



Application for Listing under HKIA BIM Accreditation Programme

Please read the Notes to Applicant in Part H before completing this form.

A. APPLICATION TYPE

Please tick as appropriate:

☐ BIM Pro (HKIA) / BIM Pro

- ☐ I DO NOT wish to apply for Construction Industry Council - Certified BIM Manager ('CCBM') under the streamlining processing.

- *Remark: Without checking the box, BIM Co applicant gives his/her consent on applying for both HKIA BIMpro and CIC Certified BIM Manager (CCBM) qualifications under streamlining processing automatically.*

- ☐ I am currently a Construction Industry Council - Certified BIM Manager (CCBM).

☐ BIM Co (HKIA) / BIM Co

- ☐ I DO NOT wish to apply for Construction Industry Council - Certified BIM Coordinator ('CCBC') under the streamlining processing.

- *Remark: Without checking the box, BIM Co applicant gives his/her consent on applying for both HKIA BIM Co and CIC Certified BIM Coordinator (CCBC) qualifications under streamlining processing automatically.*

- ☐ I am currently a Construction Industry Council - Certified BIM Coordinator (CCBC).

B. APPLICANT PARTICULARS

Name : (English)

Surname

Given Name

(Chinese) (if any)

HKIA Membership No.: _____

Gender : _____

HKIA Membership Category:
(Please tick as appropriate.)

- ☐ Fellow
- ☐ Member
- ☐ Graduate Member
- ☐ Affiliate
- ☐ Referred by RP, please fill in referee information below:

Name of RP: _____

Name of Referee: _____

(include HKIA Membership No.)

Signature of Referee
(with company chop)

Office Name : _____

Office Address : _____

Office Tel. : _____ Mobile : _____ Fax : _____

Email Address : _____

C. BIM WORKING EXPERIENCE

Please present your working experience in chronological order starting from the latest practical experience.
Separate sheet may be attached to the application form if space is insufficient.

1. BIM	
Project Name :	
Your Position :	
Project Duration involved :	<div style="display: flex; justify-content: space-between; align-items: center;"> dd mm yyyy to dd mm yyyy (mths days) </div>
Duration involved in Hong Kong :	<div style="display: flex; justify-content: space-between; align-items: center;"> dd mm yyyy to dd mm yyyy (mths days) </div>
Certifier Name (Employer) :	<div style="display: flex; justify-content: space-between; align-items: center;"> HKIA Registered Practice <input type="checkbox"/> Y <input type="checkbox"/> N (Please tick as appropriate.) </div>
Certifier Signature :	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-bottom: 1px solid black; width: 60%;"></div> <div>Date :</div> </div>
Certifier Name (HKIA Member) :	<div style="display: flex; justify-content: space-between; align-items: center;"> <input type="checkbox"/> Fellow <input type="checkbox"/> Member (Please tick as appropriate.) </div>
	HKIA Membership No. :
Certifier Signature :	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-bottom: 1px solid black; width: 60%;"></div> <div>Date :</div> </div>

2. BIM	
Project Name :	
Your Position :	
Project Duration involved :	<div style="display: flex; justify-content: space-between; align-items: center;"> dd mm yyyy to dd mm yyyy (mths days) </div>
Duration involved in Hong Kong :	<div style="display: flex; justify-content: space-between; align-items: center;"> dd mm yyyy to dd mm yyyy (mths days) </div>
Certifier Name (Employer) :	<div style="display: flex; justify-content: space-between; align-items: center;"> HKIA Registered Practice <input type="checkbox"/> Y <input type="checkbox"/> N (Please tick as appropriate.) </div>
Certifier Signature :	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-bottom: 1px solid black; width: 60%;"></div> <div>Date :</div> </div>
Certifier Name (HKIA Member) :	<div style="display: flex; justify-content: space-between; align-items: center;"> <input type="checkbox"/> Fellow <input type="checkbox"/> Member (Please tick as appropriate.) </div>
	HKIA Membership No. :
Certifier Signature :	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border-bottom: 1px solid black; width: 60%;"></div> <div>Date :</div> </div>

C. BIM WORKING EXPERIENCE

Please present your working experience in chronological order starting from the latest practical experience.
Separate sheet may be attached to the application form if space is insufficient.

