Consultancy Brief

Consultancy Study on Adopting Building Information Modelling for Statutory Submissions under the Buildings Ordinance

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Consultancy Study on Adopting Building Information Modelling for Statutory Submissions under the Buildings Ordinance

Consultancy Brief

1. Purpose

1.1 The Government of the Hong Kong Special Administrative Region (the "Government") acting through the Buildings Department (BD) wishes to appoint a consulting firm (the selected consulting firm, "Consultant") to carry out a consultancy study ("Consultancy Study") on adopting Building Information Modelling (BIM) for statutory submissions under the Buildings Ordinance (BO) (the services to be carried out by the Consultant, the "Consultancy Services").

2. Background

2.1 Control of Private Building Development under the BO

- 2.1.1 Under the BO, any person who intends to carry out building works for private building development is required to appoint an authorized person (AP), a registered structural engineer (RSE), and where necessary a registered geotechnical engineer (RGE) to prepare and submit prescribed plans for the approval of the Building Authority (BA). The project proponent is also required to appoint a registered contractor (RC) to carry out the building works shown on the prescribed plans approved by the BA. Consent to commence building works is required from the BA before the carrying out of the works. Upon the completion of building works, AP, RSE, RGE and RC shall according to their respective duties and responsibilities under the BO certify that the works are completed in full compliance with the requirements of the BO.
- 2.1.2 A building development project under the BO involves submission of different types of prescribed plans¹. BD has adopted a curtailed check system in the plan approval process, in which only fundamental issues will be checked. Non-fundamental issues will not be checked and will not be raised as disapproval items. AP, RSE and RGE should ensure that all fundamental and non-fundamental issues have fully complied with the relevant regulations and codes of practice before the commencement of works.
- 2.1.3 Centralised processing system (CPS) is adopted for processing prescribed plans to ensure

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There are different types of prescribed plans in respect of building works as set out in regulation 8 of the Building (Administration) Regulations, including general building plans, drainage plans, superstructure plans, foundation plans, substructure plans, ground investigation plans, excavation and lateral support plans, site formation plans, demolition plans, other structural plans (e.g. cladding, curtain wall, skylight, etc.), alteration and addition plans.

that all interested government departments (such as Lands Department, Planning Department, Fire Services Department, etc.) and organisations (such as Mass Transit Railway Corporation Ltd, Airport Authority, etc.) are consulted² and their comments on proposals of private building developments are collated by the BA within time limits allowed for processing the prescribed plans. The system also serves the purpose of making BD a focal point where issues arising from private building developments precipitate.

2.1.4 In March 2023, taking into account the design and construction process of a building development, Practice Note for Authorized Persons, Registered Structural Engineers and Registered Geotechnical Engineers (PNAP) ADM-19 and PNAP ADV-33 are revised to introduce the arrangement on staged submission of essential information on general building plans (GBP) to facilitate the early approval of the GBP. Under this arrangement, AP may defer submission of plans and details to be provided in GBP according to three milestone stages viz for seeking the first approval of GBP (Stage I), prior to applying for consent for the commencement of the superstructure works (Stage II), and prior to applying for occupation permit / temporary occupation permit (Stage III).

2.2 Government's Vision

2.2.1 The Chief Executive's 2023 Policy Address promulgated that as one of the measures to expedite the approval of building plans, the Government would promulgate in 2023 a road map for full adoption of BIM in the preparation and approval of building plans for private development projects. The Government will ask the Hong Kong Housing Society, the Urban Renewal Authority and the MTR Corporation Limited (MTRCL) to act as pioneers from the second quarter of 2024 by adopting BIM in preparing building plans of residential projects. The Development Bureau promulgated the Roadmap on Adoption of Building Information Modelling (BIM) for Building Plan Preparation and Submission in December 2023. This is a tentative roadmap to provide a basis for consultation with stakeholders in the first quarter of 2024.

2.3 Use of BIM to Prepare Prescribed Plans for Statutory Submissions under the BO

- 2.3.1 PNAP ADV-34 promulgated in September 2016 encourages AP, RSE and RGE to adopt BIM in their private building projects under the BO. The practice note provides general guidelines on BIM submissions for building proposals as supplementary information to facilitate plan processing by BD.
- 2.3.2 As promulgated in PNAP ADM-19 in September 2019, BD accepts the use of BIM software including Autodesk REVIT (REVIT) and Graphisoft ArchiCAD (ArchiCAD) for calculating floor areas of buildings in the preparation of GBP. At the same time, Guidelines for using BIM in GBP Submission 2019 were published to provide general

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² Currently, some 36 government departments and organisations are involved in the CPS as stipulated in Appendix A of PNAP ADM-2.

- guidelines to facilitate AP and BIM practitioners to adopt BIM technology in the preparation of GBP, and recommend good practices for the enhancement of BIM submission standard for GBP.
- 2.3.3 Guidelines for using BIM in Statutory Plan (other than GBP) Submissions jointly developed by BD and the Construction Industry Council (CIC) were published in May 2023, which serve to guide practitioners in using BIM to prepare superstructure plans, foundation plans, excavation and lateral support plans, site formation plans, ground investigation plans, drainage plans, curtain wall plans and demolition plans (including hoarding and covered walkway plans).
- 2.3.4 To facilitate checking of different floor areas in the digital GBP prepared in BIM format, BD and Lands Department (LandsD) have jointly commissioned a consultant to develop a common area calculation methodology and plug-in tools of two native BIM software (i.e. REVIT and ArchiCAD) to streamline the data extraction and conduct automated checking of floor areas against the requirements under the BO and lease conditions. The plug-in tool for checking gross floor area, site coverage, usable floor area and usable floor space under the BO is scheduled for launch in the first quarter of 2024.
- 2.3.5 BD has also planned to develop plug-in tools for compliance checking on the requirements relating to means of escape (MOE) / means of access (MOA) / fire resisting construction (FRC) under the Code of Practice for Fire Safety in Buildings 2011 (June 2023 Edition). Pilot studies for developing an assessment tool for building separation requirements under the Sustainable Building Design Guidelines stipulated in PNAP APP-152; as well as automated checking of BIM software and / or portable document format (i.e. PDF) software for structural submissions are under preparation.
- 2.3.6 To encourage wider and fuller use of BIM for preparing different types of prescribed plans for statutory submissions by AP, RSE and RGE, BD needs to have a more concrete picture on the readiness of the building industry in adopting BIM and on the direction for developing necessary guidelines, requirements and standards, software templates, automated checking tools, etc. to facilitate AP, RSE and RGE to prepare statutory submissions using BIM, and for BD to process these submissions. In addition, BD would like to explore the strategies and necessary conditions for mandating the use of BIM in preparing the prescribed plans for statutory submissions under the BO, and the suitable mode of application of BIM including the use of native BIM software and / or openBIM for statutory submissions as well as their related processing.

2.4 Problems and Limitations

2.4.1 Whilst some private development projects might have used BIM to assist their planning, design, programming, cost estimate, tendering, construction, etc., the use of BIM in preparing prescribed plans for statutory submissions for approval under the BO is still in the embryonic stage. Except for some large architectural firms, most practitioners in the

building industry still rely on two dimensional (2D) drawing tools such as AutoCAD and have little knowledge and practical experience in using BIM for preparing statutory submissions. Besides, most of BD staff do not have in-depth knowledge / understanding on how BIM models can be developed based on respective native software and its use in facilitating the approval process. To promote industry's adoption of BIM and to exploit its potential in facilitating plan processing, standardised requirements in term of "Level of Information Need" in the BIM models and automated compliance checking methodology for the information contained in the BIM models have to be established for BD and concerned practitioners to follow.

- 2.4.2 PNAP ADV-33 has specified the essential information required in different types of prescribed plans to be provided and submitted by AP, RSE and RGE. Currently, scrutiny of the prescribed plans by BD involves manual checking of the essential information shown on the plans which are prepared primarily in 2D format without any built-in automated checking logic. To leverage on the adoption of BIM, it is necessary to explore the feasibility to develop automated BIM checking tools to streamline and improve the efficiency of the workflow in processing different types of prescribed plans.
- 2.4.3 BIM models may contain a lot of information and data, only part of which is required for statutory submissions under the BO. In this respect, a methodology or tool may be required to be developed for the building industry to separate or extract the necessary information and data required for statutory submissions from that being incorporated into the models for other purposes, such as cost estimation, tendering, payment certification, asset management, etc.
- 2.4.4 If BIM models are required to be submitted together with or forming part of the prescribed plans through the Electronic Submission Hub (ESH) under the BO, no centralised platform is currently available for the government departments and organisations to open and provide comments on BIM models under the CPS. Without such centralised platform, individual government departments and organisations have to download and open BIM models by respective native BIM software for checking, and provide their comments to BD separately by memos, e-mail, etc. To leverage the CPS through the ESH, it may be necessary to explore and develop a cloud based platform so that BIM models can be readily viewed, vetted and commented by all concerned government departments and organisations under the CPS. In addition, some common checking tools should be developed in such cloud based platform to facilitate the checking of the requirements of BD and concerned government departments and organisations under the CPS.
- 2.4.5 If BIM models are required for statutory submissions under the BO, the models should be able to be archived as a readily accessible / readable format for public viewing through the current system of Building Records Access and Viewing On-line (BRAVO), and the issues on compatibility between the BRAVO system and the various brands / versions of BIM models have to be addressed and resolved.

3. Objectives of the Consultancy Study

- 3.1 To identify useful references and experience from the Mainland China and overseas which may be applicable to Hong Kong's building control regime, including government practices, strategies, incentives and supporting measures and the corresponding timeframe to drive the adoption of BIM for statutory submissions.
- 3.2 To evaluate the readiness of different stakeholders in the industry (including but not limited to the prescribed building professionals and contractors under the BO, the private developers and the governments bureaux / departments, statutory bodies and organisations under the CPS) to adopt BIM, including the availability of competent personnel, hardware, software, etc. in using BIM for statutory submissions under the BO, identify the hurdles that the industry faces, and any incentives and assistances required by the industry for adoption of BIM for statutory submissions.
- 3.3 To evaluate the capabilities and technical limitations of major native BIM software and openBIM; and recommend on the most suitable mode of application of BIM for preparing, processing, record-keeping and archiving statutory submissions under the BO.
- 3.4 To formulate strategies and identify the necessary conditions for mandating the use of BIM to prepare prescribed plans for statutory submissions and approval under the BO. To devise also the implementation details and time frame on the necessary measures including (i) the training to raise the BIM competency of the stakeholders; (ii) developing, updating and enhancing BIM guidelines, templates for all types of prescribed plans, and the associated platform / tools for handling BIM submissions and the relevant compliance check; (iii) proposed incentives from government / industry to encourage the use of BIM; and (iv) suitable parties / possible funding source and/or financial model (e.g. government or based on "user-pay" principle) to develop and / or maintain the associated platform / automated checking tools.
- 3.5 To formulate the implementation details for the medium and long-term measures for technological development in adopting BIM for statutory submissions under the BO including the direction to choose native / openBIM environment for further development of automated check function, budgets and time frame for hardware / software / industry standard development, with reference to the BIM roadmap promulgated in December 2023 and stakeholders' views gathered.

