiative to enhance their graduate training schemes to introduce BIM training to engineering, architectural and surveying graduates starting this year. AF suggested DEVB to share the BIM training requirements for the graduates with the professional bodies. DEVB

Members took note of the progress of the TF-BT.

(KM left the meeting at 4:50pm)

(ACCl left the meeting at 4:52pm)

(TPK and JOS left the meeting at 4:56pm)

(SYYu left the meeting at 5:05pm)

3.7 Progress Report on BIM by CIC

AHKK gave a brief presentation on the progress report on BIM prepared by CIC.

CIC had invited a lecturer from the United Kingdom to organise the Train-the-Trainer Summer School for five days in August 2019. There were some improvement areas to the training course and CIC would organise another one later.

CIC had organised various events at the CIC BIM Space and attracted Government Departments and other organisations to participate in. Upcoming events were shown at the CIC BIM portal.

Educational institutions requested for an information hub to be set up for BIM-related research projects including Final Year Projects (FYPs) carried out at higher education institutions in Hong Kong. The CIC BIM portal could be developed into an information hub to facilitate searching

of BIM-related research projects and papers. CIC would invite the MoU institutions to share their BIM-related research projects including FYPs in the BIM Portal. CIC Secretariat

Construction Innovation Expo (CIExpo) 2019 would be held from 17 to 20 December 2019 while the International Conference on BIM would be held on 17 December 2019. Members were encouraged to attend. All to note

The deadline of the grandfathering policy for application for CCBM would be on 31 December 2019. Members were requested to encourage potential candidates to submit their applications before the deadline. All to note

CIC was working on the new schemes to certify BIM coordinators and accredit BIM coordinator courses in Hong Kong. It was proposed to set up a career path from BIM modeller to CIC-Certified BIM Coordinator and then to CCBM. Several consultation forums would be organised to collect feedback from the industry. All to note

AF said that buildingSMART International Standards Summit will be held from 28 to 31 October 2019 at the China National Convention Center, Beijing. Com-BIM Members, especially representatives from DEVB, MTRC, AAHK, URA and HKHA, were invited to attend. The CIC Secretariat would share the information on the Summit with Members again by circulation.

Members took note of the progress report on BIM prepared by CIC.

[Post-meeting Notes: The CIC Secretariat shared the PowerPoint of the progress report on BIM prepared by CIC and information on buildingSMART International Standards Summit with Members by circulation on 12 September and 13 September 2019 respectively.]

(mK left the meeting at 6:10pm)

3.8 Progress of the BIM Adoption Survey

Dr. William LAM and Dr. Calvin KAM, representatives from the bimSCORE Ltd, consultant of the BIM adoption survey, gave a presentation on the interim progress of the survey.

The survey had reached seven target groups, including Government Departments, statutory bodies, main contractors, subcontractors, consultants, BIM consultants, real estate developers and asset owners. Analysis of the BIM adoption profile, current BIM use, benefits of BIM implementation, BIM training demand, hurdles in BIM adoption,

motivations for BIM adoption, and preliminary observations for some target groups were reported. The final report would be ready by end of October 2019.

After the presentation, AF suggested the consultant to differentiate between regulators and public clients under the category “Government Department”.

CIC
Secretariat

Members took note of the progress of the BIM adoption survey.

(SLKm left the meeting at 6:24pm)

3.9 Progress of the BIM-related Projects

AF suggested to arrange a separate session for the presentation on the progress of the BIM-related projects by the Government Departments and extend it to a wider audience like a CPD event. CIC Secretariat would follow up.

[Post-meeting Notes: The CIC Secretariat had scheduled the presentation on BIM-related projects by Government Departments as well as an introduction and a demonstration of the BIM-Asset Management Project at ZCB on 14 October 2019. An invitation email was sent to Com-BIM Members on 17 September 2019.]

(ALai left the meeting at 6:56pm)

3.10 Any Other Business

a) Sharing of International Built Environment Week (IBEW) 2019

AF and RNCw attended the IBEW in Singapore in early September 2019 with the “BusIMan Team”, champion of the Tertiary Student Category of the CIC BIM Competition 2019. Two students from the “BusIMan Team” gave a presentation of their visit.

After the presentation, AF highly praised the students since they had done an excellent job in promoting CIC and BIM at the IBEW in Singapore. She would like the students to serve as CIC’s BIM ambassadors to promote CIC and BIM continuously to their colleagues and faculties. RPg agreed with AF and intended to ask the students to help in the promotion and organisation of the CIExpo 2019.

b) Open Data from PlanD

SLKm reported that PlanD had published the statutory outline zoning plans as open data on their website and encouraged Members to download them for use in their work.

[Post-meeting Notes: The CIC Secretariat shared the download link (https://www.pland.gov.hk/pland_en/info_serv/open_data/index.html) provided by PlanD with Members by email on 12 September 2019.]

3.11 Next Meeting

10 December 2019 (Tuesday) at 2:30 p.m. at the Board Room, 29/F, All to note
Tower 2, Enterprise Square Five (MegaBox), 38 Wang Chiu Road,
Kowloon Bay, Kowloon, Hong Kong.

There being no further business, the meeting was adjourned at 7:00pm.

CIC Secretariat
September 2019

**Progress of the BIM-related Projects in the
Independent Checking Unit (ICU) of Housing Department (HD)**

In order to get ready for BIM submission, ICU's Housing Electronic Plan Submission System (HePlan) has been implemented in 2016 for the approval of the electronic plan submission, and BIM models can be submitted to ICU under this electronic submission platform for reference. With the coordination of the Housing Department, ICU will have seven pilot projects to kick start the use of BIM for preparing statutory plan submission to ICU within this year. The relevant BIM models would be also submitted for reference to assist ICU's vetting and approval.

In addition, ICU obtained funding from TechConnect Block Vote in the end of 2017 for developing BIM technology to produce plans for statutory submission. The key purpose of this BIM project is to facilitate designers to minimise manual editing works in plan production. All drawings and data required for statutory submission should be retrieved directly from BIM objects as far as practical. The deliverables include:

1. BIM Standards and Modeling Guidelines for Statutory Submission of General Building Plan, Foundation Plan and Superstructure Plan;
2. BIM Model Templates, Families, Library Components, Objects and Elements in REVIT for the purpose of Building BIM Model, Producing 2D Plans and Schedules;
3. Plug-in software to check the linkage and consistency between the 2D plans and schedules with the 3D model to identify and highlight all manual-editing works on 2D plans and schedule

The draft version of the deliverables will be ready in the end of 2019 and the trial run will be conducted in early 2020. After the trial run, the deliverables would be shared with all stakeholders for use.