



CPIx - BIM ASSESSMENT FORM

(Based on working documentation provided by Skanska)

1 - Standard Information

Company BIM Representative Name		Interviewee/Person Completing the Form	
Telephone No	Mobile No	E Mail Address	Web Site URL

2 - BIM Gateway Questions

If the answer to any of the following questions is 'No', contact, Project Team Leader, 'name', 'telephone number', 'email address'

Ref.	Question	Answer	Evidence (if applicable)	Decision (by Team Leader)
G1.1	Are you prepared to issue your native CAD / BIM format files?			
G1.2	If you are not prepared to issue native CAD / BIM format files. Why not?			
G2.1	Do you work to a CAD / BIM Standard?			
G2.2	If you do not work to a CAD / BIM Standard. Why not?			
G2.3	Do you work to the national standard BS 1192: 2007?			
G2.4	If your Standards are not BS 1192: 2007, what are they based upon?			
G2.5	Do you produce a BIM model as an iterative process? E.g. RIBA Plan of Work stages.			
G2.6	Do you understand the Model Progressive Strategy?			
G2.7	Do you understand the 'Level of Information' required at each of the project delivery stages?			
G2.8	Do you understand the 'Level of Detail' required at each of the project delivery stages?			
G3	How do you demonstrate or what measures do you have in place to ensure compliance with your CAD / BIM Standard?			

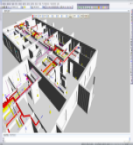
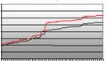




Ref.	Question	Answer	Evidence (if applicable)	Decision (by Team Leader)
G4.1	Are you prepared to comply with the Project Standards?			
G4.2	If you aren't prepared to comply with the Project Standards, please explain why?			
G5.1	Are all your CAD / BIM Tools covered by a yearly maintenance agreement?			
G5.1	Do you train your staff in the use of your CAD / BIM tools?			
G5.2	If you train staff, who provides the training and how often?			
G6	Can you provide CAD / BIM related qualifications and CPD Certification for proposed team members?			
G7	How do you carry out spatial co-ordination using CAD / BIM?			
G8	In a single paragraph please explain your experiences with linked, attached and embedded attribute data within 3D models?			



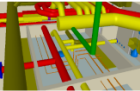



3 - 12 Areas of BIM

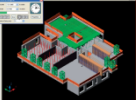
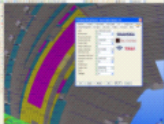


The projects have identified 12 Areas or functions that projects will benefit from BIM Tools, Applications and Data Management. Please complete the following table to show your understanding of each of the areas and which areas you could support us with; please include supporting evidence.

Application / Area	Examples	Benefits Expected	Understanding	Supporting Evidence
Design / Construction Intelligent 3D-Modelling 	<ul style="list-style-type: none"> Architectural Structural Design and Fabrication MEP Design and Manufacture. Civil Landscaping 	<ul style="list-style-type: none"> Accurate and visual design, no shortcuts (completed design in all details). 'As Constructed' re-measured and verified with adequate detail to enable Asset Type and Asset Unique Numbering and Location to be applied. Project Common Design Elements and Product Components in use, libraries and catalogues Information on materials and components available from model to meet O&M/FM & Investor's needs 		
LCC and LCA analysis 	<ul style="list-style-type: none"> History Database links Optioneering 	<ul style="list-style-type: none"> Accurate life cycle cost estimation Reduced risk in life cycle fund management Life Cycle Assessment to evaluate environmental aspects where required 		
Facilities Mgt. 	<ul style="list-style-type: none"> Optimised handover Asset register Linked H&SF Linked O&MM Linked CAFM 	<ul style="list-style-type: none"> Computer aided facilities management to ensure effective maintenance of assets Ensures maintenance and asset performance history maintained Enables FM contractor to effectively manage and optimize maintenance services 		
Quantity take-Off, costing 	<ul style="list-style-type: none"> Schedules Material lists Component lists BoQ Re-informed Cost Plans 	<ul style="list-style-type: none"> Rapid and accurate take off of materials quantities (but needs care) Easier to evaluate design changes and impact on costs (5D design) Supports rapid optioneering Easier to connect quantities to costing, scheduling and procurement 		



