



Invitation for Expression of Interest -
Professional Services Provider for the Formulation of Code of Practice and
Machine-Readable Data Standards for Adoption of openBIM in Hong Kong

Our Ref: EOI/BSO/2026/001

Invitation to Expression of Interest (EOI)

Agreement No. BSD 1/2026

**Professional Services Provider for the
Formulation of Code of Practice and Machine-Readable Data Standard
for Adoption of openBIM in Hong Kong
for
BEAM Society Limited**

ASSIGNMENT BRIEF

January 2026



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This document describes the requirements for the Formulation of Code of Practice and Machine-Readable Data Standard for Adoption of openBIM in Hong Kong (Assignment). It provides the foundation on which the Professional Services Provider (PSP) shall base their proposals. The PSP responding to the invitation for express of interests shall read and understand this document in entirety in order to assure compliance with the requirements, functionalities and objectives of the Platform.

Words in singular form in this and the associated document shall be interpreted as singular or plural as suggested by the context of the statement in this document.

1. Background

- 1.1 In recent years, the Hong Kong Special Administrative Region (HKSAR) Government has been encouraging the building industry to adopt construction digitisation technology to enhance and expand the existing construction management measures and services. Technologies like Buildings Information Modelling (BIM) not only would increase construction efficiency but also allow key stakeholders amongst the building industry to better understand the building performance and introduce appropriate measures to incentivise the building sectors to build greener and smarter.
- 1.2 In December 2023, the HKSAR Government released the ‘Roadmap for Building Information Modelling (BIM) for Building Plan Preparation and Submission’. This roadmap entails mandating the adoption of BIM for the preparation and submission of BIM models and BIM-generated building plans for residential and various other developments commencing in 2029. It also envisions the integration of openBIM standards and the utilisation of a checking platform to enhance the efficiency and automation of building plan reviews.
- 1.3 To support the government’s roadmap and further promote the adoption of BIM, BEAM Society Limited (BSL) has taken the lead in developing the openBIM Checking Platform for compliance verification of building plans. This platform will enable real estate developers and project teams to prepare and process their BIM plans and documents efficiently, ensuring compliance with relevant assessment requirements and advancing sustainable and intelligent building design.
- 1.4 To complement the use of the checking platform, it is essential to promulgate a clear Code of Practice (COP) that defines the respective roles of BIM models and 2D documentation across different plan types for statutory submissions. At the same time, the industry has called for a Machine-Readable Data Standard that aligns with both local regulatory requirements, national and international norms, in order to promote software diversity, encourage participation by vendors from Mainland China and overseas, foster market

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competition, avoid vendor lock-in, and provide a sound basis for mandating BIM submissions.

- 1.5 Against this background, BSL is now inviting a PSP to develop the COP and Machine-Readable Data Standard for the adoption of openBIM in Hong Kong. These two components will serve as key elements in the transition of the building sector from a fragmented, document-centric and adversarial model to a collaborative, data-centric and efficient ecosystem, thereby establishing a more resilient and future-ready industry for all participants.

2. Objectives of the Assignment

- 2.1 It is an intent of the Assignment to obtain professional services from the PSP for the successful completion of the Assignment as described in the current EOI.
- 2.2 The concept rests on the idea of viewing BSL, building authorities, BIM practitioners, software vendors and openBIM platform operators as members of one team that understand and support each other in pursuing the cooperative goal of improving the integrity, speed, accuracy, consistency, and completeness of statutory BIM submissions through openBIM standards. The services to be provided by the PSP for this Assignment shall meet the following objectives:
 - (i) develop a comprehensive COP providing clear procedural guidelines, best practices, compliance checklists and submission protocols for BIM models to meet Hong Kong statutory requirements within the openBIM Checking Platform;
 - (ii) formulate machine-readable Data Standards aligned with national CBIMS, global buildingSMART Data Dictionary (bSDD)/Industry Foundation Classes (IFC) frameworks plus HK-specific extensions for attributes, classifications, validation rules and metadata supporting automated statutory compliance checking;
 - (iii) facilitate seamless data exchange, validation and integration between BIM authoring software and openBIM Checking Platform throughout statutory submission workflows; and
 - (iv) enhance transparency, interoperability and automation of BIM compliance checking processes; incorporate version control, audit trails and traceability of statutory data requirements.