3. BIM	
Project Name :	
Your Position :	
Project Duration involved :	<div style="display: flex; justify-content: space-between; align-items: center;"> dd mm yyyy to dd mm yyyy (mths days) </div>
Duration involved in Hong Kong :	<div style="display: flex; justify-content: space-between; align-items: center;"> dd mm yyyy to dd mm yyyy (mths days) </div>
Certifier Name (Employer) :	<div style="display: flex; justify-content: space-between; align-items: center;"> HKIA Registered Practice <input type="checkbox"/> Y <input type="checkbox"/> N (Please tick as appropriate.) </div>
Certifier Signature :	
	Date :
Certifier Name (HKIA Member) :	<div style="display: flex; justify-content: space-between; align-items: center;"> <input type="checkbox"/> Fellow <input type="checkbox"/> Member (Please tick as appropriate.) </div>
	HKIA Membership No. :
Certifier Signature :	
	Date :

4. BIM	
Project Name :	
Your Position :	
Project Duration involved :	<div style="display: flex; justify-content: space-between; align-items: center;"> dd mm yyyy to dd mm yyyy (mths days) </div>
Duration involved in Hong Kong :	<div style="display: flex; justify-content: space-between; align-items: center;"> dd mm yyyy to dd mm yyyy (mths days) </div>
Certifier Name (Employer) :	<div style="display: flex; justify-content: space-between; align-items: center;"> HKIA Registered Practice <input type="checkbox"/> Y <input type="checkbox"/> N (Please tick as appropriate.) </div>
Certifier Signature :	
	Date :
Certifier Name (HKIA Member) :	<div style="display: flex; justify-content: space-between; align-items: center;"> <input type="checkbox"/> Fellow <input type="checkbox"/> Member (Please tick as appropriate.) </div>
	HKIA Membership No. :
Certifier Signature :	
	Date :

Total BIM Project Duration involved:	mths	days
Total BIM Project Duration involved in Hong Kong :	mths	days

D. BIM TRAINING

Please state your BIM training in chronological order starting from the latest training.

No.	Name of University / Professional Body / Registration Body / Course Provider	Programme Period (dd.mm.yyyy – dd.mm.yyyy) and contact hours	Mode of Study (Part-time, Full-time, Distance Learning)	Programme Title <i>(in full)</i> / Professional Qualification
1.				
2.				
3.				
4.				
5.				
6.				

E1. SUPPORTING DOCUMENTS (for BIM Pro)

Please check your documents to be submitted to support your application.

- ☐ Completed application form
- ☐ Curriculum vitae
- ☐ Academic qualification certificate
- ☐ Reasonable proof of successful completion of BIM training course(s)
- ☐ Statement on core competencies
- ☐ Portfolio of BIM working experience including key project information, applicant's role and BIM tasks accomplished
- ☐ Proof of CIC-Certified BIM Manager (if any)
- ☐ Evidence of payment enclosed

E2. SUPPORTING DOCUMENTS (for BIM Co)

Please check your documents to be submitted to support your application.

- ☐ Completed application form
- ☐ Curriculum vitae
- ☐ Academic qualification certificate
- ☐ Reasonable proof of successful completion of BIM training course(s)
- ☐ Proof of 3 years of full-time relevant experience
- ☐ Portfolio of BIM working experience including key project information, applicant's role and BIM tasks accomplished
- ☐ Statement on core competencies
- ☐ Completed Client and Employer evaluation forms
- ☐ Proof of CIC-Certified BIM Coordinator (if any)
- ☐ Evidence of payment enclosed

