

*The Project Co must use this template to prepare the BIM Execution Plan. The template headings provide structure and consistency to the document; however, they may be adjusted to suit the specific contract requirements.*

*Text in red italics provide guidance and should be deleted from this document before submitting the completed BIM Execution Plan to the Contracting Authority.*

*Do not remove black text.*

*Project-specific details are to be inserted where indicated as shown in red text within square brackets '[insert section]'.*

### 1. BIM EXECUTION PLAN OVERVIEW

The intent of this document is to drive consistency across each of the disciplines, consultants and Project Cos involved at each stage of the Project's design and construction. Strict adherence to this plan is essential to ensure consistency with respect to:

- (a) BIM terminology;
- (b) Roles and responsibilities;
- (c) BIM objectives and goals;
- (d) File sharing and document management processes;
- (e) BIM software applications, technologies, and training requirements;
- (f) BIM modelling guidelines and graphical standards;
- (g) BIM quality control and quality assurance requirements; and,
- (h) Final deliverables required by the Contracting Authority and the electronic submission process.

#### 1.2 Governance and Accountability

*Description of the process by which the BIM Execution Plan will be implemented across the project organization. Address accountability, reporting, auditing, and processes to drive the expected behaviors required to implement BIM effectively.*

#### 1.3 Cited BIM/CAD Standards

*List of standards and references referred to in this document.*

## 2. PROJECT TEAM

### 2.1 Roles and Responsibilities

*List of roles and Responsibilities. The below text can be adjusted as required to describe the team used to implement BIM processes on the project.*

*Roles in this section (in red italics text) are recommended but optional.*

- (a) Digital Delivery Manager
  - (i) *Managing and leading the digital delivery strategy within the Contractor's organization and ensuring compliance with the Contracting Authorities Digital Requirements;*
  - (ii) *Acting as the key interface for digital delivery between the Project Co, Contracting Authority, other Project Cos and other stakeholders;*
  - (iii) *Managing the Project Co's Digital Delivery team;*
  - (iv) *Managing the establishment and roll-out of the Common Data Environment (CDE) and managing the information exchange processes for the contract with suppliers, other Project Cos, Contracting Authority and others;*
  - (v) *Working collaboratively with the Contracting Authority and other Project Co's Digital Delivery Managers to ensure overall project compliance with the Digital Requirements; and*
  - (vi) *Proactively seeking efficiencies and benefits to improve project productivity.*
- (b) BIM Manager
  - (i) *Taking ownership of the Project Co's BIM models;*
  - (ii) *Taking responsibility for the project's BIM and CAD deliverables;*
  - (iii) *Ensuring the BIM Execution Plan is compliant, up-to-date, agreed with the Contracting Authority, and implemented within their Contract;*
  - (iv) *Ensuring disciplines are sharing information through a controlled, ISO 19650-compliant process and using each other's' information effectively in a BIM environment;*
  - (v) *Ensuring that Project Co attends progress meetings with the Contracting Authority to review progress on execution to the BEP and MIDP; and,*
  - (vi) *Proactively seeking efficiencies and benefits to improve project productivity.*
- (c) *Digital Delivery Director — the key interface for digital delivery between the Project Co and Contracting Authority and other project stakeholders. The Digital Delivery*

*Director ensures that the BIM team has the resources and skills it needs to support the project's overarching digital delivery vision.*

- (d) *Information Manager — the single point of ownership and authority for project information, information exchange, and overall compliance with ISO 19650 – Organization and Digitization of Information About Buildings and Civil Engineering Works, Including Building Information Modelling – Information Management Using Building Information Modelling.*
- (e) *BIM Coordinator — the point of contact for BIM/CAD technical support, training, and quality assurance (QA)/quality control (QC) review and auditing of 3D BIM/CAD deliverables.*
- (f) *Drawing Production Manager – responsible for overseeing all 2D CAD deliverables and managing the drawing register information contained in the Master Information Delivery Plan to ensure that drawing delivery is efficient and on schedule.*
- (g) *CAD Manager — the point of contact for the QA/QC of all 2D CAD deliverables to ensure consistency and completeness across all project disciplines and packages. Responsible for communicating standards to the project team and working with the Drawing Production Manager to resolve any standard-related issues. Facilitates communication of CAD issues across all project disciplines.*
- (h) *BIM Subject Matter Experts — assist the BIM Manager ensure that technologies and processes that will evolve throughout the project's lifecycle are in place to successfully deliver BIM. BIM Subject Matter Experts will periodically review BIM/CAD deliverables and tools, and suggest technologies and processes to improve those deliverables.*

