

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LIMITED



Main Works for In-Patient Extension Block, Phase 2 (Stage 1)

BIM Execution Plan (BEP)

31<sup>st</sup> Jul, 2025

Rev. H

RtC Table

Submission Title : BIM Execution Plan (Rev.G)

Submission No : CSHK/BLV/B2/2025/18048

Main Works for In-Patient Extension Block, Phase 2 (Stage 1)

Item	Reviewer	Doc. Ref.	Reviewer's Comment	Contractor's Response
1	WTPL	Section 3.2	Please contact consultants individually for updating the contact lists of key personnel	Updated
2	WTPL	Section 4.1	Please add to the Risk Register:  Personnel Item: Task Team individuals not following standard procedures  Risk Level: High Risk Owner: Task Team  Mitigation Measures: BIM Manager shall ensure the standard production methods and procedures have been clearly managed, documented and delivered to all individuals within all task teams	Revised
3	WTPL	Section 4.1	Keep in view if this is still relevant to the implementation.	The methodology and limitations of 360-degree photogrammetry were discussed during the ad-hoc meeting at 11/7/2025. The as-built portion of the BEP has been updated accordingly.
4	WTPL	Section 6.4	Please supplement a sub-workflow diagram and brief description for recent development on the regular production and update of BIM-generated Headroom Plans which facilitate progress tracking of the BIM model development as part of design reviews.	Revised section 6.4 with new portion for headroom checking

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5	WTPL	Section 6.6	Please add remarks / explanatory notes for defining "Discipline Shop Drawings", in which according to this workflow, the drawings are not generated from BIM.	Revised
6	WTPL	Section 6.7	Does the clash detection with Room elements be run against elements other than the MEP services?	Revised
7	WTPL	Section 6.16	<p>As per recent discussion, Project Team acknowledged that laser scanning technology would not be adopted for as-built condition verification purposes. If this is the case, CSHK should update the content of this BEP to reflect the actual proposal.</p> <p>If 360-degree photos are the only technologies to be adopted for the task, CSHK should test run and demonstrate proof of concepts and workflow to the Project Team that it is sufficient for as-built condition verification purposes.</p>	The methodology and limitations of 360-degree photogrammetry were discussed during the ad-hoc meeting at 11/7/2025. The as-built portion of the BEP has been updated accordingly.
8	WTPL	Appendix D	The clash matrix shall be updated to reflect recent changes for inclusion of Room element for computational headroom check. Also, please clarify if ARC (room) would be run against any other Architectural elements and Structural elements.	Revised

Document Verification

<u>Revision</u>	<u>Date</u>	<u>Prepared by</u>	<u>Reviewed by</u>	<u>Issued by</u>
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## Definition of Abbreviations

Abbreviations	Definition
ABIM	As-Built Information Model
AIM	Asset Information Model
AIR	Asset Information Requirements
API	Application Programming Interface
AR	Augmented Reality
BCF	BIM Collaboration Format
BEP	BIM Execution Plan
BIM	Building Information Modelling
BIM IP	BIM Implementation Plan
CAD	Computer Aided Drafting
CBWD	Combined Builder's Works Drawings
CDE	Common Data Environment
CFD	Computational Fluid Dynamic
CIC	Construction Industry Council, Hong Kong
CICBIMS	Construction Industry Council Building Information Modelling Standards – General
CNC	Computer Numeric Control
cPIM	Construction Project Information Model
COBie	Construction Operation Building Information Exchange
CQMS	Construction Quality Management System
CR	Construction Record
CSD	Combined Services Drawings
DfMA	Design for Manufacture and Assembly
DIM	Design Information Model
dPIM	Design Project Information Model
DOC	Level of Documentation
DWSS	Digital Work Supervision System
EDMS	Electronic Document Management Systems
EIR	Exchange Information Requirements
GIS	Graphical Information System
IFC	Industry Foundation Classes
LOD-G	Level of Graphics
LOD-I	Level of Information
LOIN	Level of Information Need
MEP	Mechanical, Electrical and Plumbing
MIC	Modular Integrated Construction
MIDP	Master Information Delivery Plan
PIM	Project Information Model
PIR	Project Information Requirement
QR Code	Quick Response Code
QTO	Quantity Take-off
RFID	Radio Frequency Identification
SIR	Security Information Requirements
TIDP	Task Information Delivery Plan
VR	Virtual Reality
WIP	Work In Progress
XML	Extensible Markup Language

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## 1. BIM Execution Plan Overview

As the construction industry continues to adopt new technologies, Building Information Modelling (BIM) has emerged as a powerful tool for improving collaboration, reducing errors and rework, and increasing efficiency throughout the construction process. However, implementing BIM effectively requires careful planning and coordination among all project stakeholders. That's where the BIM Execution Plan (BEP) comes in.

The BEP is a critical document that outlines the processes, procedures, and standards that will be used to create and manage BIM data throughout the lifecycle of a construction project. By clearly defining the BIM scope, goals, and objectives, the BEP provides a roadmap for implementing BIM on the project and ensures that all stakeholders have a common understanding of the BIM requirements.

The BEP includes a variety of important components, including the BIM scope and Level of Development (LOD), BIM standards, BIM roles and responsibilities, BIM execution plan, BIM deliverables, BIM schedule, and BIM coordination. Each of these components plays a critical role in ensuring that BIM is implemented effectively and that all project stakeholders are working together to achieve the project's BIM goals and objectives.

One of the key benefits of the BEP is that it helps to promote collaboration among project team members. By clearly defining the BIM scope and LOD, the BEP ensures that all project team members are working from the same set of assumptions and expectations. Similarly, by defining BIM standards and protocols, the BEP helps to promote consistency and accuracy in the BIM data, which can improve collaboration and reduce errors and rework.

Overall, the BEP is an essential tool for any construction project that is using BIM. By providing a clear roadmap for implementing BIM, the BEP helps to ensure that all stakeholders are working together effectively and efficiently to achieve the project's goals and objectives.

## 2. Project Information

### 2.1 Project Description

The Works comprises the construction of In-Patient Block (IPB) which is composed of 2-storey basement and 20-storey high building block, including erection and alteration of hoardings; substructure and superstructure for link-bridges between IPB and MCBTC; link-bridges between IPB and old block; connection hub between IPB and MCBTC; tunnels between IPB and MCBTC; tunnels between Block B and IPB; advance works at MCBTC; A&A works at Mortuary of MCBTC; site formation, substructure, excavation & lateral support (ELS) and construction for VIE tank and underground fuel tank; underground fuel pipe chamber between VIE tank and IPB; demolition of substructure and superstructure of partial Temporary Working Building (TWB), and modification of TWB to suit the use for contractor shed for accommodating RSS; modification of access road and associated road works; run-in/out modification and formation; carparks re-provision and relocation works in existing hospital campus; external drainage diversion, underground utility diversions; provision of preparatory works and liaison with utility companies for utilities lead-in works; traffic lane and pavement modification at Ngan Shing Street; tree survey works, tree felling and tree compensation within and outside site boundary.

### 2.2 Project Detail

<b>Employer</b>	Hospital Authority
<b>Project Name</b>	Main Works for In-Patient Extension Block, Phase 2 (Stage 1)
<b>Project Manager</b>	Overseas Chinese Engineering Consultants Ltd.
<b>Architect (BIM Manager)</b>	Wong & Partners (Advocate)
<b>Civil, Structure &amp; Geotechnical Consultant</b>	Meinhardt
<b>Building Services Consultant</b>	WSP Ltd.
<b>Surveyor</b>	Rider Levett Bucknall
<b>Contractor</b>	China Overseas Engineering Construction Co., Ltd.
<b>Site Area</b>	26,850 sqm
<b>Commencement Date</b>	30 <sup>th</sup> Jan 2017
<b>Completion Date</b>	30 <sup>th</sup> Aug 2022
<b>Duration</b>	58.8 months

### 3. Project Information Functions

#### 3.1 High and Detail Level Responsibility Matrix (BIM Organisation Chart)

The relationship of BIM Team structure has been shown as below and shall be update if any changes.

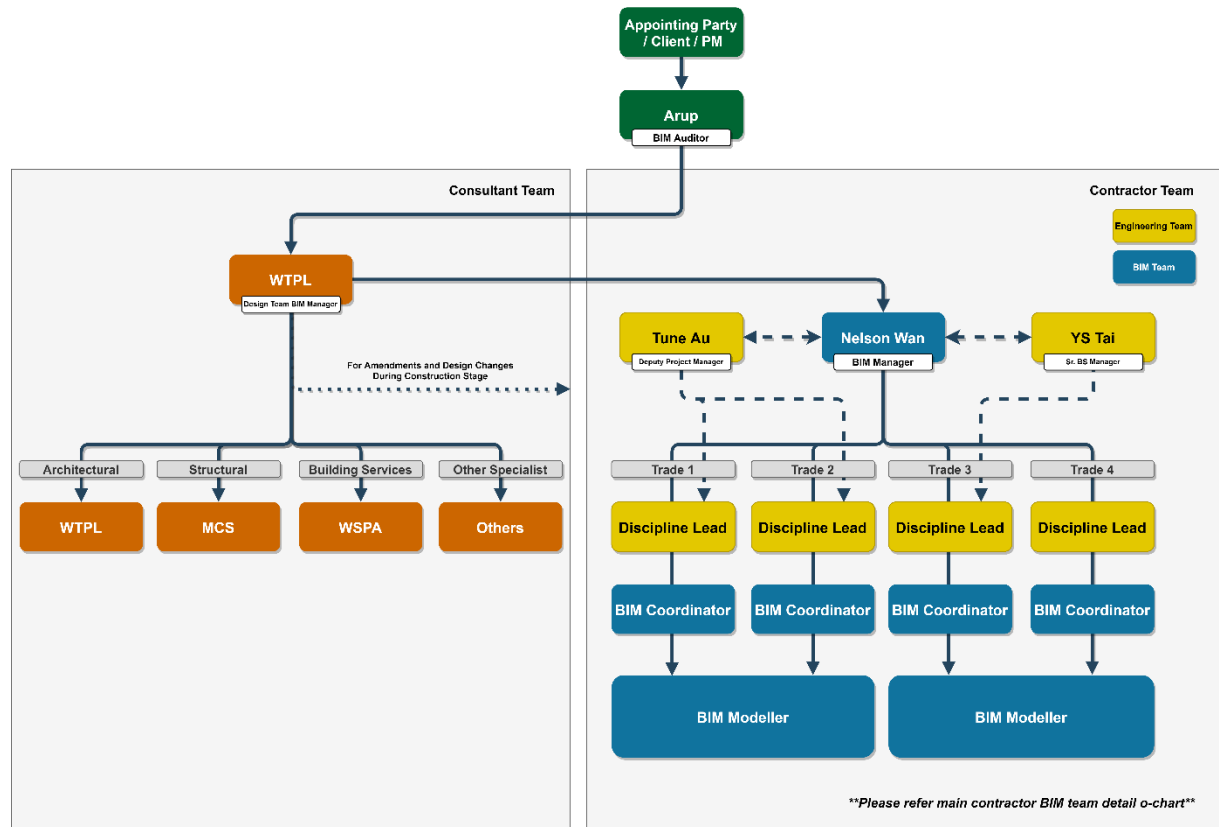


Figure 1. BIM Organization Chart



### 3.2 Key Personnel Contact List

<u>Organization</u>	<u>Contact Name</u>	<u>E-Mail Address</u>	<u>Tel.</u>	<u>Role</u>
<b><u>Client Representatives</u></b>				
				Chief Project Manager (Capital Projects)
				Senior Manager (Capital Planning)
				Manager (Capital Projects)
				Manager (Capital Projects)
				Manager (Capital Projects)
<b><u>Project Management Consultant</u></b>				
				Project Leader
				Project Manager
				BIM Auditor
				Assistant BIM Auditor
<b><u>Architectural Consultant</u></b>				
				Deputy Director
				Deputy Director
				Associate
				<del>Associate</del>
				<del>Chief Architect</del>
				BIM Director
				BIM Manager
<b><u>Civil, Structural &amp; Geotechnical Engineering Consultant</u></b>				
				Principal Structural Engineer
				Project Structural Engineer
				Project Structural Engineer
				Project Structural Engineer
				BIM Engineer
<b><u>Building Services Engineering Consultant</u></b>				
				Associate Director
				Senior Associate
				Senior Associate
				Senior Associate
				Associate
				Associate
				Associate
				Senior Engineer
				Senior Engineer

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**Quantity Surveying Consultant**

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Deputy Director  
Senior Quantity Surveyor  
Quantity Surveyor

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**Main Contractor**

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Project Manager  
Site Agent  
Sr. BS Manager  
Deputy Project Manager  
Assistant Planning Manager  
Project Quantity Surveyor  
Assistant Project Manager  
Senior Foreman  
Senior Engineer  
Surveyor  
Assistant Project Manager  
BS Engineer  
Assistant BS Manager  
Senior BS Engineer  
BIM Manager  
BIM Coordinator  
BIM Coordinator  
BIM Coordinator  
BIM Coordinator  
BIM Coordinator  
BIM Coordinator  
BIM Coordinator

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### 3.3 Roles, Responsibilities and Authority

In BIM management, the terms role, responsibility, and authority are used to define the roles and responsibilities of different team members involved in the BIM process. The roles shall be defined as following:

<b><u>Role</u></b>	<b><u>Responsibility and Authority</u></b>
<b>Appointing Party / Client / PM</b>	Planning of overall project objectives, managing cost, time, scope and quality of all project deliverables.
<b>Project Management Consultant / BIM Auditor's</b>	<p>The BIM Auditor shall supervise the BIM execution and oversee the BIM process of the project.</p> <p>Key role and responsibilities of the BIM Manager shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Supervise the development, implementation and management of the BIM Execution Plan (BEP), standards, processes, procedures;</li> <li>• Responsible for auditing all BIM deliverables, delivery schedules, progress monitoring and quality assurance;</li> </ul>
<b>Design Team BIM Manager</b>	<p>Key role and responsibilities of the BIM Manager shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Review / Comment the BIM project standards, implementation strategy and the submission of Information Models from Main Contractor</li> <li>• Provide quality assurance on the counter spot-checking procedure to the BIM</li> <li>• Supervise on Main Contractor BIM Manager during construction and as-built stage;</li> <li>• Review / Comment production methodologies of the as-built information submitted by the Main Contractor</li> </ul>
<b>Main Contractor BIM Manager</b>	<p>The BIM Manager shall take lead on the BIM execution and oversee the BIM process of the Project under his/her Contract. It should be ensured that the BIM Manager shall work independently from the role of its respective discipline BIM Manager.</p> <p>Key role and responsibilities of the BIM Manager shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Facilitate the development, implementation and management of the BIM Execution Plan (BEP), standards, processes, procedures;</li> <li>• Ensure delivery of the Appointing Party's / Client's BIM Requirements, goals and uses;</li> <li>• Responsible for the BIM deliverables, delivery schedules, progress monitoring, quality assurance and BIM coordination;</li> <li>• Collaborate among various Sub-contractors under the Contract;</li> <li>• Federation of all Information Models prepared by the individual disciplines / Sub-contractors;</li> </ul>

	<ul style="list-style-type: none"> <li>• Carry out clash analysis and management, Issue management and change management of the BIM process;</li> <li>• Manage Project-wide Common Data Environment (CDE); and</li> <li>• Verify as-built information submitted by the Main Contractor.</li> <li>• Chair and report overall progress in BIM Coordination Workshops / BIM Implementation Meetings;</li> <li>• Coordinate with Project Consultant Team, Project BIM Auditor and Consultant BIM Manager;</li> <li>• Ensure as-built AIM is issued on time;</li> <li>• Ensure delivery of the client's BIM requirements, goals and uses;</li> <li>• Consolidate BIM submissions from individual disciplines, manage model compliance and quality assurance and submit to the Consultant BIM Manager.</li> <li>• To provide necessary information and materials as requested by Employer for the Employer's representatives to complete the performance measurement framework Workbooks required in Development Bureau Technical Circulars (Works) No. 02/2021. Adoption of Building Information Modelling for Capital Works Projects in Hong Kong.</li> </ul>
<b>Discipline Lead</b>	<p>The Discipline Lead shall be mainly responsible for leading design authoring and production (drawings, visualisation, analysis, etc.) of its individual discipline.</p> <p>Key role and responsibilities of the Discipline Lead shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Lead the execution of the BIM Execution Plan (BEP) within own discipline;</li> <li>• Manage and lead the Design Authoring Process within own discipline;</li> <li>• Lead the production of BIM deliverables as per requirements;</li> <li>• Coordinate with the BIM Manager, feedback to its corresponding discipline design team / trade to resolve clashes and issues identified through the BIM process;</li> <li>• Coordinate with BIM Teams from other disciplines;</li> <li>• Resolve design issues within its corresponding discipline;</li> <li>• Carry out quality assurance checks before sharing the models with other disciplines, BIM Manager and BIM Auditor;</li> <li>• Share information by the Project-wide Common Data Environment (CDE); and</li> <li>• Liaise with FM / AM team for identifying AIR.</li> </ul>
<b>BIM Coordinator</b>	<p>The BIM Coordinator shall be mainly responsible for the daily coordination of the overall BIM process internally (within own discipline) and cross-disciplines / trades, in support to all BIM implementation activities led by the Discipline Lead or the Main Contractor.</p> <p>Key role and responsibilities of the BIM Coordinator shall include but not be limited to:</p> <ul style="list-style-type: none"> <li>• Coordinate and manage specific discipline model and consolidate the information from the modellers to ensure all the models, drawings, schedules and documents compliance to the BEP;</li> <li>• Coordinate between BIM Manager, Discipline Lead, designers, consultants, other coordinators, modellers, quantity surveyors, Main Contractor, sub contractors and other project participants;</li> </ul>

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- Build and develop the Information Models and all deliverables based on the information and data collected, to manage the BIM databases, to report any clash/conflict or difficulties in Information Models production and to resolve such difficulties with relevant parties;
  - Carry out the quality assurance checks; make sure the latest input is updated from time to time and make sure all deliverables are coordinated on time before sharing the models with other disciplines / trades, BIM Manager and BIM Auditor;
  - Manage and keeping track the revisions, inclusions or amendments to ensure consistency among all deliverables within the parties;
  - Maintain a library of objects and elements for use on the project which is compatible with the selected software platforms; and
  - To fully utilise BIM for minimisation of design changes and risks, clarification of project costs and program

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**BIM Modeller** The BIM Modeller shall be discipline-specific and mainly responsible for BIM authoring and production of its individual discipline or trade.

Key roles and responsibilities of the BIM Modeller shall include but not be limited to:

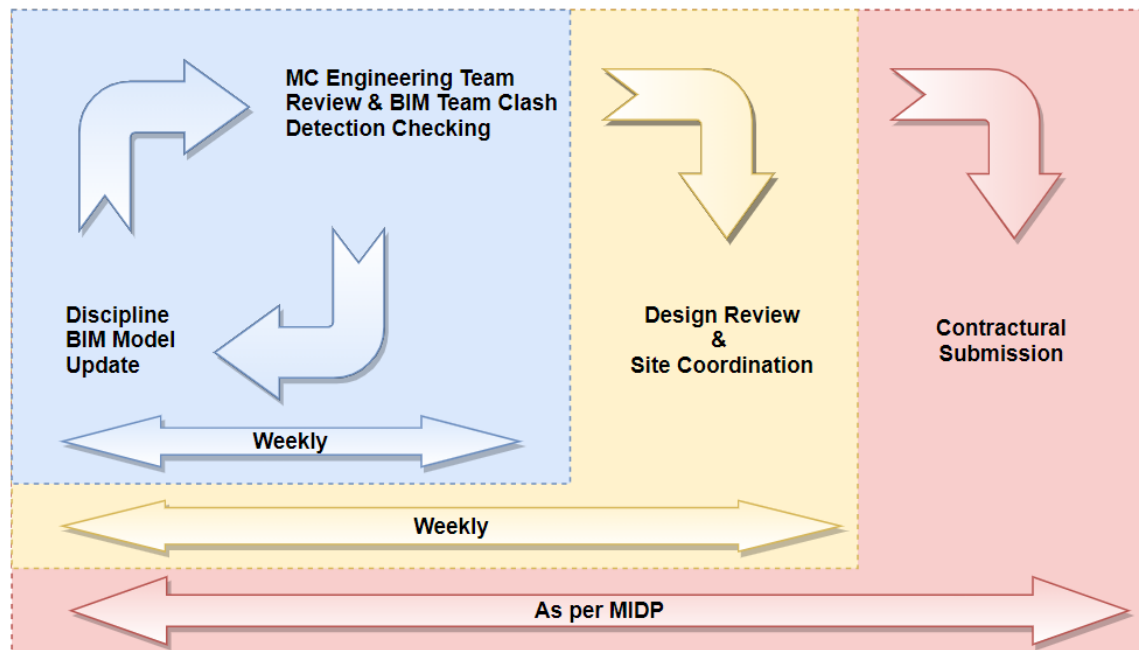
- Create, maintain or amend models, drawings, schedules, images, animations and documents to the LOIN prescribed in the BIM Execution Plan (BEP)
  - List and track change of the models
-

#### 4. Information Delivery Strategy

To facilitate a collaborative, efficient and error free information package it is essential to have pre-defined regular information exchanges within design team members prior to the formal submission of information for approval. With this aim the Information exchange has been divided into three main collaboration activities.

	<b><u>Information Delivery Type</u></b>	<b><u>Participants</u></b>	<b><u>Responsibility</u></b>	<b><u>Frequency</u></b>
1	Contractual Submission	Project Team & Delivery Team & Task Team	BIM Manager (MC)	As per MIDP
2	Sub-contractor Internal Information/model sharing	Delivery Team & Task Teams	BIM Coordinators (MC)	Every Monday
3	Design review and site coordination	Project Team & Delivery Team & Task Team	BIM Manager (MC)	Every Wednesday

As indicated above, the design review process will go through a continuous cycle of discipline model sharing and BIM coordination meetings. After the 1<sup>st</sup> draft BIM model initiation and first interdisciplinary sharing, a cycle of sharing and review will begin. This cycle will be conducted several times for the whole project period. The flow of the review process is described in the figure below.



**Figure 2. Information Delivery Process**

#### 4.1 Delivery Team Risk Register

The potential risk of BIM implementation shall identify and manages during the project period. It helps the team proactively address challenges like expertise gaps, software issues, data interoperability, and standards inconsistencies. By developing mitigation strategies and contingency plans, the team aims to optimize BIM utilization and ensure a successful project outcome. Regular updates to the risk register ensure that emerging risks are addressed effectively. Below summary table shown the potential risk and the relationship of the risk.

<u>Risk Item</u>	<u>Risk Level</u>	<u>Risk Owner</u>	<u>Mitigation Measures</u>
<b><u>Personnel Items</u></b>			
Lack of BIM expertise	High	Appointed Parties	Provide technical training for project participants
Task team individuals not following standard procedures	High	Task Team	BIM Manager shall ensure the standard production methods and procedures have been clearly managed, documented and delivered to all individuals within all task teams
<b><u>Technical Items</u></b>			
Inadequate BIM software and hardware infrastructure	Medium	Appointed Parties	Regular technical review with services vendor
Data interoperability issues	High	Task Team	Align the data exchange formats and consideration for platform selection
Inconsistent or incomplete BIM standards	High	Appointed Parties	Regular Perform a QAQC compliance checklist review BIM Standard
Poor Model Quality	High	Appointed Parties	Regular Perform a QAQC compliance checklist review the model quality.  The minor issues which would not influence the construction coordination will be addressed in the as-built model at the finalized stage.  Such as, Element workset, View naming, purgeable elements, flying object, the category of object, etc.
Inaccuracy of 360-degree 3D photos scanning	Medium	Appointed Parties	Align the construction standard for the maximum tolerance limit of scanning accuracy
Lack storage size of the As-built 360 photo and document record on Asite	Medium	Lead-Appointed Parties	Regular recover the 360 photo and document to save the Asite storage
<b><u>Coordination &amp; Implementation Items</u></b>			
Poor coordination and collaboration	High	Task Team	Perform regul
Inconsistent source of the Model information	High	Task Team	Implement an

to be reviewed together with the As-built verification methodology: measurable 3D models shall form part of the deliverable on top of the 360 photos and document / reports.