F. DECLARATIONS BY APPLICANT

1. I (name in full) _____ being an applicant for listing under HKIA BIM Accreditation Programme by The Hong Kong Institute of Architects do hereby DECLARE that the above is a TRUE STATEMENT OF ALL MY PARTICULARS. I also hereby authorize The Hong Kong Institute of Architects to make any reasonable enquiries into the information given above.
2. I declare that the portfolio I submit is a true record of my own experience.
3. My personal particulars can be released to third parties for confirmation of my qualification and experience.
4. I have read the listing requirements and procedures detailed in the HKIA BIM Accreditation Programme Application Handbook and relevant circulars. I shall abide by the rules therein.
5. I hereby authorize The Hong Kong Institute of Architects to submit a copy of this application form and portfolio to Construction Industry Council for streamline processing of application for CIC - Certified BIM Manager and BIM Coordinator upon accepted as BIM Pro (HKIA) / BIM Pro and BIM Co (HKIA) / BIM Co respectively.

Signature of Applicant

Date

G. OFFICIAL USE ONLY

Application Process Check			
Event	By	Signature	Date
Application received			
Application fee received			
Application documents checked			
Membership no. checked			
Application result <input type="checkbox"/> Accepted <input type="checkbox"/> Rejected			
Applicant notified			

H. NOTES TO APPLICANT

1. Eligibility

1.1 BIM Pro (HKIA) / BIM Pro

	BIM Pro (HKIA) / BIM Pro
Qualifications	<p>BIM Pro (HKIA): Fellow Member or Full Member of HKIA;</p> <p>BIM Pro: Graduate Member of HKIA with more than <u>FIVE (5) YEARS</u> of relevant post-degree experience in architecture</p>
Recognized Practical BIM Experience	Candidates should have no less than <u>TWO (2) YEARS</u> BIM working experience in the past five years (including at least six (6) months in Hong Kong) in the execution and management of BIM projects, such as in development of BIM standards, planning, design, contract administration etc. plus execution of BIM projects, counting up to the application form submission date.
BIM Training	<p>Successful completion of</p> <ol style="list-style-type: none"> 1. HKIA BIM Pro Full and Top-up Training Programme; OR 2. BIM Manager Course accredited by CIC + HKIA BIM Pro Top-up Training Programme <p><i>Remark: The requirement of BIM Manager Course accredited by CIC can be waived if Applicants have already got CIC Certified BIM Manager qualification.</i></p>
Submission of Supporting Document	<ol style="list-style-type: none"> 1. Completed Application Form (App A); 2. Reasonable proof of successful completion of BIM training course(s); 3. Portfolio of BIM working experience with statement of between 1,500 and 2,500 words on all core competencies, and including key project information, the applicant's role and BIM tasks accomplished. Each BIM project experience to be certified by <ol style="list-style-type: none"> (i) Authorized Signature of Employer which is a HKIA Registered Practice; OR (ii) Authorized Signature of Employer which is not a HKIA Registered Practice AND HKIA Fellow / Full Member who is a project participant 4. Curriculum Vitae
Acceptance Requirements	<ol style="list-style-type: none"> 1. Submitted document accepted by the Vetting Panel; and 2. Passing a Panel Interview arranged by HKIA to assess whether the applicant possesses the core competencies as stated in 1.3 and required practical experience.
Submission Method	Application form and supporting documents can be submitted by hand to HKIA Premises OR by email to bp@hkia.org.hk
Application Fee	<p>\$500</p> <p>Please note that the application fee is non-refundable in all circumstances.</p>