## 2.2 **Contacts and Organization**

*Contact information for all project team members who have responsibilities related to applying BIM on this project, including an organization chart of the BIM implementation team if available.*

Table 2-1 presents contact details for project team members with BIM responsibility.

**Table 2-1 Project Team Member Contact Details**

BIM Role	Name	Email Address

**Figure 2-1 BIM Implementation Team Organization Chart**

*Insert organization chart.*

### **3. PROJECT BIM OBJECTIVES AND GOALS**

*Details of the key objectives and goals for the implementation of BIM on the project including any metrics that will be used to assess the effectiveness of the implementation of BIM.*

#### **3.1 Efficiency and Innovation**

*Details of the strategy for identifying, assessing, testing and embedding efficiency and innovation concepts in line with the digital twin principles.*

Superseded

#### **4. PROJECT BIM SUBMITTALS**

*Description of the submittals to be produced and delivered to the Contracting Authority. This includes submittals related to regular model sharing, native file submittals, and Works Submittals. Description of the contents of each submittal package including file formats.*

*Reference the use of the Master Information Delivery Plan to forecast and manage delivery.*

*Reference the use of the Responsibility Matrix to define what information is produced by whom, responding to what Level of Information Need.*

Superseded

## **5. COMMON DATA ENVIRONMENT**

*Description of the Common Data Environment systems that will be used, how they will be connected, and how they will be used to improve project productivity and efficiency.*

*Information to include:*

- (a) *The structure of the systems, storage location for information and how this varies between systems. Demonstrate how the project team can easily search and retrieve information;*
- (b) *Workflows;*
- (c) *Receiving information from others;*
- (d) *Assurance processes;*
- (e) *File naming convention;*
- (f) *Suitability codes;*
- (g) *Access including offboarding;*
- (h) *Licenses; and,*
- (i) *Etc.*

*You may add any sub-headings you require for this section*

### **5.2 BIM/CAD Model Revision Management**

*Description of how new revisions of BIM/CAD models will be managed, including how their version histories will be maintained.*

## **6. COLLABORATION**

*The following sub-headings are provided as a guide.*

### **6.1 BIM Collaboration Principles**

*Description of the principles that will be followed when collaborating on the project internally, externally with the Contracting Authority, and with external stakeholders.*

### **6.2 Internal Co-ordination Meetings**

*Description of how the information between internal parties involved will be hosted, managed and coordinated in the design process. Address clash detection, commenting, resolution, etc., with a focus on people and engagement rather than from a technical perspective.*

### **6.3 Meetings with the Contracting Authority and External Stakeholders**

*Description of the approach to participation in design and construction integration working groups with the Contracting Authority (Schedule 39). Address responsibilities for those in attendance, define how the right information will be provided at these meetings to drive effective decision making, commenting procedures, and clash detection and resolution procedures with a focus on people and engagement rather than from a technical perspective.*

Superseded

## **7. SOFTWARE AND TRAINING**

### **7.1 Project Software**

*A list of the software that will be used, including versions and functions.*

*Description of the procedure to obtain approval for new software, the procedure to manage software changes, and the roles responsible for these activities.*

Table 7-2 lists the Project's BIM/CAD software, versions, and functions.