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3. Scope of the Assignment

- 3.1 The Assignment involves the formulation of two (2) components: 1) COP outlining the information requirements for statutory plan submissions in BIM format; and 2) Machine-Readable Data Standard meeting both local, national and international standards.
- 3.2 The COP shall set out clear, practical and enforceable requirements for the preparation and submission of BIM models for statutory plan approval under the Buildings Ordinance (BO). It shall define the procedural and technical standards that BIM models and associated 2D documentation must meet, including information requirements, data structure, file formats, submission protocols and validation steps for use with the openBIM Checking Platform. The COP shall also establish quality assurance and checking processes, provide templates, checklists and best-practice recommendations, and promote coordinated, standardised workflows among architects, engineers and regulatory authorities to facilitate efficient and consistent regulatory review.
- 3.3 The Machine-Readable Data Standard shall define a structured, consistent and interoperable data framework to support statutory BIM submissions and automated compliance checking. They shall align with relevant national and international standards, including CBIMS, openBIM and Information Delivery Specifications (IDS) in accordance with the relevant ISO standards, and shall include the development of a localised bSDD, data schemas, metadata structures and classification protocols tailored to Hong Kong's regulatory context. The standards shall enable high-quality data exchange, validation and integration across different BIM authoring software, openBIM Checking Platform, and other government platforms (including the Common Spatial Data Infrastructure) and shall incorporate provisions for version control and data governance to maintain compatibility with evolving technologies and regulatory requirements.
- 3.4 The PSP shall develop and document the COP and Data Standard to guide users in effectively utilising BIM models to prepare the necessary data for statutory submission to the Buildings Department (BD). In formulating these standards, the PSP shall reference industry best practices and guidelines, including the CIC BIM Standards published by the Construction Industry Council (CIC), BIM-AM Standards and Guidelines, and any other relevant international standards pertaining to building modeling, ensuring a comprehensive framework that facilitates compliance and efficiency.
- 3.5 The PSP shall conduct a comprehensive gap analysis on the existing practice and identify discrepancies and areas for improvement. Concurrently, the PSP shall perform a thorough evaluation of data standard compliance, assessing the alignment of current practices against the relevant IFC versioning and corresponding software versioning to ensure both components are effectively integrated and aligned with industry best practices.

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- 3.6 The PSP shall be aware that there may be changes in the course of development to suit the needs and demands of the Stakeholders. As such, the PSP shall make appropriate allowances for design updates and changes. In addition, the PSP shall provide one year warranty period service following the publication of the finalised standards to cater for possible addendum of COP and Data Standard.
- 3.7 The PSP shall collaborate closely with designated parties responsible for the development of the openBIM Checking Platform to ensure seamless integration between the COP, the Data Standard, and the platform functionalities. Regular coordination meetings, joint reviews, and technical alignment exercises shall be conducted to achieve coherent system performance and stakeholder satisfaction.
- 3.8 The PSP shall perform day-to-day project management and coordination of all related tasks to ensure timely and quality delivery.
- 3.9 The PSP shall provide change management services to support smooth adoption of the codes and standards.
- 3.10 The PSP shall organise and facilitate stakeholder engagement activities to ensure effective communication, gather feedback, and support the successful adoption of the codes and standards.
- 3.11 The PSP shall conduct thorough user requirements studies with the BD, Lands Department (LandsD) and other related Government departments, and perform necessary configuration and customisation to deliver the codes/standards in accordance with this specification.
- 3.12 The PSP shall submit proposals covering all items specified in this Project Specification with a detailed, itemised cost breakdown.

4. Presentations

- 4.1 The PSP shall prepare necessary presentations required during the analysis, development, validation, integration, acceptance, and handover of the COP and Data Standards as below:
 - (i) Prepare and attend all meetings with BSL for the purpose(s) related to the activities of the Assignment;
 - (ii) Conduct interviews with BSL staff, government authorities (BD/LandsD), practitioners, professional institutes, BIM software vendors, and any relevant industry stakeholders in relation to the Assignment;

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- (iii) Report progress of the Assignment to BSL and its review committee and working groups;
- (iv) Present the deliverables for BSL comments and/or approval; and
- (v) Support BSL to answer any queries from the relevant industry stakeholders and undertake improvement work in relation to the Assignment.