4. Scope of the Consultancy Study

4.1 Overseas Study

4.1.1 To conduct an in-depth study and research on the approaches of Mainland China (at the state level and of at least 3 major provinces / municipalities) and overseas (at least 3

overseas jurisdictions including Finland, UK (London) and Singapore) in promoting the adoption of BIM for statutory submissions.

4.1.2 The study should cover the following:

- (a) the extent and mechanism of using BIM for statutory submissions in Mainland China / overseas with a brief account / comparison of (i) their statutory submissions and approval processes; (ii) BIM policies / standards / guidelines / appropriate measures developed to facilitate the preparation of statutory submissions; (iii) the types of automated checking tools / templates available to facilitate and streamline the processing and approval of BIM submissions; and (iv) any requirements mandating submissions in openBIM format and whether the automated checking tools / platform are developed in openBIM / Industry Foundation Classes (IFC) based environment:
- (b) the considerations and rationales for those countries to require submissions in openBIM format and / or to develop automated checking tools / platform in IFC-based environment and the benefits brought from adopting such approach;
- (c) the reasons for those countries to develop customised IFC schema (e.g. IFC-SG), how such schema is different from conventional IFC schema developed by buildingSMART and how it enables the capturing of specific local regulatory requirements;
- (d) the range of incentives from the government / industry to encourage the use of BIM; and
- (e) factors contributing to their current level of BIM adoption, including whether any mandatory BIM submission requirements, incentives or assistance supporting BIM adoption in both the private and public sectors.

4.2 Local Statutory Framework and BIM Practice

4.2.1 To conduct a desktop study of the BO and allied regulations, relevant BD's publications (including practice notes, codes of practice and guidelines) and samples of each type of prescribed plan submitted under the BO; and to conduct interviews with the representatives of BD and relevant stakeholders including government bureaux / departments, statutory bodies and organisations under the CPS for understanding the submission and vetting process of different types of prescribed plans under the BO, and workflow for processing statutory submissions under the BO from the stage of prescribed plan submission, the stage of consent application and to the stage of certification of works completion.

4.2.2 To conduct desktop study on the available BIM standards, guidelines, tools, templates, objects and families which govern the BIM practice and / or facilitate the adoption of BIM, including but not limited to the following:

Development Bureau

- (a) Technical Circular (Works) No. 2/2021 on Adoption of BIM for Capital Works Projects in Hong Kong;
- (b) Technical Circular (Works) No. 8/2021 on BIM Harmonisation Guidelines for Capital Works Projects in Hong Kong;
- (c) DEVB BIM Harmonisation Guidelines for Works Departments;
- (d) Roadmap on Adoption of BIM for Building Plan Preparation and Submission (promulgated in December 2023) (hereafter referred to as "BIM Roadmap");

Buildings Department

- (e) PNAP ADV-33 on Essential Information in Plan Submissions;
- (f) PNAP ADV-34 on Building Information Modelling;
- (g) PNAP ADM-19 on Building Approval Process;
- (h) Guidelines for using Building Information Modelling in GBP submission (Sept 2019) and associated software templates;
- (i) Guidelines for using Building Information Modelling in Statutory Plan (other than GBP) Submission 2023;
- (j) Plug-in tools for floor areas calculation checking in GBP submission using BIM being jointly developed by BD and LandsD, and the latest development of the planned automated checking tools relating to MOE, MOA, FRC and building separation as mentioned in paragraph 2.3.5 above;

Independent Checking Unit of Housing Bureau

(k) Reference Guide to Preparation of Plans for Submission using Building Information Modelling (BIM) Technology and associated BIM templates, Objects and plug-in for checking of manual editing works;

Housing Department

(1) HA BIM Standards and Guidelines Version 3.0;

Civil Engineering and Development Department

(m) List of BIM objects, BIM Objects - General, BIM Objects - Geotechnical, BIM Objects - Port Works;

Drainage Services Department

(n) BIM Modelling Manual & Object Library;

Lands Department

(o) Practice notes, standards and guidelines related to BIM

CIC BIM Standards

(p) CIC BIM Standards-related Publications;

Other Standards

- (q) ISO 19650 full suite; and
- (r) openBIM standards including IFC4 or the latest version released by buildingSMART and IFC-SG.

4.3 1st Round Stakeholder Engagement

- 4.3.1 After completion of the tasks described in paragraphs 4.1 and 4.2, conduct a stakeholder engagement exercise comprising an electronic questionnaire survey, interviews with essential stakeholders and adequate interactive workshops / webinars to:
 - (a) share the trend and benefits of the BIM technology as well as the Government's vision in enhancing the industry's productivity;
 - (b) understand the hurdles / limitations / readiness of the building industry (including the availability and qualification / experience requirements on competent personnel in using BIM) for adoption of BIM in preparing different types of statutory submissions under the BO and have a study on the BIM capability of different stakeholder segments;
 - (c) deliberate the possible technical issues and solutions in adopting BIM including those listed in paragraphs 4.4.1 to 4.4.4;
 - (d) seek feedback on the usefulness of extant local BIM standards and guidelines; and
 - (e) examine stakeholders' views and collect their insight and specific concerns to draw up the essential conditions of mandating BIM submissions.
- 4.3.2 The stakeholders which paragraph 4.3.1 refers to include all concerned government bureaus and departments (including all participating bureaus and departments of the CPS), statutory bodies (e.g. Urban Renewal Authority, MTRC, Airport Authority, etc.), registered building professionals, registered contractors, professional institutions, CIC, developers, property management companies, BIM practitioners, academies, etc.

4.4 Technical Issues and Solutions

4.4.1 To conduct a study and research on the following and to explore solutions for adoption of BIM in development projects under the BO:

- (a) Technical issues in relation to file size control and synchronisation of BIM models for submission and construction; and
- (b) The trend of development of BIM technology, capabilities and technical limitations of major native BIM software (including but not limited to REVIT, ArchiCAD and Tekla Structures) and use of openBIM.
- 4.4.2 To study the technical implications and the possible solutions to handle the following issues and to comment on the possible benefits / shortcomings to the plan processing if openBIM is adopted:
 - (a) The implication of adopting a single BIM model for both design and construction stages and the workable practice enabling design collaboration / amendment/ certification for different types of works by various registered building professionals / contractors and the preparation of the corresponding statutory submissions in different time frame. Under the current practices of building industry, prescribed plans for different types of works, such as building, drainage, superstructure, foundation, ground investigation, excavation and lateral support, demolition, site formation, demolition, substructure and building components (e.g. cladding and curtain walls) are prepared by different professionals individually or jointly and submitted separately in different time frame as to suit the progress of design development and construction works on-site;
 - (b) The implication on the approval process and the associated administration and workflow if single BIM model covers all types of works which would become the "only prescribed plan" for statutory submissions under the BO;
 - (c) BIM models for different types of prescribed plans and building works created by different BIM software or same software with different software versions;
 - (d) Workable practice enabling plans processing by different officers of different government bureaux / departments, statutory bodies and organisations under the CPS in a coordinated and manageable manner;
 - (e) Handling of future alteration and addition (A&A) works through BIM models of completed buildings including how to differentiate the proposed new A&A works from the existing completed buildings; and
 - (f) Different A&A works proposed in the same development to be carried out at the same time or at different times.
- 4.4.3 To study the possible approval, consent and works completion certification mechanism in

processing prescribed plans and statutory submissions in BIM format, instead of paper format with due consideration on the roles and responsibilities of various registered building professionals and contractors under the BO, including information prescribed under the BO and scope of certification on the BIM model / file³ by various registered building professionals / contractors; propose measures for clear demarcation of the extent of BD's approval / consents and the release of building records submitted in BIM format for public inspection and copying.

- 4.4.4 As regards paragraph 4.4.3, comment whether 2-dimensional (2D) building records are required for the purpose of easy identification of the certification / approval scope. If affirmative, propose the mechanism to ensure the building proposal shown in the 2D records is identical to the BIM model and identify solution for quick and easy generation / preparation of 2D plan / section / elevation from the BIM model for different types of works including drainage, site formation, etc.
- 4.4.5 Explore solutions for other technical issues collected in the 1st round stakeholder engagement.

4.5 BIM Framework

- 4.5.1 Based on the findings of the studies, researches and review in paragraphs 4.1 to 4.4 above, to recommend the following:
 - (a) Useful practices, essential requirements, standards and statutory submission framework of BIM adopted in Mainland China and / or overseas that could be applied to Hong Kong's building control regime including the distinguishing features / measures to promote the adoption of BIM;
 - (b) Cost and benefit analysis on both tangible and intangible benefits of BIM adoption for statutory submissions under the BO;
 - (c) Cost and benefit analysis on both tangible and intangible benefits to require submissions in openBIM format and / or to develop automated checking tools / platform in IFC-based environment;
 - (d) Measures with priority to streamline and enable the adoption of BIM for BD to process statutory submissions, including standardisation of essential information to be provided in the BIM file for compliance checking;
 - (e) Potential areas for developing automated checking tools, BIM objects and

³ A BIM model may be incorporated with non-BO related information (e.g. electrical / water work) at the different stages to maintain a single source of truth.