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verbal comments are recorded in the RFI register prior to any model update.

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Actual status of above type of risk for BIM implementation shall be discuss on BIM Coordination Meeting regularly.

## 4.2 Mobilisation Plan

The mobilization plan shall set out the strategy for effectively implementing the BIM execution at the beginning of the project. Below key activities shall be addressed and regular review.

- Identify and appoint the BIM Manager and key team members responsible for BIM implementation.
- Conduct a kick-off meeting to introduce the BIM Execution Plan, roles, and responsibilities to the project team.
- Develop a detailed project-specific BIM implementation strategy, including the BIM scope, milestones, and deliverables.
- Establish the BIM project team structure, clarifying the roles and responsibilities of each team member.
- Define the BIM software and hardware requirements based on the project needs.
- Set up the necessary BIM software licenses, server access, and collaboration platforms.
- Provide training and workshops to familiarize the team with BIM tools, processes, and workflows.
- Establish communication channels and protocols for effective collaboration and information sharing.
- Conduct regular progress meetings to monitor the implementation of the BIM Execution Plan and address any challenges.

## 4.3 Master Information Delivery Plan (MIDP)

The MIDP is the primary delivery programme for evaluate the project deliverables in high level. That's listed all project deliverables and regarding master programme as a live document from time to time update, review and maintain for the overall manage, monitor and planning during in the project period for implementation. Please refer **Appendix A – Master Information Delivery Plan (MIDP)**

## 4.4 Task Information Delivery Plan (TIDP)

The TIDP as a live project document for develop, maintain and record the project task information which identifies the deliverables and associated content and resources in detail. Please refer **Appendix B – Task Information Delivery Plan (TIDP)**



#### 4.5 BIM Deliverable Schedule

<b><u>BIM Deliverables Schedule</u></b>	<b><u>Start Date</u></b>	<b><u>Frequency / Complete Date</u></b>
Organization chart and qualification of BIM team members	30/6/2023	13 Jul 2023
BIM Execution Plan	30/6/2023	Refer to TIDP G0
CDE Implementation	30/6/2023	29 Jul 2023
4D Simulation	29/7/2023	Refer to TIDP G4
1 <sup>st</sup> Draft BIM Model	30/6/2023	30 Nov 2023
BIM Model Development	30/6/2023	Weekly Share by CDE and presented in BIM Coordination Meeting
Clash Analysis Report	30/6/2023	Refer to TIDP G3
QAQC Model Compliance Report	30/6/2023	Refer to TIDP G8
Final as-built AIM for Facility Management	6 months from the issuance of certificate of completion	On or one month before the issuance of the Certificate of Completion; Prerequisite to the Certificate of Completion

All the BIM model development pending relevant master programme, CSD/CBWD schedule and shop drawing submission schedule.

#### 4.6 BIM Meeting Schedule

<b><u>Meeting Type</u></b>	<b><u>Date / Period</u></b>	<b><u>Attendants</u></b>
BIM Kick-off Meeting	08 Jun 2023	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Design Consultant</li> <li>• Main Contractor</li> </ul>
Site Coordination Meeting	Every Wednesday	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Design Consultant</li> <li>• Main Contractor</li> </ul>
BIM Coordination Meeting	Bi-Weekly Monday	<ul style="list-style-type: none"> <li>• Project Manager</li> <li>• Design Consultant</li> <li>• Main Contractor</li> </ul>
Internal BIM Workshop	Daily	<ul style="list-style-type: none"> <li>• Main Contractor</li> <li>• Sub-contractor</li> </ul>
As-built Handover Meeting	Weekly (Handover Stage)	<ul style="list-style-type: none"> <li>• Employer (FM)</li> <li>• Project Manager</li> <li>• Design Consultant</li> <li>• Main Contractor</li> </ul>

## 5. BIM Goals, Uses & Deliverables

### 5.1 BIM Goals and Objectives

The objective of the application of BIM is to create a digital building information model for the project and to use BIM as a platform to facilitate project planning, site administration, safety planning, design co-ordination, clash detection prior to construction, project cost control and evaluation, financial planning minimization of abortive works, waste reduction and efficient asset management to achieve the following beneficial purpose:

- To minimize design discrepancies, improve design co-ordination and deliver a clash-free design using 3D modelling technique,
- To enhance visual communication between the Contractor and all stakeholders, improve mutual understanding of the design intent and facilitate design review and vetting process,
- To support efficient delivery of drawings, including Combined Services Drawings (CSDs) and Combined Builder's Work Drawings (CBWDs),
- To support the development of 4D modelling construction sequence during the construction stage to enhance communication, predict and manage construction process,
- To support the development of digital fabrication to make the design and fabrication processes more efficient and can be done at offsite,
- To support the development of 5D modelling for improving speed and accuracy on quantity take-off (QTO) and cost estimating through the BIM model.
- To support the development of asset management by using BIM with an as-built BIM model for effective operation and maintenance of the buildings.

### 5.2 Guidelines and Standards

The following BIM standard and Guidelines listed shall be adopted:

- Development Bureau Technical Circulars (Works) No. 02/2021. Adoption of Building Information Modelling for Capital Works Projects in Hong Kong;
- Building Information Modelling Standards - General, Version 2.1 - 2021, by the CIC;
- Asset Coding Manual for Use with Concept 500 System for Hospital Authority;
- Production of BIM Object Guide – General Requirements, Version 2 -2021, by the CIC;
- Building Information Modelling Standards for Underground Utilities, Version 2 -2021, by the CIC;
- CIC BIM Standards - Architecture and Structural Engineering (Version 2.1 - 2021);
- CIC BIM Exchange Information Requirements (EIR) Template (BIM Specifications) (Version 1.1 – 2021);
- Guidelines for Using Building Information Modelling in General Building Plans Submission, 2019, by Buildings Department of the HKSARG;
- **Building Information Modelling for Asset Management (BIM-AM) Standards and Guidelines, version 2.0, 2019, by the Electrical and Mechanical Services Department (EMSD);**
- ISO 19650-1:2018 Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) – Information management using building information modelling -- Part 1: Concepts and principles, edition 1, December 2018, by the International Organization for Standardization;
- ISO 19650-2:2018: Organization and digitization of information about buildings and civil engineering works, including building information modelling -- Information management using building information modelling -- Part 2: Delivery phase of the assets, edition 1, December 2018, by the International Organization for Standardization;

- ISO 19650-3:2020: Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) — Information management using building information modelling — Part 3: Operational phase of the assets
- ISO 19650-5:2020: Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) — Information management using building information modelling — Part 5: Security-minded approach to information management
- CIC BIM Standards for Preparation of Statutory Plan Submissions, December 2019 (or supersede by newer Version once available), such as Superstructure Plan;
- Common Spatial Data Infrastructure requirements, Open Geospatial Consortium Standards City GML and specifications, or the like published / released from the Works Departments of the HKSARG from time to time;
- Building Information Modelling (BIM) Guide for Building Services Installation (Version 1.1) issued by Building Services Branch, Architectural Services Department;
- BIM Guide for Facilities Upkeep (version 1.2) issued by Property Services Branch, Architectural Services Department;
- CIC BIM Standards Mechanical, Electrical and Plumbing, Version 2 2021;
- CIC BIM Guide for using BIM in Generation of MEP Digital Drawings for Statutory Submissions (2021);
- Level of Development (LOD) Specification for Building Information Models and Data, May 2020 by BIM Forum,
- Family Library Interchange Program (The FLIP Guidelines), Latest Version, by Autodesk Far East Ltd.
- BIM Harmonisation Guidelines for Works Departments Version: 1.0, October 2023
- Building Information Modelling Harmonisation Guidelines for Capital Works Projects in Hong Kong, DEVB TC(W) No.8/2021 dated 20 December 2021.
- Development Bureau Technical Circular (Works) No.3/2020 Digital Works Supervision System (DWSS).
- Office of the Government Chief Information Officer, INFORMATION SECURITY, Practice Guide for Cloud Computing Security [ISPG-SM04] v1.1, July 2018.

### 5.3 BIM Use Required

According on Particular Specification A13-BIM, the following listed of the BIM Uses applicable to this project:

<u>Objective</u>		<u>Objective</u>	<u>Methodology</u>	<u>Construction Stage</u>	<u>As-built Stage</u>	<u>Information Type</u>	<u>Ref. Section</u>
1	Design Authoring	To create and develop an Information Model of the project progressively to support selected BIM Uses before project milestones	The BIM model will keep update and further develop during the project period	✓		Model	6.3
2	Design Reviews	For stakeholders to view a model, images and drawings from the models or animated walk-throughs of the project, provide feedback and validate numerous design aspects	The information exchange workflow involves submitting the NWD file format twice per week and the RVT file format once per week for the progress model via the CDE	✓		Design Review Report / VR	6.4

			BIM walkthroughs are conducted for design review to visualize the potential issues			
3	Existing Conditions Modelling	Creating 3D model of the existing site conditions by means of laser scanning, photogrammetry, composition of existing 3D spatial data of the site and other conventional methods	<p>Laser scanning is used to perform an ELS to analyze any potential issues, and the resulting data is then used to prepare for the work on the permanent structure ✓</p> <p>An existing conditions model of the underground utilities is created to identify and avoid potential clashes during construction</p>		Point Cloud Model	6.5
4	Drawing Generation (Drawing Production)	Producing 2D drawings as far as practicable by BIM models, which are used as single-source-of-truth	Generate CSD,CBWD, ISD, MiC Shop Drawing, Wall Elevation Drawing from BIM model for consistent information ✓ ✓		Drawing	6.6
5	3D Construction Coordination	Coordinating the federated information models to eliminate design errors before construction of the project and enhance the efficiency and constructability of the information models	<p>Adopted "BIM Track" as issue tracking system to record the coordination issue</p> <p>Clash detection is performed using a clash matrix as part of the quality check process to identify potential issues, misleading information, and modeling errors ✓</p>		Clash Report	6.7
6	Cost Estimation / 5D Modelling	Using the information models for extracting quantities for project cost control, cost evaluation on variation of works, cash flow forecast, spending analysis, interim payment, etc. as far as practicable	<p>Quantities are extracted from the model for interim payment applications, including quantities for beams, slabs, walls, and columns ✓</p> <p>A visual record is maintained to</p>		Schedule	6.8

			document any AI / RFI changes			
7	Engineering Analysis	Using the BIM model to analyse and assess design options to facilitate the provision of effective engineering solution for contractor design items. Engineering analysis may be related to structural, lighting, solar and shading, airflow, energy, acoustic, thermal, mechanical, people movement, hydraulic, etc.	Analyze the MiC steel frame loading for deflection check as part of calculation on MiC details proposal	✓	Part of Design Submission	6.9
8	Facility Energy Analysis	Using a building energy simulation programme with a model to conduct energy assessments of a project design	Extract relevant system data from the BIM model for engineering calculation regarding the BEC submission requirement	✓	Model	6.10
9	Sustainability Evaluation	Project model is evaluated based on sustainability criteria from BEAM Plus, LEED or other green building assessment tools	"BIM Integration" achieved which aim to obtain the Gold or above rating of "BEAM Plus NB 2.0" certification	✓	Part of Green Building Assessment	6.11
10	Phase Planning (4D Modelling)	Linking a programme to the model which is used to plan the phased occupancy or to show construction sequence and space requirements	a) Visualize the construction activities of master programme and compare the planned vs actual at the same timeframe  b) Integrated Construction Activities  c) Detailed 4D simulation	✓	Model, Video & Spreadsheet	6.12
11	Digital Fabrication	The use of models to facilitate the fabrication of mass customized components or off-site prefabricated assemblies	The modeling methodology to perform MiC and MiMEP in the Federated BIM Model was defined to provide	✓	Drawing & Model	6.13

			the necessary information			
12	Site Utilization Planning	To graphically represent both permanent and temporary facilities on site for all of the phases of the construction process	Adopted for construction plant and construction activities planning	✓	Video	6.14
13	3D Control and Planning	Utilising a model to layout project elements on the site or automate the plant with Global Positioning System (GPS) and machine control	As quality checking in between the BIM model and field environment to ensure the consistency of construction with BIM. Quality checking was performed using the Hilti advanced layout system - PTL 300	✓	Model	6.15
14	As-Built Modelling	Preparing an accurate record of the physical conditions and assets of a project	360 photo and 3D laser scanning for field validation	✓	Model	6.16
15	Project System Analysis	Measuring how a project performs compared to the design specifications, to ensure the project is operating to specified design and sustainable standards	Create / Input project systems performance-related (room) attributes (revit parameter) in the BIM model	✓	Model	6.17
16	Maintenance Scheduling	Collecting and providing maintenance attributes during construction stage, for planning and managing the maintenance of the project structure, building fabric and equipment during the operational life of the facility	Create / Input maintenance-related attributes in the As-built BIM as per the Asset Information Requirements (AIR) or EMSD BIM Standard	✓	Schedule	6.18
17	Space Management and Tracking	Using the As-built BIM to assess, manage and track spaces and associated resources within a project	Create / Input space management-related (room) attributes (revit parameter) in the BIM model	✓	Model & Schedule	6.19

18	Asset Management	Linking an as-built model database to an organized asset management system, which can be used to maintain and operate the facility and its assets	Create / Input asset management-related attributes in the As-built BIM as per the Asset Information Requirements (AIR) or EMSD BIM Standard	✓	Schedule & Model	6.20
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#### 5.4 Level of Information Need (LOIN)

Regarding to CIC BIM Standard, the Level of Information Need (LOIN) enables Appointing Parties / Clients, architects, engineers, contractors, quantity surveyors and facility managers to clearly specify the content of models at each stage of a project.

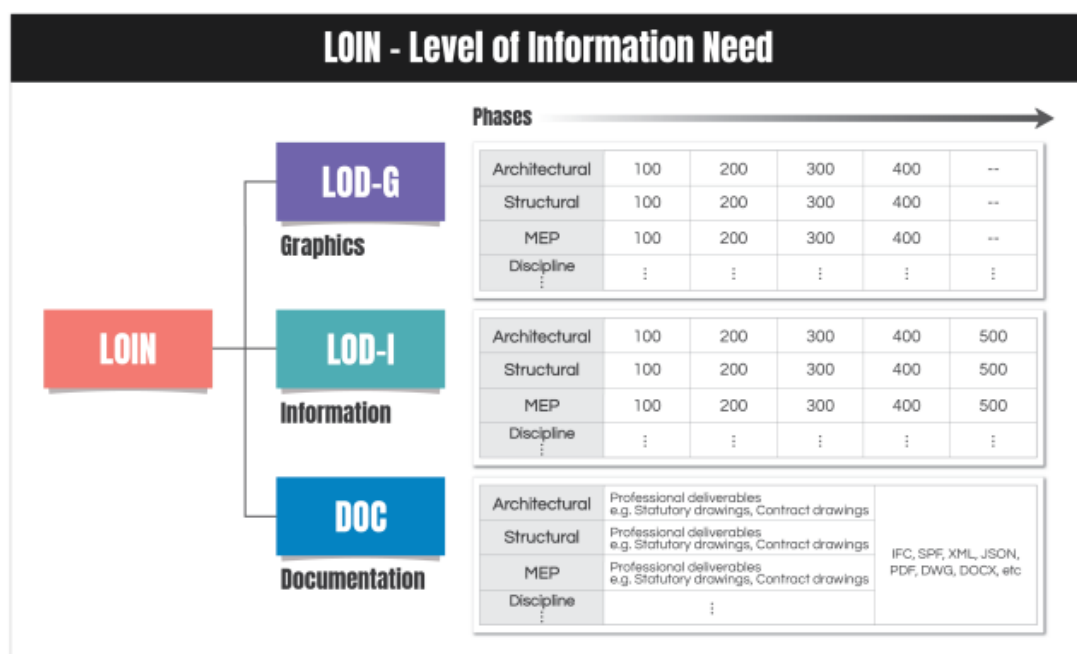


Figure 3. LOIN Definitions

Four generic levels of graphical representation are identified as LOD-G notations. These are numbered from LOD-G 100 to LOD-G 400 and defined in below table.

<b>LOD-G</b>	<b>Definition</b>
<b>100</b>	The model element is graphically represented within the model by a symbol or generic representation or rough 3D shape.
<b>200</b>	The model element is graphically represented within the model as a generic system, object, or assembly with approximate quantities, assumed size, shape, location, and orientation. The assumed spaces required for access and maintenance shall be indicated.
<b>300</b>	The model element is graphically represented within the model as a specific system, object, or assembly in terms of quantity, size, shape, location, and orientation. The model shall include details of the spaces required for handling installation, operation and maintenance, and the interface details for checking and coordination with other models / objects.
<b>400</b>	The model element is graphically represented within the model as a specific system, object, or assembly in terms of size, shape, location, quantity, and orientation with detailing for fabrication, assembly, and installation.

Level of Information (LOD-I) is the description of non-graphical information in model elements and will evolve as the project progresses. The minimum LOD-I associated with typical elements / objects at five levels from LOD-I 100 to LOD-I 500 are defined as follow.

<b>Type</b>	<b>Description</b>	<b>Attribute Name</b>	<b>LOD-Information</b>				
			<b>100</b>	<b>200</b>	<b>300</b>	<b>400</b>	<b>500</b>
<b>General Properties</b>	General information about the object may include identification of its category / type, name and location, etc.	CAT code	✓	✓	✓	✓	✓
		Location		✓	✓	✓	✓
		Departmental Unique ID		✓	✓	✓	✓
<b>Design Properties</b>	Design information varies among different types of BIM objects.	Material		✓	✓	✓	✓
		Material Grade		✓	✓	✓	✓
		Design Capacity		✓	✓	✓	✓
		Number		✓	✓	✓	✓
		Name			✓	✓	✓
<b>Manufacturer's Equipment Properties</b>	Manufacturer's equipment information and parameters of the objects. In general, these are essential during	Brand Name				✓	✓
		Manufacturer Name				✓	✓



	the construction stage but not necessarily required during the design stage	Model Number of element / equipment	✓	✓
<b>Condition Properties</b>	Installation information including month / year, latest testing / commissioning month / year, life expectancy	Commission Date	✓	✓
		Installation Date	✓	✓
		Life expectancy	✓	✓

Level of Document (Doc) is refer to the kind of document to be associated with the uses to meet the identified requirement, according to PS.A13 Appendix 2, the requirement of attributes will show as following.

<u>Type</u>	<u>Description</u>	<u>Attribute Name</u>	<u>LOD-Information</u>				
			<u>100</u>	<u>200</u>	<u>300</u>	<u>400</u>	<u>500</u>
<b>Specification / Properties</b>	Product specification and other external document in the form of a hyperlink	O&M Manual	✓	✓	✓	✓	✓
		T&C Report		✓	✓	✓	✓

The detail LOD matrix predefined levels representing different levels of detail for the built objects. Please refer **Appendix C – LOD Matrix**

## 6. Project Information Production Methods and Procedures

### 6.1 BIM Process Overview

The information exchange process was facilitated by BIM during the whole project period from design to as-built. The process through Common Data Environment as a platform for information exchange process, input the resources of project needs to carry out the deliverables for different construction usage.

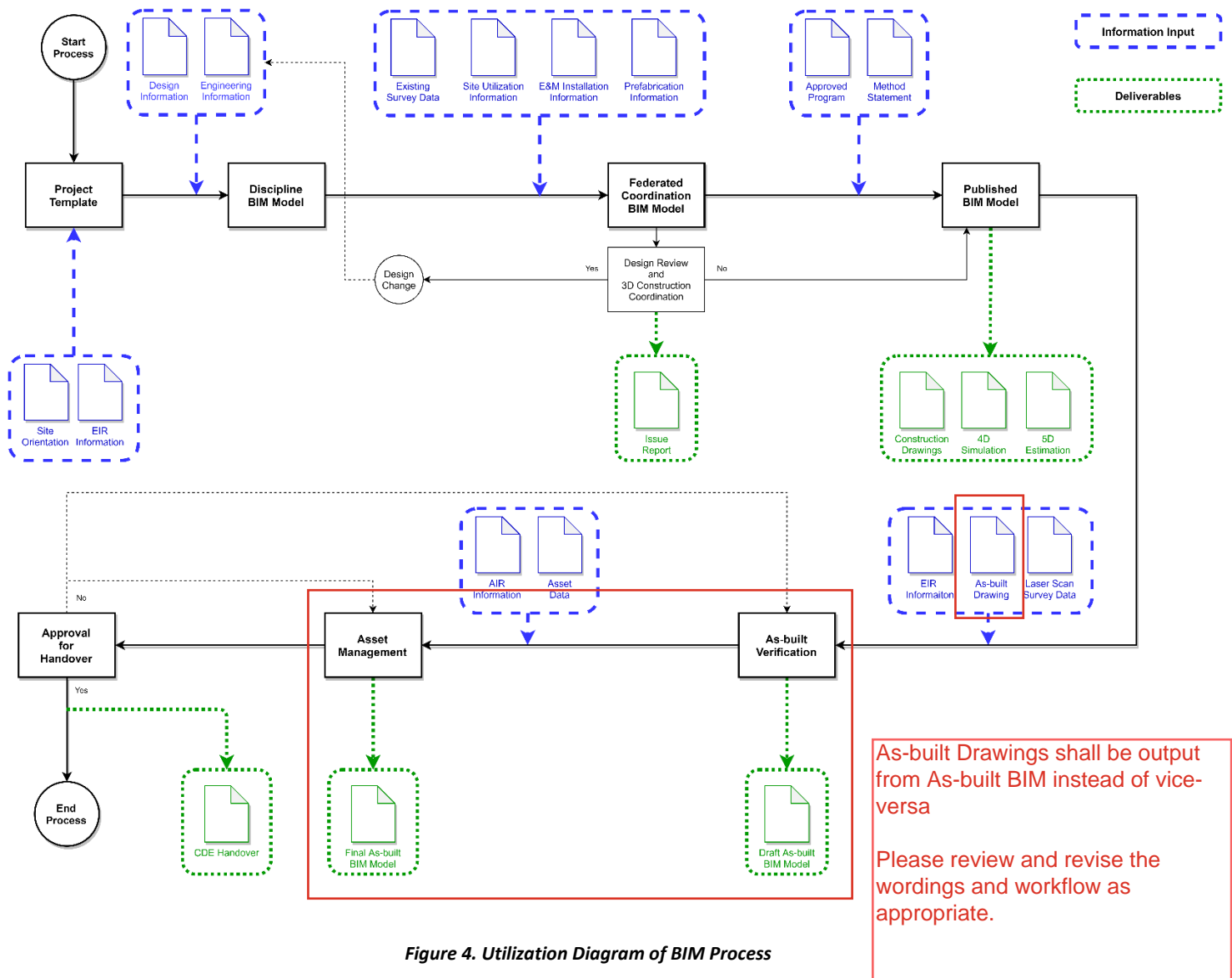


Figure 4. Utilization Diagram of BIM Process

## 6.2 Common Data Environment (CDE)

The efficient exchange of data between all project participants is an important factor in execution of a successful BIM project.

