



# CIC BIM Special Conditions of Contract

(in line with ISO 19650) September 2021

#### Disclaimer

Whilst reasonable efforts have been made to ensure the accuracy of the information contained in this publication (Reference Material), CIC nevertheless encourages readers to seek appropriate independent advice from their professional advisers where possible. Readers should not treat or rely on this publication (Reference Material) as a substitute for such professional advice.

#### Enquiries

Enquiries about this Reference Material may be made to the CIC Secretariat at: 38/F, COS Centre 56 Tsun Yip Street, Kwun Tong, Kowloon Hong Kong

> Tel: (852) 2100 9000 Fax: (852) 2100 9090 Email: coop@cic.hk Website: www.cic.hk

© 2021 Construction Industry Council

#### **Copyright Notice**

This Reference Material will only become truly useful if as many organisations adopt it as possible. To that extent, it may be freely distributed and used in any format necessary, provided credit is given to CIC.

#### **Document Revision Tracking**

Issue Date	Notes
July 2021	Draft version for public consultation
September 2021	First publication



## Table of Contents

Preface	ei
Forewo	ord ii
Purpos	ev
Contra	ct and Collaboration Arrangementsvii
Using T	his Documentix
CIC BIN	1 Special Conditions of Contract1
1.	General 1
2.	Definitions1
3.	Obligations and Responsibilities
4.	BIM Manager5
5.	BIM Execution Plan
6.	Qualification of BIM Personnel7
7.	BIM Models
8.	Level of Information Need
9.	BIM Objects
10.	Contract Implication
11.	Design and Construction Coordination9
12.	Common Data Environment (CDE)9
13.	Data Suitability 10
14.	BIM Audits 10
15.	Design Authoring 11



16.	Intellectual Property Rights	11
17.	Completion / Termination of Project	12
Арре	endix to Special Conditions of Contract	13



#### <u>Preface</u>

The Construction Industry Council (CIC) is committed to seeking continuous improvement in all aspects of the construction industry in Hong Kong. To achieve this aim, the CIC forms Committees, Task Forces and other forums to review specific areas of work with the intention of producing Alerts, Reference Materials, Guidelines and Codes of Conduct to assist participants in the industry to strive for excellence.

The CIC appreciates that some improvements and practices can be implemented immediately whilst others may take more time for implementation. It is for this reason that four separate categories of publication have been adopted, the purposes of which are as follows:

- Alerts Alerts are reminders in the form of brief leaflets produced quickly to draw the immediate attention of relevant stakeholders to the need to follow some good practices or to implement some preventive measures in relation to the construction industry.
- Reference Reference Materials are standards or methodologies generally Materials adopted and regarded by the industry as good practices. The CIC recommends the adoption of the Reference Materials by industry stakeholders where appropriate.
- Guidelines Guidelines provide information and guidance on particular topics relevant to the construction industry. The CIC expects all industry stakeholders to adopt the recommendations set out in the Guidelines where applicable.
- Codes of Codes of Conduct set out the principles that all relevant industry Conduct participants should follow. Under the Construction Industry Council Ordinance (Cap. 587), the CIC is tasked to formulate codes of conduct and enforce such codes. The CIC may take necessary actions to ensure compliance with the codes.

If you have read this publication, we encourage you to share your feedback with us. Please take a moment to fill out the Feedback Form attached to this publication in order that we can further enhance it for the benefit of all concerned. With our joint efforts, we believe our construction industry will develop further and will continue to prosper for years to come.



#### Foreword

We are glad to see the release of the Construction Industry Council (CIC) BIM Special Conditions of Contract (SCC) and BIM Services Agreement (SA). These BIM SCC and BIM SA shall be read in conjunction with CIC BIM Exchange Information Requirements (EIR) Template and CIC BIM Standards – General, which align with ISO 19650's Information Management principles, workflows and requirements, also providing Hong Kong Local Annex of ISO 19650-2:2018.

In 2014, the Construction Industry Council (CIC), in collaboration with around 20 stakeholder organisations of the construction industry, published a report named "Roadmap for the Strategic Implementation of Building Information Modelling (BIM) in Hong Kong's Construction Industry" (hereinafter referred to as the "BIM Roadmap") with an aim to establishing a blueprint for the promotion and adoption of BIM in Hong Kong's construction industry.

The BIM Roadmap suggested 17 initiatives in nine areas with three imminent actions. Establishment of a local BIM standards is one of the recommended imminent actions aiming to set out a common platform and language for Hong Kong's BIM practitioners. The CIC's BIM Standards will be implemented in stages. The first Standards, renamed as CIC BIM Standards – General was published in September 2015.