1.2 BIM Co (HKIA) / BIM Co

	BIM Co (HKIA) / BIM Co
Qualifications	<p>BIM Co (HKIA): Fellow Member or Full Member of HKIA;</p> <p>BIM Co: Graduate Member, Affiliate Member of HKIA or Experienced architectural technicians or project coordinators referred by HKIA Corporate Members, HKIA Full Members and Fellows</p>
Academic qualification and Working experience	<p>Candidates should have a diploma (or equivalent) in Qualifications Framework (QF) level 4 or above qualification accredited or recognized by a CIC-recognised professional body in architecture, engineering, surveying, building or construction or equivalent, as recognised by CIC, plus three (3) years of full-time relevant work experience e.g., employment letter (stationed in Hong Kong for at least 6 months).</p> <p>(Submitted copies of documents to HKIA must be certified as true copies of the originals by:</p> <ul style="list-style-type: none"> - CIC designated staff; or - HR/authorised staff of current employer; or - A recognised certified public accountant/solicitor/notary public; or - “Registered Architect”, “Registered Professional Engineer” or - “Registered Professional Surveyor” in Hong Kong. <p>The Certifier must sign and date the copy document (printing his/her name clearly in capitals underneath) and clearly indicate his/her position/professional qualification and membership number on it. The Certifier must state that it is a true copy of the original (or words to similar effect)).</p>
Recognized Practical BIM Experience	<p>Practical experience in BIM project coordination and related tasks – at least one year full-time relevant BIM experience in BIM projects in the latest five years (with at least six (6) months stationed in Hong Kong). Examples of BIM project coordination and related task such as implementation of BIM Execution Plan on a BIM project, BIM modelling production and collaborate information exchange amongst related stakeholders, maintain a Task Information delivery plan, performing BIM-related coordination (internally or externally) with the stakeholders, administration and maintenance of data exchange to the project Common Data Environment (CDE), assist in holding or facilitating various BIM related meeting internally or externally, performing BIM data quality control/checking or assurance in BIM projects, etc.</p>
BIM Training	<p>BIM education – successful completion of:</p> <ol style="list-style-type: none"> 1. A CIC-Accredited BIM Coordinator Course, AND 2. At least one BIM software/platform training course in operation level as recognised by CIC, OR possession of any certification of BIM software in operation level issued by respective software developers.

Submission of Supporting Document	<ol style="list-style-type: none"> 1. Completed Application Form (App A); 2. Reasonable proof of successful completion of tertiary education and BIM training course(s); 3. Completed and signed Client and Employer evaluation forms, with duplicate of respective selected BIM project in Part C, either in hardcopy (in a sealed envelope) or softcopy via email from the Client and Employer directly. Submission of Evaluation forms from employer a) Employer Evaluation Form and client b) Client Evaluation Form (if any) sides that can prove at least one year of practical experience in BIM. If the one-year BIM experience covers more than one project, the evaluation from relevant employers and clients are then required. Standardised evaluation forms for employer and client sides will be provided by the HKIA. The applicant should ask his/her employer and client to fill in the standardised evaluation forms and return by the client and employer directly to the HKIA separately. The forms will be used to verify the applicant's BIM experience and BIM capability obtained. 4. Professional conduct and integrity demonstrated by the Employer and Client Evaluation Forms, applicant's professional disciplinary history and conviction records (if any) and applicant's interview performance (if any). An applicant who has <ol style="list-style-type: none"> a) committed misconduct or neglect in any professional respect, b) been disqualified from the BIM Certification and Accreditation Schemes by the HKIA or CIC and removed from the HKIA BIM Pro, HKIA BIM Co, CIC-Certified BIM Managers or CIC-Certified BIM Coordinators Register, c) been disqualified from being registered or certified as a BIM personnel by other BIM certification body for disciplinary reasons, or d) been convicted of any criminal offence involving bribery, fraud, dishonesty or malfeasance, or any offence which may bring the HKIA and the BIM profession into disrepute, will not be considered for certification. 5. Portfolio of BIM working experience with statement of not exceeding 2000 words on all core competencies, and including key project information, the applicant's role and BIM tasks accomplished. Each BIM project experience to be certified by <ol style="list-style-type: none"> a) Authorized Signature of Employer which is a HKIA Registered Practice; OR b) Authorized Signature of Employer which is not a HKIA Registered Practice AND HKIA Fellow / Full Member who is a project participant 6. Curriculum Vitae.
Acceptance Requirements	<ol style="list-style-type: none"> 1. Submitted document accepted by the Vetting Panel;and 2. Passing a Panel Interview arranged by HKIA to assess whether the applicant possesses the core competencies as stated in 1.4 and required practical experience.
Submission Method	<p>Application form and supporting documents can be submitted by hand to HKIA Premises OR by email to bp@hkia.org.hk</p>
Application Fee	<p>\$300</p> <p>Please note that the application fee is non-refundable in all circumstances.</p>