The CDE shall be a document, drawing and model sharing platform with proper multiple levels access control, organized folder and file structures. It shall also contain documentation control, e.g. recording and checking of information download/upload flow amongst the Project Team.

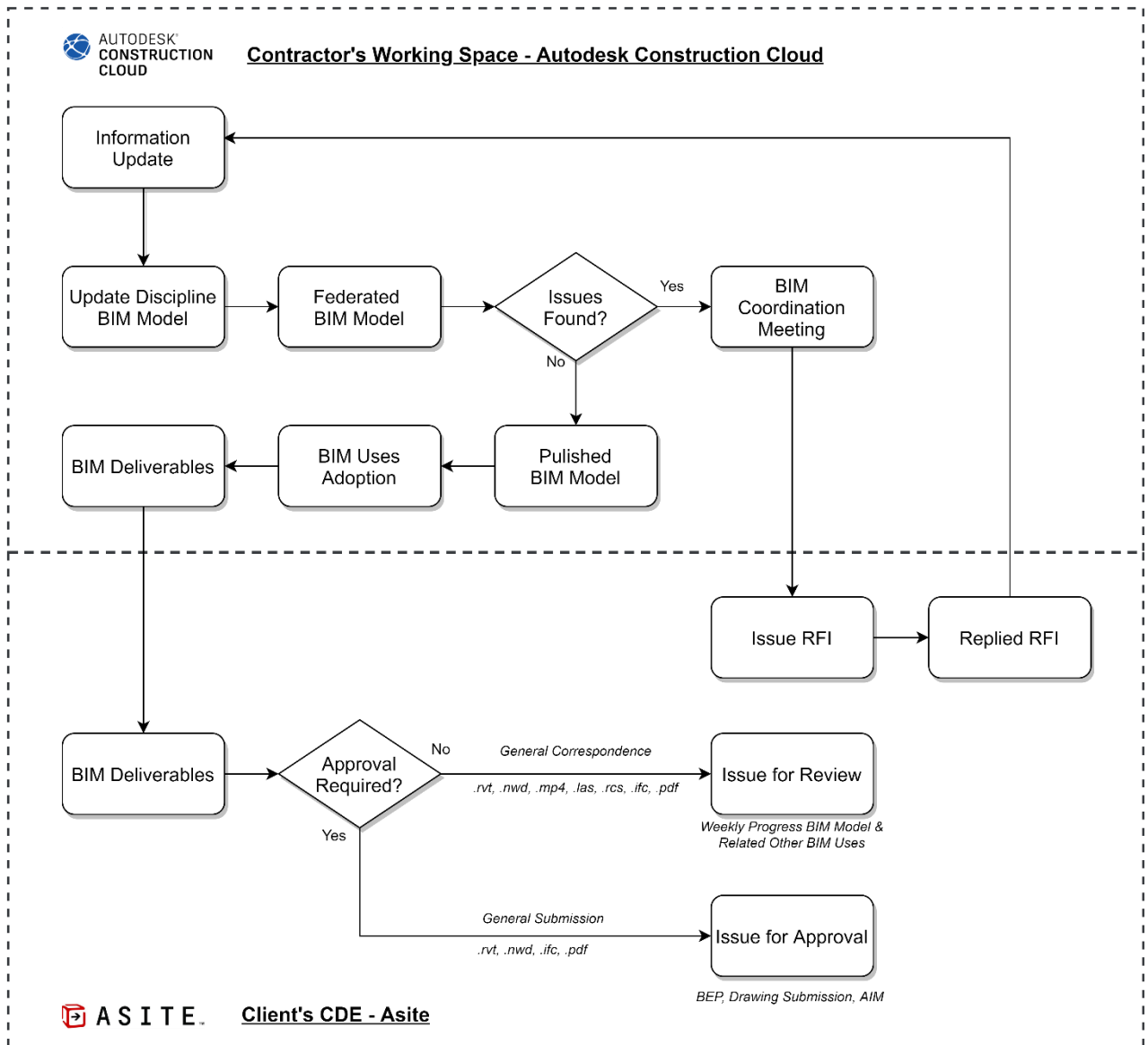


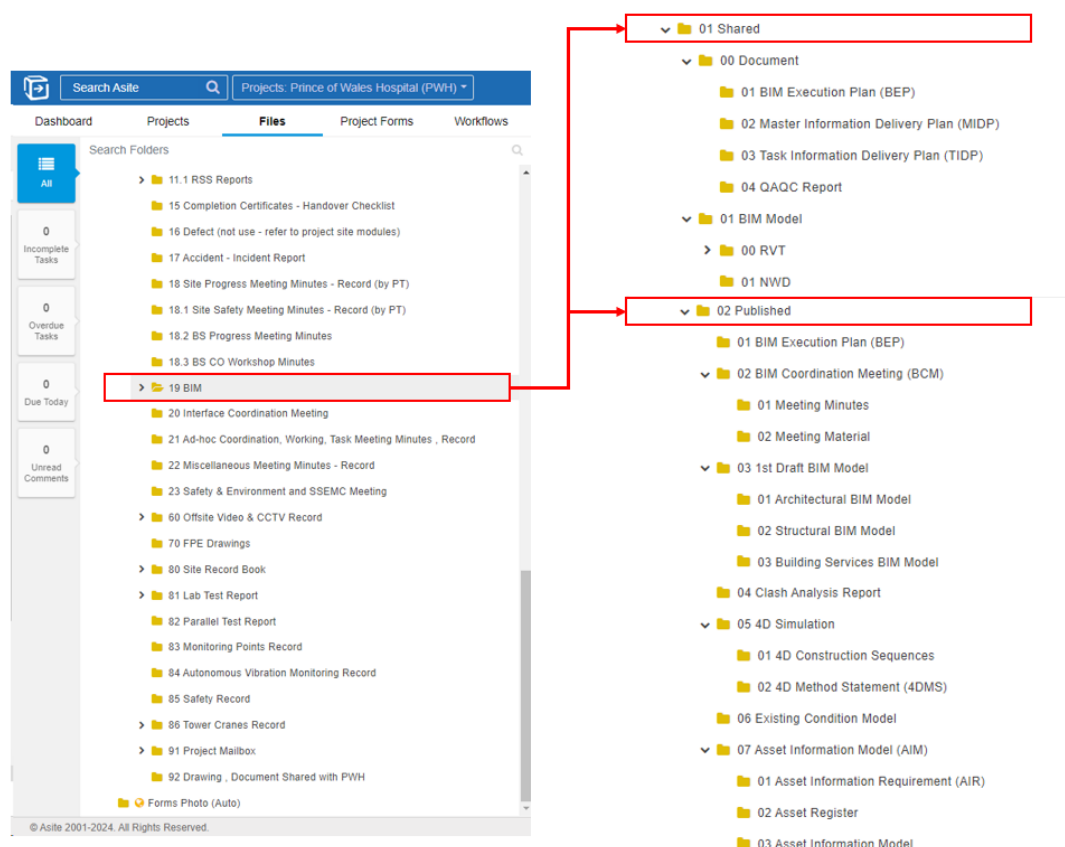
Figure 5. CDE Collaboration Process

Figure 5 demonstrates the improved integration of authoring software such as Autodesk Revit, AutoCAD, and Navisworks. In this integration, work in progress files will be stored and saved on the Autodesk Construction Cloud.

In Asite, the "19 BIM" folder consists of two subfolders: "01 Shared" and "02 Published."

The "01 Shared" folder is intended for live documents and files throughout the project duration. It is used for information exchange and general coordination purposes. This folder allows stakeholders to access and collaborate on the latest versions of documents.

On the other hand, the "02 Published" folder is designated for storing frozen versions of each BIM deliverable. This folder is specifically used for record-keeping, management, and tracking of deliverables. It ensures that finalized versions of the BIM deliverables are securely stored and easily accessible for future reference.



**Figure 6. CDE Folder Structure**

Asite serves as the authorized platform for the formal submission of deliverables, and it is mandatory to submit all deliverables through this platform for verification. The project administrator will have the authority to control user access and create folders within Asite.

The Contractor BIM Manager is responsible for coordinating with the project administrator to periodically review the folder structure and its usage. This ensures that the structure aligns with the project's requirements and can accommodate any potential expansions or updates that may arise.

Below is a table illustrating the proposed access levels for different project stakeholders:

Role & Parties		CDE Folder									
		01 Shared					02 Published				
		R	W	D	E	F	R	W	D	E	F
Client Representative	Hospital Authority Head Office & Resident Site Staff	✓	✓	✓			✓		✓		
Project Management Consultant	Ove Arup & Partners Hong Kong Ltd	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Architect	Wong Tung & Partners Hong Kong Ltd.	✓	✓	✓			✓		✓		
Civil & Structure Engineering	Meinhardt (C&S) Limited	✓	✓	✓			✓		✓		
MEP Consultant	WSP (Asia) Ltd.	✓	✓	✓			✓		✓		
Quantity Surveyor	Rider Levett Bucknall Limited	✓	✓	✓			✓		✓		
Main Contractor	China State Construction Engineering (HK) Ltd.	✓	✓	✓			✓	✓	✓		

\*\*\*R = Read, W = Write, D = Download, E = Edit, F = Full Folder Control

### 6.3 Design Authoring

All information shared within the project must be conducted using authorized Building Information Modeling (BIM) software for all BIM-related purposes, such as Revit used to model editing and Navisworks used to model review. The other specific software applications to be used for each BIM function are outlined in the Application Matrix, as referenced in Section 8.1 of the BIM Execution Plan (BEP).

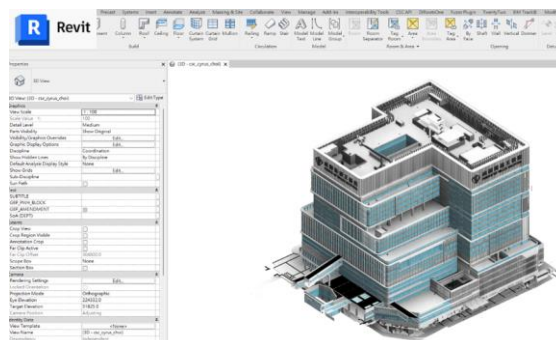


Figure 7. Capture of the Revit Software

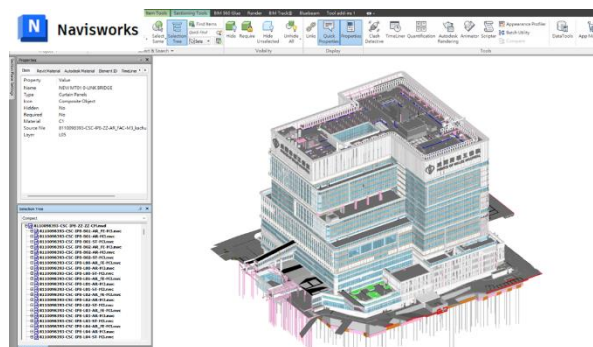


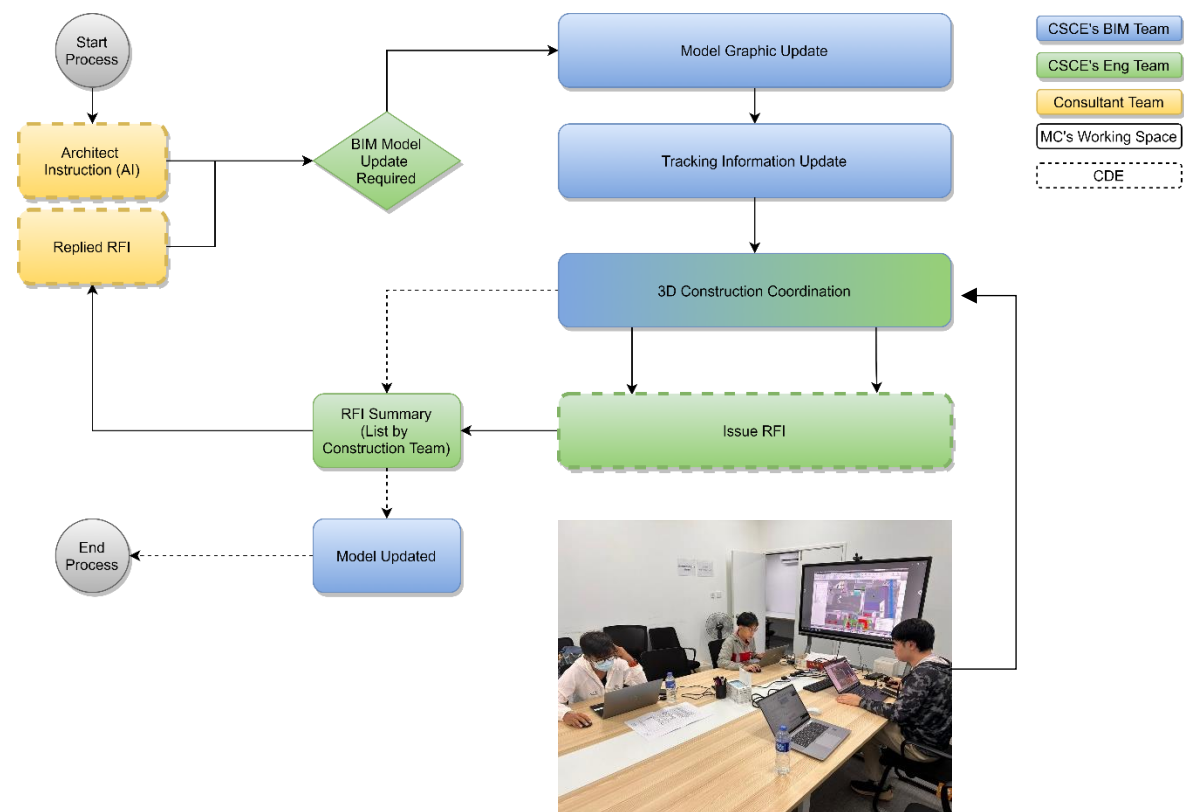
Figure 8. Capture of the Revit Software

### 6.4 Design Reviews

The federated BIM model will be generated in Navisworks format every Tuesday and Thursday and subsequently uploaded to Asite. This will enable the respective disciplines to review and provide comments on the model. A site coordination meeting is scheduled to take place every Wednesday, during which routine coordination progress and design issues will be reviewed using the Navisworks walkthrough environment. Additionally, a BIM Coordination Meeting will be held bi-weekly on Monday to discuss the overall BIM implementation progress and conduct a BIM walkthrough to review model development.

BIM walk-through sessions serve as a platform for conducting design reviews and discussing potential risks and identified design issues to improve constructability. When it comes to model federation, the responsibility of merging discipline-specific BIM models into the federated BIM model lies with the discipline BIM coordinator(s). These coordinators are also responsible for reviewing the status of model updates. In these walk-through sessions, the focus is on evaluating the design and addressing any concerns or problems that may arise during construction. The discipline BIM coordinators ensure that their respective discipline models are seamlessly integrated into the federated BIM model. They also monitor and review the status of model updates to ensure that the federated model accurately reflects the most recent changes made by each discipline.

The mechanism of update monitoring workflow by list and parameter in BIM model shown as below:



**Figure 9. BIM Model Development Workflow**

To further enhance the integration and quality control processes within the federated model, specific protocols are followed for clash detection and issue resolution. Among them, the room headroom and MEP items will be checked through clash detection, then generated in the form of visualized reports and layout plans for review, and reported to the project team during coordination meetings.

The BIM-generated Headroom Issue Report workflow and the preparation works shown as below:

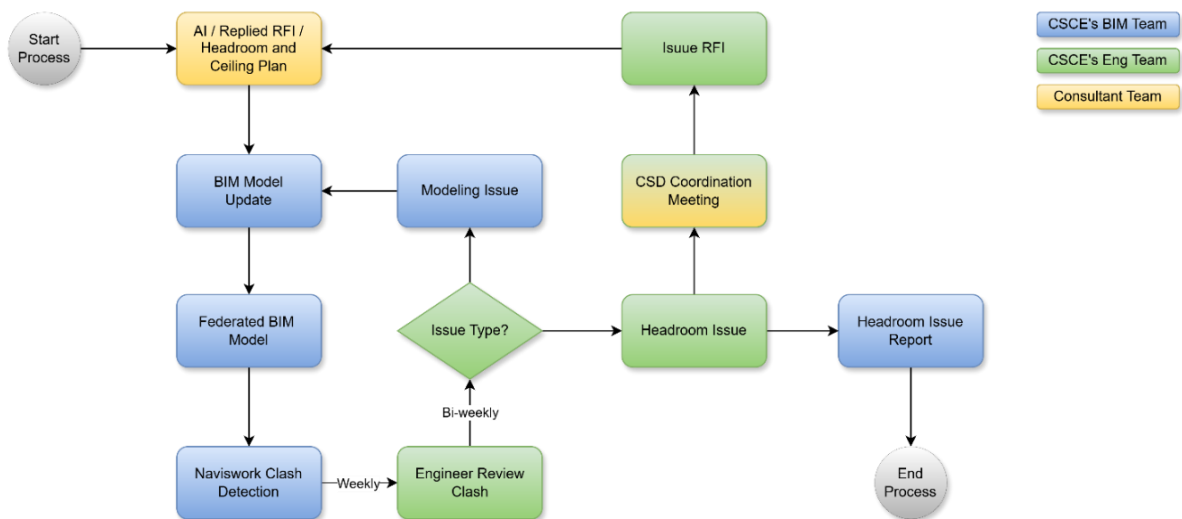


Figure 10. BIM-Generated Headroom Issue Report Workflow

In the model aspect, a "Room" space component will be generated in the model with its height determined based on AI, RFIs, and the Headroom and Ceiling Plan requirements, and the values will be recorded in the "Key\_Headroom Requirement" parameter.

After the model is updated, it will be exported as an NWD file, and clash detection will be performed using Navisworks' Clash Detection function. In the clash detection process, all components with values in the "Key\_Headroom Requirement" parameter and BS components will be selected for testing to identify any BS services below the headroom.

Engineers will review the result data, categorizing that requiring coordination with the project team from New (items newly detected this time) to Reviewed (Headroom Issue), while the remaining items will automatically be transferred to Active (Modeling Issue).

Modeling issues will be assigned to BIM Team for further model updates, headroom issues will record and compile statistics on the headroom issue items using Excel, and subsequently prepare the headroom issue report. These will be discussed with the project team during the CSD Coordination Meeting, and resolved issues will be recorded by issuing RFIs.

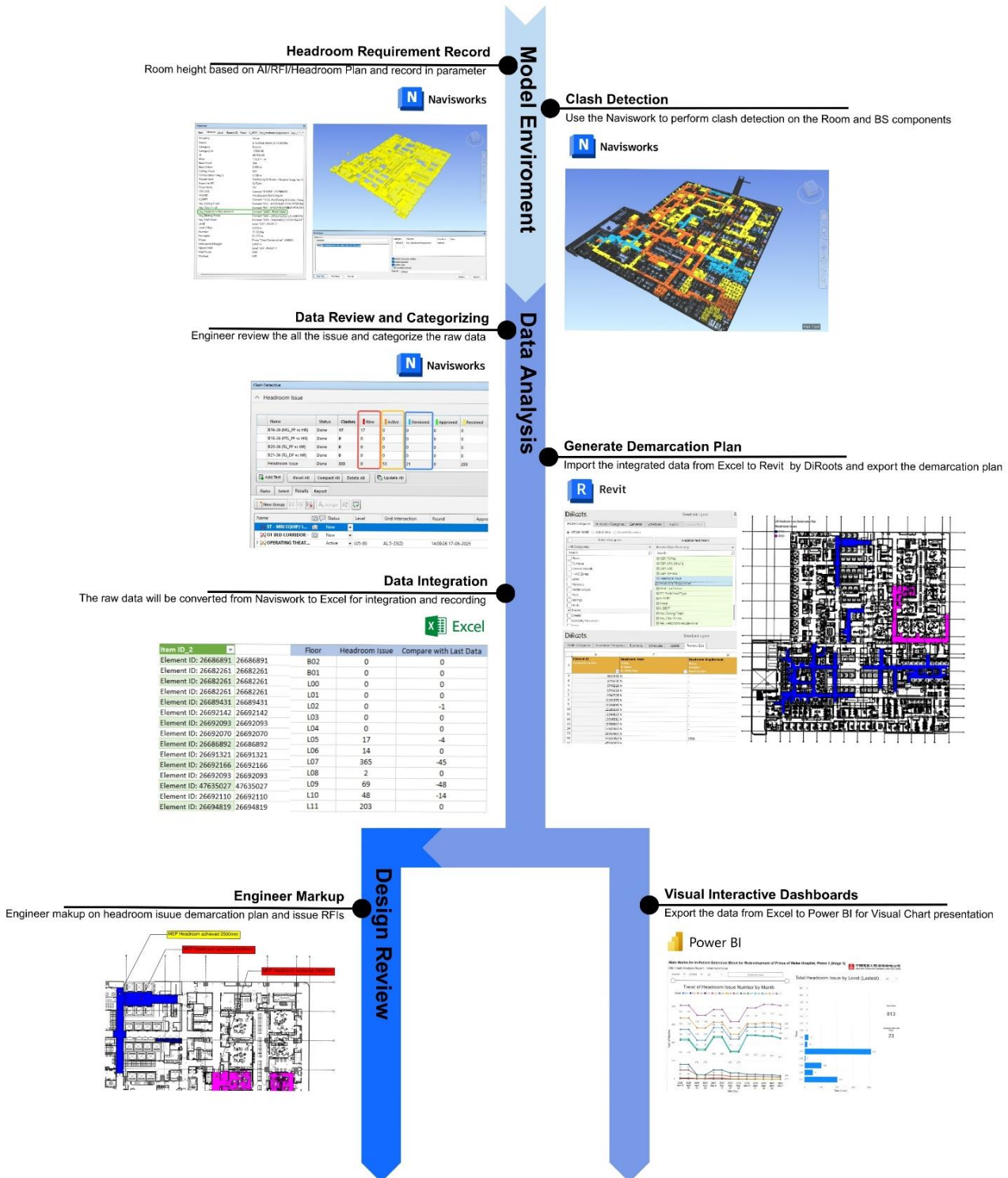


Figure 11. Working Process of BIM-generated Headroom Issue Report



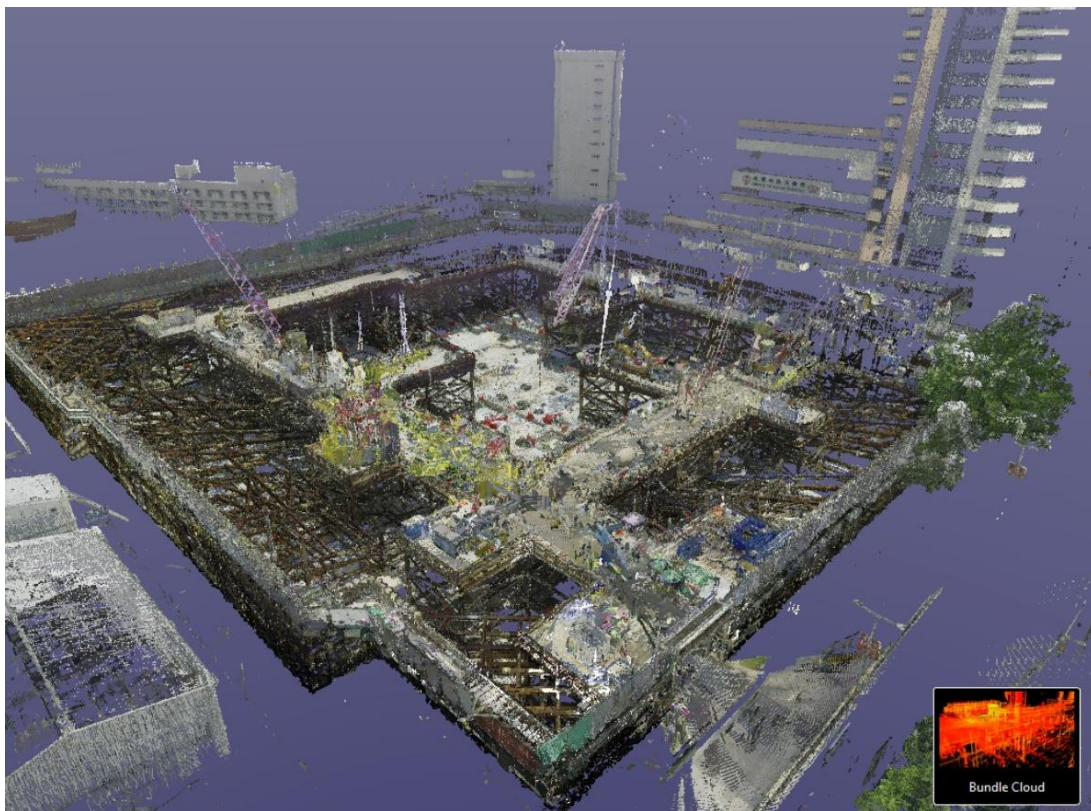
To enhance and improve the realism of the project, the mock-up area will be evaluated using Virtual Reality (VR) headsets. This assessment will focus on various aspects, including layout, sightlines, lighting, security, disabled access and egress, wayfinding, ergonomics, acoustics, textures, and color. Leveraging the virtual reality environment allows for faster visualization of spatial arrangements and more efficient decision-making processes.