Since then, BIM practitioners have gained more practical project experience, and there has been much wider adoption of BIM in various areas of the Architecture, Engineering, Construction, Owner and Operator (AECOO) industry in Hong Kong. With the release of the Technical Circular (Works) Nos. 7/2017, 18/2018, 9/2019 and 12/2020 by the Development Bureau (DEVB) of The Government of the Hong Kong Special Administrative Region (HKSAR), capital works projects with project estimates more than \$30 Million are mandated to use BIM technology from 1st January 2018 onwards. All along the CIC has been continuing to develop and establish the CIC BIM Standards for specific BIM usages and disciplines, and to conduct consultations with relevant stakeholders, as an established practice.



With the establishment of the Task Force on BIM Standards on 21 November 2017, the CIC identified and aligned the common practices as well as set up new standards and guidelines to facilitate better implementation and adoption of BIM technologies in project execution. The CIC BIM Standards have been published covering the following specific BIM usages or disciplines separately:

- (i) CIC BIM Standards General (Version 2 December 2020);
- (ii) CIC BIM Standards for Architecture and Structural Engineering (Version 2 -December 2020);
- (iii) CIC BIM Standards for Underground Utilities (August 2019);
- (iv) CIC BIM Standards for Mechanical, Electrical and Plumbing (August 2019);
- (v) CIC BIM Standards for Preparation of Statutory Plan Submissions (December 2020);
- (vi) CIC Production of BIM Object Guide General Requirements (August 2019); and
- (vii) CIC BIM Dictionary (December 2020).

In response to the demand from the industry, a Task Force on BIM Specifications and Agreement was established on 23 October 2019. The Task Force is co-chaired by Committee on Building Information Modelling and Committee on Construction Business Development. The CIC has developed:

- CIC BIM Exchange Information Requirements Template (BIM Specifications)
- CIC BIM Special Conditions of Contract
- CIC BIM Services Agreement

Two Task Groups were formulated under the Task Force, named Task Group 1 (BIM Specifications) and Task Group 2 (BIM Special Conditions of Contract & BIM Services Agreement).

The CIC BIM EIR Template is to provide BIM requirements for contractual deliverables to facilitate prompt adoption of BIM by the construction industry in Hong Kong.

The objective of the BIM SCC is to enable particular contractual provisions that are

© Construction Industry Council 2021 | www.cic.hk



essential to the implementation of BIM in building projects to be smoothly incorporated in the traditional consultancy agreements and construction contracts generally adopted in the industry.

The BIM SA is a template to facilitate employment of BIM Managers and BIM Services Provider Companies by project parties participating in building projects adopting BIM in its design and construction stages.

The target users are primarily the small and medium enterprises (SME) Employers / Clients / Owners / Lead Consultants / Main Contractors (later referred to as Appointing Parties) or their agents in the private sector who plan to use BIM on projects.

Feedback on the BIM SCC and BIM SA from practitioners subsequent to the issuance of this publication would be considered in future revisions.

On behalf of the CIC, we would like to thank everyone who has contributed to the making of these BIM SCC and BIM SA, in particular to the members of the Task Force on BIM Specifications and Agreement.

Ir Rocky POON	Ar. Ada FUNG, BBS
Chairperson	Chairperson
Committee on Construction Business Development	Committee on Building Information Modelling

Construction Industry Council September 2021



#### <u>Purpose</u>

The two contractual documents prepared by CIC serve the following purposes:

1. CIC BIM Special Conditions of Contract

The BIM CIC Special Conditions of Contract provides a set of contract clauses that address aspects of collaboration between various project parties contributing information to and extracting information from the Model to achieve the stipulated BIM Uses in the design and construction as identified in the Exchange Information Requirements for the Project.

The CIC BIM Special Conditions of Contract is designed to be incorporated into consultancy agreements or construction contracts between the Appointing and Appointed Parties (the "Principal Contract") as the case may be. It has been drafted in a generic manner to be widely applicable to common consultancy agreements and construction contracts used in Hong Kong with minimal modifications.

The BIM services (Schedules 1 & 2 in the BIM SA) is to be included in the Principal Contract as part of the scope of services / work by the Lead Consultant / Lead (Main) Contractor, although they may engage BIM Services Providers as subconsultants / sub-contractors to assist in the BIM tasks, subject to the Appointing Parties' acceptance.

To ensure compatibility during implementation, the same set of conditions should be adopted as special conditions to all the contracts where the contracting parties are involved in implementing BIM for the project.

2. CIC BIM Services Agreement

The CIC BIM Services Agreement is intended for the engagement of an independent consultant to act as :

(1) the BIM Manager in accordance with the CIC BIM Standards – General, to manage the works of the Task Teams in the Delivery Team working on a Common Data Environment platform. Different BIM Managers may be engaged for the design and construction stages of a project and/or



(2) a BIM Services Provider to assist the Appointing Party in modelling and other BIM related tasks.

The CIC BIM Services Agreement is drafted in two sections:

- (1) The Terms of Appointment listing the general contractual liabilities and obligations between the Appointing Party and the Appointed Party.
- (2) The Schedules listing the scope of services and project particulars relevant to the assignment.