2. Review of Interview / Assessment Results and Handling of Appeal

A candidate who fails Interview/Assessment may apply in writing to BIM Accreditation Committee (BAC) for a review of his/her result within 14 calendar days from the date of announcement of results (but excluding the day of announcement) with an application fee of \$300 giving the brief grounds for review for justification. Late appeals will not be considered.

The grounds for such application shall be confined to material administrative error in the Assessment process only.

Disagreement with the decision of the assessors, illness or medical-related circumstances shall not be accepted as grounds for review. The applicant in his/her application shall demonstrate to the satisfaction of BAC that there is sufficient evidence to support such an application before it can be accepted.

Appeal result normally will be released four (4) weeks after the close of appeal application period. Successful appeal will be refundable in full.

CONFIDENTIAL

**Please submit this evaluation form to HKIA directly and all information will be treated as strictly confidential.*

Appendix B - Detailed List of Core Competencies of BIM Pro (HKIA) / BIM Pro

Minimum Level of Competency:

Level 1 (L1): General appreciation of the subject and an understanding of how the subject may affect, or integrate with other subjects.

Level 2 (L2): Knowledge and understanding of the subject and its application. Level 3 (L3): Ability to perform the subject independently or under supervision. Level 4 (L4): Ability to perform the subject without supervision and advise others.

-	Core Subject	L1	L2	L3	L4
1. BIM Initiation	<i>1.1. BIM Concept</i>				
	1.1.1 Promote architectural excellence through adoption of BIM				✓
	1.1.2 BIM definitions and terminology	✓			
	1.1.3 The difference between 2D CAD, 3D CAD and BIM	✓			
	1.1.4 Concept of BIM as whole project & whole estate perspective	✓			
	1.1.5 Value and benefits of adopting BIM	✓			
	1.1.6 Value of BIM for AM & FM	✓			
	1.1.7 Collaborative working in BIM	✓			
	1.1.8 Limitation of BIM	✓			
	1.1.9 Challenges within existing working practices & how BIM addresses these		✓		
	1.1.10 How BIM affect the current practice in AECO industry		✓		
	1.1.11 Uphold Architects' leading role in AEC industry				✓
	<i>1.2. Local & Global Contexts, BIM standards and guidelines</i>				
	1.2.1 Local BIM standards & resources		✓		
	1.2.1.1 CIC BIM Standards		✓		
	1.2.1.2 Government BIM standards & resources		✓		
	1.2.2 Global context in BIM development	✓			
	1.2.3 Global BIM standards & resources		✓		
	1.2.3.1 ISO 19650		✓		
	1.2.3.2 BIM FORUM LOD Specification		✓		
	1.2.3.3 OpenBIM		✓		
	1.2.3.4 ISO 16739-1:2018: Industry Foundation Class IFC		✓		

-	Core Subject	L1	L2	L3	L4
2. BIM Software and Technologies	2.1. BIM Software				
	2.1.1 Overview of industry leading BIM software/applications		✓		
	2.1.2 Characteristic, strength and limitation of industry leading BIM software		✓		
	2.1.3 Versions and file formats		✓		
	2.1.4 Interoperability across industry leading BIM software * to carry out open BIM workflow where necessary and to encourage open BIM inter-operability workflow where appropriate				✓
	2.2. Technologies				
	2.2.1 Cloud platform		✓		
	2.2.2 Laser scanning		✓		
	2.2.3 Photogrammetry		✓		
	2.2.4 GIS		✓		
	2.2.5 Application of smart devices		✓		
	2.2.6 VR/AR/MR		✓		
	2.2.7 VDC	✓			
	2.2.8 RFID		✓		
	2.2.9 Gaming technology in BIM	✓			
	2.2.10 Robotics	✓			
	2.2.11 Automation	✓			
	2.2.12 API	✓			
	2.2.13 MiC		✓		
	2.2.14 Indoor positioning	✓			
	2.2.15 Upcoming Trend	✓			

