



**CABAT Consultancy LTD**

Constructing Excellence Everyday

**Job number: A0001**

**UWTSD Glyndŵr Development**

## BIM Execution Plan

**Date: 29/10/2019**

**Revision: [TENDER]**

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## PART 1 - INTRODUCTION

This document forms part of CABAT Consultancy LTD BIM protocols. It should be completed by the Project Architect and the Information Manager before the creation of any BIM data relating to the project is produced.

The BIM Execution Plan should be used as a reference source for all members of the CABAT project team and should clearly state and explain any deviations from agreed practice standards. It should also clearly explain the project specific protocols, data exchange strategy, expected level of detail, etc. that has been agreed for this project.

The use of BIM will be implemented to varying extents across the project and this plan outlines exactly how BIM principles should be applied to this project and at which workstage they should be used. The project team should aim to implement BIM at the level needed

to maximise value while minimising the cost and impact of the modelling implementation. This requires the team to selectively identify appropriate areas for BIM implementation and plan these in detail.

This plan should be reviewed at regular intervals by the Project Architect and the Information Manager to ensure that it always remains consistent with agreed principles for the project and a valid reference for team members.

Before commencing work, key members of the project team should also discuss the strategy for building the model itself and record in this document which is to be used. As per PAS 1192-2:2013 this BEP sets out CABAT's proposed approach, capability, capacity and competence to meet the Employer's Information Requirements (EIR).

## PART 1 - THE PROJECT

### 1.1 Project Summary

This project is to be completed by main contractor CABAT Consultancy LTD on behalf of the client University of Wales Trinity Saint David. The project is located in Kings Dock in the SA1 area of Swansea, which is an formal industrial site.

### 1.2 Project Characteristics

The University of Wales Trinity Saint David is submitting a planning application to City and County of Swansea Council to develop a private educational facility at Plot 15 & 16 at the SA1 Waterfront. The proposed development is for a high quality two/ three storey building which would provide a flagship 300 capacity main lecture theatre as well as 10 x 30 capacity classrooms and 4 x 80 capacity lecture theatres. Creche facilities, a café and a restaurant will complete this state-of-the-art facility.

### 1.3 Primary Project BIM Contacts

*This page is to be reviewed and updated at each job stage as a minimum*

| Name                                    | Primary BIM Contact | Role            | Email Address            | Contact No. |
|-----------------------------------------|---------------------|-----------------|--------------------------|-------------|
| Client                                  |                     |                 |                          |             |
| University of Wales Trinity Saint David | Alan Nantel         | Client Designer | alan.nantel@uwtsd.ac.uk  |             |
| Architect                               |                     |                 |                          |             |
| Tracey King                             | //                  | //              | taki43@msn.com           | 07817924932 |
| Project Manager                         |                     |                 |                          |             |
| Adam Meyrick                            | //                  | //              | adam_meyrick@outlook.com | 07469217247 |
| Civil Engineer                          |                     |                 |                          |             |
| Cerys Cole                              | //                  | //              | ceryscole95@gmail.com    | 07816210410 |
| Quantity Surveyor                       |                     |                 |                          |             |
| Bethan Stroud                           | //                  | //              | bethanstroud1@gmail.com  | 07783415165 |
| Building Surveyor                       |                     |                 |                          |             |
| Alex Morgan                             | //                  | //              | alexjmorgan@hotmail.com  | 07488290440 |
| Other Consultees                        |                     |                 |                          |             |
|                                         |                     |                 |                          |             |
|                                         |                     |                 |                          |             |
|                                         |                     |                 |                          |             |

## 1.4 Project BIM Standards

This project is to be modelled based upon the following standards and protocols. Please note that this is not an exhaustive list and does not include standards that the actual building should comply with, for example the Building Regulations. Where there is a conflict between named standards CABAT CAD standards take precedence unless outlined in Section 1.5 of this Execution Plan.

- CABAT CAD Standards
- AEC BIM Standards
- Client Standards

## 1.5 Deviations from established BIM Standards

*Please outline here anything that affects or overrides the established CABAT CAD & BIM Protocols*

*In some situations, an agreement may be reached where client standards are only partially applied, please also outline in this section any additional agreements made as to the extent of use of client standards.*

## PART 2 – PROJECT AIMS

### 2.1 Project BIM Goals

The main objective of BIM is to enhance project performance and produce better outcomes. BIM helps the construction manager to gather data and information from the relevant disciplines and communicate them more effectively.