Both the CIC BIM Special Conditions of Contract and the CIC BIM Services Agreement should be used in conjunction with the CIC BIM Exchange Information Requirements (EIR) Template to define the BIM related contractual deliverables for a project.



#### **Contract and Collaboration Arrangements**

A project adopting BIM would start with establishing the Exchange Information Requirements (EIR) for the Project. Fig.1 below indicates the positions of the BIM Special Conditions of Contract (SCC), the Exchange Information Requirements (EIR) Template and the BIM Execution Plan (BEP).

Fig.1 Relationship between BIM Special Conditions of Contract, the Exchange Information Requirements (EIR) Template and the BIM Execution Plan (BEP).





BIM contract and collaboration can be in various arrangements to suit the project in hand. The BIM Special Conditions of Contract (SCC) and the BIM Services Agreement (SA) are bipartite agreements / contracts that can be applied in most arrangements as follows :

	Contracting Parties	Documents Used
1.	Employer employing Lead Consultant	Consultancy Agreement + SCC + EIR + Schedules 1 and 2 of SA
2.	Employer employing separate consultant	Consultancy Agreement + SCC + EIR + Schedules 1 and 2 of SA
3.	Employer employing Lead Contractor	Construction Contract + SCC + EIR + Schedules 1 and 2 of SA
4.	Employer employing separate contractor	Construction Contract + SCC + EIR + Schedules 1 and 2 of SA
5.	Lead/Separate Consultant employing sub- consultant	Consultancy Agreement + SCC + EIR + Schedule 2 of SA + BEP
6.	Lead/Separate Contractor employing sub- contractor	Construction Contract + SCC + EIR + Schedule 2 of SA + BEP

In the event the Employer, Lead/separate Consultant, Lead/separate Contractor or Sub-contractor wishes to engage a BIM Services Provider to assist in performing the duties of BIM Manager or BIM Modeller (including BIM Coordinator), the contract arrangement would be as follows:-

7.	Employer employing BIM Manager	BIM SA, Schedule 1 + EIR
8.	Lead/Separate Consultant employing BIM Manager / Modeller	BIM SA, Schedules 1 and/ or 2 + EIR
9.	Sub-consultant employing BIM Modeller	BIM SA, Schedule 2 + EIR + BEP
10.	Lead/Separate Contractor employing BIM Manager / Modeller	BIM SA, Schedules 1 and/ or 2 + EIR
11.	Sub-contractor employing BIM Modeller	BIM SA, Schedule 2 + EIR + BEP



#### Using This Document

The target users are Appointing Parties in the private sector or their agents who plan to use BIM for their projects. For the BIM CIC Special Conditions of Contract, the target users are Employers with its consultants and contractors, lead consultants with its subconsultants or lead (main) contractors with its sub-contractors, as the case may be.

For the CIC BIM Services Agreement, the target users are any party participating in BIM tasks that would need the services of a BIM Services Provider to assist in delivering such BIM tasks. They may be Employers, lead consultants, sub-consultants, lead (main) contractors or sub-contractors.

The BIM CIC Special Conditions of Contract and BIM Services Agreement are provided for the industry as reference. Users may refer to these documents and adjust or amend the contents to suit their purposes and needs. The documents are primarily developed for design-tender-build projects. It may need further amendments by professionals for other types of contractual arrangements such as design and build.

#### Notations used in the document

- **Text in square brackets** [] should be edited by the user based on the project specific requirements before releasing to the project.
- **Text separate by /** is used when there are more than one option to specify.
- **Text in brackets ()** is an abbreviation, clarification or indication of specific version of the terms mentioned.
- **Text in brackets ( ) and in italics** is a guidance note provided as further explanation of the relevant portion of the document. Guidance notes should be removed from the final version of the document to be used.
- Selection box □ indicates an item which may or may not be included in the project requirements. Box □ means not selected and box ☑ means selected. Users should decide on this item based on the requirements of their project.

#### Project specific options

The documents allow for selection of options and addition of project specific documents to suit the requirements of each individual project.



Tailoring to fit the requirements of individual projects would be necessary as follows:

#### BIM Special Conditions of Contract

Clause	Title	Options / Attachments			
1	General	Insert the titles of the contracting parti as used in the Principal Contract (e "Employer", "Architect" etc.) to ali terminology between the Princip Contract and the Special Conditions Contract Project title should be the same as th in the Principal Contract Insert the name of the Employer for t project			
5	BIM Execution Plan	Two scenarios are catered for: whether a BIM Execution Plan has been approved and available or not at the time of appointing the consultant or contractor. Select the appropriate scenario			
Appendix	Attachments	Identify which party shall appoint the BIM Manager Attach the EIR prepared by the Appointing Party and the latest approved BIM Execution Plan (if available) for the relevant stage of works (Note that as the BIM Execution Plan is a live document and would be updated as the Project progresses, the version of the BIM Execution Plan appended might vary from appointed party to appointed party)			



Note that there are specific terminologies and abbreviations used in this document. Please refer to the separate document "CIC BIM Dictionary" published by CIC for their definitions and descriptions.