## 6.5 Existing Conditions Modelling

BIM team will provide the existing condition model by 3D digital survey scanning to facilitate construction planning and verify as-built survey model by laser scanning as per below post-processing:

1. Leica Cyclone Register 360 will be used for point cloud registration and geo-referencing.
2. The registration mean absolute error and discrepancy of reference object shall follow the ESPG standard.
3. A report with the quality of point cloud includes overlap percentage and strength percentage in a certified registration report will be submitted.
4. The scan data shall be exported to .RCP, .RCS, .e57, .LAS, .PTS, .PTX format, depends on BIM team's requirements.

<u>Manufacturer</u>	<u>Model</u>	<u>Function(s)</u>
Leica	Register 360	Registration Geo-referencing
Leica	3DR	Data Editing and Noise Removal
Autodesk	Navisworks Freedom	Point Cloud and BIM Model Viewing
Autodesk	AEC Collection	Process and manipulate point cloud



**Figure 12. 3D Laser Scanning Point Cloud Model**

## 6.6 Drawing Generation (Drawing Production)

The discipline models or discipline shop drawings will be provided by the Task Team. Besides the general discipline drawings, the FPE drawings and design & build drawings had their own workflow which included the participation of other stakeholders in the production process. The BIM team will consolidate the design intent information into a federated model. This federated model will be used to conduct clash detection and design review. Any issues or clashes identified during this process will be reviewed by the engineering team. These concerns will be discussed during the weekly site coordination meeting, facilitating collaborative resolution.

Once the federated model has undergone the necessary reviews and clashes have been addressed, it will be considered finalized. This finalized federated model will then serve as the basis for generating the required drawings.

### General Drawings Production

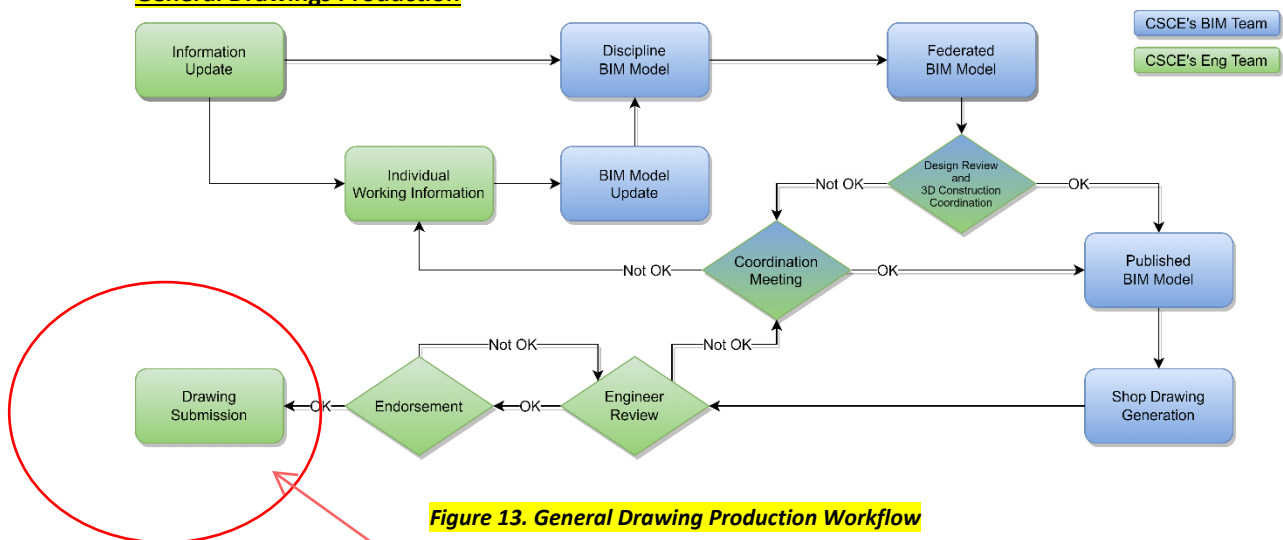


Figure 13. General Drawing Production Workflow

### FPE Drawings Production

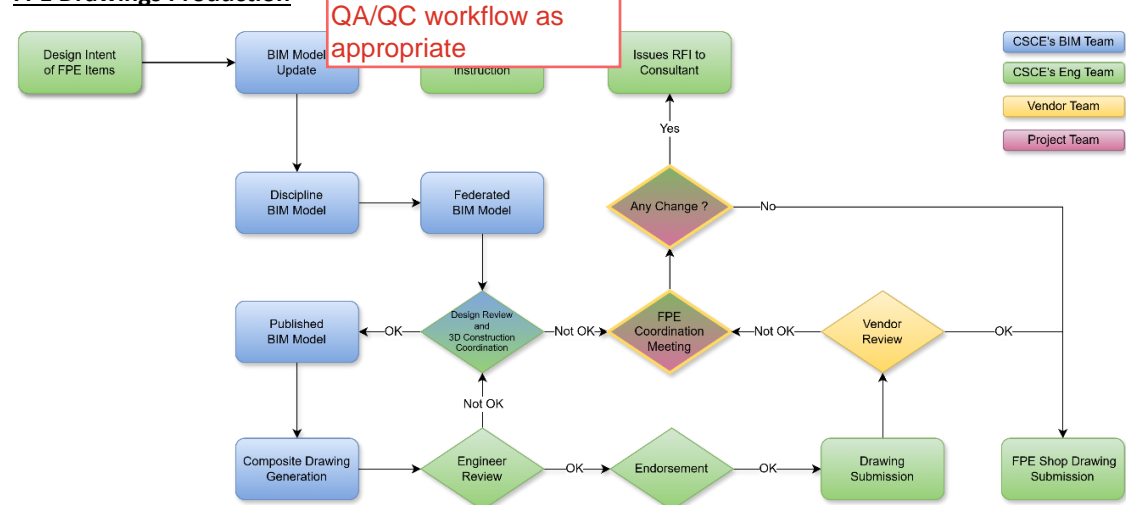


Figure 14. FPE Drawing Production Workflow

### Design and Build Drawings Production

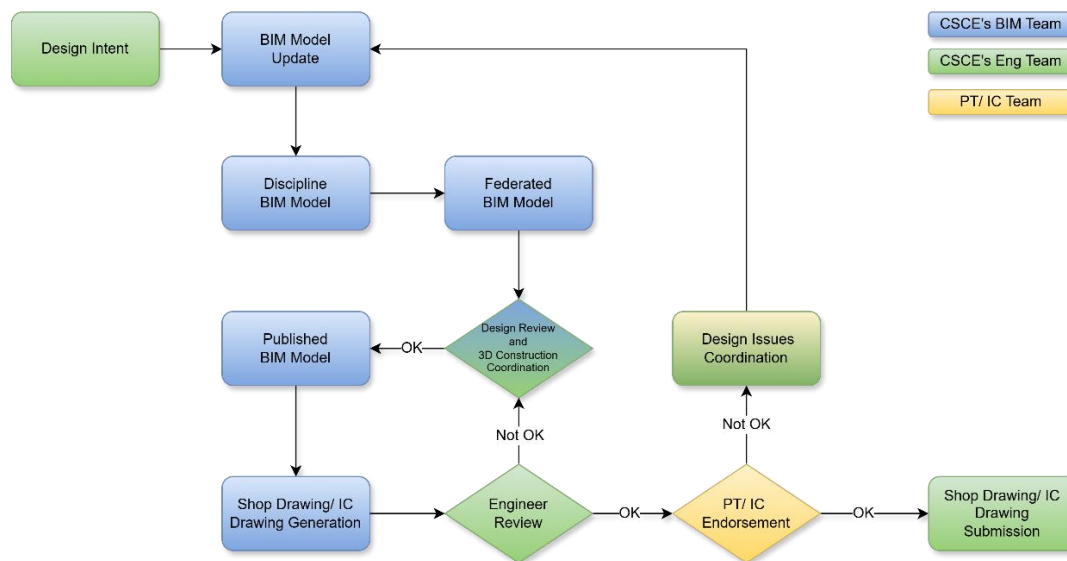


Figure 15. Design and Build Drawing Production Workflow

2D drawings generated from BIM models, such as layout plan; elevations and section. According to EIR, the following package will be generating from BIM models for review and approval:

#### For Statutory Submission

- Curtain Wall Plan;
- Application for Water Supply;
- Drainage Connection;
- Fire Service Inspection;
- License for Generator;
- Building Energy Efficiency Ordinance;
- License for Fresh Water in Evaporative Cooling Towers;
- Lift & Escalator Inspection;
- Electrical Installation Drawing;
- Transformer Room / LV Switch Room Inspection;
- Gas Installation;
- Medical Gas Installation

#### For Construction

- Combined Services Drawings (CSD);
- Combined Builder's Work Drawings (CBWD);
- Individual Services Drawings (ISD);
- Shop Drawings (SoA & FPE);
- Fabrication Drawings (Verified on Site) and
- **As-Built Drawings (Verified on Site)**

to supplement the workflow and QA/QC mechanism of production of As-built Drawings as appropriate, i.e., after installation and site verification - how the models would be updated and the as-built drawings would eventually be updated?

Drawings should be directly generated from the Building Information Model (BIM) as much as practicable. Likewise, any schedulable and taggable information should also be generated from the BIM as much as

practicable. The use of 2D authoring software should be limited only to making touch-ups related to presentation style and any non-schedulable or non-taggable information. Even in these cases where 2D software is used, the drawings should still be based on the BIM model.

To enhance productivity, the project has implemented an API for the CBWD production. This API allows for the automated generation of openings as mass objects within the drawings. These openings serve to indicate the necessary gaps or voids in walls where building services, such as pipes or ducts, will pass through. By utilizing the API, the process of creating and documenting these openings is streamlined, leading to improved efficiency and accuracy in the coordination of building services.

supplement, if appropriate, to ensure that if any 2D touch-up would induce changes to the model, such changes would be kept track and As-built BIM would eventually be updated.

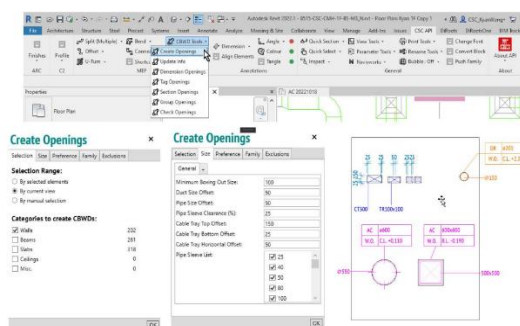


Figure 16. API for Drawing Workflow

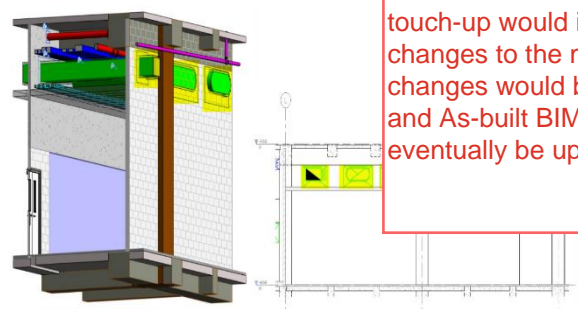


Figure 17. Opening Generation

To streamline the process of capturing and transferring opening information, related tags have been created and linked to the BIM model using shared parameters. This enables direct access to the opening information within the 3D environment. Additionally, this information can be visualized and seamlessly transferred to the 2D drawing presentation.

By implementing this approach, the project team can easily retrieve opening details from the BIM model, including dimensions, locations, and other relevant information. These details can then be accurately reflected in the 2D drawings, eliminating the need for manual data entry and ensuring consistency between the 3D model and the 2D documentation.

## 6.7 3D Construction Coordination

BIM Team will carry out clash analysis bi-weekly during the construction period based on the different BIM models created and updated at different stages in order to resolve all major system clashes prior to construction by identifying and resolving clashes among different disciplines as below diagram process.

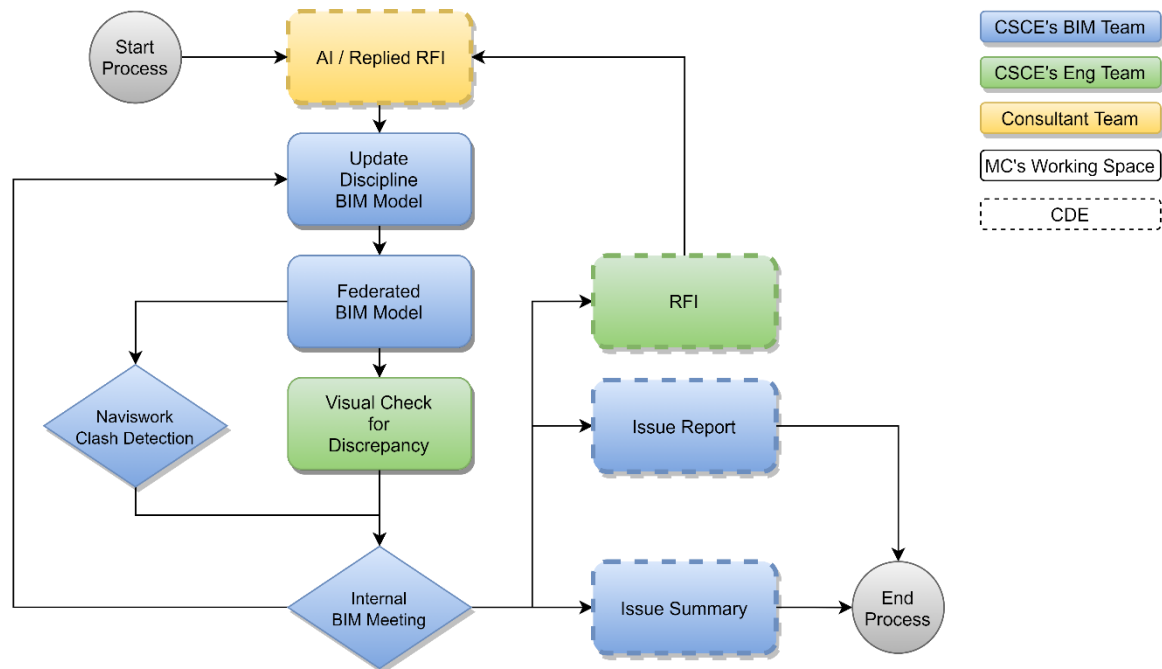


Figure 18. BIM Collaboration Process

A set of base BIM models will be built by the contract drawings and updated timely to assist the coordination among the architecture, structure, MEP systems, landscaping and external works & drainage during the contract period. And BIM Team proposes to use Autodesk Navisworks to run the clash detection and Engineer Team proposes to visual check the model to find out the potential issues, such as,

Use Autodesk Navisworks to run the Computational Clash Detection to find out:

- Two systems and components take up the same place or intersect
- Clear headroom of MEP services

Through Engineer Team Visual Check to find out:

- Access and working space of MEP system
- Working space for installation of MEP system
- Headroom and ceiling level
- Study constructability and installation sequence of building elements
- Building components missing or place unreasonable



### Computational Clash Detection:

Use Autodesk Navisworks to run

Death Detection

☐ A1-2 (CL vs WL)

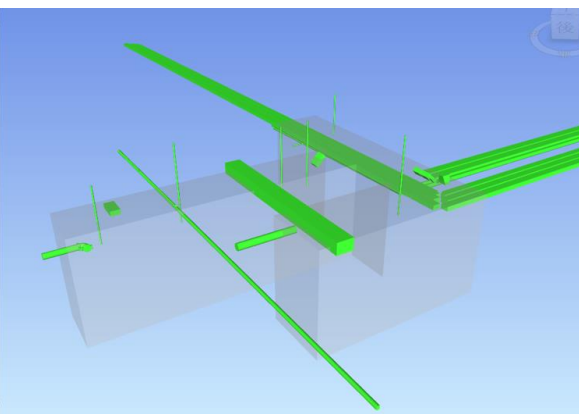
Last Run: 2024/10/16 11:40:11  
 Clashes: Total: 74 (Open: 14 Closed: 6)

Name	Status	Clashes	New	Active	Reviewed	Resolved
A2-23 HW vs DR_ML	Done	0	0	0	0	0
A2-25 HW vs R1_Dr	Done	134	134	0	0	0
A2-28 HW vs FL_FH	Done	59	59	0	0	0
A2-27 HW vs FL_EH	Done	18	18	0	0	0
A2-29 HW vs ML_EH	Done	94	94	0	0	0
A2-29 HW vs RT_ML	Done	0	0	0	0	0

Name	Status	Level	Grid Item	Found	Approved	Description	Assigned To	Dis...
System Pa...	New	LO0 (11)	AA13...	11-40:08 19-11-2024		Hard		
System Pa...	New	LO0 (7)	AA-30...	11-40:08 19-11-2024		Hard		
System Pa...	New	LO0 (10)	AA-5...	11-40:08 19-11-2024		Hard		
System Pa...	New	LO0 (8)	AA15...	11-40:08 19-11-2024		Hard		
Rectangula...	New	LO0 (5)	AA-15...	11-40:08 19-11-2024		Hard		
Clash1	New	LO0 (8)	AA1520...	11-40:08 19-11-2024		Hard		
Clash1	New	LO0 (9)	AA02-30...	11-40:08 19-11-2024		Hard		
Clash18	New	LO0 (10)	AA17-3...	11-40:08 19-11-2024		Hard		
Clash19	New	LO0 (9)	AA20-30...	11-40:08 19-11-2024		Hard		
Clash20	New	LO0 (8)	AA1-3...	11-40:08 19-11-2024		Hard		
Clash21	New	LO0 (8)	AA1-3...	11-40:08 19-11-2024		Hard		
Clash22	New	LO0 (8)	AA1-3...	11-40:08 19-11-2024		Hard		
Clash23	New	LO0 (8)	AA1-3...	11-40:08 19-11-2024		Hard		
Clash74	New	LO0 (1)	AA1-1...	11-40:18 19-11-2024		Hard		

☐ Transparent drawing  
☐ Auto Inset

☐ Simulation  
☐ Whole simulation

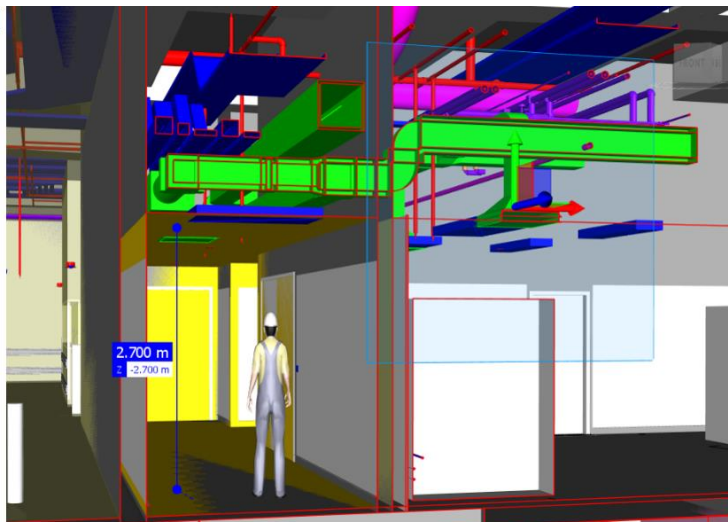


To review the

Selection Tree

Standard

- Rooms
  - VISITOR'S LIFT -
  - LIFT PIT -
  - FIREMAN'S LIFT LOBBY -
  - FIREMAN'S / BED / SERVICE LIFT -
  - STAFF / BED / SERVICE LIFT -
  - STAFF / BED / SERVICE LIFT -
  - STAFF / BED / SERVICE LIFT -
  - STAFF / BED / SERVICE LIFT -
  - FIREMAN'S / BED / SERVICE LIFT -
  - FIREMAN'S / BED / SERVICE LIFT -
  - STAFF / BED / SERVICE LIFT -
  - H.R. -
  - FAN RM -
  - BST-11 -
  - FIREMAN'S LIFT -
  - LIFT PIT -
  - FIREMAN'S / BED / SERVICE LIFT -
  - VISITOR'S LIFT -
  - EL ROOM -
  - BST-07 -
  - EL DUCT -
  - MG -
  - EL DUCT (B02 TO L02) -
  - BST-04 -
  - EL DUCT S5 (B02 H/L TO L02) -



The identification of issues within the BIM model during the coordination process is facilitated through the utilization of BIM Track for 3D construction coordination. The BIM Track workflow for 3D construction coordination as below shown.