Application / Area	Examples	Benefits Expected	Understanding	Supporting Evidence
<p>Sales / Visualizations</p> 	<ul style="list-style-type: none"> • Bid & Tender • Visualization • Marketing • Client sign off 	<ul style="list-style-type: none"> • Visualizations of highways and buildings for marketing/sales • Virtual models and animations, “fly over/through” highways and tunnels, buildings inside and outside • Supports customer interface, choices etc (assortments, catalogues, selection tools - shopping lists) 		
<p>Safety Planning</p> 	<ul style="list-style-type: none"> • Roof access • Confined spaces • Future safe operations • Enhanced toolbox talk / safety briefings • Visual review of planned work prior to commencement • Improved method statements 	<ul style="list-style-type: none"> • Safety details and structures in libraries (standardization) • Safety installations pre-planned, railings and fixings for safety equipments • Visual safety tours / area plans and presentations 		
<p>Clash Detection</p> 	<ul style="list-style-type: none"> • 2D in Plan • 3D Co-ordination • Rule based clash • ‘Hard & Soft’ clash • Virtual snagging • Plant & equipment installation 	<ul style="list-style-type: none"> • Zero error design: No defects in construction phases, below ground and above ground assets/services • Better production planning with sub contractors, visual plans • Project checking rules: better design quality • Zero clash thro collaboration and sharing BS1192:2007 		
<p>4D-Scheduling</p> 	<ul style="list-style-type: none"> • Vehicle movements • Materials deliveries • Crane & Hoist positioning • Targeted sequencing • Construction site layout 	<ul style="list-style-type: none"> • Information for scheduling from model based quantity take-off • 4D design – 4D simulations (VDC) possibilities, optimized schedules • Visualization of schedules for workers and suppliers 		



Application / Area	Examples	Benefits Expected	Understanding	Supporting Evidence
Production BIM 	<ul style="list-style-type: none"> • Targeted rehearsals • Progress monitoring • Planned vs Actual • Sub contractor payment 	<ul style="list-style-type: none"> • Virtual design and construction methods: 4-D schedule simulations • Constructability analyses, prints of 3D details and drawings, visual planning • Exact material lists for production: reinforcement, concrete, fixings • BIM enables GPS machine control (excavators, graders, pavers) 		
Procurement 	<ul style="list-style-type: none"> • Accurate quantities • Re-informed Cost Plans • Sub contractor payment • Reduced tender periods • Optimised procurement plans 	<ul style="list-style-type: none"> • Codes for identification, RFID tags, follow-up with model viewers • Location based material / component deliveries • JOT deliveries (easier to manage and plan, delivery times in models) 		
Supply Chain Management 	<ul style="list-style-type: none"> • Secondary Clash Prevention • Reduced tender periods • Early warning 	<ul style="list-style-type: none"> • Exact material / component definitions and codes from models (libraries) • Bills of materials from models, accurate quantities per locations • Follow-up of deliveries (RFID –tags) • Transparency project status for all key suppliers and sub-contractors 		
Simulations Energy, Fire etc 	<ul style="list-style-type: none"> • Environmental • Structural • Thermal • Daylight • Ratios 	<ul style="list-style-type: none"> • More accurate and easier energy calculations • Possible to simulate indoor climate conditions • Helps to achieve green construction goals, CO2 footprint, LEED, BREEAM, WRAP and Embodied Carbon • Supports smoke and fire simulations (buildings , tunnels etc) 		



4 - BIM Project Experience

Please provide details of a minimum of three recent projects using BIM undertaken for reference purposes

	Project 1	Project 2	Project 3
Title			
Sector			
Customer			
Contractor			
Contact			
Tel No			
Project Value			
Fee Value			
Contract duration			
Scope of BIM Services			
Benefits realised by BIM			



5 - BIM Capability Questionnaire

The following BIM Capability questions are intended to help the Skanska UK BIM Team identify training, coaching and support required for your organisation.

No.	Question	Answer / Understanding	Supporting Evidence
B1	What does BIM mean to you?		
B2	What does BIM mean to your organisation?		
B3	What does BIM mean to your staff?		
B4	Who drives BIM within the organisation?		
B5	Who drives BIM within the office(s)?		
B6	Who drives BIM on each project, what are their titles and responsibilities?		
B7	Where has BIM been implemented already and to what extent?		
B8	Does your organisation have BIM standards?		
B9	Have you experience of implementing client standards and where?		
B10	How have your design agreements been influenced by BIM?		
B11	What are the issues of IP rights and ownership of the BIM models?		
B12	Have there been any changes to your design deliverables with respect to BIM?		
B13	What is your current status and future plan for BIM rollout?		
B14	What are your future plans for BIM implementation in respect to staff and their command and process training?		
B15	What does coordinated design mean to you?		
B16	Explain the discipline and rigour in the design process?		



No.	Question	Answer / Understanding	Supporting Evidence
B17	Has / would BIM enable you to engage in 'Optioneering' early in the design process and how?		
B18	What has BIM enabled you to do differently and to what benefit and to whom?		
B19	What impact has BIM had / will have on projects?		
B20	How does BIM affect staffing on a project?		
B21	How has BIM affected design fees?		
B22	What in-house tools do you have? Demonstrate usage		
B23	Have Tools been specified to you and have you / would you use them?		
B24	Where on a project does BIM start?		
B25	Where on a project does BIM finish?		
B26	What is your understanding of Virtual Design and Construction (VDC)?		
B27	What is your definition of 'Collaboration'?		
B28	How do you 'Collaborate'?		
B29	What do you 'Collaborate' with?		

Remarks/Comments

BIM Assessment Completed By.....(Project Assessor) Date.....

Recommendation

Approved By.....(Director)

Date.....

Director Comments



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