It is recommended that this document is adopted in connection with the CIC BIM Standards and the CIC BIM Exchange Information Requirements (EIR) Template which are separate documents available from the CIC.



# CIC BIM Special Conditions of Contract



#### 1. <u>General</u>

These Special Conditions of Contract are to be read in conjunction with the	
Principal Contract (to be defined hereinafter) between	
	*
(hereinafter referred to as the Appointing Party) and	-
(hereinafter referred to as the Appointed Party) for the	
	-
	_
(hereinafter referred to as the Project) initiated by	-

(hereinafter referred to as the Employer). Whereas the Appointing Party is desirous of implementing Building Information Modelling (BIM) for the Project. These Special Conditions of Contract herewith set out the rights, obligations and responsibilities of the Appointing Party and the Appointed Party with respect to the implementation of BIM for the Project to achieve the desired results. Wherever these Special Conditions of Contract vary from the Conditions in the Principal Contract, the terms of these Special Conditions of Contract shall take precedence.

(\* Titles as used in the Principal Contract.)

#### 2. Definitions

The following words, terminologies and expressions used in these Special Conditions of Contract shall have the meaning given in these definitions. Other words, terminologies, and expressions not specifically defined below shall take on their ordinary meaning in the English language.

**Appointed Party** means the party listed in Clause 1 above who is the "provider of information concerning works, goods or services" as referred to in ISO 19650-1 (3.2.3).

**Appointing Party** means the party listed in Clause 1 above who is the "receiver of information concerning works, goods or services" as referred to in ISO19650-1(3.2.4).



**Building Information Modelling (BIM)** means the process of generating and managing building data during the building or assets life cycle. It is a new way of working using new technology to facilitate project management, better construction process control, cross-disciplinary collaboration, communication with external stakeholders, decision support and risk management.

**BIM Coordinator** means a role combining model management, project information management and process management activities for a Task Team.

**BIM Execution Plan** means the document that explains how the information modelling aspects of a project will be carried out throughout the project life cycle.

**BIM Manager** means the role played by an individual or an organization on behalf of the whole project team. The BIM Manager has many responsibilities which include: BIM facilitation, coordinating data-exchange activities, fulfilling predefined design specifications and delivery specifications and overall model quality control.

**BIM Model (Model)** means the digital representation of the physical and functional characteristics, data, documentation and information of and related to the built asset to be delivered for the Project.

**BIM Modeller** means a skilled BIM software modelling person with good understanding of their specific design discipline, e.g. architectural, mechanical or structural etc.

**BIM Object (Object)** means a self-contained, uniquely identified object in a Model representing a building component or assembly within the Project as referred to in the CIC Production of BIM Object Guide – General Requirements.

**BIM Services Provider** means a specialist sub-consultant engaged by the Appointed Party to assist him in services related to BIM.

**BIM Uses** means the specific BIM Uses as listed in the Exchange Information Requirements and described in the CIC BIM Standards – General published by the Construction Industry Council.

**CIC BIM Standards** means the CIC BIM Standards - General (Version 2 - December 2020), CIC BIM Standards for Architecture and Structural Engineering (Version 2

© Construction Industry Council 2021 | www.cic.hk



- December 2020), CIC BIM Standards for Mechanical, Electrical and Plumbing (August 2019), CIC BIM Standards for Underground Utilities (August 2019), CIC BIM Standards for Preparation of Statutory Plan Submissions (December 2020) and CIC Production of BIM Object Guide – General Requirements (August 2019) all published by the Construction Industry Council.

**Common Data Environment (CDE)** means the centralised digital / electronic document management system which is used for BIM collaboration, storing and exchange of digital data as referred to in the CIC BIM Standards - General.

**Consultant** means the lead consultant and/or his sub-consultants and other consultants responsible for the design and supervision of the Project.

**Contractor** means the lead contractor and/or his sub-contractors and other contractors responsible for the design (when applicable) and construction of the Project.

**Delivery Team** means the team led by the lead consultant or the lead contractor with other appointed parties for a particular project delivering activity. A delivery team will consist of multiple task teams from within the lead consultant's/lead contractor's organisation and any appointed parties.

**Employer** means the client / asset owner /developer responsible for initiating the Project and approving the brief.

**Exchange Information Requirements (EIR)** means the "Information Requirements in relation to an Appointment" as referred to in ISO 19650-1 (3.3.6) generated by the Appointing Party. The EIR sets out the managerial, commercial, and technical aspects as to satisfy what was defined in Project Information Requirements and Asset Information Requirements.

**Federated Model** means a Model that links distinct component Models, tables, analysis and other data sources without losing their identity or integrity by being linked, such that any change to one component Model will not change another component Model.