- families for maximising the benefits in adoption of BIM for statutory submissions to BD;
- (f) Standards, requirements, guidelines, tools, templates, objects and families of BIM that are essential for the adoption of BIM in preparing, processing and archiving statutory submissions under the BO;
- (g) Suitable solution to resolve the file size issue of a BIM model containing the information of various types of works for striking a balance between easy transfer / viewing / vetting and maintaining a single source of truth; and
- (h) If the analysis in paragraph 4.5.1(c) indicates openBIM is a favourable direction for BIM development in Hong Kong, to comment and recommend whether IFC schema customised for local regulatory requirements would be required; and the roadmap and possible cost involved to develop such standard / schema.
- 4.5.2 To carry out a feasibility study and provide recommendations with proof-of-concept based on relevant security requirements including those imposed by the Office of the Government Chief Information Officer (OGCIO) on how a Government digital trust Common Data Environment (CDE) platform integrable with the ESH and BRAVO can be developed so that BIM models can be submitted, referred to, opened, viewed, vetted and commented by all government bureaux / departments, statutory bodies and organisations under the CPS through such platform; and be archived and released for public viewing and copying, taking into consideration of the following functions on BIM models:
 - (a) To auto-check the BIM models for compliance with relevant statutory requirements and other requirements stipulated in the codes of practices, standards, PNAPs and guidelines. The priority of the possible auto-checking items should be identified;
 - (b) To sign / certify building proposal in BIM format (with and without linked files; and of split files);
 - (c) To allow annotations / mark up comments on the BIM models;
 - (d) To compare the BIM models with previous submitted models and identify the differences;
 - (e) To combine with other submitted BIM models and GIS for viewing and clash analysis;
 - (f) To adopt any Digital Twin technology to streamline the checking process

for site reconnaissance and monitoring; and

- (g) To allow possible share use of information / checking functions for control under other regimes such as land / planning and public works.
- 4.5.3 Based on the requirements under paragraphs 4.1.1 to 4.5.2 above, to provide the following through submitting the relevant graphical illustration / dummy software, electronic platform, templates and data models / parameter schema:
 - (a) Proof of concept to replace all types of prescribed plans by BIM model and / or electronic plans generated by BIM model for approval, consent and certification of works completion and how the extent of registered building professional / contractor's certification as well as the extent of works under BD's approval and consent could be clearly demarcated in the digital BIM files:
 - (b) Proof-of-concept with a collaboration online platform to demonstrate how BIM models / openBIM models can be referred to, opened, viewed, vetted and commented by all relevant government departments and organisations; and onward conveyance of the comments to AP / RSE / RGE / developers;
 - (c) Proof-of-concept to demonstrate how essential information required for statutory submissions kept in the native BIM models can be extracted and placed / stored in openBIM files, and how information other than the essential information contained in the BIM models can be filtered out;
 - (d) Proof-of-concept to demonstrate how the BIM models / openBIM models can be archived and released for public viewing and copying in BRAVO;
 - (e) Viable options enabling BIM submissions to be (i) digitally certified by registered building professional; (ii) free from information unrelated to statutory submissions under BO; (iii) with clear extent of approval; (iv) exported out for compliance checking; and (v) later-on retrieved for inspection regardless of the versioning limitations;
 - (f) Methodology to demonstrate how data, essential information of building elements / components (e.g. levels, nos. of storeys / flats / carparks / sanitary fitments, etc.) can be standardised, inputted into and extracted out from native BIM models for different types of prescribed plans required under PNAP ADV-33 and PNAP ADM-19 even linked files are used to speed up the modeling process in native software;
 - (g) Proof-of-concept together with software templates for two native software or in openBIM format should be prepared and developed to streamline the

existing workflow and facilitate the processing of the information submitted by AP, RSE and RGE at different stages of the private building development in respect of the following aspects:

GBP (REVIT & ArchiCAD)

- (i) Schedule of Building Materials and Products under Annex A of PNAP APP-13; and
- (ii) Indexing of Documents for Submissions of soft copies on DVD-ROM for Application of Occupation Permit under Appendix H of PNAP APP-13.

Foundation & Superstructure Plans (REVIT & Tekla Structures)

- (i) Design standard and material specification under Appendix B1 of PNAP ADM-19;
- (ii) Summary of Approved Foundation Plans and Required Structural Documents under Appendix C of PNAP APP-13;
- (iii) Summary of Approved Structural Plans and Required Structural Documents under Appendix D of PNAP APP-13; and
- (iv) As-built Information of Completed Piles under Appendix E of PNAP APP-13.

4.6 Strategies to Mandating BIM Submission

- Based on the findings of this study, to formulate strategies on driving the building industry 4.6.1 to use BIM to prepare prescribed plans for statutory submissions under the BO including the possible option to mandate the use of BIM (native and / or openBIM) for statutory submissions under the BO, and to refine and beef up the BIM Roadmap with implementation details and time frame on each necessary measure / step including (i) the training to raise the BIM competency of the stakeholders; (ii) developing, updating and enhancing BIM guidelines, templates for all types of prescribed plans, and the associated CDE platform / plug-in tools for handling BIM submissions and the relevant compliance checking; (iii) a concrete proposal on the proposed incentives from the government / industry to encourage the use of BIM which should cover the objectives, target groups, eligible criteria, anticipated achievement, proposed funding source, implementation mechanism, associated cost-benefit analysis and justifications based on the feedbacks collected in the consultation under this consultancy for each proposed incentive item; and (iv) suitable parties / possible funding source and / or financial model (e.g. by government or based on "user-pay" principle) to develop and / or maintain the associated platform / automated checking tools.
- 4.6.2 To identify the necessary conditions for mandatory BIM submission of all types of prescribed plans (with or without the use of 2D PDF prescribed plans) in native and / or

openBIM formats for approval by BD including digital signature on BIM models taking into account the technical issues, the readiness of the industry and availability and qualification / experience requirements of competent personnel in using BIM software for the statutory submissions. Subject to the outcome of the study, propose an implementation time frame for medium / long-term sustainable BIM adoption with a view to achieving the target for mandatory adoption of BIM in private development and the pre-requisites to achieve each milestone.

4.7 2nd Round Stakeholder Engagement

- 4.7.1 To arrange the second round stakeholder engagement exercise with the format⁴ and list of stakeholders same as the 1st round stakeholder engagement exercise to share and collect industry's feedback on:
 - (a) the solutions and the detailed methodologies proposed under paragraphs 4.4 and 4.5;
 - (b) proposed incentives from the government / industry to encourage the use of BIM; and
 - (c) the refined roadmap devised under paragraph 4.6 including the platform / automated checking tools have to be devised, critical steps to adopt openBIM, development sequence and time frame, suitable parties / possible funding source and / or financial model (e.g. by government or based on "user-pay" principle) to develop and / or maintain the associated platform / automated checking tools.

4A. Additional Services

- 4A.1 To cater for unforeseeable circumstances and matters outside the control of the BD and/or the Consultant, other items of work directly or indirectly related to this Agreement may be added by the BD at any time during the term of the Agreement and these items of work shall form part of the overall scope of the Agreement and be covered by the terms of conditions of this Agreement. The following list, which is not meant to be exhaustive, gives examples of the additional Services which the Consultant may be called upon to render:
 - (a) any other Services of similar nature that the BD may consider it to be reasonably desirable to be carried out by the Consultant as instructed by GR; and

Comprising an electronic questionnaire survey, interviews with essential stakeholders and adequate interactive workshops / webinars.

- (b) deviations from the original scope of consultancy services that shall result in additional Services incurred by the Consultant.
- 4A.2 All additional Services and their associated expenses incurred shall be reimbursed in accordance with the following requirements:
 - (a) Where the Government Representative agrees that the additional Services shall be paid on man-day charge basis, the following shall apply:
 - (i) The payment for additional Services on man-day charge basis shall be the sum of the multiplication of man-days properly spent and the charge rates. The charge rates shall be based on the all-inclusive charge rates inserted in the Part B of the Fee Proposal.
 - (ii) The Consultant shall submit proposed staff and the estimated time spent for performing the additional Services for GR's approval prior to the commencement of the additional Services.
 - (iii) The all-inclusive charge rates shall cover all the staff and non-staff charges and all expenses for carrying out the additional Services. No further claims will be reimbursable.
 - (b) Where the Consultant considers that any works constitutes an additional Service to the agreement, the Consultant shall submit to Government Representative in writing with justifications and seek approval before the Consultant commences performing the additional Services. This notice provision shall be a condition precedent to payment for additional Services. The following shall also be observed:
 - (i) If the Government Representative agrees the Consultant's entitlement for the claim on additional Services, he shall attempt to agree with the Consultant a lump sum payment for the additional Services with a corresponding payment schedule.
 - (ii) The lump sum payment shall be negotiated on the basis of the Government Representative and the Consultant identifying which staff of the Consultant will be required to perform the additional Services and the estimated time required to complete the additional Services. The charge rates for calculating the lump sum payment for additional Services shall not exceed the charge rates as stated in Part B of the Fee Proposal.

5. Control of the Consultancy Services

- 5.1 The Chief Building Surveyor/New Territories East (1) & Licensing of the BD or any person designated by such person in writing ("Government Representative") will act as the liaison officer between the Consultant and the Government in relation to the Consultancy Services.
- 5.2 The Consultant and the members of the Consulting Team (defined in paragraph 7.1) shall take instructions and directions and, where appropriate, receive the Employer's decisions and views only through the Government Representative and, subject to any limitations imposed by the Government Representative in any letter of authority granted by him, such other persons to whom the Government Representative may delegate his powers.
- 5.3 The Government Representative and the Consultant shall hold meetings at regular intervals to discuss the status of the Consultancy Services and any problems. All members of the Consulting Team must be readily contactable throughout the Consultancy Study by ordinary means of communication including telephone, meeting in person and via email. The Consulting Team will be required to consult and attend meetings in Hong Kong with the Project Steering Committee ("PSC"), Project Assurance Team ("PAT"), the Government Representative and his delegations, and other government departments and organisations, agencies, committees and parties as may be directed by the Government. The Consulting Team will be required to attend Progress meetings with BD.
- 5.4 The PSC will be set up to steer the overall direction to the project.
- 5.5 The PAT will be formed to overlook the progress by monitoring the project against defined project plan and schedule.
- 5.6 The Consultant shall provide professional advice and responses to any questions or requests made by the Government Representative, the PSC and the PAT in connection with the Consultancy Services.
- 5.7 The Consultant shall comply with all reasonable instructions as the Government Representative may give in relation to the Consultancy Services. The Consultant will be required to maintain for the duration of the Consultancy Agreement an office in Hong Kong.
- 5.8 Pursuant to paragraph 4.5.2 above, the Consultant, when prepares the recommendations with proof-of-concept shall refer to and comply with the following Government regulations, policies, standards, guidelines, methodologies and quality requirements:
 - (a) Baseline IT Security Policy;
 - (b) IT Security Guidelines;
 - (c) Practice Guide for Information Security Incident Handling;
 - (d) Practice Guide for IT Outsourcing;

- (e) The HKSARG Interoperability Framework;
- (f) Best Practices for Business Analyst;
- (g) Effective Systems Analysis and Design Guide;
- (h) Practice Guide for Agile Software Development;
- (i) Practice Guide for Scoping and Planning of Large-scale IT System Development Projects;
- (j) The Government Technology and System Architectures (GTSA) Framework; and
- (k) Other related Practice Guide and circular published by the Government.