**Table 7-2 Project Software**

<b>BIM/CAD Software</b>	<b>Version</b>	<b>Function</b>

### **7.2 Training**

*Description of the approach to training and how this training will be provided. Describe how staff will be assessed and measured to ensure they are competent to take on roles associated with BIM and Digital Delivery.*

Superseded



## **8. BIM/CAD MODELING GUIDELINES**

*Description of BIM/CAD modelling strategy, including:*

- (a) *BIM applications;*
- (b) *BIM model/CAD environment and file structure;*
- (c) *BIM file formats;*
- (d) *BIM content/element requirements; and,*
- (e) *BIM model level of development.*

### **8.2 Geometry Modeling**

#### **8.2.1 BIM/CAD Graphical Standards**

*Description of how graphical information will be produced. Provide guidance to ensure that information is produced consistently across the project and describe any discipline specific technical approaches. Reference additional supporting methods and processes as required in the appendices.*

#### **8.2.2 Model Federation Strategy**

*Description of BIM model federation strategy, including diagrams if helpful. Include approach to space-proofing elements, special volumes and penetrations.*

#### **8.2.3 Model Management**

*Description of approach to the Responsibility Matrix and model management, including managing project templates.*

#### **8.2.4 Drawing Files**

*Description of approach to creating drawing files and the associated standards, templates, methods of working, revision clouds, revisions, etc.*

### **8.3 Asset Information**

*Description of how asset information will be produced, stored, validated and delivered with reference to the Asset Information Requirements.*

### **8.4 Information Exchange Formats**

*Description of the file exchange formats that will be used in response to the Digital Requirements. Provide technical detail on the approach to creating exchange files and reference the BIM submittals described in section 4.*

#### **8.5 BIM Asset Tagging**

*Description of the approach to comply with the asset tagging strategy, the approach to asset tagging model components and managing unique IDs.*

#### **8.6 Model Level of Development**

*Description of the approach to define the model's level of development at each design submittal milestone using the component catalogue template. Describe how the component catalogue template be reviewed, approved, and managed throughout the project.*

#### **8.7 Shared Coordinate System**

*Description of how the project's coordinate system will be implemented as described in the information exchange requirements.*

#### **8.8 BIM/CAD Templates**

*Description of the BIM/CAD templates that will be used.*

#### **8.9 4D Models**

*Description of the 4D modelling approach.*

##### **8.3.1 4D Scheduling**

***DESCRIPTION OF HOW 4D SCHEDULING WILL BE IMPLEMENTED AND MANAGED ON THE PROJECT, INCLUDE THE APPROACH TO DELIVERING 4D INFORMATION TO THE CONTRACTING AUTHORITY.***

## **9. QA/QC, MODEL COORDINATION AND REVIEW PROCESSES**

### **9.1 Overview of the 3D Model Review Process**

*Description of the processes that will be used to provide ongoing reviews of the 3D BIM models. Include the approach to capture evidence of these reviews.*

### **9.2 Inter-Disciplinary Coordination**

*Description of how the BIM models and site co-ordination models will be coordinated across the project.*

*Description of the approach to effectively co-ordinate between discipline teams using the BIM models and CDE processes.*

### **9.3 Clash Mitigation Process**

*Description of the process that will be used to avoid, detect, and mitigate clashes. Explanation on how any clashes or design conflicts will be resolved.*

### **9.4 Issue Tracking**

*Further information as required to describe how issues will be tracked and controlled.*

### **9.5 Quality Assurance**

*Description of how the project's BIM process will support QA processes.*

### **9.6 Quality Control**

*Description of how the project's BIM process will support QC processes.*

### **9.7 Checking and Validating Incoming Information**

*Description of how incoming information from the Contracting Authority and other external sources will be checked and validated before it is communicated to the project team and used across the project.*

### **9.8 Capturing and Communicating Design Changes**

*Description of how the design change management process will be aligned to the ISO 19650 iterative design development process to ensure that changes are managed clearly and effectively using both the BIM modelling processes and the CDE.*

### **9.9 Construction Coordination**

*Description of how BIM will be used on site to manage construction coordination. This may include reality modelling, etc.*

Superseded

**10. APPENDICES - REFERENCE DOCUMENTS**

*Include any additional guidance documents that will support the implementation of the BIM processes described above.*

Superseded