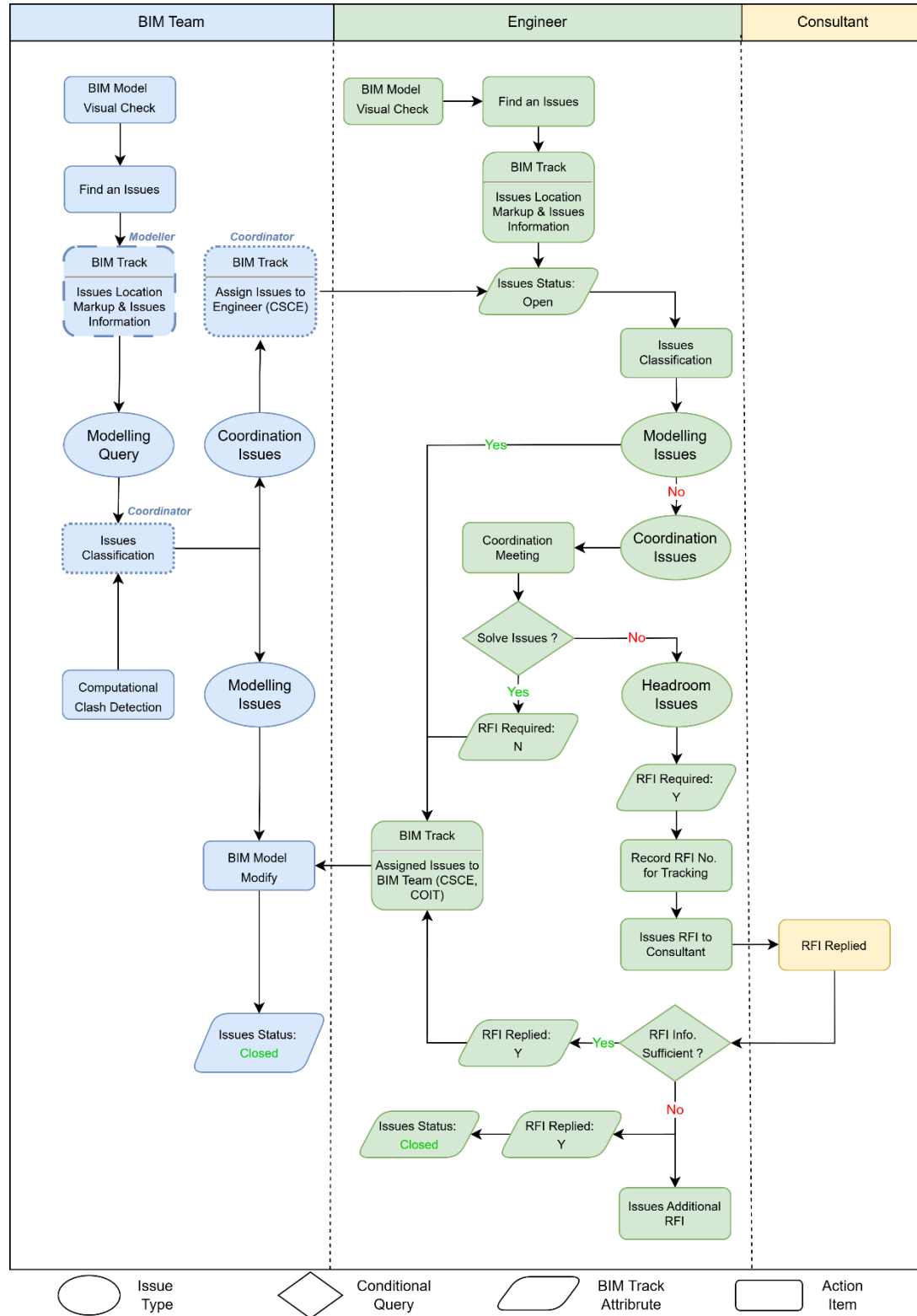


Figure 21. BIM Track Workflow



In Figure 17, three types of issues are defined. These issues are identified through various processes, including walkthrough sessions, daily internal reviews, and clash detection conducted by Engineers and BIM Coordinators. Once identified, the issues are classified by Engineers into type: "Modelling Issues", "Coordination Issues" and "Headroom Issues". Moreover, the issues are further classified by Engineers into two statuses to indicate the progress of the issues: "Open" and "Closed."

<b><u>Categories</u></b>	<b><u>Definition</u></b>
Modelling Issues	These issues arise when the model elements are incomplete or inaccurate, leading to conflicts and inconsistencies. For instance, the size of elements might not meet the required LOD or certain elements may be missing.
Coordination Issues	These issues occur when there are clashes between different disciplines due to a lack of proper coordination.
Headroom Issues	Headroom issues arise when there is insufficient headroom requirement. In such cases, the design intent may not be having enough space for MEP system or the structural headroom within the BIM model.

<b><u>Status</u></b>	<b><u>Definition</u></b>
Open	When the issues are mentioned into BIM Track whether it is Modelling issues, coordination issues or design issues. That will be classified in this status before the issues have request RFI or solved.
Closed	When the issues are solved, and there have sufficient information for BIM team update the BIM model information and modifications.

The platform allows tracking of modeling and coordination progress through various issue attributes, including priority, assigned to, team involved, level, discipline, RFI Required, RFI No., and RFI Replied. These attributes enable engineers and BIM Team to manage participants effectively and filter issues on the platform.

For instance, engineers can use the team involved attribute to identify which issues require further coordination. They can also filter by the level to assess how many issues may impact construction progress. Issues are classified as high-priority when they require immediate attention. Additionally, there are RFI Required, RFI No., and RFI Replied attributes helping engineers track the status of issues in the coordination process and the outcomes associated with them.

By utilizing these attributes, teams can enhance their issue management capabilities and improve overall project efficiency.

## Main Works for In-Patient Extension Block, Phase 2 (Stage 1)

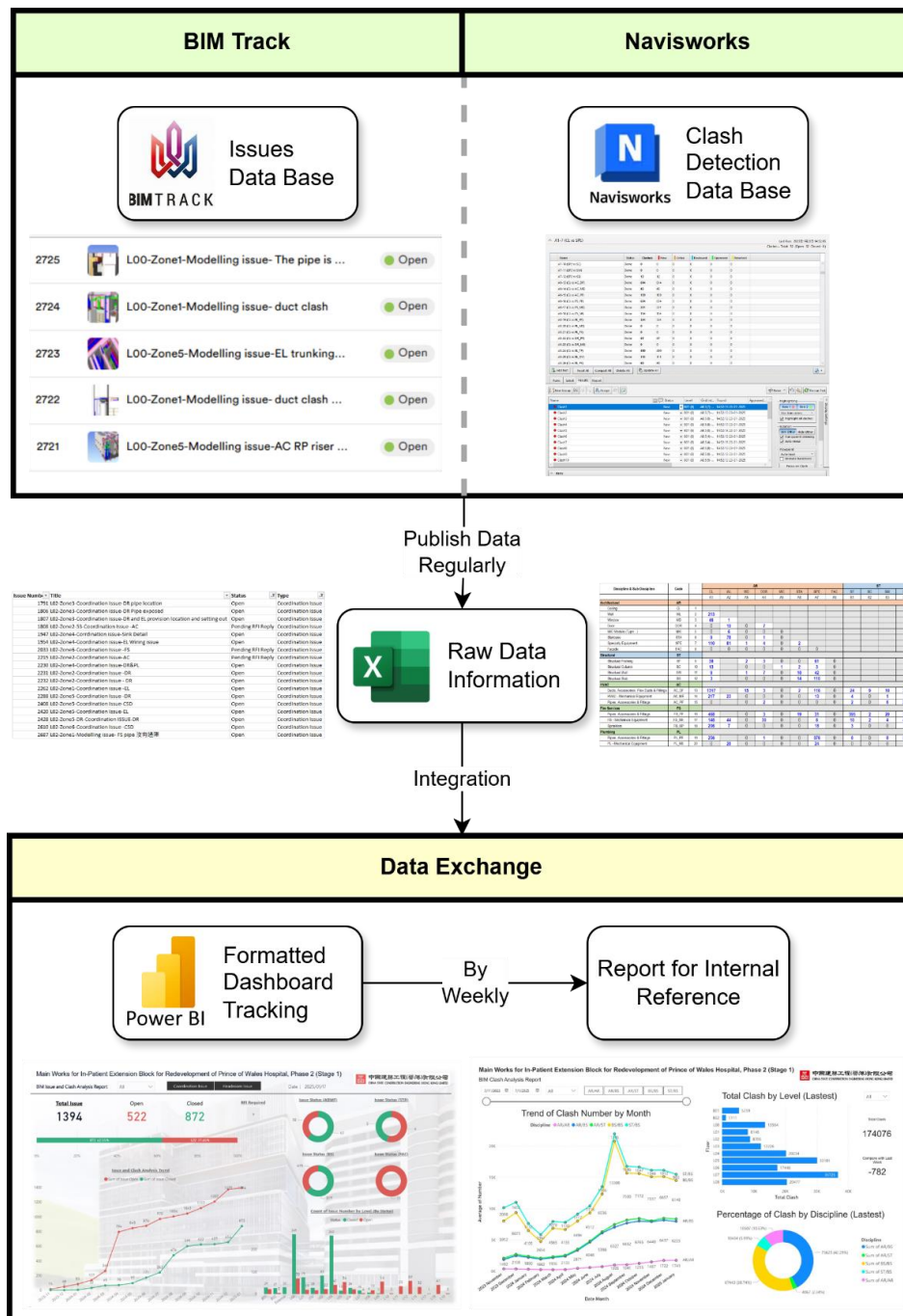


Figure 22. Data Exchange of BIM Track

Whether of the Computational clash detection and BIM track outcome data, BIM team can integrate the published raw information data from BIM track and Navisworks platform to generate an Issue dashboard for easy understanding, its containing pertinent field information regarding the identified issues to tracking issues progress by line graph, in turn, is seamlessly integrated with intelligent tools to facilitate a comprehensive and concise summary analysis of the identified issues.

## 6.8 Cost Estimation / 5D Modelling

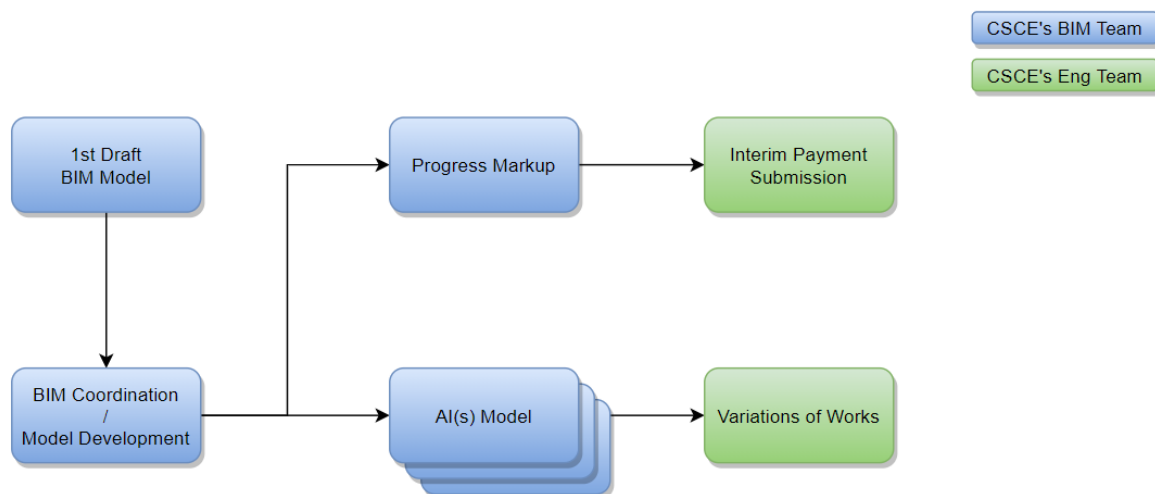
The BIM model will be enhanced to support project cost control, interim payments, and cost evaluations for work variations. This will enable better financial management and oversight throughout the project, ensuring effective tracking of expenses and budget variations.

To facilitate project cost control, the proposed approach involves using the frozen model version of the 1st draft BIM model as the baseline.

To facilitate interim payments, the 5D progress BIM model will be used with record of work done tracked, serving as a reference for verification. The submission of the 5D progress BIM model will include a detailed list of extracted quantities for model elements.

To evaluate the cost implications of work variations, a new model will be created for each change specified in the Architect's Instruction (AI). The BIM model will incorporate the new or modified elements or objects, with each assigned a parameter indicating the corresponding AI number. This approach allows for clear indication and identification of the changes within the BIM model for accurate cost assessment.

The diagram below illustrates the overall 5D BIM process:



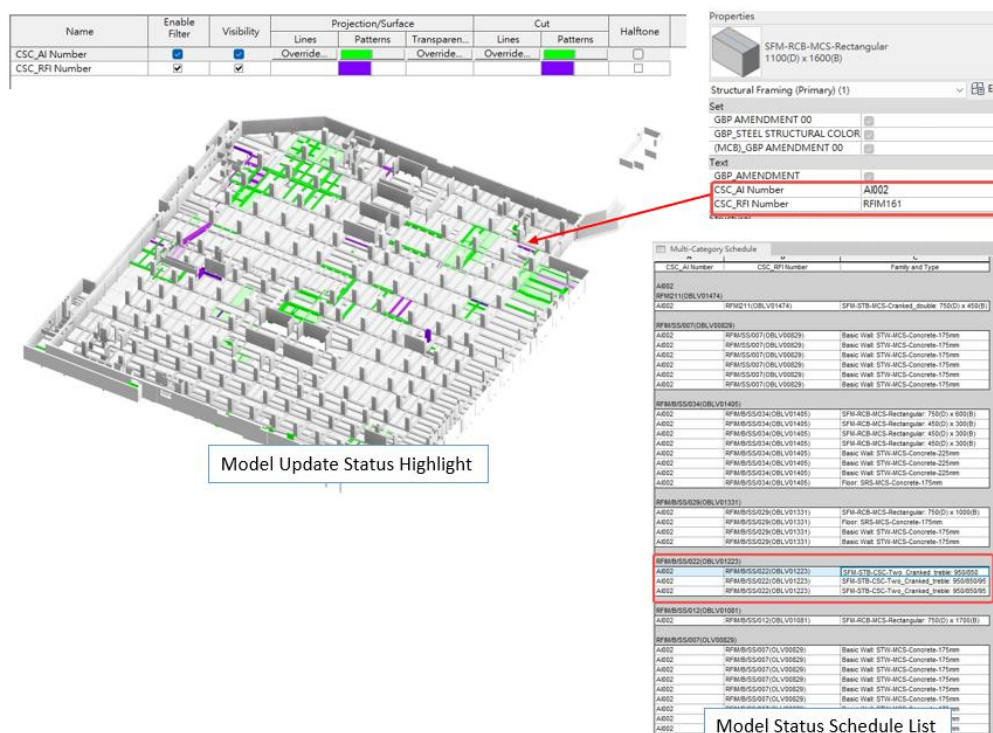
**Figure 23. 5D BIM Process**

Addition information to show the overall 5D BIM process how to implementation with BIM Model:

### **AI(s) Model variations work:**

BIM model had created a parameter to record the elements information is based on which AI version, the elements information will be updated while the AI drawings have any design change.

### Main Works for In-Patient Extension Block, Phase 2 (Stage 1)

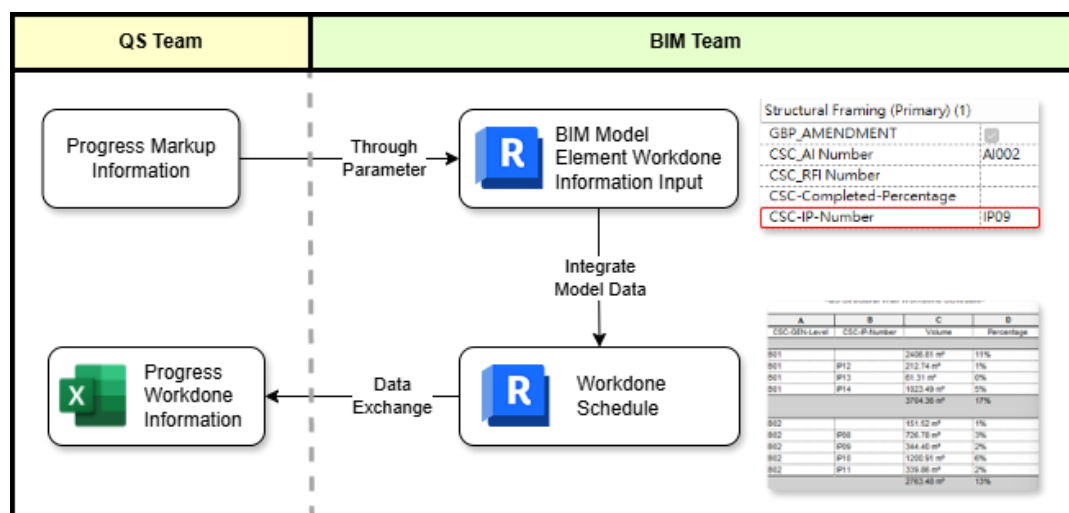


**Figure 24. Parameter for AI information tracking**

**Progress Markup for Interim payments:**

To facilitate interim payment model for 5D implement, progress markup information will provide by contractor's quantity surveyor on the end of month. the progress markup has sufficient information to show which zone/ area have completed and the planning schedule.

The progress information will be incorporate into the BIM model with parameter of each element to record the progress work done information. Integrate the information to generate a work done schedule by each interim payments through BIM Model.



**Figure 25. Interim Payment Workflow**

## 6.9 Engineering Analysis

The BIM team facilitates the engineering analysis of Modular Integrated Construction (MiC). The steel framing BIM model will be developed and updated by the BIM team based on the design drawings provided by the designer and established through SAP2000 for engineering analysis, following the workflow outlined below.

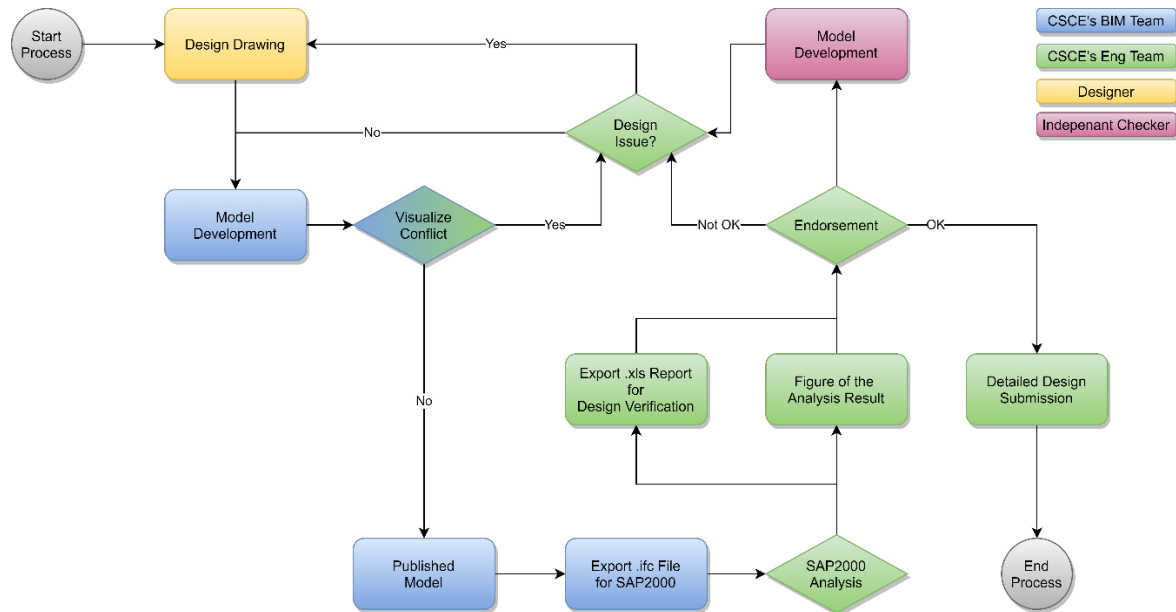


Figure 26. Engineering Analysis Workflow

The engineer efficiently the structural analysis model in SAP2000. The analysis model is used to explore and validate the design scheme. Corresponding calculations are performed to ensure the structural stability and safety of the MiC framework.

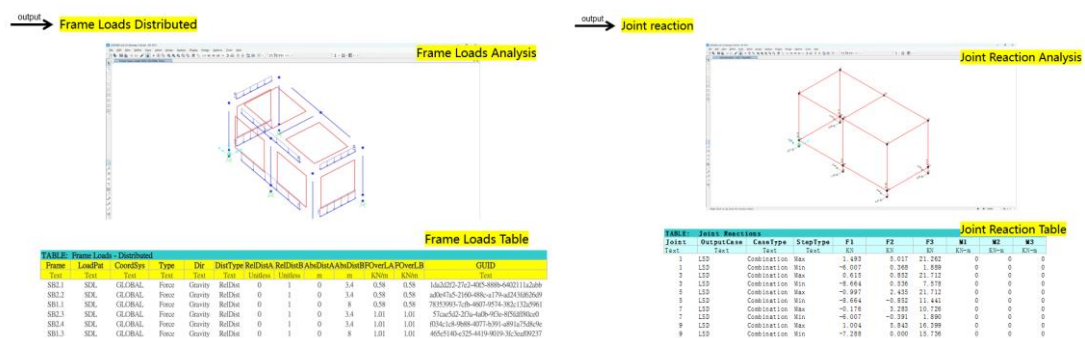


Figure 27. Engineering Analysis for MiC Load

output → other Analysis output

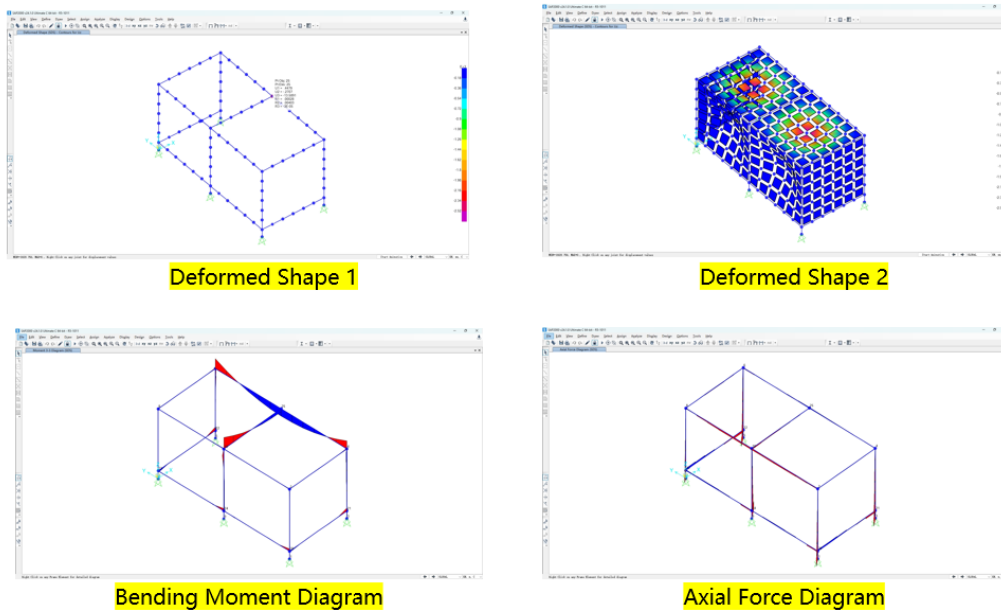


Figure 28. Adoption of Engineering Analysis for MiC

## 6.10 Facility Energy Analysis

(To be further developed)

In order to enhance the optimization of the contractor's design items, the CSCE BIM team will be responsible for providing the essential building elements and associated attributes through the BIM model. The specific items required for the analysis will be updated once the subcontract specialist has confirmed their selection.

## 6.11 Sustainability Evaluation

(To be further developed)

To ensure the adoption of Building Information Modelling (BIM) for the purpose of achieving sustainability assessment, it is the responsibility of the CSCE BIM team to provide the necessary building elements and their corresponding attributes through the BIM model.

