BIM POLICY

Building Information Modelling Policy Statement

Our Mission

ESS Modular mission is to deliver innovative, environmentally efficient buildings, on time and on budget to the benefit of its customers, staff, and the community at large. We are committed to delivering the highest possible standard of work through a combination of innovation and established best practice to meet or exceed our client's expectations on all projects we are engaged on.

We provide a Total Design & Build Package, incorporating all the latest technological innovations. To achieve this we apply Building Information Modelling (BIM) processes and practices, as defined in PAS 1192-2:2013 Specification for information management for the capital/delivery phase of construction projects using building information modelling (BIM), to our projects and internal workflows.

Building Information Modelling (BIM)

ESS Modular recognise BIM as a process for creating, managing, and exchanging information, carried out within a digital 3D object-based building modelling environment, where each object, in a virtual building assembled in software, represents a real-life counterpart building component, and each object acts as the primary placeholder, or container for vital information about that component. Multiple traditional drawing and schedule documents can be derived from these models, but the usefulness of BIM, as an approach, is that all the information is captured in one place, and if a change is required, managed in one place, so that all documents can be kept coordinated and up to date, bringing about enormous efficiencies in creating, managing, and exchanging information, and avoiding the duplication of effort associated with the traditional exchange of paper-based information.

Visual Benefits of BIM

The ability to view, navigate and explore all the project information in this data-rich 3D building model, gives every stakeholder a much better understanding of what is being proposed, and how it will fit and work together, facilitating far better communication, understanding, decision making and sign-off, for a much more efficient and effective coordination process.

Analytical Benefits of BIM

The ability to analyse the digital models, with software for structural performance, energy performance, quantity take-off, clash detection and programme sequencing, provided the opportunity to optimise design solutions, reduce uncertainty and risk, and help inform the client.

Information Benefits of BIM (Handover Data)

The process of gathering and managing vital information about the building assets in this digital environment, for both design and construction process, ensures that the effort is properly leveraged, and that this information will be available to the management team at handover, in a useful format to bring into their operational systems.

Achieving the Benefits of BIM

ESS Modular recognise that none the above benefits will materialize or take place automatically, unless there is a clearly defined and managed BIM process and strategy put in place that every participant is required to adhere to during their contribution to the project. We will work closely with the project team to ensure key aspects are in place to drive the BIM process through design and construction to the successful handover of the project.

Working to Industry Recognised Standards in Information Management

We carry out the production and management of design information in accordance with PAS1192-2:2013 "Specification for information management for the capital/delivery phase of construction projects using building information modelling (BIM)" to "Level 2 Maturity" unless otherwise instructed by the client. Level 2 BIM maturity essentially means that each participants produces their information contribution to the design in a separate discipline or supplier model, but that these can be brought together or federated into an overall model for coordination review purposes. As far as practically possible, all drawings and schedules are derived from BIM.

Key aspects of BIM Level 2 Process

In accordance with the PAS1192 standard, and if required, we can help the client prepare the Employers Information Requirements (EIR) a key document outlining the client's requirements for information management and deliverables on the project.

We provide a pre-contract BIM Execution Plan (BEP) at tender stage in response to the EIR, and once appointed we engage with the project team to prepare the Post-Contract BEP to drive the BIM strategy throughout the project.

If not defined as a project requirement in the EIR we recommend that a contractual BIM Protocol is implemented between all parties that participate, to ensure they carry out their obligations, and to ensure all rights and responsibilities are managed/maintained (this should be included in all appointments & contracts as an addendum).

We work with the other members of the project team to define our project tasks and deliverables in a Digital Plan of Work (or Master & Task Information Delivery Plans), as required by PAS1192-2, setting out what elements in BIM, and to what level of graphical detail (LOD) and level of non-graphical data or information (LOI), are to be provided for each stage of the project. We recommend the use of the free NBS Toolkit for this exercise. This will help later to check and cross-reference the projects requirements against the model deliverables.

We drive BIM through manufacturing and construction stage, to make sure BIM is used to reduce waste, risk, and uncertainty, with the correct deliverable at handover.

In addition to requiring the native and open format BIM files, we recommend that the EIR, BEP and BIM Protocol, require all designers, contractors and sub-contractors involved in the project, to submit at key stages, the asset information required for management and post construction operations, in an agreed structured digital format, to a minimum standard of COBie (construction operations information exchange format), as set out in BS1192-4 with Uniclass classification. This will ensure that the data is well ordered, can be validated, and ready to be imported into the operations systems without requiring re-typing of the information. With the project team we work closely with the client to comply with the specification for a digital safety file that is cross-referenced to the BIM data.

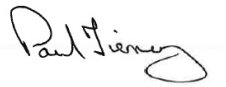
In addition, we:

1. Undertake all work in accordance with our Quality Management System to ensure that data we provide is accurate, appropriate, and unambiguous.

2. Collaborate with all members of our project team to promote an integrated approach to data and information management which is pivotal to the efficient delivery of projects and facilities.

3. Continue to invest in resourcing and training our staff with the necessary software, knowledge, and expertise to deliver BIM on each project we work on.

4. Continually review our BIM implementation, modifying our working practices and standardised processes where required, to carry our experiences from the past into future projects.



Paul Tierney, Managing Director

Date: 3rd May 2019