**Intellectual Property Rights** means trademarks, patents, copyrights, design rights, trade names, new inventions, designs or processes, and other intellectual property rights of whatever nature and wheresoever arising, whether now known



or hereafter created, and whether registered or unregistered, in any country or region.

**Lead Consultant** means the Consultant identified by the Employer to lead the Delivery Team of which he is a party to.

Lead Contractor means the main contractor for the works.

**Level of Information Need** means the framework which defines the extent and granularity of information needed.

**Model Author** means the Project Party responsible for developing the content of a specific Model or Object for the Project.

**Principal Contract** means the consultancy agreement or the construction contract signed between the Appointing Party and the Appointed Party to carry out design or construction works for the Project and to which these Special Conditions of Contract are appended or incorporated into.

**Project** means the construction project identified in Clause 1: General of these Special Conditions of Contract.

**Project Parties** means the appointed parties who are involved in the implementation of BIM for the Project. For a building project, these might include the project manager, architect, structural engineer, building services engineer, quantity surveyor, landscape architect, specialist designer, contractor and his sub-contractors etc.

**Task Team** means a team of individuals assembled by the Appointed Party or other Project Parties to perform a specific task, normally for a particular discipline, e.g. architectural, structural, mechanical, electrical, surveying, interior design etc.

**Virtual Reality** means a model use where three-dimensional models are part of an immersive environment where users experience simulated places, objects and processes.



#### 3. Obligations and Responsibilities

The Appointed Party shall perform his duties and obligations with a high degree of skill, care and diligence and shall at all times act faithfully and in the best interests of the Appointing Party. The Appointed Party understands that failure or delay by them to develop and upload their responsible Models or Objects may cause delay and disturbance to the work of the other Project Parties and warrants herewith to avoid such happenings.

The Appointed Party shall produce his Models and Objects for the respective design and construction works that he is responsible to deliver under the Principal Contract in accordance with the requirements of the Exchange Information Requirements (EIR) and the BIM Execution Plan prepared in respect.

The Employer may amend his EIR and approve the corresponding amendments to the BIM Execution Plan as he considers necessary. Any such amendment(s) to the BIM Execution Plan shall constitute a variation within the scope of the Principal Contract and shall not in any way vitiate or invalidate the Principal Contract. The resulting variation shall be assessed in accordance with the relevant provisions provided in the Principal Contract.

Unless otherwise expressly stated in these Special Conditions of Contract, nothing in these Special Conditions on the implementation of BIM for the Project shall relieve the rights, obligations and responsibilities of the contracting parties under the Principal Contract.

#### 4. BIM Manager

A BIM Manager shall be appointed by the Employer, Lead Consultant or Lead Contractor as stated in the Appendix attached hereto for the Project. Separate BIM Managers might be appointed for the design stage (as the Design Team BIM Manager) and for the construction stage (as the Construction Team BIM Manager) respectively for the Project. When separate BIM Managers are appointed, the Construction Team BIM Manager shall take over and extend the BIM Execution Plan as appropriate for the construction stage of the Project.

The BIM Manager shall oversee and manage the BIM process for the Project all as described in Clause 3.7.12 of the CIC BIM Standards – General.

© Construction Industry Council 2021 | www.cic.hk



The BIM Manager shall set up and administer the Common Data Environment (CDE), or take over and administer the CDE if it has already been set up by others, in accordance with the requirements set out in Chapter 4 of the CIC BIM Standards - General.

#### 5. <u>BIM Execution Plan</u>

- □ 5A<sup>#</sup> The BIM Manager shall facilitate the Delivery Team to develop a BIM Execution Plan complying with the Exchange Information Requirements (EIR) and seek the approval of the Employer. In the event of any disagreement in the process of the BIM Execution Plan development, the BIM Manager shall arbitrate and make the final decision, save for those decisions that shall involve any change in scope of services /works under the Principal Contract which shall be referred to the Employer for his decision. The Appointed Party shall comply with the requirements in the approved BIM Execution Plan when conducting any services related to BIM. Should the approved BIM Execution Plan cause a variation to the scope of work of the Appointed Party, such shall be treated as a variation under the Principal Contract. The BIM Execution Plan is a live document and may be amended from time to time during the Contract Period and should any amendment constitute a variation to the scope of work of the Appointed Party, such shall be treated as a variation under the Principal Contract.
- 5B<sup>#</sup> The BIM Manager has facilitated the development of the BIM Execution Plan for the Project with the Delivery Team and the Appointed Party shall comply with the requirements therein when conducting any services related to BIM. A copy of the latest BIM Execution Plan is attached in the Appendix to these Special Conditions of Contract. The BIM Execution Plan is a live document and may be amended from time to time during the Contract Period and should any amendment constitute a variation to the scope of work of the Appointed Party, such shall be treated as a variation under the Principal Contract.