-	Core Subject	L1	L2	L3	L4
3. BIM Uses and Processes	<i>3.1. – Client BIM Strategic Stage</i>				
	3.1.1 BIM strategy, BIM uses, BIM processes	✓			
	3.1.2 Key personnel in relation to BIM				✓
	3.1.3 Determine the info management & CDE strategy				✓
	3.1.4 Determine the BIM/AIM/GIS strategy				✓
	3.1.5 Determine level of development in the context of graphics and information				✓
	3.1.6 Determine level of integration of digital information into asset & facility management				✓
	3.1.7 Case study		✓		
	<i>3.2. – Client Pre-tender Project Stage</i>				
	3.2.1 Determine & oversee the development of Client Information Model (CIM)				✓
	3.2.1.1 Organisational Information Requirements (OIRs)				✓
	3.2.1.2 Asset Information Requirements (AIRs)				✓
	3.2.2 Employers Information Requirements (EIR) * coordinate with consultant team and future asset / facility management team and advise client on Employer Information Requirement (EIRs)				✓
	3.2.3 Determine project technology & systems requirement & integration				✓
	3.2.4 Determine project delivery requirements				✓
	3.2.5 Determine the soft landings approach				✓
	3.2.6 Contract & consultancy requirement * be able to lead, draft, comment BIM specifications for all sub-consultancy agreements and understand the contractual impact on respective traditional professional practices, e.g., Level of Development and Clash Analysis * be able to define BIM scope and information deliverables for Architectural Discipline				✓
	3.2.7 Assessment on supply chain capability & capacity (Tender Assessment)				✓
	3.2.8 Case study		✓		
	<i>3.3. – Definition & Design Stage</i>				
	3.3.1 BIM Execution Plan developed by supply chain				✓
	3.3.1.1 Pre-contract BIM Project Execution Plan				✓
	3.3.1.2 Post-contract BIM Project Execution Plan				✓
	3.3.2 Supervision in fulfilling BIM uses in planning & design stages listed in CIC BIM Standards				✓

-	Core Subject	L1	L2	L3	L4
3. BIM Uses and Processes	3.3.3 Set up conceptual modeling in BIM Platform and spatial programming and be able to direct the coordination with others to carry out the task				✓
	3.3.4 Determine modelling methodology for architectural schedules and drawing production				✓
	3.3.5 Project Information Model (PIM) data exchanges and validation				✓
	3.3.6 BIM PIM file setup				✓
	3.3.6.1 BIM origin point & orientation setup				✓
	3.3.6.2 Model division				✓
	3.3.6.3 Modelling methodology				✓
	3.3.6.4 Project-based industry and BIM standards				✓
	3.3.7 Direct BIM related meetings				✓
	3.3.7.1 Meeting with high level				✓
	3.3.7.2 Meeting with supply chain level				✓
	3.3.7.3 Internal meeting				✓
	3.3.7.4 Multidiscipline collaboration meeting				✓
	3.3.8 Case Study		✓		
	3.3.9 Basic understanding of parametric design tools		✓		
	3.3.10 Supervise open BIM workflow and open BIM inter-operability				✓
	3.3.11 Determine Modelling Methodology for GBP production and statutory compliance checking				✓
	3.3.12 Determine Modelling Methodology for production of tender drawings and documentation				✓
	3.3.13 Basic understanding of environmental plug-in and performance analysis software		✓		
	3.3.14 Understand the limitation of clash detection and adequately utilize the same to assist consultant team on design coordination				✓
	3.4 – Construction Stage				
	3.4.1 BIM Execution Plan developed by supply chain				✓
	3.4.1.1 Pre-contract BIM Project Execution Plan				✓
	3.4.1.2 Post-contract BIM Project Execution Plan				✓
	3.4.2 Supervision in fulfilling BIM uses in construction & handover stage listed in CIC BIM Standards				✓
	3.4.3 Project Information Model (PIM) data exchanges and validation				✓
	3.4.4 Direct BIM related meetings				✓
	3.4.5 Case study		✓		
	3.4.6 Adequately request and utilize contractor's 4D simulation from BIM model for programme planning, progress verification and record		✓		
	3.4.7 Verify contractor's submitted drawings generated from BIM models				✓