5. Deliverables

5.1 Based on the requirements depicted above, the PSP shall be responsible for the analysis, development, validation, integration and handover of the COP and Data Standards, and provide the following deliverables as part of the Assignment:

- (i) A Requirements Analysis Report encompassing stakeholder requirements, gap analysis of current BIM practices against statutory needs, and traceable prioritisation of COP guidelines and Data Standard schemas for openBIM compliance checking.
- (ii) Stakeholder Engagement Reports documenting the feedback received during the engagement sessions, as well as recommending potential changes necessary to suit the practices of industry practitioners.
- (iii) Draft COP and Data Standards (narrative and machine-readable formats) with structured content covering procedural guidelines, schema definitions, bSDD/IFC alignment, validation rules, and implementation guides for BSL review and iterative refinement.
- (iv) Testing Reports documenting validation results, interoperability trials across BIM authoring tools, platform integration tests, issue resolutions, and recommendations for final deliverables.
- (v) Publication-ready and editable versions of the COP (PDF, Word/Excel) and Data Standards (Excel, JSON/IDS schemas), including integration prototypes, vendor compatibility matrices, test datasets, and handover documentation.
- (vi) Final Acceptance Report detailing BSL acceptance criteria fulfilment, stakeholder validation, integration readiness, and post-handover maintenance procedures.

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- (vii) Progress Reports outlining the progress of the Assignment, findings, and deliverables of individual phases, with briefing sessions to BSL based on the timing of their scheduled meetings.
 - (viii) Comprehensive Handover Package including integration guides, maintenance procedures, change logs, vendor coordination records, and knowledge transfer materials for future maintenance.
- 5.2 All deliverables produced by the PSP shall be subject to acceptance by BSL. BSL will endeavor to respond and comment on the reports submitted by the PSP within reasonable time of submission as practical as possible. The PSP shall rectify and supplement the submissions within 2 weeks upon receiving comments from BSL and/or stakeholders.
- 5.3 All documents shall be submitted electronically in MS Word format, MS Excel format (for data) and in PDF file format or any other formats as applicable which are readily printable.
- 5.4 The copyright of the COP, Data Standards, reports, documents, recommendations, prototypes, test cases and any other information prepared or collected by the PSP, its specialist(s) and the sub-contractor(s) and their employees and agents in the course of this Assignment shall rest with BSL or any entity designated by BSL.

6. Brief Timeframe of the Assignment

- 6.1 The assignment is scheduled to begin in March 2026 and is expected to take approximately 46 months to complete. It will be carried out in three phases, with the development occurring over two of these phases: Phase 1 is to be completed by June 2027, and Phase 2 by December 2029. Following the completion of the development phases, there will be a warranty period concluding in December 2030. The detailed development requirements for the two development phases are outlined below:
- a) Phase 1: Development of COP and Machine-Readable Data Standard covering (a) 4 compliance checking tools - 1) GFA/SC/UFA/UFS Calculation; 2) Provision of Sanitary Fitments; 3) MOE/MOA/FRC requirements; 4) BIM Structural Tool, (b) Drawing Generation Tool and (c) any other necessary data for digital submission under the Buildings Ordinance.
 - b) Phase 2: Development of COP and Machine-Readable Data Standard covering 5 compliance checking tools - 1) Drainage Plan Checking; 2) Building Separation Requirements Assessment; 3) Natural Lighting and Ventilation Checking; 4) Foundation and Ground Investigation Tool; 5) Site Formation Plan Submission.

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- 6.2 The deliverables are expected to be submitted during the course of the Assignment as specified in the Deliverables section above, under the supervision of BSL.
- 6.3 To achieve the objectives of this Assignment, the PSP shall conduct the Assignment following the proposed methodology and plan. The proposed methodology and plan shall be accepted by BSL during the inception stage.
- 6.4 Supplementary modification on the proposed System, and information and reports other than the deliverables stated above shall be prepared and delivered at such reasonable time upon request by BSL.