(<sup>#</sup> Delete as appropriate. 5B should be used for Project Parties appointed at a later date when a BIM Execution Plan has already been prepared and approved.)



#### 6. <u>Qualification of BIM Personnel</u>

The Appointed Party shall establish and maintain Task Teams in accordance with the BIM Execution Plan to the satisfaction of the Appointing Party. Each Task Team shall have sufficient technically competent BIM Modellers led by a duly qualified BIM Coordinator approved by the Appointing Party.

Subject to the Appointing Party's acceptance, the Appointed Party may engage BIM Services Providers as sub-consultants / sub-contractors to assist in the BIM tasks. Details of the proposed BIM Services Provider, including the qualifications of his BIM Coordinator and staff, shall be submitted to the Appointing Party for approval prior to engagement. Engagement of BIM Services Providers shall not relieve the Appointed Party of his obligations and responsibilities under these Special Conditions of Contract and the Principal Contract.

#### 7. BIM Models

The Appointed Party shall exercise the relevant level of skill and care applicable to its equivalent obligations under the Principal Contract to:

- create, generate or otherwise produce Models, Objects, data, information and other deliverables required under his Principal Contract in accordance with the BIM Execution Plan.
- (2) use the Common Data Environment (CDE) to share and/or publish the created Models, Objects, data, information and other deliverables:
  - (a) at the Level of Information Need specified in the BIM Execution Plan;
  - (b) at such times as appropriate with the latest design or construction program for the Project.
- (3) Utilize the Models, Objects and other information produced by himself or other Project Parties to fulfil their requirements specified in the Exchange Information Requirements (EIR).

All services related to BIM carried out by the Appointed Party shall comply with the cyber security requirements stipulated in the BIM Execution Plan. The Appointed Party shall use his best endeavours to protect his digital data against

© Construction Industry Council 2021 | www.cic.hk



unauthorised acts, virus attacks, hacking and accidents that may cause information damage or loss. The Appointed Party shall regularly back up his digital data in a secure and stable system and shall re-develop the information lost at his own cost and time if he fails to do so.

The Appointed Party shall attend meetings called by the BIM Manager in connection with the co-ordination of information between the Models, its implementation and sharing.

Any requirements for deliverables in the Principal Contract shall be applicable to the Models and Objects to be developed.

#### 8. Level of Information Need

All Models, Objects and other information shall be completed to the necessary Level of Information Need in terms of quality, quantity and granularity to enable generating from those Models the required project deliverables for the given stage and BIM Use.

#### 9. BIM Objects

Any Object created by the Appointed Party for use in the Project shall be shared in the repository of the Common Data Environment (CDE) for use by other Project Parties for the purpose of the Project.

#### 10. <u>Contract Implication</u>

(1) The Appointed Party shall develop Models for all works to be designed under the Principal Contract and generate two-dimensional drawings showing the layouts, plans, elevations, sections and other relevant details directly from the Models to produce the deliverables required by the Principal Contract including, but not limited to, statutory submission drawings, tender drawings, contract drawings, working and shop drawings etc. to ensure that the information contained in the drawings are identical to that in the Models. Computer aided design (CAD) or hand produced drawings shall be used only for details of components. Approval shall be sought from the Appointing Party/Employer for the exemption of producing any drawings from BIM.



- (2) The Contract Drawings shall be generated from the Models prepared by the Consultant at the Level of Information Need specified in the BIM Execution Plan. Information incorporated at higher Level of Information Need by the Contractor will be regarded as shop drawing details and shall have no financial effect on the Contract Sum.
- (3) The contract documents for the Project shall be those stated in the Principal Contract. If the Models prepared by the Consultant in the design stage are stated to form part of the contract documents for the construction stage, only the data up to the Level of Information Need specified in the BIM Execution Plan for each Model shall be relevant. Any data in the Models exceeding the Level of Information Need specified shall not form part of the Contract and the extra information incorporated therein shall be for reference only. Changes to such extra information shall not be regarded as a variation under the Principal Contract and shall have no financial nor time effect on the Contract Sum and Contract Period.

#### 11. Design and Construction Coordination

Design and/or construction co-ordination with other Project Parties in the Project is the responsibility of the Appointed Party. The BIM Manager will use digital methods to assist in clash and non-coordinated analysis but the Appointed Party should still conduct his own checking to resolve any conflicts in his work and that with other Project Parties.

#### 12. Common Data Environment (CDE)

A CDE administered by the BIM Manager will be provided for the exclusive use by the Appointed Party and other Project Parties for collecting, managing and disseminating information through a managed process for their services and work on the Project.

The CDE shall provide a platform for changes to the BIM Models to be recorded and distributed on a connected system like the internet or intranet.



There can be more than one CDE set up for the Project, each for a different project stage and for use by different Task Teams.

#### 13. Data Suitability

The Appointed Party shall be responsible for the completeness and due compliance of their Models and Objects created for the Project.