6. Deliverables and Timeframe

- 6.1 The Consultancy Services are expected to commence around Q2 2024. They must be completed by the Consultant within 15 months from the commencement date of the Consultancy Agreement (i.e. the date of signing of the Consultancy Agreement).
- 6.2 The Consultant shall submit deliverables as required by the Government including those mentioned below ("**Deliverables**") to the satisfaction of the Government in accordance with the following timetable:

Stage	Descriptions / Tasks	Deliverables	Submission Time Frame ⁵
0	Project Initiation	 Project Initiation Document with proposed methodology for the BIM Consultancy Study Quality Plan outlining the overall quality control process for the deliverables 	2 weeks
1	In-depth study and research on BIM adoption in Mainland China and overseas (including Finland, UK(London) and Singapore)	• Mainland and Overseas Study Report summarising the findings of the study in comparison to the Hong Kong system, as required under paragraphs 4.1 and 4.2	3 months
2	1st round stakeholders engagement	• 1st round stakeholders engagement as required under paragraph 4.3	4 months
3	Preparation and submission of the	• Review Report summarising the findings of the 1st stakeholders	5 months

⁵ Within the specified period from the date of the commencement of the Consultancy Agreement

Stage	Descriptions / Tasks	Deliverables	Submission Time Frame ⁵
	Review Report	engagement and setting out the preliminary recommendations as required under paragraphs 4.4.1 to 4.5.2	
4	Preparation and submission of the Recommendation Report	 Recommendation Report documenting the detailed methodology of the proof-of- concept as required under paragraph 4.5.3 and setting out the proposed strategies as required under paragraphs 4.6.1 and 4.6.2 Softcopy of the graphical illustration / dummy software, electronic platform, templates and data models / parameter schema for the proof-of- concept as required under paragraph 4.5.3 	11 months
5	2nd round stakeholders engagement	• 2nd round of stakeholders engagement as required under paragraph 4.7.1	12 months
6	Preparation and submission of the draft BIM Consultancy Report	 Draft BIM Consultancy Study Report summarising all the findings and the refined recommendations of the Consultancy Study taking account of the feedback received from the stakeholders engagement exercises Softcopy of the refined version of the proof-of-concept as required under paragraph 4.5.3 	14 months
	Preparation and submission of the Final BIM Consultancy Report	 Final BIM Consultancy Study Report consolidating all the findings, recommendations and final version of the proof-of-concept Bilingual Executive Summary of the Final BIM Consultancy Study Report Project Evaluation Report with lessons learnt and proposed way forward for further studies Softcopy of the final version of the proof-of-concept as required under 	15 months

Stage	Descriptions / Tasks	Deliverables	Submission Time Frame ⁵
		 paragraph 4.5.3 Presentations of the Final BIM Consultancy Study Report to BD, DEVB, other relevant departments, bureaux, organisations and stakeholders 	

- 6.3 The Consultant shall, at monthly intervals, submit to the Government Representative progress reports to report on the progress of all aspects of the Consultancy Study and updating the programme referred to in the above table. The reports shall include a list of those parts of the study the execution of which are behind the programme together with proposals to expedite progress, so as to complete the work on time.
- All Deliverables shall be prepared in English except that the Executive Summary shall be prepared in both English and Chinese. The Chinese version of the Executive Summary shall be submitted within 2 weeks upon acceptance of the English version.
- None of the Deliverables shall be deemed to have been completed until and unless the Government Representative has confirmed acceptance of the same in writing.
- Unless otherwise indicated above, a total of 2 hardcopies and 1 softcopy of each Deliverable are required. For soft versions of all the Deliverables, the Consultant shall submit them in electronic formats acceptable to the Government.
- 6.7 The Consultancy Services will be conducted in the stages mentioned in paragraph 6.2. The Consultant may propose in its Consultancy Proposal to carry out the different tasks of the Consultancy Services concurrently and/or reorganise the sequence of the tasks provided that the Deliverables are submitted in accordance with the timetable specified above and meeting the requirements for the Deliverables specified in this Consultancy Brief.
- 6.8 The Consultant shall deliver the Deliverables as well as those proposed by the Consultant in the Consultancy Proposal and accepted by the Government. A Stage is considered completed only after the Government Representative has given written notice of acceptance of all Deliverables required to be submitted in that stage.
- 6.9 Apart from those requirements specified in paragraph 4 above, the Deliverables listed below shall also meet the following requirements:

For Stage 0

6.9.1 The Consultant shall submit a **Project Initiation Document** which shall describe how the Consultancy Study are to be conducted, the Consultancy Study's scope, the Consultant's

approach to the management of the Consultancy Study and the governance structure including the details of Consulting Team structure, members and roles. It shall also include a detailed Project Plan, Stage Plans, Exception Plans, if any, to describe the tasks and activities to be carried out in each stage. The Consultant shall review the project plan at least once a month and if necessary, update the project plan to reflect the latest position.

6.9.2 The Consultant shall submit a **Quality Plan** which shall outline the overall quality control process for ensuring the quality of the Deliverables and the control mechanism throughout the Consultancy Study. Specific quality standards and checking and control methods for each of the Deliverables shall be provided in detail in the Quality Plan. Where necessary, the Consultant has to adopt adaptations to the methodologies and quality management system specified in paragraph 5.8. The Consultant shall seek agreement from BD on any adaptations of the methodologies and quality management system that will be adopted for delivering the required deliverables. For all agreed adaptations, the Consultant has to document the reason why such adaptations are adopted in relevant quality records.

For Stage 6

- 6.9.3 The Consultant shall submit a **Final BIM Consultancy Study Report** which shall cover findings, assessments and recommendations in previous stages, a strategy plan addressing the short, medium and long-term requirements of the BD and detailed strategic programme / implementation schedule for adopting the use of BIM for statutory submissions. Deliberations of the comments and suggestions gathered during the internal and stakeholders consultation shall be incorporated in the Final Report as appropriate and as directed by the Government.
- 6.9.4 The Consultant shall submit an **Executive Summary** in both English and Chinese together with the Final Report. The Executive Summary shall be prepared based on the Final Report, oriented towards top and senior management, and the major deliberations and discussions of the comments and suggestions gathered during the internal consultation.
- 6.9.5 The Consultant shall submit a **Project Evaluation Report** to assess and evaluate the developed methodology with proof-of-concept and software templates, quality and technical methods, tools and processes used and lessons learned through the course of the Consultancy Study.
- 6.9.6 The Consultant shall make formal and final **presentations** on findings and recommendations to the PSC, PAT, Government Policy Bureaux and Departments, as well as other organisations, agencies, committees or parties as may be directed by the Government at such interval, place and time as directed by the Government. The Consultant shall record follow-up actions arising from presentations. Written record shall be prepared and submitted to the Government if the Government so requests within three (3) working days after a presentation to cover salient features of the presentation, summary of decisions made and follow-up actions to be taken (if any).

7. Requirements for Consulting Firm and the Consulting Team

- 7.1 Throughout the term of the Agreement, the Consultant shall maintain an office in Hong Kong under the control of a **Project Director/Manager** who shall also assume the role of liaison officer for communicating with the Government Representative. The Consultant shall deploy personnel with relevant expertise ("**Consulting Team**") to perform the Consultancy Study. The Project Director/Manager and Consulting Team must be stationed in Hong Kong for provision of the Consultancy Study throughout the term of the Agreement.
- 7.2 Members of the Consulting Team must be submitted to the Government for approval within two weeks after the commencement of the consultancy agreement. The Consultant shall throughout the term of the Agreement, observe and adhere to the staffing proposal, including the number of staff under different categories, qualifications and experience of staff, man-hours, etc., submitted by the Consultant in the tender stage except that if there are any proposed staff submitted in the tender stage not meeting the requirements of minimum academic/professional qualifications and/or minimum experience, the Consultant is deemed to replace those staff at its own cost with other staff not lower than the requirements of the minimum qualifications and experience. Any deviation to the staffing proposal submitted by the Consultant in the tender stage, other than an increase in provision or standard, will not be allowed during the term of the Agreement unless expressly agreed by the Government Representative.
- 7.3 For the avoidance of doubt, if it is identified that any of the proposed staff in the tender offer / organisation chart have sign of overloading in providing services for the Agreement, the Government Representative shall have the right to require additional staff or replacement of staff. The Government reserves the right to require replacement of the members of the Consulting Team if it is found that the concerned members fails to perform due to illness or continuously absence from team, non-performance of duties required under the contract, etc. at any time during the term of the Agreement. The Consultant shall obtain the Government Representative's prior written approval for any proposed addition or change of members of the Consulting Team. The Consultant shall ensure a substitute or replacement of any member of the Consulting Team is no less qualified in terms of relevant experience and qualifications than those originally proposed in the Technical Proposal or the outgoing consulting team members approved by the Government Representative and is available at the relevant time to act as a replacement or substitute.

Essential Requirements

7.4 Consultancy Proposals must fully meet all of the essential requirements set out in paragraph 7.5. Consultancy Proposals which fail to meet any of such essential requirements shall be disqualified and not considered further.

7.5 <u>Consulting Firm</u>

The consulting firm must have experience in at least five (5) project references on:

- (a) building construction projects applying BIM; and / or
- (b) projects / consultancy studies on developing BIM standards, common data environment, automated checking tools or cloud-based checking platform for building design and construction adopting BIM.

conducted locally or in overseas countries and completed in the past ten (10) years immediately before the Closing Date (as defined in paragraph 8.2).

7.6 <u>Proposed Consulting Team</u>

(a) The Consulting Firm must propose a Consulting Team which shall at least include one (1) Project Director/Manager; one (1) Authorized Person (AP); one (1) Registered Structural Engineer (RSE); one (1) BIM Modeller; and one (1) BIM Programmer. Other than AP and RSE who can be the same person fulfilling all requirements as specified for AP and RSE under paragraphs 7.7(b) and 7.7(c), all other staff must be different individuals.

7.7 <u>Minimum Qualification and Experience Requirements for Consulting Team</u>

The Consulting Team must fulfill the following minimum qualification and experience requirements:

- (a) The Project Director/Manager must:
 - (i) have a Master Degree or above in building / construction related fields;
 - (ii) be a Certified BIM Manager accredited by CIC, or a Professional Member of Hong Kong Institute of BIM;
 - (iii) have an aggregate of at least five (5) years on developing BIM standards, common data environment or automation through adoption of BIM; and
 - (iv) have at least five (5) projects reference of building construction projects applying BIM and/or projects / consultancy studies / researches on developing BIM standards, common data environment, automated checking tools or cloud-based checking platform for building design and construction adopting BIM completed locally or in overseas countries in the past ten (10) immediately before

Closing Date.

(b) The AP must:

- (i) be a person whose name is on the authorized persons' register kept under section 3(1) of BO as an architect; as an engineer; or as a surveyor, and have at least five (5) years post-qualification BIM experience; and
- (ii) have at least one (1) project reference of adopting BIM for preparation of GBP submissions in the past ten (10) years immediately before Closing Date.

(c) The RSE must:

- (i) be a person whose name is for the time being on the structural engineers' register kept under section 3(3) of BO and have at least five (5) years post-qualification BIM experience; and
- (ii) have at least one (1) project reference of adopting BIM for preparation of structural plans for statutory submissions in the past ten (10) years immediately before Closing Date.

(d) The BIM Modeller must:

- (i) have a minimum two (2) years of working experience in preparing and building BIM models by using REVIT as the major BIM software environment; and
- (ii) have at least one (1) project reference of an implementation project on BIM modelling or BIM-based plan production by using REVIT as the major BIM software environment.