7. Requirements of the PSP

- 7.1 The PSP shall be directed and supervised by BSL.
- 7.2 The PSP shall obtain the approval of BSL before commencement of each stage of the Assignment.
- 7.3 The PSP shall attend all meetings held by BSL for this Assignment and the internal meetings of BSL as required and necessary.

8. PSP Office and Staffing

- 8.1 An experienced and competent PSP will be engaged to conduct the tasks stipulated in Clause 3 above. It is anticipated that the PSP shall consist of one Project Manager, one Project Analyst, one Analyst Programmer, and one Research Assistant to complete the Assignment.
- 8.2 The PSP shall maintain for the duration of this Assignment an office in Hong Kong under the control of a Project Manager with at least 8 years of management experience in the field relevant to the subject matter of the Assignment.
- 8.3 The composition of the PSP shall include at least the following team members:
 - (a) Project Manager – Minimum of 8 years post-qualification experience in BIM implementation, digital construction innovation, or construction technology projects, of which no less than 4 years in strategic leadership/project management of BIM/openBIM initiatives/standards development, 3 years in BIM standards formulation/compliance checking platforms, and 2 years in stakeholder engagement with BD/LandsD/professional institutes/BIM vendors. He/she shall possess a degree or above in building/construction field and have demonstrated thought leadership in

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openBIM/BIM standards with proven track record delivering HK government BIM projects.

- (b) Project Analyst – Minimum of 5 years post-qualification experience in BIM/openBIM projects/digital construction workflows, of which no less than 3 years in technical analysis/requirements gathering/standards development, 2 years in data schema design/IFC customisation/bSDD mapping/CBIMS digital building code mapping, and 1 year in stakeholder workshops/vendor coordination. He/she shall possess a degree or above in building/construction field with proven track record contributing to HK BIM standards publications/compliance platforms.
 - (c) Analyst Programmer – Minimum of 3 years post-qualification experience in BIM/construction technology software development in Hong Kong, of which no less than 1 year in BIM data processing tools/schema validation/bSDD APIs and 1 year in Python/JavaScript/C# for compliance checking. Practical experience in IFC parsing/openBIM integration and delivering BIM software prototypes for HK projects is preferred.
 - (d) Research Assistant – Minimum of 2 years post-qualification experience in BIM/openBIM support roles/construction technology projects in Hong Kong, including 1 year in research/data collection/documentation for BIM standards/compliance checking. Familiarity with BIM authoring tools/openBIM concepts (IFC, bSDD, IDS/MVD, BCF, CBIMS) and contribution to HK BIM research reports/workshop materials is preferred.
- 8.4 The PSP shall provide BSL with full details of staff to be employed on the Assignment together with their curriculum vitae and proof of qualifications for prior approval from BSL. Separate approval from BSL shall be obtained for any subsequent changes of staff.
- 8.5 The PSP shall provide all specialist and sub-contractor services (not limited to those specified in this Assignment above) required for the satisfactory completion of the Assignment. No additional fees or expenses for the provision of such services rendered locally or overseas shall be payable by BSL.
- 8.6 The PSP shall provide staff and manpower input in accordance with the technical proposal made at the tender stage, and that BSL shall have the right to call for and audit the time-log record of the PSP's staff deployed for the Assignment.
- 8.7 In the event of any deviation or change of team members with respect to the submitted tender, prior approval from BSL must be sought.

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- 8.8 In the event, for reasons beyond his control, the PSP is unlikely to provide or maintain any key staff as specified in the proposal, he shall report to BSL as soon as practicable and propose for BSL's approval of a substitute staff having qualification and experience comparable with the staff who are departing the PSP.
- 8.9 The PSP shall be responsible for preparing the meeting minutes and submitting them to BSL within 2 weeks after the meeting. Meeting papers and documents shall be prepared and submitted by the PSP within 1 week before the meeting.

9. Tentative Procurement Plan

- 9.1 It is anticipated that the procurement plan may be as follows:

Description	Anticipated End Date
EOI	28 January 2026
EOI Evaluation	4 February 2026
Formal Tendering	13 February 2026
Tender Evaluation	27 February 2026
Tender Award	2 March 2026
Commencement of Assignment	9 March 2026