-	Core Subject	L1	L2	L3	L4
3. BIM Uses and Processes	3.5. – <i>Handover Stage</i>				
	3.5.1 As-built information verification				✓
	3.5.2 Oversee data transfer from PIM to Asset Information Model (AIM)				✓
	3.5.3 Supervision in fulfilling BIM uses in handover stage listed in CIC BIM Standards				✓
	3.5.4 Case study		✓		
	3.6. – <i>Operation & Maintenance Stage</i>				
	3.6.1 Update Assets Information Model (AIM)		✓		
	3.6.2 Roles, responsibilities and authorities for maintaining the AIM		✓		
	3.6.3 Post occupancy evaluation		✓		
	3.6.4 Case Study		✓		

-	Core Subject	L1	L2	L3	L4
4. Digital Information Management, Collaboration and Integration	<i>4.1. Digital Information Management</i>				
	4.1.1 Value of data & how it should be managed		✓		
	4.1.2 Interoperate data/information to facilitate cross- disciplinary and cross-BIM platform collaboration		✓		
	4.1.3 Limitation of BIM software in relation to information management		✓		
	4.1.4 Determine level of development in the context of graphics and information in different stages				✓
	4.1.5 Determine level of integration of digital information into asset & facility management				✓
	4.1.6 Oversee the process and quality of information exchange				✓
	4.1.6.1 IFC/BCF/XML...etc.		✓		
	4.1.6.2 COBie		✓		
	<i>4.2. Common Data Environment (CDE)</i>				
	4.2.1 Overview of CDE		✓		
	4.2.2 Overview of various CDE platform		✓		
	4.2.3 Setup of CDE			✓	
	4.2.4 Assessment of CDE			✓	
	4.2.5 Management of CDE				✓
	4.2.6 Limitation of CDE		✓		
	<i>4.3 Data Quality Control & Assurance across various stages</i>				
	4.3.1 System checking				✓
	4.3.2 Model audit				✓
	4.3.3 Model checking				✓
	4.3.4 Audit reporting				✓

-	Core Subject	L1	L2	L3	L4
5. Commercial and Contract	<i>5.1 Commercial Issue</i>				
	5.1.1 Establishing BIM ready Environment to support the corporate			✓	
	5.1.1.1 BIM strategy in organisation level		✓		
	5.1.1.2 Challenges in BIM implementation		✓		
	5.1.1.3 Phases in BIM implementation				✓
	5.1.1.4 Hardware requirement for BIM		✓		
	5.1.1.5 Software requirement for BIM		✓		
	5.1.1.6 Manpower management for BIM				✓
	5.1.1.6.1 Staff plan				✓
	5.1.1.6.2 Staff recruitment				✓
	5.1.1.6.3 Staff training				✓
	5.1.2 Promotion of adopting BIM in office/to clients		✓		
	5.1.2.1 Value and benefit of adopting BIM	✓			
	5.1.2.2 Value and benefit of data and information from BIM	✓			
	5.1.2.3 Evaluating Return on Investments (ROI) of adopting BIM		✓		
	<i>5.2. Contract Issue</i>				
	5.2.1 Ownership of data * e.g. demarcate modelling and information responsibilities among disciplines and control federated models		✓		
	5.2.2 Intellectual property right		✓		
	5.2.3 Legal implication and potential liability		✓		
	5.2.4 Professional indemnity				✓
	5.2.5 Introducing NEC	✓			
	5.2.6 Commercial implications for contracts & insurances in relation to BIM		✓		