Whenever the Appointed Party uses the information of a Model or Object created by other Project Parties, the Appointed Party shall be obliged to check and satisfy himself that the information in the Model or Object is complete and in a suitable format for his own use.

No Model Author shall be responsible for costs, expenses, liabilities or damages which may result from use of his Models or Objects beyond the purposes they were created for as stated in the BIM Execution Plan.

#### 14. BIM Audits

The Task Teams of the Appointed Party shall carry out audits on a regular basis, as stipulated in the BIM Execution Plan, on his BIM tasks in accordance with the recommendations in the BIM Audit Checklist prescribed in the CIC BIM Standards - General, and submit the audit reports to the Appointing Party and the BIM Manager for their records and over-view.

The BIM Manager will check the audit reports submitted, verify the reports by spot checks and prepare a consolidated BIM Audit Report for reporting to the Employer on a regular basis.

The Employer may also appoint an independent BIM auditor to carry out periodical BIM audits. The Appointed Party shall cooperate with the BIM auditor for carrying out the audit.

The Appointed Party shall rectify any non-conformities found during the BIM audits in a timely manner at his own expenses.



#### 15. Design Authoring

The Model Author of each Model and/or Object shall retain the Intellectual Property Rights of the content provided and nobody else is authorised to amend or modify the Model or Object without his prior consent.

Subject to the provisions of Clause 13 of these Special Conditions, other Project Parties will be allowed to copy the Model or Object and use it as a reference to create a new Model or Object for a different discipline or BIM Use for the Project.

#### 16. Intellectual Property Rights

- (1) The Appointed Party warrants that he owns the Intellectual Property Rights to his Model or is licensed or authorized by other Intellectual Property Rights owners to make his Model and to grant sub-license or sub-sub-license to other Project Parties to use such Intellectual Property Rights. The Appointed Party shall be deemed to have paid the costs of any license fee, royalty or other sum legally demandable for incorporating the Intellectual Property Rights in making his Model.
- (2) The Appointed Party herewith grants to the Appointing Party, his successors in title and assignees, free of charge, a non-exclusive irrevocable license to use such Intellectual Property Rights for the Project, including the right to grant sub-licenses or sub-sub-licenses to other Project Parties to enable them to perform their duties. No prior written consent from the Appointed Party shall be required for such use by the Appointing Party and other Project Parties licensed by the Appointing Party.
- (3) The Appointing Party herewith grants to the Appointed Party a nonexclusive license or sub-license to transmit, copy and use Models created by other Project Parties who have also granted licenses similar to that in Subclause (2) of this Clause to the Appointing Party, for further development or analysis of the Project, including the right to grant sub-license or sub-sublicense on identical terms to the Appointed Party's sub-consultants or subcontractors.
- (4) Subject to Sub-clauses (1) to (3) of this Clause, no act by the Appointing Party or other Project Parties shall limit, transfer, deprive, dispossess or



otherwise affect any Intellectual Property Rights that the Appointed Party owns in respect of his Models and Objects. Where the Appointed Party creates a Model that may be connected with the Model of other Project Parties, the Appointed Party, while owning the Intellectual Property Rights of his distinct individual Model, shall not be treated as a co-author or coowner of that connected Model.

(5) The Appointed Party shall be liable for and shall fully indemnify the Appointing Party and other Project Parties from and against any claims, proceedings, costs, losses, damages and expenses arising out of, or in relation to, his infringement or alleged infringement of any Intellectual Property Rights owned by others contained in his Model or Object.

#### 17. <u>Completion / Termination of Project</u>

Upon completion of the Project, or termination under any reason specified in the Principal Contract,

- (1) the Federated Model, including the Intellectual Property Rights of such Federated Model, shall belong to the Employer. The Appointed Party is deemed to have made available to the Appointing Party all necessary licenses for the continual and unconditional ownership of the Federated Model in its entirety where such licensed third-party intellectual properties have been used.
- (2) the Appointed Party shall be deemed to have continued to grant to the Appointing Party, their successors in title and assignees, free of charge, a non-exclusive irrevocable license to use such Intellectual Property Rights for the Project, including the right to grant sub-licenses or sub-sub-licenses to other Project Parties under Clause 16(2) of these Special Conditions of Contract.
- (3) all licenses granted under Clause 16(3) of these Special Conditions of Contract shall be limited to the Appointed Party retaining a copy of his own Model and related Objects by other Project Parties solely for record purposes.



#### Appendix to Special Conditions of Contract

#### 1. <u>Contract Particulars</u>

Clause 4 The Project Party responsible for appointing the BIM Manager(s) at the various project stages is/are as follows :

**Responsible Project Party** 

(i) Design Stage :

(ii) Construction Stage :

(iii) Other Stages

Clause 5 BIM execution Plan \* Delete if not applicable Clause 5A/5B \* applies

#### 2. <u>Exchange Information Requirements</u>

The Exchange Information Requirements are attached. (Attach the relevant Exchange Information Requirements for the Contract.)