(e) The BIM Programmer must:

- (i) have a minimum two (2) years of working experience in BIM industry in building construction field, IT system management or software development; and
- (ii) have at least one (1) project reference of developing computer system or software to read / extract / process data of BIM model.
- (f) The required AP and RSE can be the same person if the proposed candidate can satisfy all minimum required qualification and experience mentioned in items (b) to (c) above.

8. Consultancy Proposals

- 8.1 Submissions by a consulting firm in response to this Consultancy Brief ("Consultancy Proposal") shall be prepared in English and shall include:
 - (a) five (5) hard copies and one (1) soft copy on CD-ROM or DVD-ROM of a technical proposal ("**Technical Proposal**") (see paragraph 8.5 below);
 - (b) three (3) hard copies of a fee proposal ("Fee Proposal") (see paragraph 8.6 below);
 - (c) a completed "Consent to Disclosure" form (see paragraph 10.2 below);
 - (d) a declaration as required under "Conflict of Interest" (see paragraph 15.1 below);
 - (e) a statement as to the consulting firm's business structure (see paragraph 11.1 below); and
 - (f) a completed "Non-collusion Certificate" (see paragraph 27.2 below).

The Technical and Fee Proposals shall be submitted in separate sealed envelopes with the words "Technical Proposal" and "Fee Proposal" clearly marked on the outside of the envelopes. These two sealed envelopes shall then be placed together in a sealed plain envelope marked "Tender Reference: BA/BM01/2024 – Tender for Consultancy Study on Adopting Building Information Modelling for Statutory Submissions under the Buildings Ordinance". In the event of conflict between a hard copy and soft copy, unless the Government wishes to clarify, the hard copy shall prevail.

8.2 The Consultancy Proposals shall be submitted **on or before 12:00 noon on 1 March 2024 Hong Kong time** ("Closing Date") to the following address:

BD Quotation Box located at G/F, BD Headquarters, North Tower, West Kowloon Government Office, 11 Hoi Ting Road, Yau Ma Tei, Kowloon, Hong Kong

8.3 If tropical cyclone warning signal No.8 or above is hoisted or a black rainstorm warning or "extreme conditions" announced by the Government is/are in force between 09:00 and 12:00 noon on Closing Date, the deadline for submission will be extended to the same time on the following Working Day. In case of blockage of the public access to the above location at any time between 09:00 and 12:00 noon on Closing Date, BD will inform the consulting firm, which has been invited to submit proposal, the extension of the closing time until further notice. Following removal of the blockage, BD will inform the consulting firm the extended closing time as soon as practicable. "Working Day" means Monday to Friday, other than a public holiday, or a day on which Tropical Cyclone Warning Signal No. 8 or above is hoisted, or Black Rainstorm Warning Signal or "extreme conditions" announced by the Government is/are in force, for any time during the normal business hours. Late submissions will not be considered.

- 8.4 In the event that the Government determines that:
 - (a) clarification in relation to any part of the Proposal is necessary (including without limitation in relation to any apparent inconsistency in the proposals submitted by the consulting firm); or
 - (b) a document or a piece of information other than the document or information set is missing from any Proposal,

it may, but is not obliged to, request the consulting firm concerned to make the necessary clarification, or submit the required document or information. The consulting firm concerned shall thereafter within three (3) working days or such other period as specified in the request submit such clarification, information or document in the form required by the Government. A Proposal may not be considered further if complete information or document is not provided as required by the deadline as specified in the request, or in the case of clarification, such clarification is not provided by such deadline or is not acceptable to the Government. As an alternative to seeking clarification or further information or document, the Government may not consider the Proposal further or may proceed to evaluate the Proposal on an "as is" basis. Without prejudice to the foregoing, any excess proposal or information supplied by a consulting firm which goes beyond what has been requested by the Government will be ignored for the purposes of the assessment or will entitle (but not oblige) the Government to disqualify the consulting firm concerned.

Technical Proposal

- 8.5 The Technical Proposal shall include the following information and all documents and information requested therein. The Schedules mentioned below shall be completed in full:
 - (a) Schedule 1 Consultancy Firm's Organisation and Experience
 - (b) Schedule 2 Work Approach
 - (i) Schedule 2A Understanding of the Consultancy Study
 - (ii) Schedule 2B Approach and Methodology
 - (iii) Schedule 2C Project Management and Quality Assurance Plan
 - (c) Schedule 3 Composition and Experience of the Proposed Consulting Team
 - (i) Schedule 3A Qualification and Experience of Project Director/Manager
 - (ii) Schedule 3B Qualification and Experience of Authorized Person
 - (iii) Schedule 3C Qualification and Experience of Registered

- Structural Engineer
- (iv) Schedule 3D Qualification and Experience of BIM Modeller
- (v) Schedule 3E Qualification and Experience of BIM Programmer
- (d) Consent to Disclosure at Annex 1 as required under paragraph 10.2
- (e) Non-collusion Certificate in the form at Annex 2 as required under paragraph 27.2
- (f) A declaration on "Conflict of Interest" as required under paragraph 15.1
- (g) A statement as to the consulting firm's business structure as required under paragraph 11.1
- (h) Other relevant information

Fee Proposal

- 8.6 The Fee Proposal shall include the following information:
 - (a) Proposed Consultancy Fee (L) which is the sum of Professional Fee (L1) and Total Notional Value for Additional Services (L2) in Part A and B of the Schedule 4 respectively.
 - (b) the lump sum Professional Fee (as defined in paragraph 13.1) in Hong Kong dollars:
 - (c) a breakdown of Total Notional Value for Additional Services (as defined in paragraph 4A) in Hong Kong dollars with all-inclusive charge rate shown against each member of the Consulting Team; and
 - (d) The fee proposal shall be in the form of Schedule 4 Fee Proposal

Briefing Session

8.7 A briefing session will be held at Buildings Department Headquarters, North Tower, West Kowloon Government Offices, 11 Hoi Ting Road, Yau Ma Tei, Kowloon and via Online media (Microsoft TEAMS) tentatively scheduled for 15:00 hours on 8 February 2024 (Hong Kong time). Although attendance at the briefing session is not compulsory, consulting firm are encouraged to participate. A consulting firm who wishes to attend the briefing session is requested to complete the reply slip at Annex 3 to the Buildings Department (Attn.: SE/BIM via email: vmhlee@bd.gov.hk) on or before noon of

7 February 2024. The number of representatives of each consulting firm is limited to two persons. Confirmation of registration will be issued.

9. Disclosure of Information for Consulting Firms Bidding in Different Capacities for the Same Consultancy

9.1 The Government has no objection:

- (a) to any consulting firm or its Associate or Associated Person lodging one Consultancy Proposal to act as a consultant and also proposing to act as a sub-contractor to another consulting firm in this exercise; or
- (b) to different and unconnected consulting firms proposing to engage the same sub-contractors or their Associates or Associated Persons in this exercise.

PROVIDED that:

- (i) all the relevant circumstances are disclosed in the Consultancy Proposal; and
- (ii) where any consulting firm or its Associate or Associated Person lodges one Consultancy Proposal to act as a consultant and proposes to act as a subcontractor to another consulting firm in the Consultancy Proposal of that other consulting firm, the first-mentioned consulting firm or its Associate or Associated Person shall confirm in its Consultancy Proposal that no confidential information, confidentiality restrictions or restraints of trade or business have been contravened in lodging the Consultancy Proposals; and
- (iii) where any consulting firm proposes to act as a sub-contractor to different and unconnected consulting firms in their Consultancy Proposals, it shall confirm in the Consultancy Proposals of those consulting firms that no confidential information, confidentiality restrictions or restraints of trade or business have been contravened in lodging the Consultancy Proposals.

10. Disclosure of Fees Payable to the Consultant and Other Matters

- 10.1 The Government shall have the right to disclose to any person, whenever it considers appropriate or upon request by any third party (written or otherwise), and in such form and manner as it deems fit:
 - (a) the Proposed Consultancy Fee and any other fees, costs and expenses payable by the Government for engaging the Consultant;

- (b) the Fee Proposal submitted by the Consultant; and
- (c) the engagement by the Government of the Consultant under the Consultancy Agreement; the names of the Consultant and its sub-contractors appointed or engaged by the Consultant to perform any part or parts of the Consultancy Services in accordance with the Consultancy Agreement, or to advise or assist in relation thereto; and description of the Consultancy Services.
- 10.2 For the purposes of paragraph 10.1, each consulting firm shall complete, execute and deliver to the Government a "Consent To Disclosure" in the form set out in Annex 1 in its Consultancy Proposal.

11. Business Structure of the Consulting Firm

- 11.1 Each consulting firm submitting a Consultancy Proposal shall submit together with its Consultancy Proposal a statement indicating the capacity in which the consulting firm proposes to enter into the Consultancy Agreement with the Government which should be one of the following:
 - (a) one contractual party who shall be held responsible for the due and faithful performance of the Consultancy Services, in which case the party may, subject to the prior written approval of the Government, nominate, as the main contractor, one or more sub-contractors to perform part of the Consultancy Services;
 - (b) a joint venture consisting of two or more contractual parties, in which case each of the parties shall be jointly and severally liable for the due performance of the consultancy; or
 - (c) an incorporated joint venture ("JV") effected through the medium of a company incorporated under the old Companies Ordinance (Cap. 32) or the new Companies Ordinance (Cap. 622), with each participating party as a shareholder of the company.

If the consulting firm enters into the Consultancy Agreement with the Government in the capacity of an incorporated JV as mentioned in (c) above, each shareholder of the JV shall be required to execute in favour of the Government a guarantee to guarantee the due and faithful performance of the Consultant's obligations under the Consultancy Agreement. The guarantee shall be on terms prepared and approved by the Department of Justice and it shall remain in force from the date of the commencement of the Consultancy Agreement until the date upon which all of the Consultant's obligations shall have been performed and discharged to the satisfaction of the Government Representative. Depending on the

circumstances, e.g. the details of the shareholding, the Government may require other parties to provide guarantees or impose other conditions on the JV. Compliance with all the conditions mentioned in this sub-paragraph shall be a condition precedent to the appointment of the Consultant.