## 6.12 Phase Planning (4D Modelling)

To optimize the project schedule and avoid conflicts before construction, we will provide 4D BIM Simulation which may be include but not limited to the following items:

- Establish relationships between the programme and sequence of construction activities including the delivery of material and equipment to be carried out during the construction,
- Demonstrate the Contractor's works sequences,
- Identify potential time and spatial conflicts,
- Optimize the use of critical resources,

- Enhance safety requirements and construction process control,
- Minimize disturbance to the neighborhood,
- Better co-ordinate with affected parties and resolved interfacing issues at early stages,
- Monitor procurement status of project materials.
- Facilitate the preparation of Financial Model

Based on the aims mentioned, the following is a suggested strategy for adopting 4D Building Information Modeling (BIM) during the project period:

Type	Description	Frequencies
Phase Planning	Compare between planned and actual work progress and review the updated construction programme	Bi-weekly,
Detail 4D Simulations	Regarding major or complicated site process and method statement submissions	By Employer of Architect Request
Integrated Construction Activities	Identify the critical path, establish relationships between the programme and sequence of construction activities and logistic	By updated construction programme

These measures have been implemented to enhance the visual representation of the simulation and effectively communicate the project timeline and construction sequencing. By utilizing Fuzor and incorporating these enhancements, our goal is to create a precise and informative 4D simulation that improves project understanding and facilitates decision-making. To promote effective collaboration, the updated 4D simulation will be uploaded to the CDE for sharing among all project stakeholders. The 4D BIM collaboration process is outlined as follows:

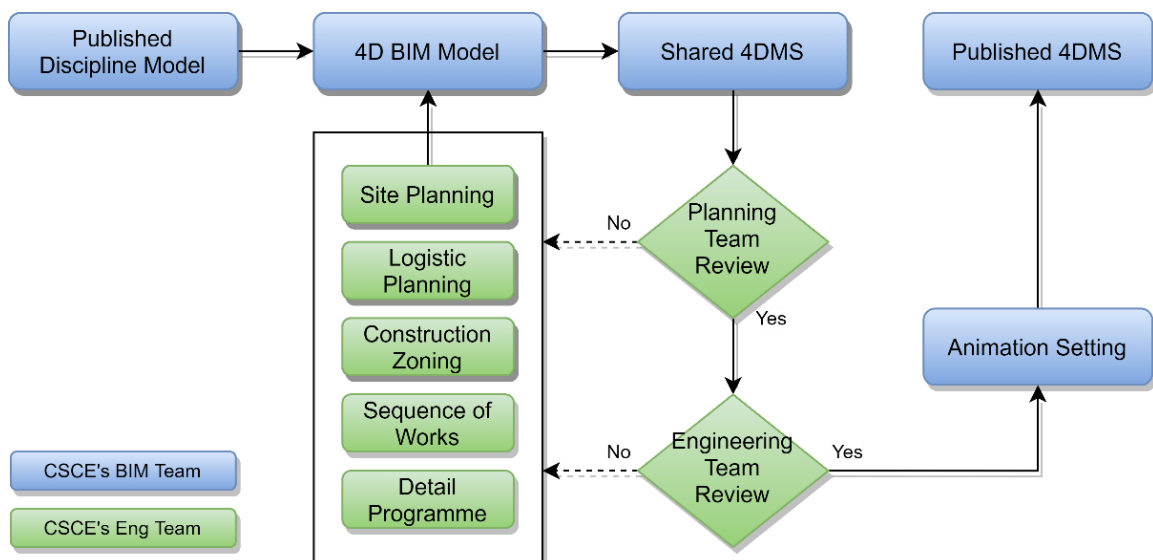
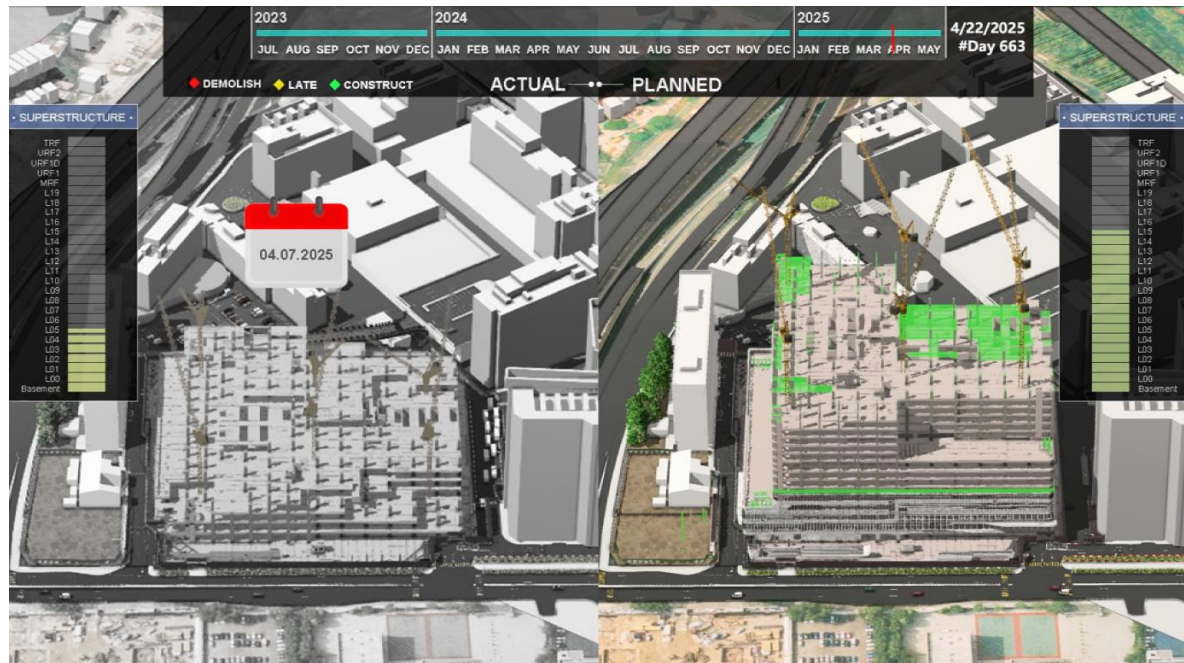


Figure 29. 4D BIM Simulation Process



Fuzor is the chosen software for developing a 4D simulation. It will be regularly updated to incorporate revisions to the WIP models and changes to the contractor's program. The 4D simulation will visually depict the planned versus actual progress of construction, demolition, and any delays. It provides valuable insights for clash detection, optimization of schedules, resource allocation, and decision-making.



**Figure 30. Planned vs Actual Works Progress**

The 4D simulation will utilize the 4D Method Statement (4DMS) for logistic planning and sequencing of works, enabling a visual representation of constructability. This approach allows for a comprehensive understanding of the construction process, showcasing how different activities are scheduled and coordinated over time. By incorporating the 4DMS into the simulation, stakeholders can gain valuable insights into the project's timeline, identify potential clashes or bottlenecks, and optimize the overall construction workflow.

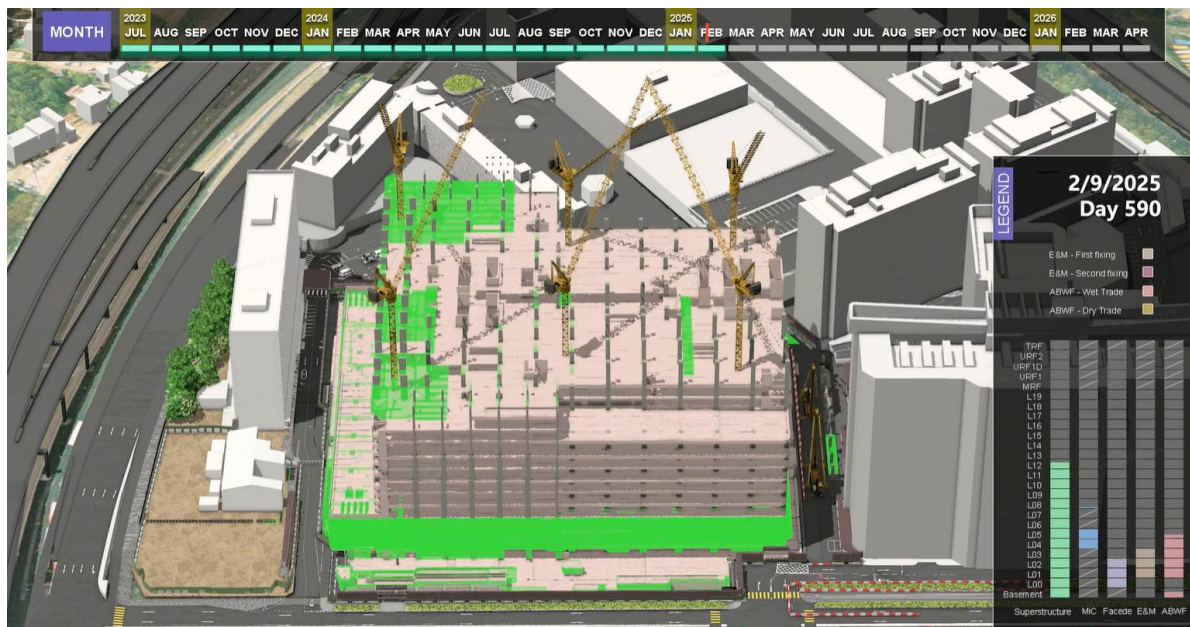


## Main Works for In-Patient Extension Block, Phase 2 (Stage 1)



**Figure 31. Detail 4D Simulation**

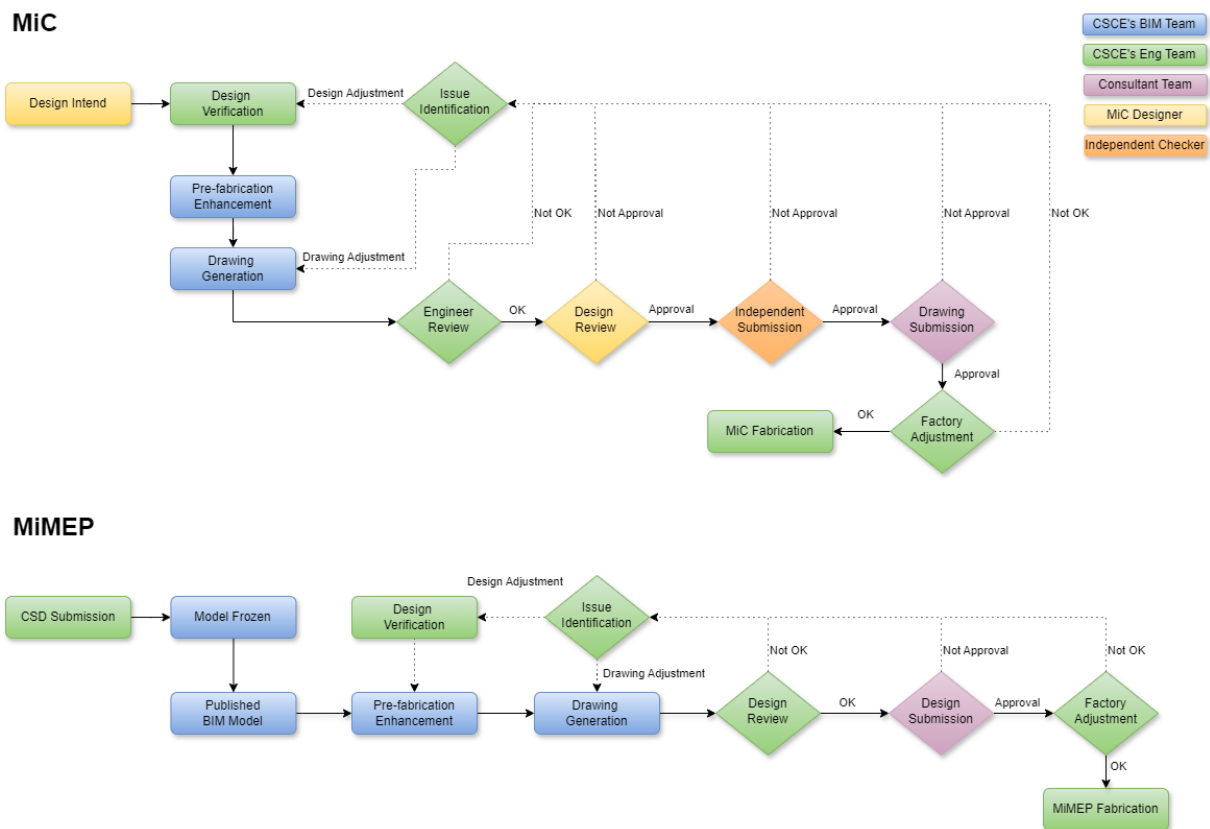
4D modeling is another approach to phase planning that allows the master programmer to visualize the overall construction sequence and the relationships between different construction activities. This includes activities like concreting, prefabrication, and building services installation. The 4D model can also be used to generate project budget forecasts based on the construction timeline.



**Figure 32. Integrated Construction Activities**

## 6.13 Digital Fabrication

Through BIM, accurate planning and coordination of pre-fabricated components can be achieved, reducing material waste and maximizing resource efficiency. The detailed information provided by the BIM model allows for precise material quantity calculations, minimizing excess inventory and waste. Pre-fabrication adopted Modular Integrated Construction (MiC), multi trade intergrated MEP (MiMEP) and Design for Manufacture and Assembly (DfMA) technology on construction stage. The components of both MiMEP and MiC are directly sourced from the BIM model, employing innovative methods to integrate MiC and MiMEP component data into detailed fabrication drawings. This data includes dimensions, shapes, and geometries of MiC and MiMEP components, significantly enhancing the efficiency and accuracy of construction procedures. The diagram below illustrates the BIM fabrication process:



**Figure 33. Digital Fabrication BIM Model Process**

In BIM methodology, Modular Integrated Construction (MiC) and multi-trade integrated MEP (MiMEP) are created by the assembly function, with assembly naming identified by the Modular Integrated Construction (MiC) number and MiMEP (Module Identification Code) number. As a MiC assembly unit, it is for organizing and managing complex elements in off-site fabrication. It facilitates accurate representation in document information during design review. Moreover, any information regarding the assembly of MiC and MiMEP can be integrated and accessed through an interactive hyperlink associated with a QR code. The QR code can be embedded within the MiC and MiMEP assembly units during fabrication. This feature facilitates easy access to MiC delivery information, ensuring effective synchronization between on-site operations and the BIM model.

## Main Works for In-Patient Extension Block, Phase 2 (Stage 1)

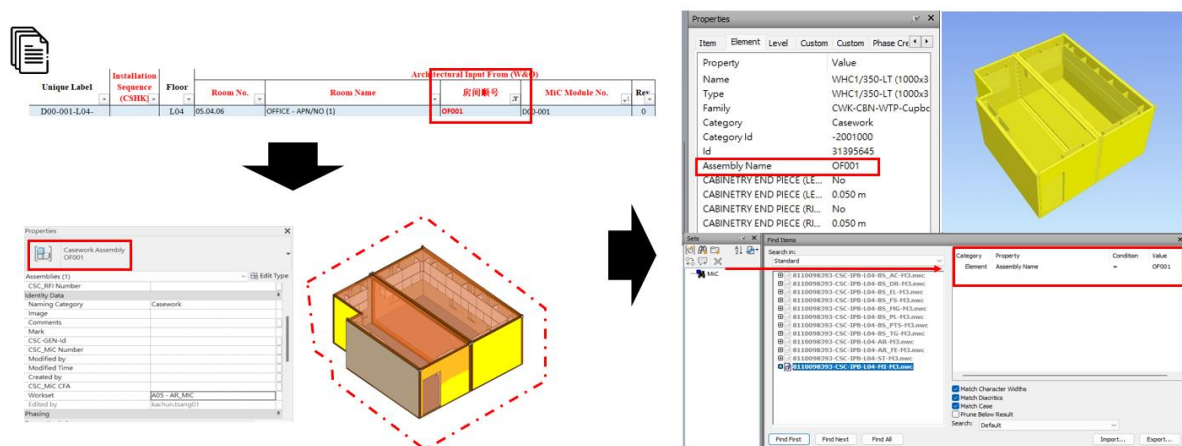


Figure 34. Model Methodology of Digital Fabrication (MiC)

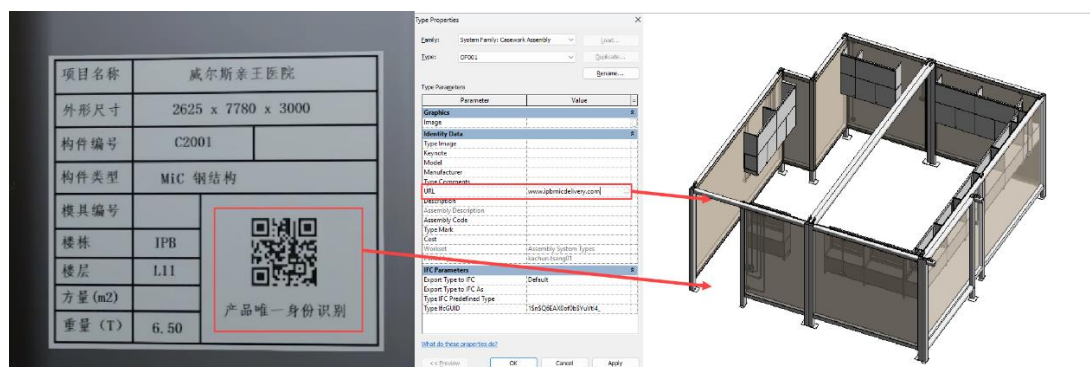


Figure 35. Information interactive between QR code in MiC Module and Hyperlink in BIM Model

Furthermore, multi-trade integrated MEP (MiMEP) combines all MEP systems and support frame. It includes pipe and duct information within the modules and maintains continuity. This enables easy placement of fully assembled units, facilitates coordination with MEP systems, and allows for accurate scheduling and ordering of prefabricated units.

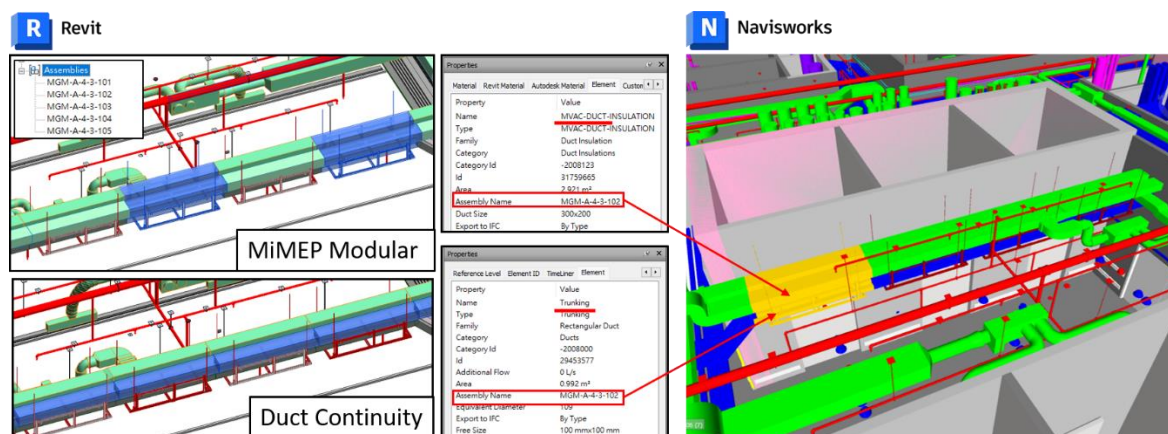


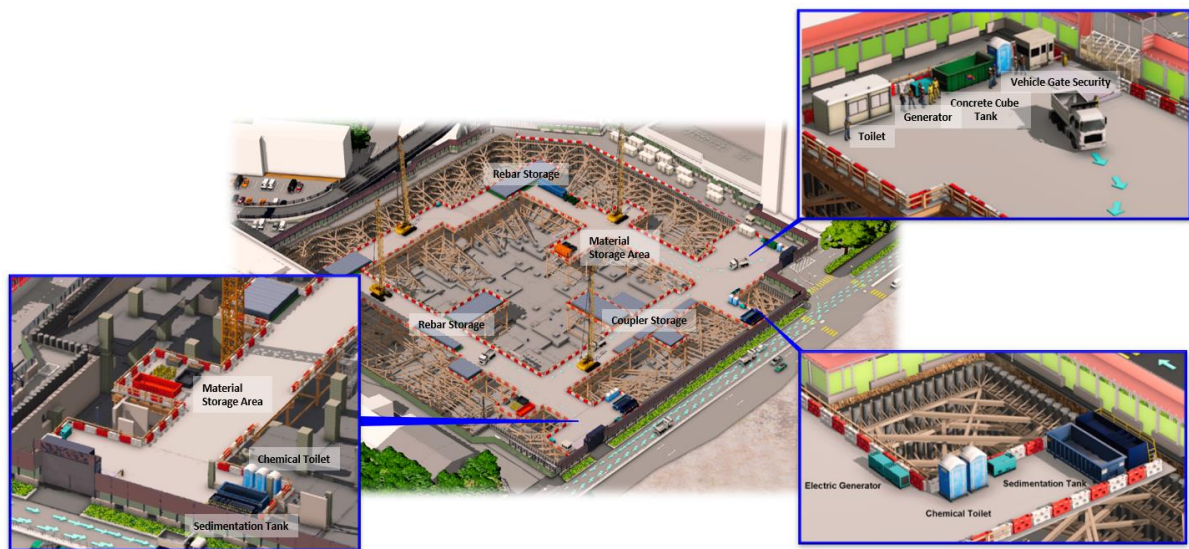
Figure 36. Model Federation of Digital Fabrication (MiMEP)



## 6.14 Site Utilization Planning

The 4D model will include the transportation paths of construction plant and equipment, demonstrating the effectiveness and efficiency of site logistics arrangements. Additionally, all temporary works and the Contractor's proposed method statements will be modeled to showcase the feasibility and constructability of the intended approach.

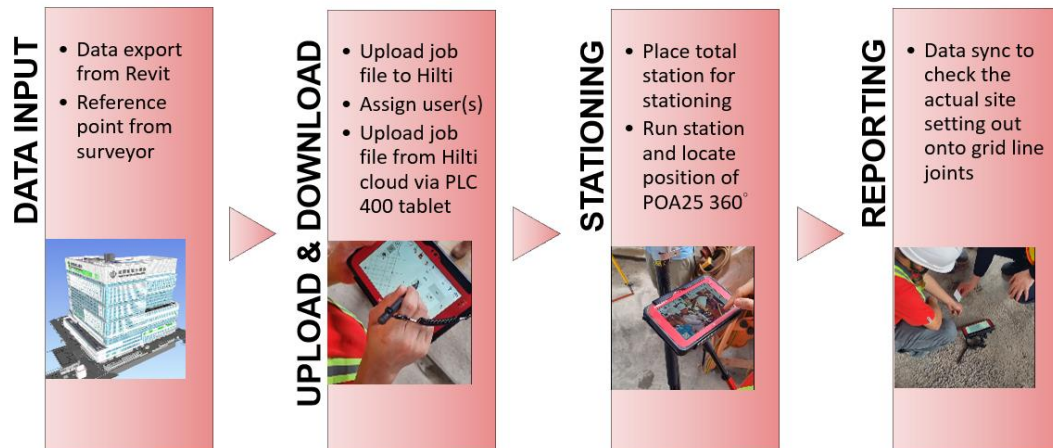
Throughout the construction stage, Site Utilization Planning will undergo continuous review and updates in conjunction with the 4D model, based on input from the site team and engineers. This process will primarily focus on activities with high to extreme risk levels or as determined suitable by the Employer or Project Manager.



**Figure 37. Site Utilization Planning by 4D BIM Model**

## 6.15 3D Control and Planning

The Hilti Advanced Layout Systems – PTL 300 is employed to accurately position and mark features depicted in a BIM model directly on the construction site. This equipment allows the BIM team to implement the concept of BIM-to-Field by utilizing layout points generated from the BIM model. These layout points can then be used in the field, enabling the BIM team to achieve 3D control and planning in BIM implementation. The process of BIM-to-Field by Hilti Advanced Layout System as below shown.



**Figure 38. BIM to Field of 3D Control and Planning Process**

This technology is used for quality checking between the construction site and the BIM model. It detects any differences or tolerances and alerts the BIM team. This ensures consistency and helps maintain high-quality standards throughout the construction process. This implementation has been selected on B01 for demonstrate the required BIM use.