#### 3. BIM Execution Plan

The latest BIM Execution Plan is attached.

(Not applicable for contracts between Employer and Lead Consultant/Lead Contractor or Consultants/Contractors appointed at the initial stage of the Project. For Consultants/Contractors appointed at a later stage when a BIM Execution Plan has already been prepared and approved, attach the latest BIM Execution Plan issued for the Project.)



#### Acknowledgement

The CIC would like to thank the following members of the Task Force on BIM Specifications and Agreement and Task Group on BIM Special Conditions of Contract and BIM Services Agreement for their contributions and support in the drafting of CIC BIM Special Conditions of Contract.



### Member List of the Task Force on BIM Specifications and Agreement

<u>Member</u>	Representative of			
Ar. Ada FUNG (Co-Chairperson)	Chairperson of Committee on Building Information Modelling			
Ir Rocky POON (Co-Chairperson)	Chairperson of Committee on Construction Business Development			
Ar. Marcin KLOCEK (Chairperson of Task Group 1)	MTR Corporation Limited			
Ar. SO Ching (Co-Chairperson of Task Group 2)	The Hong Kong Institute of Architects			
Ir Kelvin WONG (Co-Chairperson of Task Group 2)	Airport Authority Hong Kong			
Ir Clement CHUNG	The Association of Consulting Engineers of Hong Kong			
Ar. David FUNG	The Hong Kong Institute of Architects			
Sr Raymond KONG	The Hong Kong Institute of Surveyors			
Ir Francis LEUNG	The Hong Kong Institution of Engineers			
Mr. Guan TING	Hong Kong Institute of Building Information Modelling			
Mr. Billy WONG	The Hong Kong Construction Association			
Ms. Eliza WONG	Real Estate Developers Association of Hong Kong			

Task Group 1 – BIM Specifications

Task Group 2 – BIM Special Conditions of Contract & BIM Services Agreement



# Member List of the Task Group on BIM Special Conditions of Contract and BIM Services Agreement

<u>Member</u>	Representative of
Ar. SO Ching (Co-Chairperson)	The Hong Kong Institute of Architects
Ir Kelvin WONG (Co-Chairperson)	Airport Authority Hong Kong
Ar. Marcin KLOCEK (Chairperson of Task Group 1)	MTR Corporation Limited
Ar. David FUNG	The Hong Kong Institute of Architects
Sr Raymond KONG	The Hong Kong Institute of Surveyors
Mr. Alvin LAI	Hospital Authority
Mr. Owen LEE	Hong Kong Institute of Building Information Modelling
Mr. Dennis LEUNG	Hong Kong Housing Authority
Mr. Billy WONG	The Hong Kong Construction Association
Ms. Eliza WONG	Real Estate Developers Association of Hong Kong
Sr Keith YIM	The Association of Consultant Quantity Surveyors

Task Group 1 – BIM Specifications

Task Group 2 – BIM Special Conditions of Contract & BIM Services Agreement



#### Feedback Form

#### CIC BIM Special Conditions of Contract

To improve future editions of this publication, we would be grateful to have your comments

(please put a "✓" in the appropriate box.)

<u>\I</u>						
1.	As a whole, the publication is:	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	Informative					
	Comprehensive					
	Useful					
	Practical					
2.	Does the publication enable you to	Yes	i	No	No C	Comment
	understand more about the subject?					
3.	Have you made reference to the	Quite C	ften	Sometimes	Ν	lever
	publication in you work?					
4.	Have you made specific reference to the following aspects?	Quite C	ften	Sometimes	Ν	lever
	Obligation of the parties					
	Contractual implication of the BIM model					
	Intellectual property ownership					
5.	Overall, how would you rate the	Excellent	Very Goo	d Satisfactory	Fair	Poor
	publication?					
6.	Other comments and suggestions:					
			(atta	ach additiona	I sheets if	necessary)
Personal particulars*: (optional)						
Na	me: Mr. / Ms. / Dr. / Prof. / Ar / Ir / Sr					
Company:						
Tel	.:					
Em	ail:					

\* The personal data collected in this form will only be used for evaluation and analysis in connection with this publication. Including contacting you to discuss your comments towards the publication. Your data will otherwise be kept confidential and handled only by the Construction Industry Council.

Please return the feedback form to:

CIC Secretariat – Construction Business Development

Email: coop@cic.hk

Address:38/F, COS Centre, 56 Tsun Yip Street, Kwun Tong, Kowloon, Hong KongFax:(852) 2100 9090

#### **Construction Industry Council**

Address : 38/F, COS Centre 56 Tsun Yip Street Kwun Tong, Kowloon Tel : (852) 2100 9000 Fax : (852) 2100 9090 Email : enquiry@cic.hk Website : www.cic.hk

©2020 Construction Industry Council