### 2.2 Project BIM Uses

The table below contains typical uses for BIM within projects, please add or delete items as appropriate. Please refer to Appendix1 of 'Preparing a BIM Execution Plan' for a more comprehensive list of suggested BIM uses. Replace text for agreed uses.

| Work Stage           | RIBA Stage 1                   | RIBA Stage 2          | RIBA Stage 3           | RIBA Stage 4            | RIBA Stage 5        | RIBA Stage 6                    | RIBA Stage 7        |
|----------------------|--------------------------------|-----------------------|------------------------|-------------------------|---------------------|---------------------------------|---------------------|
| Relevant 'Data Drop' | <i>Preparation &amp; Brief</i> | <i>Concept Design</i> | <i>Detailed Design</i> | <i>Technical Design</i> | <i>Construction</i> | <i>Handover &amp; Close Out</i> | <i>In Use</i>       |
| BIM Uses             |                                | Model existing site   | Design modelling       | Construction details    | As-built model      | Building maintenance            | Facility Management |
|                      |                                | Concept modelling     | Cost estimation        | Scheduling              | Digital fabrication |                                 |                     |
|                      |                                | Cost estimation       | Structural Design      | Cost estimation         |                     |                                 |                     |
|                      |                                | Phase Planning        | Mechanical Design      |                         |                     |                                 |                     |
|                      |                                |                       | Clash detection        |                         |                     |                                 |                     |
|                      |                                |                       |                        |                         |                     |                                 |                     |
|                      |                                |                       |                        |                         |                     |                                 |                     |

### PART 3 – PROJECT DELIVERABLES FORMAT

Enter full name and file path of the agreed list of deliverables for the project in the box below, any referenced documents should be added to this document as an appendix when printed or exported to PDF format.

Deliverables list location:

#### 3.1 Drawings

What is the primary form of delivery for drawings listed on the agreed list of deliverables?

*Please tick as appropriate*

Hard copy ☐

PDF ☐

DWF ☐

Other

#### 3.2 CAD Information

Does the client require drawings to be also issued in a CAD format as part of the agreed deliverables? NOTE: this does not include CAD information exchanged with other consultants as part of the collaborative working process.

DWG ☐

Other

#### 3.3 BIM Information

Complete this section if the building model is to be issued to the client as an agreed deliverable?

RVT ☐

3D DWF ☐

Navisworks ☐

### 3.4 Use of BIM Information

below are the key dates/milestones at which the model is to be issued as a deliverable:

| Project Stage/Data Drop         | Model Issued as Deliverable? | Date for Issue |
|---------------------------------|------------------------------|----------------|
| Definition & Brief (Stages 0-1) | No                           | 23/09/2019     |
| Concept Design (Stage 2)        | Yes                          | 30/10/2019     |
| Developed Design (Stage 3)      | Yes                          | 13/11/2019     |
| Technical Design (Stage 4)      | Yes                          | 04/12/2019     |
| Construction (Stage 5)          | Yes                          | 08/01/2020     |
| Sub Structure                   | Yes                          | 08/01/2020     |
| Super Structure                 | Yes                          | 06/07/2020     |
| External Façade                 | Yes                          | 21/12/2020     |
| Internal Finishes               | Yes                          | 25/01/2021     |
| Watertight                      | Yes                          | 12/03/2021     |
| Handover & Close Out (Stage 6)  | No                           | 22/07/2021     |
| In Use (FM) (Stage 7)           | No                           | 21/09/2021     |

Are the component parts of the model prepared by each consultant to be issued individually by each party or is the responsibility of a model manager to issue a combined/complete model? Please state the details of how the model is to be issued below.

### 3.5 Model File Names

Give details of model files that will be created to form the complete building model for the project and add to this register any new models that are created.

| Model description | Local Project No. | Originator code | Role | Comments |
|-------------------|-------------------|-----------------|------|----------|
|                   |                   | 001             |      |          |
|                   |                   | 002             |      |          |
|                   |                   | 003             |      |          |
|                   |                   | 004             |      |          |
|                   |                   | 005             |      |          |

### 3.6 Project Datum

An agreed reference point should be agreed by all parties so that all information can be easily referenced and linked when required. A shared Levels and Grids file should be created in Revit with the Project Datum clearly marked and the file should be distributed to all parties to make collaborative work much easier. Details of the Project Datum should also be stated in the table below.

The datum point for this project is the UWTSD IQ building.

## PART 6 – QUALITY CONTROL CHECKS

| Checks                 | Definition                                                                                                                                                                                                            | Responsible Party                          | Software Programme(s) | Frequency                             | Documentation                 |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------|---------------------------------------|-------------------------------|
| Visual Check           | Ensure there are no unintended model components and the design intent has been followed                                                                                                                               | BIM Authors:<br>Design Consultants         |                       | Daily                                 |                               |
| Interference Check     | Detect problems in the model where two building components are clashing including soft and hard                                                                                                                       | Information manager:<br>Design Consultants |                       | Weekly                                |                               |
|                        |                                                                                                                                                                                                                       | Clash detection report:                    |                       |                                       | Summary document – PDF format |
| Standards Check        | Ensure that the BIM and AEC CADD Standard have been followed (fonts, dimensions, line styles, levels/layers, etc)                                                                                                     | Information manager:                       |                       | Daily                                 |                               |
| Model Integrity Checks | Describe QC validation process used to ensure that Project Facility Data set has no undefined, incorrectly defined or duplicated elements and reporting process on non-compliant elements and corrective action plans |                                            |                       | At end of each design / project stage |                               |