12. Method of Assessment

- 12.1 Consultancy Proposals which meet all the essential requirements set out in paragraph 7.5 under Stage I Assessment of the Essential Requirements and are not submitted late will be further assessed as mentioned below.
- 12.2 The Technical Proposal will be assessed under Stage II Technical Assessment in accordance with the marking scheme as detailed in Appendix A with the following assessment criteria:
 - (a) the consulting firm's experience in conducting BIM Consultancy Studies and specific areas of expertise in the building and construction sectors;
 - (b) relevant professional and academic qualifications and experience of the members of the consulting team mentioned in paragraph 7.7;
 - (c) the consulting firm's understanding of the Consultancy Study; and
 - (d) the proposed work approach, methodology and work programme with respect to submission of the Deliverables.
- 12.3 There is no overall passing mark for the technical score.
- 12.4 The submission requirements of the Technical Proposal are as follows:
 - (a) A Technical Proposal including the attachments shall be completed in ink or typescript and inexpensively bound with plain cover, printed on both sides with margin not less than 25mm, character font size not less than 12 and shall be of A4 size (except figures/illustrations and organisation chart which might be up to A3 size). Only pages containing text, figures, tables, appendices and other information forming the proposed method statements shall be counted. Pages such as covers, index/content pages and separation sheets between sections or appendices will not be counted. One (1) mark will be deducted for the Technical Proposal if any of these requirements are not met.
 - (b) The submission of the Technical Proposal including appendices (excluding curriculum vitae, documentary proof and supporting documents) shall be

limited to **30 pages**. The page limit on curriculum vitae is 2 pages per staff. "Schedule 1—Consulting Firm's Organisation and Experience", "Schedule 3— Composition and Experience of the Proposed Consulting Team", "Consent to Disclosure" at Annex 1, "Non-collusion Certificate" in the form at Annex 2, related documentary proof such as Certificate of Business Registration, certificate of academic/professional qualification, declarations, statements, etc. are excluded from the page limit. **For the exceedance of the specified number of pages of Technical Proposal and the curriculum vitae, all the exceeded pages shall be discarded prior to the assessment.**

- 12.5 Consultancy Proposal which has passed Stages I and II assessment will be considered as a "conforming tender". A consulting firm's Fee Proposal will only be opened to proceed to Stage III Fee Assessment Only if it is a confirming tender.
- 12.6 The Fee Proposal of the conforming tender will be assessed in accordance with the requirements as stated under Stage III Fee Assessment of Appendix A.
- 12.7 The Fee Proposal shall be completed by the Consultant in all respects appropriate to the Contract by using the proforma provided in "Schedule 4 Fee Proposal".
- 12.8 For the purpose of assessment of the Fee Proposals, the "Proposed Consultancy Fee (L)" inserted in the Fee Proposal by the Consultant shall be used to calculate the weighted fee scores for further assessment of in Stage IV- Overall Assessment.
- 12.9 The "Proposed Consultancy Fee" entered by a Tenderer are all inclusive of any staff costs and other non-staff costs for the carrying out the duties as required under the Agreement.
- 12.10 The "Notional Number of Man-day" for additional Services stated in Fee Proposal "Schedule 4" is an estimate of the additional Services for tendering and reference purpose. The Buildings Department does not guarantee that the same level of workload or the estimated workload will be available for the term of the Contract. The Government Representative shall have the sole discretion/rights not to assign any of such services and/or to alter the quantity for additional Services if so instructed by Government Representative and The Contractor shall have no entitlement to claim for any payment or other compensation or relief arising therefrom.
- 12.11 Where the sum of "Professional Fee" in Part A and "Total Notional Value for Additional Services" in Part B is different from "Proposed Consultancy Fee" in Schedule 4 Fee Proposal, you will be asked to rectify the discrepancy by correcting the arithmetic error(s) to the rate/value/fee in the respective part(s). You are not, however, allowed to make any adjustment to the "Professional Fee" in Part A, the "All-inclusive Charge Rate" and the specified "Notional No. of Man-day" in Part B of Schedule 4 Fee Proposal. If you fail to rectify the discrepancy by a specified

deadline, your submission shall be disqualified and shall not be considered further.

- 12.12 Consulting firms will be required to make a presentation of their proposals to the assessment panel on 18 March 2024 or 19 March 2024 tentatively. The Project Director/Manager shall be the main presenter at the presentation. The presentation shall be in made in PowerPoint format and each consultant will have 15 minutes to present their proposals and another 15 minutes for question and answer session. Other than those submitted in the Consultancy Proposal, any additional information provided by the Consulting firm at the presentation and question and answer session will not be considered in the technical assessment.
- 12.13 The Government will not be bound to select any consulting firm on the basis of the lowest fee quoted. The consulting firm which scores the highest total combined technical and fee score will normally be considered for the appointment.

13. Professional Fee and Payment

- 13.1 The Government shall pay the Consultant a fixed lump sum ("**Professional Fee**") in Hong Kong dollars in consideration of and subject to the Consultant performing the Consultancy Services to the satisfaction of the Government.
- 13.2 The Consultant shall be paid the Professional Fee by instalments in accordance with the following payment schedule. Invoice of each payment shall only be issued by the Consultant to the Government after the written acceptance by the Government of all the Deliverables submitted by the Consulting Team corresponding to that instalment:

Instalment	Deliverables Required	Percentage of the Professional
		Fee
1	Deliverables as required in Stage 0 and Stage 3 in paragraph 6.2 above to the satisfaction of the Government	30%
2	Deliverables as required in Stage 4 and Stage 5 in paragraph 6.2 above to the satisfaction of the Government	40%
3	Deliverables as required in Stage 6 in paragraph 6.2 above to the satisfaction of the Government	30%
	Total:	100%

13.3 For the avoidance of doubt, the Professional Fee shall be inclusive of all fees, costs, charges and disbursements incurred by the Consultant in the performance of the Consultancy Services, including but without limitation, the costs and expenses incidental to the attendance of meetings, the giving of presentations and briefings, the

licence fees and/or royalties payable by the Consultant in connection with the permitted use of any third party intellectual property rights in the performance of the Consultancy Services and preparation of the Deliverables, other out-of-pocket expenses such as travelling expenses, air passages, local subsistence allowances for expatriates and others, postage, international telephone calls, facsimile and internet connection expenses, office and hotel accommodation, secretarial support, copying and printing charges and computer facilities that may be incurred by the Consultant in the carrying out of the Consultancy Services. The Professional Fee shall also include any fees, costs and disbursements that may be incurred by the Consultant in appointing or engaging any sub-contractors, advisers, experts or others to provide any part or parts of the Consultancy Services or to advise or assist in relation thereto. For the avoidance of doubt, no fee, cost, charge or disbursement whatsoever in addition to the Professional Fee shall be charged by the Consultant or payable by the Government in respect of the Consultancy Services (whether in respect of sub-contracting or otherwise) without the prior written agreement of the Government.

13.4 The Consultant shall invoice the Government for each instalment payment of the Professional Fee after acceptance to the satisfaction of the Government of the Deliverable concerned. Each instalment of the Professional Fee will normally be paid within thirty (30) working days after the receipt of the invoice from the Consultant.

14. Sub-contracting

14.1 The Consultant shall not, without the prior written consent of the Government, subcontract, assign or otherwise dispose of the whole or any part or parts of the Consultancy Services to any person whatsoever, or purport to do so. If any part of the Consultancy Services is sub-contracted to any person, the Consultant shall remain liable for any act or omission of such person as if such act or omission were its own.

15. Conflict of Interest

- 15.1 Each consulting firm shall submit as part of its Consultancy Proposal a declaration of any interest (whether financial, commercial, personal or otherwise) that the consulting firm, its sub-contractors and members of the proposed Consulting Team may have which conflicts or competes, or may conflict or compete, directly or indirectly, with any interest of the Government and/or with any of the duties of the Consultant under the consultancy (or a declaration that it has no such interest). Any involvement or interest declared would be carefully considered but would not necessarily debar the consulting firm from being further considered in the selection process.
- 15.2 The Consultant shall during the term of the Consultancy Agreement and for six (6) months thereafter:

- (a) ensure that it (including its Associates and Associated Persons, each member of the Consulting Team and each of its sub-contractors and their Associates and Associated Persons) shall not undertake any service, task or job or do anything whatsoever for or on behalf of any third party (other than in the proper performance of the Consultancy Agreement) which conflicts or competes, or which may be seen to conflict or compete, with the Consultant's duties to the Government under the Consultancy Agreement; and
- (b) forthwith notify in writing the Government of all or any facts which may reasonably be considered to give rise to a situation where the financial, professional, commercial, personal or other interests of the Consultant or its Associates or Associated Persons, or any of its permitted sub-contractors or any member of the Consulting Team or their Associates or Associated Persons, conflict or compete, or may conflict or compete, with the Consultant's duties to the Government under the Consultancy Agreement.
- 15.3 The Consultant shall provide the Consultancy Services to the Government on an impartial basis without giving favour to any particular product, service or equipment in which the Consultant, any of its sub-contractors, members of the Consulting Team or their respective Associates or Associated Persons has or may have any financial, professional, commercial, personal or other interests. The Consultant shall notify the Government in writing immediately upon knowing of any actual or potential, direct or indirect, financial, professional, commercial, personal or other interests, which such persons have or may have with, any of the products, services or equipment proposed or recommended by the Consultant under the Consultancy Agreement.
- 15.4 The Consultant shall procure its sub-contractors, each member of the Consulting Team and its professional advisers, directors, officers, employees and agents who are involved in the provision of the consultancy services to execute a legally binding written undertaking in favour of the Consultant and the Government jointly and severally in a form prescribed by the Government agreeing to observe paragraphs 15.2 and 15.3 and the Consultant shall provide the original or certified true copies of all such undertakings to the Government as may be required by the Government. The Consultant further agrees that, if so required by the Government, it shall take all such steps as are lawful and necessary to enforce such undertakings or to co-operate with the Government in their enforcement.
- 15.5 The Consultant shall ensure that its Associates and Associated Persons, each of its sub-contractors and each member of the Consulting Team and their Associates and Associated Persons shall keep themselves informed and shall inform the Consultant and keep it informed regularly of all facts which may reasonably be considered to give rise to a situation where the financial, professional, commercial, personal or other

interests of such persons, conflict or compete, or may conflict or compete, with the Consultant's duties to the Government under the Consultancy Agreement.

15.6 From the commencement of the Consultancy Agreement, notwithstanding the expiry or earlier termination of the Consultancy Agreement, the Consultant (including its Associates and Associated Persons, each member of the Consulting Team and each of its sub-contractors and their Associates and Associated Persons who are involved in the performance of the Consultant's obligations pursuant to the Consultancy Agreement) shall not (whether on its own or in joint venture with others) submit any bid in any competitive bidding process or accept any appointment as consultant for, or otherwise be interested in or involved in any manner in any subsequent exercise for procurement arising out of or which was the very subject of the consultancy.

15.7 In this Consultancy Brief:

- (a) "Associate" in relation to any person means:
 - (i) a relative or partner of that person; or
 - (ii) a company one or more of whose directors is in common with one or more of the directors of that person.
- (b) "Associated Person" in relation to another person means:
 - (i) any person who has control, directly or indirectly over the other; or
 - (ii) any person who is controlled, directly or indirectly, by the other; or
 - (iii) any person who is controlled by, or has control over, a person at (a) or (b) above.
- (c) "**control**" in relation to another person means holding office as a director or the power of a person to secure
 - (i) by means of the holding of shares or interests or the possession of voting power in or in relation to that or any other person; or
 - (ii) by virtue of powers conferred by any constitution, memorandum or articles of association, partnership, agreement or arrangement (whether legally enforceable or not) affecting that or any other person that the affairs of the first-mentioned person are conducted in accordance with the wishes of that other person,
- (d) "director" means any person occupying the position of director by whatever

name called and includes without limitation a de facto or shadow director.

