Building services engineering
'BIM Readiness / Capability' Checklist

Person completing this checklist..... Date.....

Other details…

This checklist aims to help 'Tier 2' and lower tier *building services engineering contractors*, by providing an in-company 'self-assessment' checklist on BIM readiness and capability. The self-assessment can be used to identify any areas for further improvement, on the way to appropriate 'Level 2 BIM capability'. Note, not all contractors need the *same level* of 'BIM capability' - this will depend on the roles carried out in building projects. See guideline description ('basic', 'increasing', 'highest') in column 3. Note: a broadly accepted description of 'Level 2' BIM is *"the process of working with digital building information, including data-rich objects, which can be effectively shared between those who are building and/or maintaining the building and its services."*		**Your assessment…** ***Yes/No/Don't Understand*** (if 'no' - consider your plan for turning this into a 'yes'. If you *do not understand* what is required, please contact your trade association or professional body for a practical explanation.	**Your comments** **Notes:** 'Basic' denotes that any contractor engaging with a BIM project is likely to need this basic capability 'Developing' means it may apply, depending on the role in BIM project and on the contract 'Highest' denotes only those who need to be fully engaged with BIM require this capability.
1. BIM: capability and skills ...Doyouhave			
1.1	A BIM Manager and/or BIM champion? *Does this person have a short CV you can show a buyer/PQQ assessor? Can you show evidence of training and relevant experience?*		Basic (likely to apply to everyone)
1.2.1	Enough trained (preferably, but not exclusively) in-house BIM capability and capacity which includes the following? *This should include staff who can:* - *take part in (respond to) BIM information exchange* - *read and use BIM software outputs as necessary* *If yes, can you show evidence of training and experience?* *If 'no', do you have a means for ensuring the required services will be available from outside your organisation?*		Basic
1.2.2	Enough trained (preferably, but not exclusively) in-house BIM capability and capacity, which includes the following? *This should include staff who can:* - *manage and engage in BIM information exchange* - *author, read and use BIM software inputs/outputs as necessary* *If yes, can you show evidence of training and experience?* *If 'no', do you have a means for ensuring the required services will be available from outside your organisation?*		Highest (applies mainly to who author and co-ordinate BIM models etc.)

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2. BIM: processes **Do you have…**			
2.1	An understanding of Employer Information Requirements (EIRs)? *The EIR is where a buyer (client or main contractor) presents 'Plain Language' Questions that aim to define their BIM needs.*		Basic
2.1.1	An ability to respond effectively to EIRs?		Developing
2.2	The ability to understand a buyer's (client or main contractor) BIM Execution Plan (BEP)? *The BEP will detail aspects such as:* o *Structure of the Common Data Environment (CDE, see below)* o *File naming convention* o *Roles/Responsibilities for BIM activity* o *Software Requirements* o *Overall BIM Objectives*		Basic
2.2.1	The ability to respond effectively to a buyer's (client or main contractor) BIM Execution Plan (BEP)?		Developing
2.2	An understanding of how the CIC 'BIM Protocol' fits with, and appends to, construction contracts www.bimtaskgroup.org/bim-protocol/		Developing
2.3	A general understanding of the practical requirements of the relevant BS/PAS 1192 documents. e.g. free via: http://shop.bsigroup.com/forms/PASs/BS-1192-2007/ http://shop.bsigroup.com/forms/PASs/PAS-1192-2/		Developing
2.4	An overall BIM information management process?		Developing
2.5	The ability to work effectively with a buyer's task information execution plan?		Developing
2.6	The ability to work within a Common Data Environment (CDE) as described in PAS 1192-2? *This will usually be owned by the main contractor, and building services contractor(s) will need to know how to use it.*		Developing
2.6.1	The ability to own and manage a CDE as described in PAS 1192-2?		Highest
2.7	The ability to communicate relevant digital BIM information to (BIM ready) subcontractors: *A building services engineering contractor BEP is likely to include:* • *Approach to information exchange and security* • *The file/object naming convention* • *Specific technical information for final objects and*		Highest

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	accessories • *A COBIE File (see below*)*		
2.8	A BIM quality assurance procedure? *e.g. ISO 9001 with regard to BIM activity*		Highest
	3. BIM: software and hardware **Do you have…**		
3.1	Basic BIM reader software		Basic
3.2	Appropriate IT hardware systems?		Developing
3.3.1	BIM model reading software, and know how to use it? (e.g. Navisworks, Solibri etc.)		Developing
3.3.2	BIM collaborative model software, and know how to use it *There are a number of software solutions for creating (authoring) models and associated information, but the 2015 ECA 'BIM readiness' survey suggested the most common includes Autocad Revit – other software products are available*		Highest
3.4.1	The know-how to work with building services BIM 'objects' and associated information?		Developing
3.4.2	The ability to create and work with building services BIM 'objects' and associated information such as Product Data Templates *Generate or obtain digital objects?* *Generate Product Data Templates?*		Highest
	4. Working with digital BIM information **Are you able to...**		
4.1	Apply digital information (outputs) for use on site?		Basic
4.2	Interrogate BIM data to identify issues and make informed decisions? These are likely to include: - *Elemental clashes* - *Programme and cost analysis* - *'Take offs'*		Developing
4.3	Pass on digital BIM data that is required by the client? *This includes moving details into COBie.* Pass on any graphical information required by the client		Highest

* COBie is Construction Operations Building information exchange, a spreadsheet detailing all the structured data for the project.