**Figure 39. Stationing Demonstration of 3D Control**

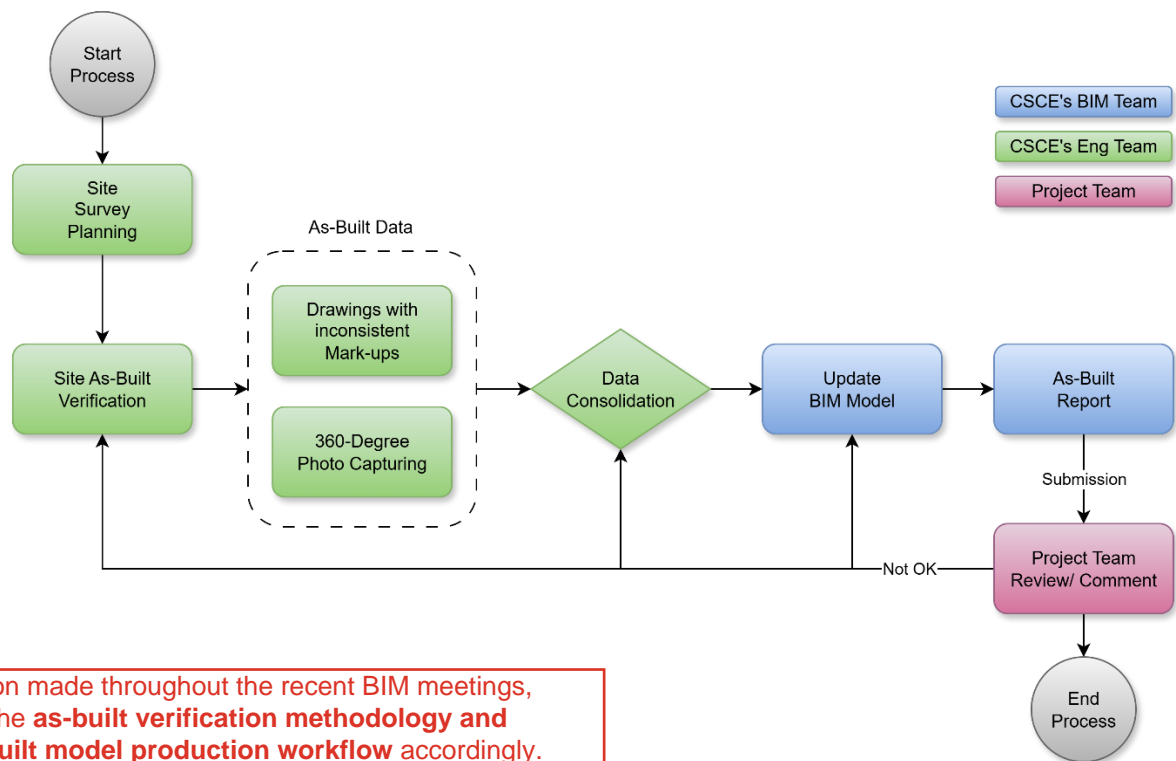
## 6.16 As-built Model

To ensure the verification and updating of as-built BIM models, advanced technologies of 360-degree photos are endorsed. The process involves capturing 360-degree photos to generate a free angle photographs data that represents the current site conditions. The capturing will be carried out in three main stages: "Before MEP Installation", "After MEP Installation" and "After Ceiling Installation".

Architectural and Structural drawings generated from BIM Model and used for site construction works. Regarding the drawings to select the specific areas and rooms for 360-degree photo capturing will be identified and consolidate with the site setting out by engineer team. This data is then compared and aligned with the as-built BIM models to validate their alignment with the physical site.

After the updating of the as-built BIM models, the 360-degree photos, the site setting out mark-up drawing and the model views capture will be illustrated as a as-built report for validation proof to confirm the consistence. That as supplementary sources of information to provide additional visual documentation that aids in referencing and verifying the consistent of the models between physical site.

The As-built BIM process as illustrated in the accompanying diagram:



as per discussion made throughout the recent BIM meetings, please update the **as-built verification methodology and proposed as-built model production workflow** accordingly.

Please ensure to give sufficient details, including but not limited to the followings,

- proposed overall workflow and method being adopted
- device(s) to be utilized, and corresponding specifications / testing examples to demonstrate sufficient information (with acceptable accuracy) could be provided
- proposed frequency to carry out the said as-built verification method (i.e., 3 times minimum per area - Before BS first fix, before ceiling concealment and after completion)
- As-built verification report samples

As-built BIM Process

The as-built BIM model package for handover may include the following:

- Room Data Sheets;
- Door Schedules;
- Ironmongery Schedules;
- Window Schedules;
- Access Panel Schedules;
- Shutter Schedules;
- Cat ladder Schedules;
- Louvre Schedules;
- Sanitary Fitment Schedules;
- Signage Schedules;
- Roofing System;
- Fixture, Furniture and Equipment (including Medical Equipment) Schedules;
- Comprehensive materials data sheet list and completed materials/equipment warranty list, material suppliers list and contact information;
- Other textual information subject to agreement of AM and Facilities Upkeep at later stage;
- As-built BIM models and 2D drawing files for building services installation;
- Export data files, if any;
- Library storing the building services objects;
- Testing and Commissioning reports;
- Operation and Maintenance manuals;
- Relevant statutory certificates, approval documents and forms (e.g. Buildings Department, Planning Department, Lands Department, Water Supplies Department, Fire Services Department, Electrical and Mechanical Services Department, etc);
- For structural model, concrete grade, steel grade should be input into as-built model. Also, information of connection bolt and nuts from catalogue should also be included; and
- Other relevant project information as required.

## 6.17 Project Systems Analysis

To measure how a project performs compared to the design specifications, in order to ensure the project is operating according to the specified design and sustainable standards.

The BIM Team shall create and input the project's systems performance-related attributes (such as room parameters) in the BIM model (Revit parameters). It should also input or update the room inventory list data (Building Services) into the parameter data field, which serves as a data container for recording, storing, and exchanging the necessary information.

## **6.18 Maintenance Scheduling**

(To be further developed)

During the project handover stage, the maintenance scheduling process should adhere to the Asset Information Model (AIM). The main contractor is responsible for submitting the AIM, which includes the built assets along with their maintenance attributes, during the project closeout. These attributes encompass various aspects such as maintenance cost, expected lifetime, mean time between failures, warranty start and end dates, maintenance parties involved, and more.

However, the inclusion of maintenance attributes in the AIM is subject to the AIR confirmation by the Employer or Project Manager. The confirmation of these attributes is currently pending their decision. It is crucial to periodically review and update the Building Execution Plan (BEP) to reflect any changes or updates related to the AIM's maintenance attributes.

## **6.19 Space Management and Tracking**

All the constructed assets using the as-built BIM to assess, manage and track spaces and associated resources within a project.

The BIM Team shall create and input the space management-related attributes (such as room parameters) in the BIM model (Revit parameters). It should also input or update the room inventory list data (Architectural) into the parameter data field, which serves as a data container for recording, storing, and exchanging the necessary information.

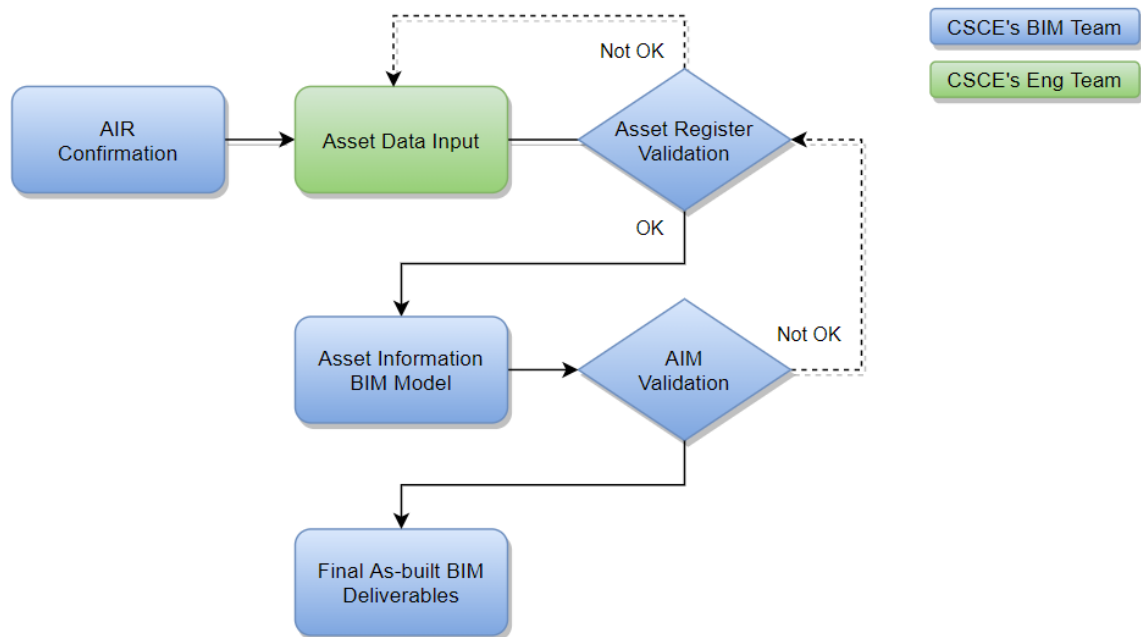
## **6.20 Asset Management**

(To be further developed)

During the handover stage, the BIM model is updated with accurate as-built information. This process ensures that the As-built Asset Information Model (AIM) contains precise attributes and properties. Field verification techniques like laser scanning or 360-degree photo/video are utilized to capture and incorporate the actual conditions into the model.

In addition to graphical data, the AIM also includes non-graphical information relevant to each discipline's BIM model. This information comprises details such as operation data, product catalogues, manuals, warranties, and maintenance history of equipment. By including this comprehensive data, the AIM facilitates effective management of the building or facility. It provides stakeholders with easy access to crucial information, streamlines operations, and supports maintenance activities. The updated BIM model with accurate as-built information and the inclusion of non-graphical details enhances the overall management and maintenance of the facility.





**Figure 41. As-built Asset Information Model (AIM) Process**

Relevant parameter to be created regarding “EMSD’s Building Information Modelling for Asset Management (BIM-AM) – Standards and Guidelines (Version 3.0)”, BIM Guide for Facilities Upkeep (version 3.0) issued by Property Services Branch (PSB), Architectural Services Department and HA’s requirements in Asset Coding Process shall be adopted. Asset Register shall be use for manage the non-graphical information input by all related parties and ensure the information corresponding to the AIM.

## 6.21 Digital Work Supervision System (DWSS)

The BIM model shall be exported to DWSS by IFC format for information exchange from CDE to DWSS. IFC format allow the object in project BIM model transfer into DWSS by GUID as Object ID for identify constructed object.

## 7. Project Information Standards

### 7.1 Origin Point & Orientation

As a standard practice, it is required that a building or structure within a BIM file include a geo-reference to accurately locate that building within the site and to give it a physical location context at larger scales.

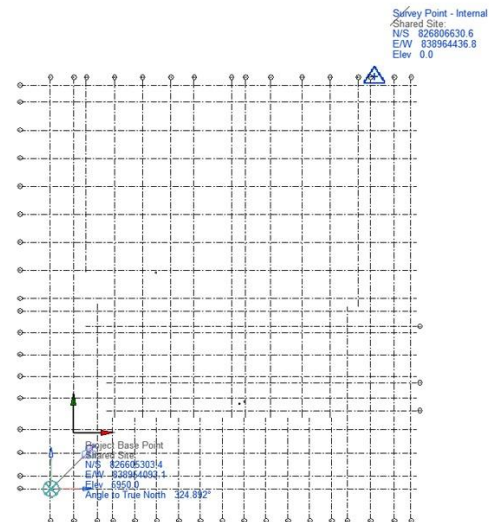
A shared coordinates system has been defined, which positions the project relative to the Hong Kong 1980 Grid, and the HK Principal Datum (HKPD) respectively. The coordinates of the Project Base Point within the shared coordinates system are:

#### Survey Point Coordinate:

N/S 826806630.6  
E/W 838964436.8  
Elev 0.0

#### Project Base Point Coordinate:

N/S 826605303.4  
E/W 838954093.1  
Elev 5950.0  
Angle to True North 324.892°



### 7.2 Federation Strategy (Model Division)

To considering the efficient handling and file size which should not exceed 500MB for better performance. The Main/ Master BIM model would be sub-divided by building/ volume/ level/ discipline in construction stage. To ensure system consistency during the handover process, the as-built BIM model will be merged based on building/volume/discipline. Below shown the hierarchy of model division and the detail model division list refer to **Appendix E –Model Division List**.

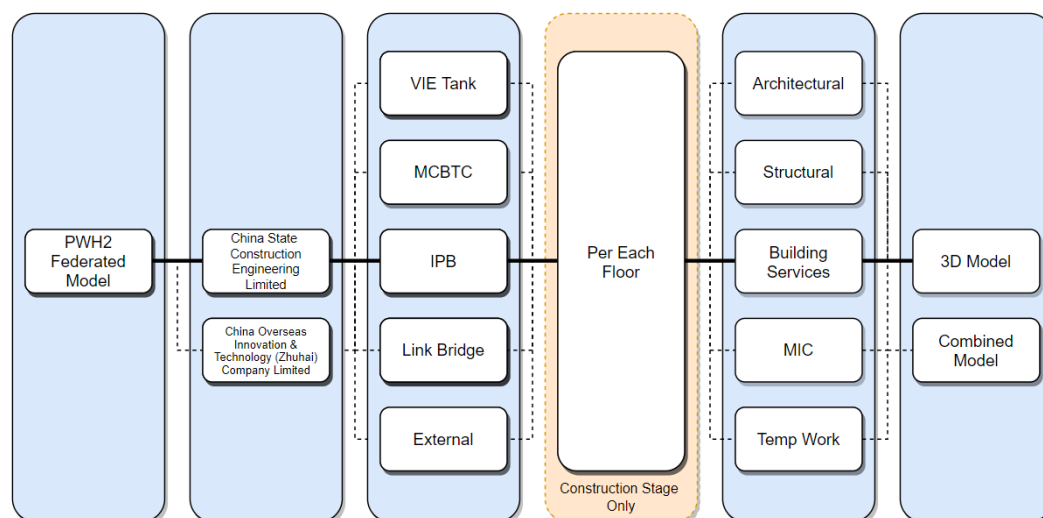
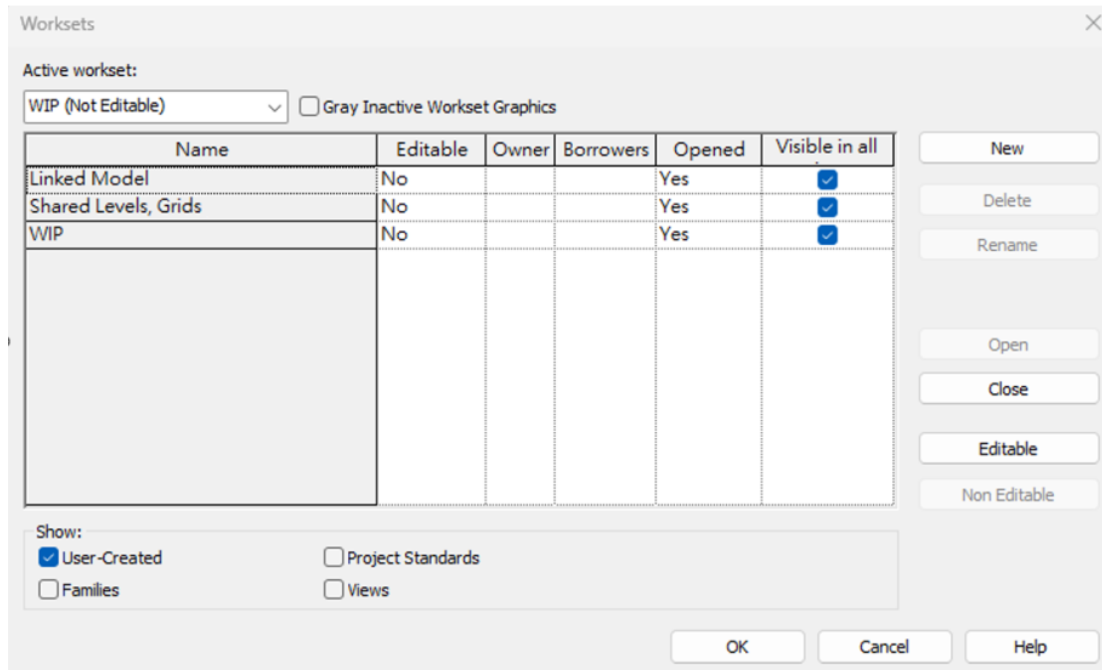


Figure 42. Model Federation Map

### 7.3 Workset Management

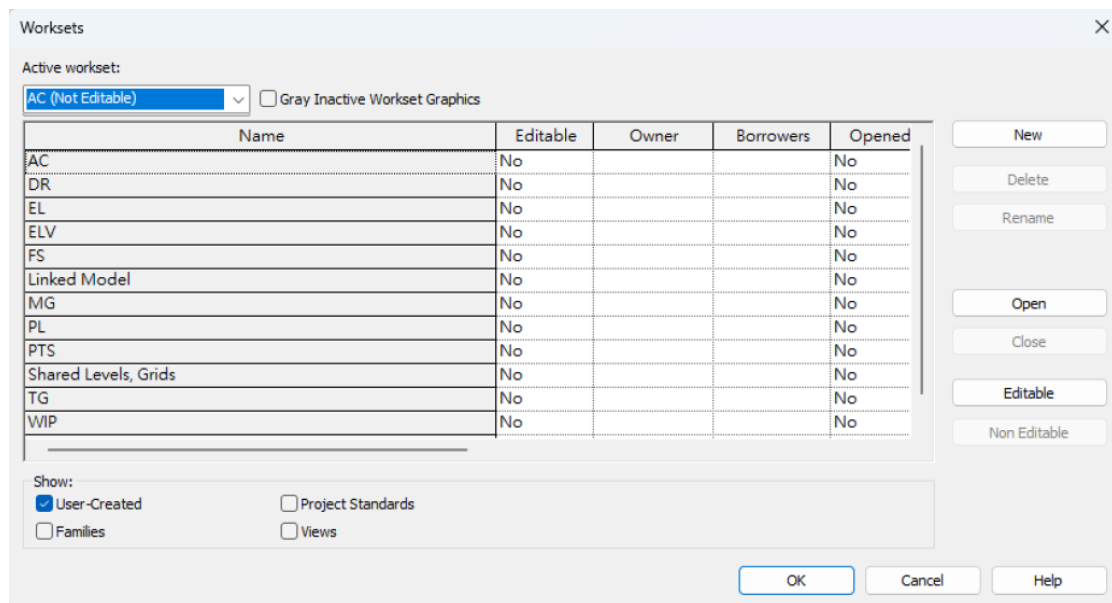
To enhance efficiency in authoring and model coordination, the objects in working files can be grouped into the following categories using by Workset in Revit.

#### Architectural & Structural Model



*Figure 43. Workset Hierarchy for ARC & STR Model*

#### Modular Integrated Construction (MiC) Model



*Figure 44. Workset Hierarchy for MiC Model*

## Building Services Model

Worksets

Active workset: TG (Not Editable) ☐ Gray Inactive Workset Graphics

Name	Editable	Owner	Borrowers	Opened	Visible in all vie
AC	No			No	<input checked="" type="checkbox"/>
DR	No			No	<input checked="" type="checkbox"/>
EL	No			No	<input checked="" type="checkbox"/>
ELV	No			No	<input checked="" type="checkbox"/>
FS	No			No	<input checked="" type="checkbox"/>
Hanger	No			Yes	<input checked="" type="checkbox"/>
Linked Model	No			No	<input checked="" type="checkbox"/>
MG	No			No	<input checked="" type="checkbox"/>
MiMEP Framing	No			No	<input checked="" type="checkbox"/>
PL	No			No	<input checked="" type="checkbox"/>
PTS	No			No	<input checked="" type="checkbox"/>
Shared Levels, Grids	No			No	<input checked="" type="checkbox"/>
TG	No			No	<input checked="" type="checkbox"/>
WIP	No			No	<input checked="" type="checkbox"/>

Show: ☒ User-Created ☐ Project Standards ☐ Families ☐ Views

OK Cancel Help

New Delete Rename Open Close Editable Non Editable

Figure 45. Workset Hierarchy for BS Model

## Underground Utilities Model

Worksets

Active workset: Gas (Not Editable) ☐ Gray Inactive Workset Graphics

Name	Editable	Owner	Borrowers	Opened	Visible in all views
CLP	No			Yes	<input checked="" type="checkbox"/>
DR(Sewerage)	No			Yes	<input checked="" type="checkbox"/>
DR(Stormwater)	No			Yes	<input checked="" type="checkbox"/>
Ext CLP	No			Yes	<input checked="" type="checkbox"/>
Ext DR(Sewerage)	No			Yes	<input checked="" type="checkbox"/>
Ext DR(Stormwater)	No			Yes	<input checked="" type="checkbox"/>
Ext FS	No			Yes	<input checked="" type="checkbox"/>
Ext Gas	No			Yes	<input checked="" type="checkbox"/>
Ext Other	No			Yes	<input checked="" type="checkbox"/>
FS	No			Yes	<input checked="" type="checkbox"/>
Gas	No			Yes	<input checked="" type="checkbox"/>
Linked Model	No			Yes	<input checked="" type="checkbox"/>
Shared Levels, Grids	No			Yes	<input checked="" type="checkbox"/>

Show: ☒ User-Created ☐ Project Standards ☐ Families ☐ Views

OK Cancel Help

New Delete Rename Open Close Editable Non Editable

Figure 46. Workset Hierarchy for UU Model

## 7.4 View Browser Hierarchy

The view structure in Revit has been organized, with all views, schedule, sheets grouped into Published, Working, and Archive categories. The hierarchy of views is dependent on different discipline model files, as outlined below.