(e) "**relative**" means the spouse, parent, child, brother or sister of the relevant person, and, in deducing such a relationship, an adopted child shall be deemed to be a child both of the natural parents and the adopting parent and a step child to be a child of both the natural parent and of any step parent.

16. Confidentiality

- 16.1 All materials and data furnished by or on behalf of the Government in connection with the Consultancy Agreement, Materials (defined in paragraph 23.10), and the terms and conditions of the Consultancy Agreement shall be treated as confidential information. The Consultant shall not, during the continuance of the Consultancy Agreement or at any time thereafter, disclose to any person (including without limitation any Associates or Associated Persons, directors, officers, employees or agents of the Consultant who are not members of the Consulting Team, except to the senior management, legal and compliance personnel and auditors of the Consultant and then only on a need-to-know basis) any confidential information, provided that the restrictions on disclosure contained in this paragraph shall not apply:
 - (a) to the disclosure of any information to any members of the Consulting Team in circumstances where such disclosure is necessary for the performance of the Consultant's duties and obligations under the Consultancy Agreement;
 - (b) to the disclosure of any information already known to the recipient other than as a result of disclosure by a breach of the confidentiality obligation of the Consultant, its Associates or Associated Persons, directors, officers, employees, agents or any member of the Consulting Team or its subcontractors including without limitation professional advisers;
 - (c) to the disclosure of any information which is or becomes public knowledge other than as a result of disclosure by a breach of the confidentiality obligation of the Consultant, its Associates or Associated Persons, directors, officers, employees, agents or any member of the Consulting Team or its sub-contractors including without limitation professional advisers;
 - (d) to the disclosure of any information in circumstances where such disclosure is required pursuant to any law, regulation, rule of any relevant stock exchange, or order of a court or arbitral authority of competent jurisdiction;
 - (e) to the disclosure of any information to the Consultant's sub-contractors, professional advisers, directors, officers, employees or agents where such

- disclosure is necessary for the performance of the Consultant's duties and obligations under the Consultancy Agreement; or
- (f) to the disclosure of any information with the prior written consent of the Government.

The Government shall have the right to determine in good faith at any time whether any information is within that described in (b), (c) or (e) above and the Consultant shall comply with that determination. For the purpose of (e), if at the time the Government discloses the information to the Consultant, the Government does not expressly state that the information cannot be distributed to the persons named in (e), the Government shall be deemed to have consented to the disclosure of that information to those persons but such disclosure shall be strictly limited to the performance of the Consultant's duties and obligations under the Consultancy Agreement.

- 16.2 Any disclosure permitted under paragraph 16.1 shall be in strict confidence and shall extend only so far as may be necessary for the purpose specified in paragraph 16.1 and the Consultant shall ensure the confidentiality of any such disclosure by taking all appropriate action to restrain or restrict any further disclosure.
- 16.3 The Consultant shall not make use of or reproduce any information, report, chart, document, plan, software, data or other particulars or information whatsoever relating to the Consultancy Agreement furnished by or on behalf of the Government other than in the performance of its obligations under the Consultancy Agreement and shall not make use of the Deliverables or any Materials or computer models produced or created in relation to the performance of its obligations under the Consultancy Agreement other than in the performance of its obligations under the Consultancy Agreement or with the prior written consent of the Government.
- 16.4 The Consultant shall not without the prior written consent of the Government publish, either alone or in conjunction with any other person, in any newspaper, magazine, periodical, film, video or other medium, any confidential information relating to the Consultancy Services (including without limitation the advice provided by it or the duties undertaken by it under the Consultancy Agreement).
- 16.5 The Consultant shall inform every person to whom any information, report, chart, document, plan, software, data or other particulars or information relating to the Consultancy Agreement is disclosed pursuant to this paragraph of the restrictions on reproduction and disclosure attaching to such information and the Consultant shall require such a person to notify the same restrictions to any other person to whom it makes any such disclosure.
- 16.6 The Consultant shall procure its sub-contractors, each member of the Consulting Team

and its professional advisers, directors, officers, employees and agents referred to in paragraph 16.1(e) above to execute a legally binding written undertaking in favour of the Consultant and the Government jointly and severally in a form prescribed by the Government agreeing not to disclose any such confidential information and the Consultant shall provide the original or certified true copies of all such undertakings to the Government as may be required by the Government. The Consultant further agrees that, if so required by the Government, it shall take all such steps as are lawful and necessary to enforce such undertakings or to co-operate with the Government in their enforcement.

16.7 Paragraphs 16.1 to 16.6 shall survive the expiry or termination of the Consultancy Agreement and shall continue in full force and effect notwithstanding such expiry or termination.

17. Nature of Agreement

17.1 The Consultant will be engaged by the Government as an independent contractor on a principal-to-principal basis and not as a partner, employee or agent of the Government or as a trustee for others.

18. Consultancy Agreement

- 18.1 The selected consulting firm will enter into a written agreement (the "Consultancy Agreement") with the Government which will contain the complete terms and conditions of the Consultancy, including without limitation the matters referred to in this Consultancy Brief, expanded and modified as the Government deems necessary, and other matters such as fees, details of the Consulting Team, set-off and force majeure.
- 18.2 Nothing in the Consultancy Agreement will confer or purport to confer on any third party any benefit or any right to enforce any term of the Consultancy Agreement pursuant to the Contracts (Rights of Third Parties) Ordinance (Cap. 623).
- 18.3 This Consultancy Brief will form part of the Consultancy Agreement. The governing laws of the Consultancy Agreement shall be the laws of Hong Kong.

19. Indemnity

- 19.1 The Consultant shall indemnify and keep indemnified the Government against:
 - (a) any and all claims (whether or not successful, compromised, settled, withdrawn or discontinued, in whole or in part), actions, investigations,

- liabilities, demands, proceedings or judgments, joint or several, threatened, brought or established against the Government ("Claims"); and
- (b) any and all liabilities, losses, damages, costs, charges or expenses (including all legal fees and other awards, payments, costs, charges and expenses) which the Government may pay or incur as a result of or in relation to any Claims, which in any case arise directly or indirectly in connection with, out of or in relation to:
 - (i) the performance or breach of any provisions of the Consultancy Agreement by the Consultant;
 - (ii) the negligence, recklessness, tortious acts or wilful misconduct of the Consultant, its employees, agents or sub-contractor(s) in the provision of the Consultancy Services;
 - (iii) any default, unauthorised act or wilful omission of the Consultant, its employees, agents or sub-contractor(s) in the provision of the Consultancy Services;
 - (iv) the non-compliance by the Consultant, its employees, agents or sub-contractor(s) with any applicable law, or regulation, order or requirement of any government agency or authority in the provision of the Consultancy Services;
 - (v) any allegation of or claim for infringement of the Intellectual Property Rights of any party arising from or in relation to the provision of the Consultancy Services by the Consultant, its employees, agents or sub-contractor(s); or
 - (vi) the provision, use, reproduction or possession at any time whether before or after the execution of the Consultancy Agreement of the Materials or Licensed Property by the Government.
- 19.2 The Government will NOT under any circumstances provide any indemnity.

20. Restrictions, Limitations and Counter-Proposals Proposed by the Consulting Firms

- 20.1 Restrictions or limitations proposed by a consulting firm which seek to limit or avoid the responsibility of the consulting firm or Consulting Team in contract, tort or otherwise for failing to exercise the skill and care required by the Consultancy Agreement or reasonably expected of the Consultant and Consulting Team in these circumstances may render any proposal non-compliant in the absolute discretion of the Government.
- 20.2 The obligations and liabilities imposed on the Consultant in paragraphs 15, 16, 19 and 23 (conflict of interest, confidentiality, indemnity and intellectual property rights) in this Consultancy Brief are not subject to negotiation or counter-proposals. Any counter-

proposal in contravention of this paragraph will be disregarded.

21. Changes in the Scope of the Consultancy Services

- 21.1 The Government may at any time by giving fourteen (14) days' written notice to the Consultant, make changes as are reasonable in all the circumstances to the scope of the Consultancy Services. The costs (if any) of such changes and the impact of such changes on the timetable, charging and payment provisions of the Consultancy Agreement shall be mutually agreed in writing by the Government and the Consultant with reference to and on the basis of the breakdown costs and fees quoted in the Consultant's Fee Proposal.
- 21.2 If the Government and the Consultant are unable to agree on the costs of the changes, the revised work schedule, charge or payment schedule for the Deliverables, the Government may nevertheless direct the Consultant in writing to proceed with the changes with reference to and on the basis of the breakdown costs and fees quoted in the Consultant's Fee Proposal and the Consultant shall act accordingly.

22. Termination of the Consultancy Agreement

- 22.1 The Government may, by written notice, immediately terminate the Consultancy Agreement if the Consultant shall be in breach of any of the terms and conditions of the Consultancy Agreement which is not capable of being remedied or, in the case of a breach capable of being remedied, such breach shall not have been remedied by the Consultant within fourteen (14) days of the date of the receipt of a notice to remedy from the Government.
- 22.2 The Government may immediately terminate the Consultancy Agreement if the Consultant has engaged or is engaging in acts or activities that are likely to constitute or cause the occurrence of offences endangering national security or which would otherwise be contrary to the interest of national security; or the continued engagement of the Consultant or the continued performance of the Consultancy Agreement is contrary to the interest of national security; or the Government reasonably believes that any of the events mentioned in this paragraph 22.2 is about to occur.
- 22.3 Notwithstanding anything to the contrary in this Consultancy Brief, the Government may at any time and from time to time during the term of the Consultancy Agreement, at its discretion and without cause, suspend or terminate the Consultancy Agreement or any part thereof by giving the Consultant thirty (30) days' prior written notice of such suspension or termination.
- 22.4 In the event of termination prior to the completion of the Consultancy Services, the Government may itself complete the Consultancy Services or (at the option of the

Government) may engage, use or employ any other consulting firm to complete the said services and the Government or such other consulting firm may use the Materials (whether or not title has passed to the Government in respect thereof) and the Licensed Property or any part thereof for such completion. The suspension or termination of the Consultancy Agreement shall not prejudice or affect any rights of action or other remedies which may have accrued to the Government or the Consultant.

22.5 The Consultant will be paid for Consultancy Services properly performed up to the date of suspension or termination. The Consultant shall not be entitled to compensation for remaining Consultancy Services which have not been performed.

23. Intellectual Property Rights

- 23.1 Subject to paragraph 23.3, all the Materials and all the Intellectual Property Rights in all the Materials shall be and shall remain the exclusive property of the Government and shall vest in the Government absolutely at the time when they are created.
- In the event and to the extent that any of the Intellectual Property Rights in the Materials is deemed for any reason not to vest in the Government pursuant to paragraph 23.1 above, then, upon request by the Government, the Consultant shall forthwith, free of charge to the Government, assign or otherwise transfer or cause to be assigned or otherwise transferred the same to the Government free of any encumbrance or compensation to the Consultant.
- 23.3 The provisions of paragraph 23.1 shall not apply to the following type of property ("Licensed Property") namely that of a kind which is available publicly or generally within the business of a kind similar to that to be provided by the Consultant under the Consultancy Agreement or which is or was specifically produced or created solely and exclusively in relation to services, other than services provided or to be provided to the Government under the Consultancy Agreement, and which is incorporated or used in the Materials or otherwise used by the Consultant in the performance of the Consultancy Agreement. The Consultant shall keep the Government informed in writing of any of the Materials that are subject matter(s) of the Licensed Property or any pre-existing Intellectual Property Rights and any restrictions whatsoever affecting the use thereof.
- 23.4 The Consultant undertakes to acquire all the requisite consents and licenses for the benefit of the Government for the use and reproduction of the Licensed Property incorporated in the Materials for any purposes for which the Government may in its absolute discretion use the Materials.
- 23.5 Upon request by the Government at any time, and in the event of the expiration or termination of the Consultancy Agreement, the Consultant shall at its expense promptly deliver to the Government all the Materials and all copies of the Materials (save for Deliverables already submitted), then in the custody, control or possession of the

Consultant, any members of the Consulting Team, the Consultant's sub-contractors or their respective officers, employees and agents.

- 23.6 The Consultant hereby waives and will procure all the authors concerned to waive all moral rights (as referred to in the Copyright Ordinance (Cap. 528 of the Laws of Hong Kong) in the Materials and the Licensed Property), such waiver to operate in favour of the Government, its licensees, assigns and successors in title and to have effect upon the vesting of Intellectual Property Rights or the grant of the licence (as the case may be).
- 23.7 The Consultant shall ensure that no Intellectual Property Rights of any third parties have been or will be infringed as a result of the Consultancy Services and shall indemnify the Government against any loss or damage which the Government may sustain or incur as a result of any allegation of or claim for infringement of the Intellectual Property Rights of any party arising from or in any way related to the Consultancy Services or the use or possession at any time of the Materials by the Government whether before or after the execution of the Consultancy Agreement.
- 23.8 At the request of the Government, the Consultant shall, free of charge to the Government, do all such things and execute all such documents and instruments as may be reasonably necessary in the opinion of the Government to enable the Government to obtain, defend and enforce its rights in the Materials and its rights in respect of the Licensed Property.
- 23.9 Paragraphs 23.1 to 23.8 shall survive the expiration or early termination of the Consultancy Agreement.
- 23.10 For the purpose of this Consultancy Brief:

"Intellectual Property Rights" means patents, copyrights, design rights, trademarks, service marks, trade names, domain names, database rights, rights in know-how, new inventions, designs or processes and other intellectual property rights (of whatever nature wherever arising, whether now known or hereafter created) and in each case whether registered or unregistered and including applications for the grant of any such rights.

"Materials" includes all the deliverables (including the Deliverables), reports, works of authorship, summaries, briefings, presentations, diagrams, drawings, charts, tables, graphs, pictures, photographs, questionnaires, plans, models, analyses, work programmes, technical notes, information papers, opinions, comments, specifications, formulae, data, information, documents and materials collected, compiled, developed, produced or created by the Consultant, the Consulting Team or the employees, directors, officers, agents or sub-contractors at all tiers of the Consultant, agents or sub-contractors (whether individually or jointly with the Government) in relation to and/or in the course of the performance of the Consultancy Services or for the purpose of the Consultancy Agreement including but without limitation, the pre-contractual and contractual documents thereof which are recorded or stored by whatever means in whatever form or

media and the drafts of any of the above items.

24. Withholding Tax

24.1 Where the Consultant is or becomes a non-Hong Kong resident, the Government shall withhold a percentage (equivalent to the prevailing Hong Kong profits tax rate prescribed by the Inland Revenue Ordinance (Cap. 112 of the Laws of Hong Kong) for unincorporated or incorporated business or profession, as the case may be) of any fees payable to the Consultant [(excluding any amount that is reimbursement of expenses pursuant to an express term of the Consultancy Agreement)] in respect of the Consultancy Services provided in Hong Kong by the non-Hong Kong resident Consultant for the settlement of profits tax chargeable on the fees. Without prejudice to the Government's right as to set off, the Government shall return to the Consultant any balance representing the excess of fees so withheld in the basis period of the year of assessment over the Consultant's profit tax liability chargeable on the fees for that year without interest within a reasonable time upon final determination and settlement of the Consultant's profits tax liabilities.

25. Performance Monitoring of the Consultant

25.1 Should a consulting firm be awarded the Consultancy, its subsequent performance shall be monitored and may be taken into account when its future bids for other Government consultancy works are evaluated. A consulting firm may be suspended from bidding for any new Government consultancy works if its performance is unsatisfactory.

26. Warranty

- 26.1 The Consultant will be required to warrant and undertake to the Government that:
 - (a) the Consultancy Services shall be performed and completed in an impartial, timely and diligent manner and that the Consultant, each member of the Consulting Team, each of the Consultant's sub-contractors and every person employed, used or engaged by the Consultant in the performance of the Consultancy Services shall use all the experience, skills, care and diligence in the performance of the Consultancy Services and the discharge of all its duties and obligations under the Consultancy Agreement as may be expected from a person who is an expert in providing services of a kind similar to the Consultancy Services; and
 - (b) it, the Consulting Team and the Consultant's sub-contractors have the necessary skills and experience to provide the Consultancy Services and it shall provide independent and unbiased professional advice to the

Government in relation to the Consultancy in accordance with applicable professional standards in the Hong Kong and international markets.

27. Warranty of No Collusion

- 27.1 The consulting firm must ensure that the Consultancy Proposal is prepared without any agreement, arrangement, communication, understanding, promise or undertaking with any other person (except as provided in paragraph 3 of the Non-collusion Certificate referred to in paragraph 27.2 below), regarding, amongst other things, price, consultancy selection process or any terms of the Consultancy Proposal. Bid-rigging is inherently anti-competitive and is considered serious anti-competitive conduct under the Competition Ordinance (Cap. 619). Consulting firms which engage in bid-rigging conduct may be liable for the imposition of pecuniary penalties and other sanctions under the Competition Ordinance (Cap. 619).
- 27.2 The consulting firm shall complete and submit to the Government a non-collusion certificate in the form set out in **Annex 2** ("**Non-collusion Certificate**") as part of its Consultancy Proposal.
- 27.3 In the event that the consulting firm is in breach of any of the representations, warranties and/or undertakings in paragraph 27.1 above or in the Non-collusion Certificate submitted by it under paragraph 27.2 above, the Government shall be entitled to, without compensation to any person or liability on the part of the Government:
 - (a) reject the Consultancy Proposal;
 - (b) if the Government has accepted the Consultancy Proposal, withdraw its acceptance of the Consultancy Proposal; and
 - (c) if the Government has entered into the Consultancy Agreement with the Consultant, forthwith terminate the Consultancy Agreement.
- 27.4 By submitting a Consultancy Proposal, a consulting firm is regarded to have undertaken to indemnify and keep indemnified the Government against all losses, damages, costs or expenses arising out of or in relation to any breach of any of the representations, warranties and/or undertakings in paragraph 27.1 above or in the Non-collusion Certificate submitted by it under paragraph 27.2 above.
- 27.5 Any breach of any of the representations, warranties and/or undertakings in paragraph 27.1 above or in the Non-collusion Certificate submitted by it under paragraph 27.2 above by the consulting firm may prejudice its future standing as a Government consultant.
- 27.6 The rights of the Government under paragraphs 27.3 to 27.5 above are in addition to and without prejudice to any other rights or remedies available to it against the consulting firm.

28. Settlement of Disputes

- 28.1 Any dispute or difference between the parties arising out of or in connection with the Consultancy Agreement which is not resolved within twenty-eight (28) days may first be referred to mediation in accordance with the then current Hong Kong International Arbitration Centre Mediation Rules.
- 28.2 If the matter cannot be resolved by mediation or any party to the Consultancy Agreement does not wish the matter to be referred to mediation, any party may within ninety (90) days from the failure of mediation or the refusal to mediate (as the case may be) require that the matter be referred to arbitration in accordance with and subject to the provisions of the Arbitration Ordinance (Cap. 609 of the Laws of Hong Kong). Any such reference shall be deemed to be a submission within the meaning of the Arbitration Ordinance.
- 28.3 Subject to paragraphs 28.4 and 28.5, the then current Hong Kong International Arbitration Centre Domestic Arbitration Rules ("Arbitration Rules") shall apply to any arbitration instituted in accordance with this paragraph.
- 28.4 Notwithstanding any provision of the Arbitration Rules, the place of meetings and hearings in the arbitration shall be Hong Kong unless the parties otherwise agree.
- 28.5 Article 20.1 of the Arbitration Rules shall be deleted and replaced by:
 - "20.1 The arbitration proceedings are private and confidential between the parties and the arbitrator. No information relating to the arbitration shall be disclosed by any person without the written consent of each and every party to the arbitration. Notwithstanding the above, disclosures are permissible where disclosures —
 - (a) are necessary for enforcement of the arbitral award or any settlement agreement between the parties;
 - (b) are required by the parties' auditors or for some other legitimate business reason;
 - (c) are required by law or an order of the courts of Hong Kong; or
 - (d) are necessary for the making of claims against any third party or to defend a claim brought by any third party."
- 28.6 All provisions in Schedule 2 to the Arbitration Ordinance shall apply to any arbitration instituted in accordance with these provisions on settlement.

29. Other Conditions

29.1 The Government reserves the right, in its absolute discretion, not to appoint any of the

consulting firms which have submitted proposals in response to this invitation for the whole or any part of the Consultancy. Submission of a Consultancy Proposal shall be made on the understanding that the Government will not be liable to pay any costs arising out of or incidental to the preparation, submission or clarification of any Consultancy Proposal. The Government is also under no obligation to discuss the assessment or assessment result of any proposal with any person.

29.2 After submission of the Consultancy Proposals, the consulting firms shall not attempt to initiate any further contact, whether direct or indirect, with the Government on its Consultancy Proposal or this invitation to submit Consultancy Proposals. The Government shall have the sole right to initiate any such further contact and all such contacts and any replies of consulting firms thereto shall be in writing or formally documented in writing.

Buildings Department
The Government of the Hong Kong Special Administrative Region
February 2024

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