### Architectural Model

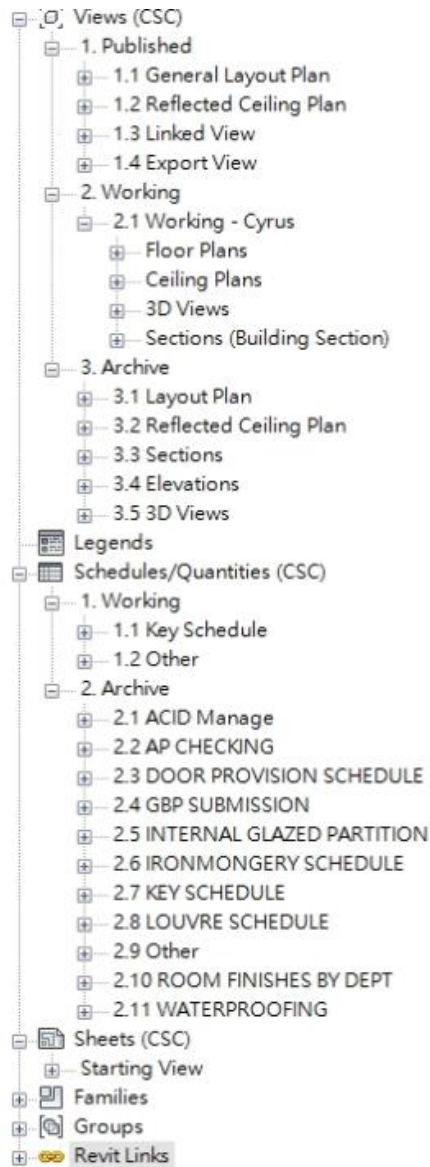


Figure 47. View Hierarchy for ARC Model

### Structural Model

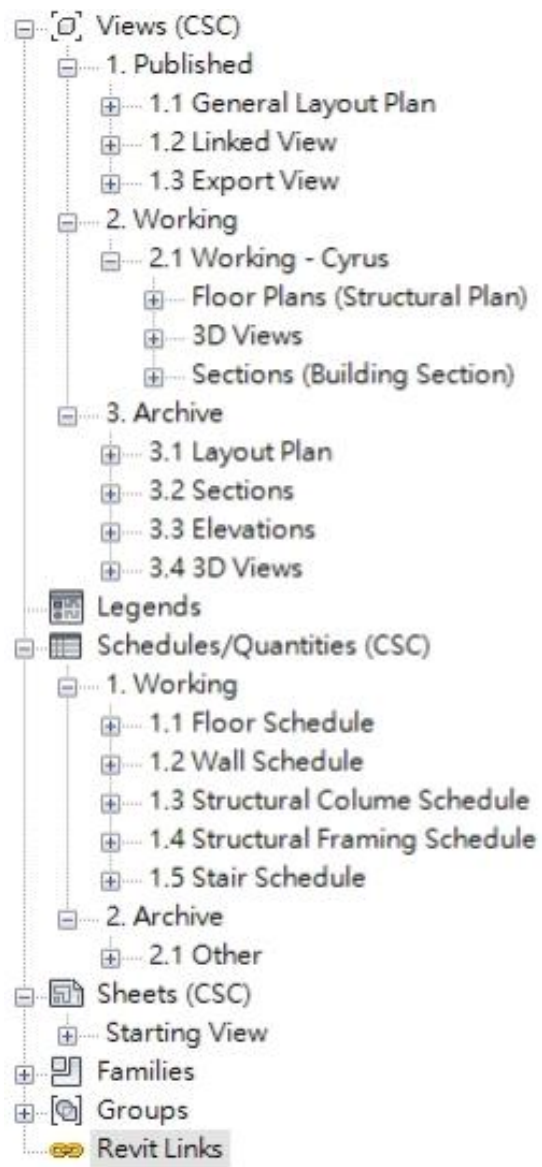


Figure 48. View Hierarchy for STR Model

### Building Service Model

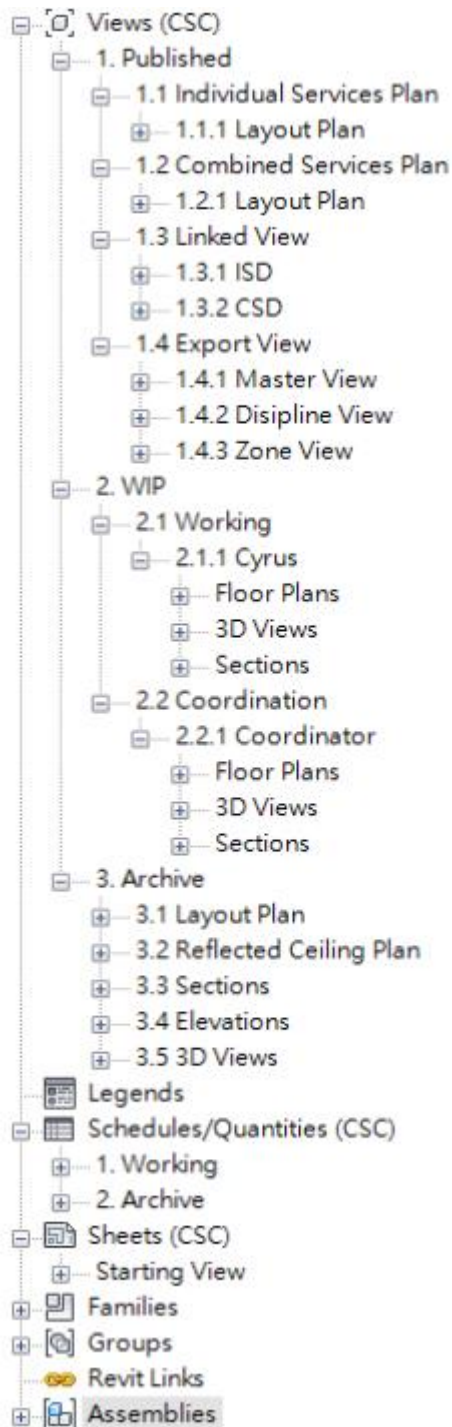


Figure 49. View Hierarchy for BS Model

### Drawing Model (FPE)

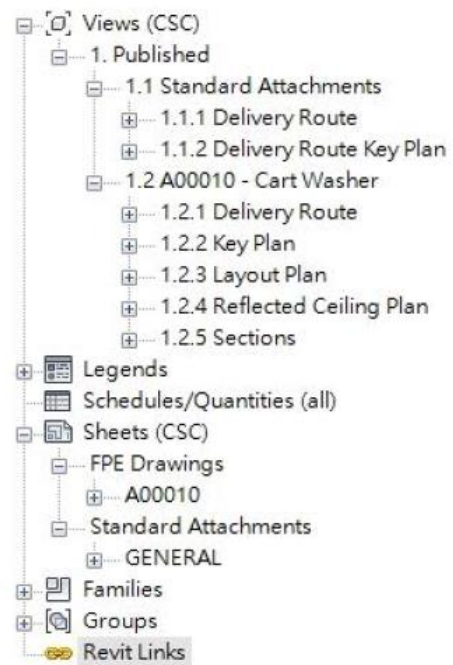


Figure 50. View Hierarchy for Drawing Model (FPE)



### Drawing Model (WED)

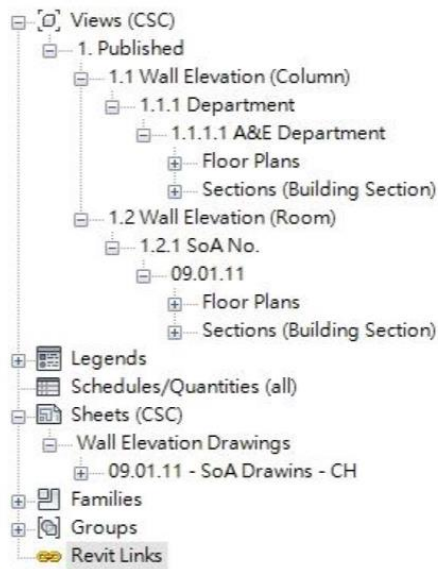


Figure 51. View Hierarchy for Drawing Model (WED)

### Drawing Model (ISD)

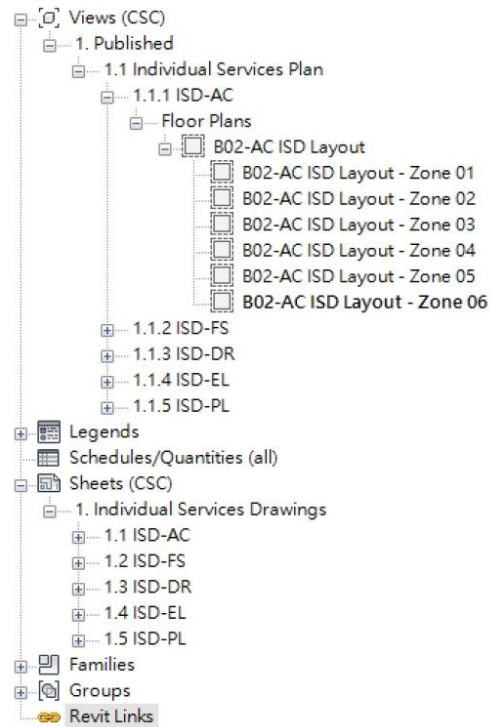


Figure 52. View Hierarchy for Drawing Model (ISD)

### Drawing Model (CSD)

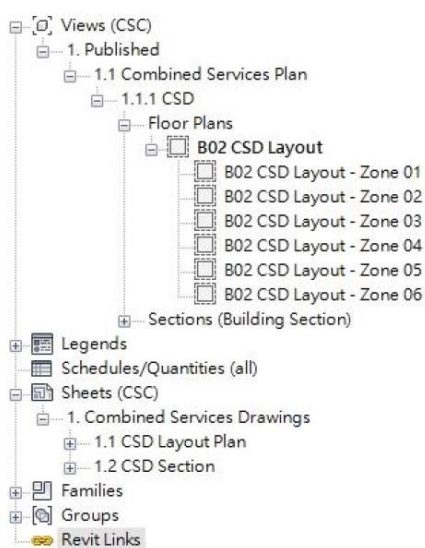


Figure 53. View Hierarchy for Drawing Model (CSD)

### Drawing Model (CBWD)

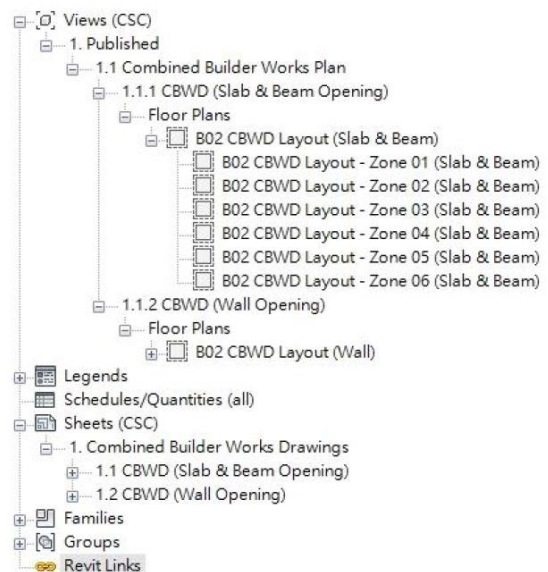


Figure 54. View Hierarchy for Drawing Model (CBWD)

## 7.5 Model Units

BIM Team will use the metric measurement system, to specify length, area, volume, mass, temperature, electricity and time. Drawing and gridlines will be aligned accordingly. The common modelling system of measurement will be metric. Models will use consistent units across the project and project units will be millimeter of integer to achieve level of accuracy.

All disciplines are requested to use coordinates, gridlines and levels agreed and included in the architectural model. The architectural finish levels, structural levels and building services elevations for each major building model will be shown in meters (m) to three decimal places reference to Hong Kong Principal Datum (mPD).

## 7.6 Naming Convention

### BIM Model Naming

All BIM-related file, including models, drawings, reports and videos should adopt respective file naming convention based on BIM Guide issued by HA. Revision code is not applicable for native files such as Words, model files, BIM Objects etc. to maintain the consistency for file linking and model federation. The model naming hierarchy will base on following:

Field 1 (4-8 digits)	Field 2 (3 digits)	Field 3 (2-3 digits)	Field 4 (2-4 digits)	Field 5 (2-5 digits)	Field 6 (2-4 digits)
Project Code	Originator	Volume	Location_(Sub-Location)	Discipline_(Sub-discipline)	Type_(Characteristic)

The BIM Model example as following: **8110098393-CSC-IPB-L00-ST-M3**

The Following list show all codes for each field adopted in this project:

Field	Codes Name	Description
Project Code (Field 1)	8110098393	Project Number
Originator (Field 2)	CSC	
	IPB	In-Patient Block
Volume (Field 3)	LBR	Linked Bridge
	MCB	MCBTC
Location (Field 4)	ZZ	Denotes model which appear on multiple levels / locations.
	XX	Denotes model which no level / location applicable
	B02 - RF	Level refers to floor level which module is located
Discipline (Field 5)	AR	Architectural Model
	AR_FE	Architectural Model (Forward Procured Equipment)
	AR_FA	Architectural Model (Facade)
	ST	Structural Model
	BS_WE	Building Services Model (Wall fixtures & Accessories)
	BS_CSD	Building Services Model (Pipes & Duct Works with Equipment)
	CV_UU	Civil Model (External Underground Utility)
	RD	Roadworks Model
	TUN	Tunnels Model
	AE	A&E Model
	FEN	Fence Walls Model
	TW	Temporary Works Model
	MI	Modular Integrated Construction



	CSD	Combined Services Drawings & Sheet Model
	CBW	Combined Builders Work Drawings & Sheet Model
	ISD	Individual Services Drawings & Sheet Model
	FE	Forward Procured Equipment Drawings & Sheet Model
	WE	Wall Elevation Drawings & Sheet Model
	MI_WE	MiC Elevation Drawings & Sheet Model
Type (Field 6)	M3	3D Model
	CM	Combined Multidiscipline 3D Model
	DR	Drawing Rendition

### **BIM Object Naming**

The file names of families should be composed of 5 fields separated by an underscore “\_” according to the format below unless or otherwise specified:

Field 1 (3 digits)	Field 2 (3 digits)	Field 3 (3 digits)	Field 4 (1-15 digits)	Field 5 (2 digits)	Field 6 (3-4 digits)
Category	Functional Type	Originator	Descriptor 1	Descriptor 2	File Format

The BIM object naming example for a door with louver as following: ***DOR-SGL-CSC-WD\_Louver-01.rfa***

The Field item principles are following DEVB BIM Harmonisation Guidelines (v2.0) *for the BIM Object Naming Fields*. And the below is a simplify guidelines and descriptions that based on CIC for easy understanding.

Fields	Naming Fields	Field Length	Guidelines
1	Category	3 alpha-numeric	These two fields shall follow CIC Master Type List. ( <a href="https://www.bim.cic.hk/en/resources/master_list">https://www.bim.cic.hk/en/resources/master_list</a> ).
2	Functional Type	3 alpha-numeric	
			<ul style="list-style-type: none"> <li>a) Field 1 shall be kept unique in value and meaning.</li> <li>b) Value of Field 2 can have the same value as Field 1 if Field 2 has different meaning and Field 2 is describing the BIM object at the second level.</li> <li>c) When Field 2 is not necessary to describe at the second level, three underscores (___) be used.</li> <li>d) Value of Field 2 could be the same for different meaning.</li> </ul>
3	Originator	3 alpha-numeric	For BIM objects originating from work department.
4	Descriptor 1	1-15 alpha-numeric	Descriptor 1 contains information about primary use a, material when applicable.
			<ul style="list-style-type: none"> <li>a) Duplicate information with the Category and Functional Type should be avoided.</li> <li>b) When Descriptor 1 is not necessary, three underscores (___) be used.</li> </ul>

- c) Capital letters should be used for first letter of each word
- d) All-capital short forms should be used to indicate materials when applicable. If Descriptor 1 starts with all-capital short form, an underscore ( \_ ) should be used to separate the short form and the following word
- e) Descriptor 1 should be kept as concise as practicable with the maximum length of 15 characters in order to reserve space for 2 digit sequential number in Descriptor 2 for potential future expansion.

5	Descriptor 2	2 alpha-numeric	Descriptor 2 is a 2 digit sequential number (01 to 99) to distinguish different types that cannot be sufficiently identified by preceding fields.
			a) When Descriptor 2 is not necessary, two underscores ( __ ) be used.

#### BIM Object Naming Example:

##### Architectural Object:

Field	BIM Object Name	Description
Category (Field 1)	<b>DOR</b> -SGL-CSC-WD_Louver-01.rfa	A Door, DOR is the short form of the category
Functional Type (Field 2)	DOR- <b>SGL</b> -CSC-WD_Louver-01.rfa	A Single Door, SGL is the short form of the sub-type "single"
Originator (Field 3)	DOR-SGL- <b>CSC</b> -WD_Louver-01.rfa	3 characters for Agent Responsible Code, CSC for China State Construction
Descriptor 1	DOR-SGL-CSC- <b>WD</b> _Louver-01.rfa	A door is made of Wood and built with Louver.
Descriptor 2	DOR-SGL-CSC-WD_Louver- <b>01</b> .rfa	A 01 type of door is made of wood and built with Louver.

##### Structural Object:

Field	BIM Object Name	Description
Category (Field 1)	<b>SCL</b> -RCL-CSC-Square-__.rfa	A Structural Column, SCL is the short form of the category
Functional Type (Field 2)	SCL- <b>RCL</b> -CSC-Square-__.rfa	A Square Reinforced Concrete Column, RCL is the short form of the sub-type "Reinforced Concrete Column"
Originator (Field 3)	SCL-RCL- <b>CSC</b> -Square-__.rfa	3 characters for Agent Responsible Code, CSC for China State Construction
Descriptor 1	SCL-RCL-CSC- <b>Square</b> -__.rfa	A Reinforced Concrete Column shape is Square.
Descriptor 2	SCL-RCL-CSC-Square-__.rfa	No another type of Square Reinforced Concrete Column.

##### Building Services Object:

Field	BIM Object Name	Description
-------	-----------------	-------------

Category (Field 1)	<b>BFE</b> -CO2-CSC-____-01.rfa	A Fire Extinguisher, BFE is the short form of the category
Functional Type (Field 2)	BFE- <b>CO2</b> -CSC-____-01.rfa	A CO2 Fire Extinguisher, CO2 is the short form of the sub-type "Carbon Dioxide"
Originator (Field 3)	BFE-CO2- <b>CSC</b> -____-01.rfa	3 characters for Agent Responsible Code, CSC for
Descriptor 1	BFE-CO2-CSC-____-01.rfa	Descriptor 1 is blank, three nos. of underscores (____) is use.
Descriptor 2	BFE-CO2-CSC-____- <b>01</b> .rfa	A 01 type of CO2 Fire Extinguisher.

## 7.7 Annotation, Dimensions, Abbreviations and Symbols Convention

The used shared components or families on this project such as title blocks, annotation, dimension, symbols, etc. Where Notes occur on multiple sheets, annotation families shall be utilized. Text boxes copied between sheets are not acceptable. Moreover, all the annotation size, dimensions, abbreviation and symbols will be according to CAD Standard for Works Projects (CSWP) & EMSD BIM-AM Standards and Guidelines.

## 7.8 Color Scheme

All system can be distinguished by different color code and defined in appearance profile in Navisworks for coordination and drawing generation for CSD / CBWD from BIM model.

System / Category	Color	RGB
Structural Framing		255,195,225
Structural Columns		255,195,225
Architectural Floors		192,192,192
Structural Floors		128,128,128
DR		255,0,255
FS		255,0,0
PL		128,0,255
ACMV		0,255,0
EL		0,0,255
TG		255,128,0
MG		0,255,255
ELV		0,0,255
PTS		128,64,0
Smoke Vent		0,128,192
Fire Shutter		255,165,120
Opening		255,255,128
FPE Item		189,173,126

## 8. Software, Hardware, IT Infrastructure and Training

### 8.1 Software Versions & Exchange formats

All BIM objectives will establish by the following software choices to deliver during project period. Any software version or application changes must be explicitly agreed by HA.

BIM Use	Software	Native Format
<ul style="list-style-type: none"> <li>Design Authoring</li> <li>Design Review</li> </ul>	Autodesk Revit 2023; Autodesk AutoCAD 2023	.rvt, .dwg
<ul style="list-style-type: none"> <li>3D Construction Coordination</li> </ul>	Autodesk Revit 2023; Autodesk Naviswork 2023; BIM Track	.rvt .nwd .pdf
<ul style="list-style-type: none"> <li>Drawing Generation</li> </ul>	Autodesk Revit 2023; Acrobat Reader	.rvt .pdf
<ul style="list-style-type: none"> <li>Existing Condition Modelling</li> </ul>	Autodesk Recap 2023	.rcp .rcs
<ul style="list-style-type: none"> <li>Engineering Analysis</li> </ul>	TBC	TBC
<ul style="list-style-type: none"> <li>Sustainability Evaluation</li> </ul>	TBC	TBC
<ul style="list-style-type: none"> <li>Site Utilization Planning</li> <li>Phase Planning (4D Modelling)</li> </ul>	Fuzor VDC 2024	.mp4 .exe (Fuzor Viewer)
<ul style="list-style-type: none"> <li>Digital Fabrication</li> </ul>	Autodesk Revit 2023; Autodesk Naviswork 2023	.rvt .nwd .pdf
<ul style="list-style-type: none"> <li>As-built BIM</li> </ul>	Autodesk Revit 2023; Autodesk Naviswork 2023; Microsoft Excel;	.rvt, .nwd .xls .ifc

Remarks: Revit model submitted from 30 Jun 2023 – 9 Feb 2024 were in Revit 2022. Revit model submitted on 16 Feb 2024 onwards are in Revit 2023.

### 8.2 Data Security and Back-up

To ensure the information process smoothly and keep the resources correct, permission levels will be set up as per different project stakeholders such as employer, main contractor, sub-contractor consultant, and other specialists in ACC. Though the information exchange process is on ACC platform, considering the balancing of work environment, cloud data will be preserved to project local server once bi-weekly.

### 8.3 Hardware Specifications

The following or better hardware will be suitable for BIM activities while a better configuration is also feasible.

For BIM Authoring	
<b>Operating System</b>	4-bit Microsoft® Windows® 10 or Windows 11.
<b>CPU</b>	Intel® i-Series, Xeon®, AMD® Ryzen, Ryzen Threadripper PRO. 2.5GHz or Higher
<b>Memory</b>	32GB DDR4 2666 UDIMM NECC Memory
<b>GPU</b>	Graphics Card with video performance benchmark2 score higher than 8000 and at least 6 GB GDDR5 GPU Memory
<b>Monitor</b>	Dual 27" 1920 x 1080 Monitors
<b>Disk Space</b>	1TB SSD (1st Hard Drive) 2TB SATA HDD (2nd Hard Drive)
For Viewing and commenting BIM Model	
<b>Operating System</b>	4-bit Microsoft® Windows® 10 or Windows 11.
<b>CPU</b>	Intel® i-Series, Xeon®, AMD® Ryzen, Ryzen Threadripper PRO. 2.5GHz or Higher
<b>Memory</b>	16GB DDR4 2666 UDIMM NECC Memory
<b>GPU</b>	. Graphics Card with video performance benchmark2 score ranged from 3000 to 5000 and at least 4 GB GDDR5 GPU Memory
<b>Monitor</b>	Dual 24" 1920 x 1080 Monitors
<b>Disk Space</b>	1TB SATA HDD (1st Hard Drive) 1TB SATA HDD (2nd Hard Drive)

### 8.4 IT Upgrades

Software upgrades will be made when there is significant need, such as unsupported version on the market, for the BIM modelling progress, at which time the BIM Execution Plan shall be reviewed and updated for software upgrades by the client's representative approval. Hardware systems will be reviewed periodically to assess their adequacy and if upgrades are required.

## 9. BIM Team Resources, Competency and Training

Unless all project participants are fully conversant with BIM, the training courses aim to enable the project participants to view, use and manipulate the BIM models and relevant BIM deliverables in a systematic and effective manner and enable the project participants to deliver the required BIM Uses.

Proposed BIM training will be included below training content, the details training agenda under in separate submission for approval.

Project BIM Training	
<b>Target Audience</b>	Resident Site Staff / Consultant / Auditor
<b>Course Content</b>	<ol style="list-style-type: none"> <li>1. Coordination Process – The overview of BIM implementation and workflow on IPEB <ol style="list-style-type: none"> <li>1.1. Common Data Environment (CDE)</li> <li>1.2. Design Authoring and Design Review</li> </ol> </li> <li>2. BIM Implementation – Selected BIM uses and aims for the BIM deliverables <ol style="list-style-type: none"> <li>2.1. Existing Condition Modelling</li> <li>2.2. Drawing Generation</li> <li>2.3. Cost Estimation / 5D Modelling</li> <li>2.4. Phase Planning &amp; Site Utilization Planning (4D Modelling)</li> <li>2.5. Digital Fabrication</li> <li>2.6. 3D Control and Planning</li> </ol> </li> <li>3. Handover Process – Project handover for BIM <ol style="list-style-type: none"> <li>3.1. As-built Model</li> </ol> </li> </ol>

## 10. Quality Assurance

BIM Manager will be responsibility for quality control of all submissions includes the ability to reject and require correction of any deliverables or formats that do not meet the Employer's requirements. The BIM Manager will verify that the deliverable files contain only the content required per the Employer's requirements regarding the items of **Appendix F – Model Compliance Checklist Template**. The following will be the QAQC workflow process and mainly proposed type for quality control:

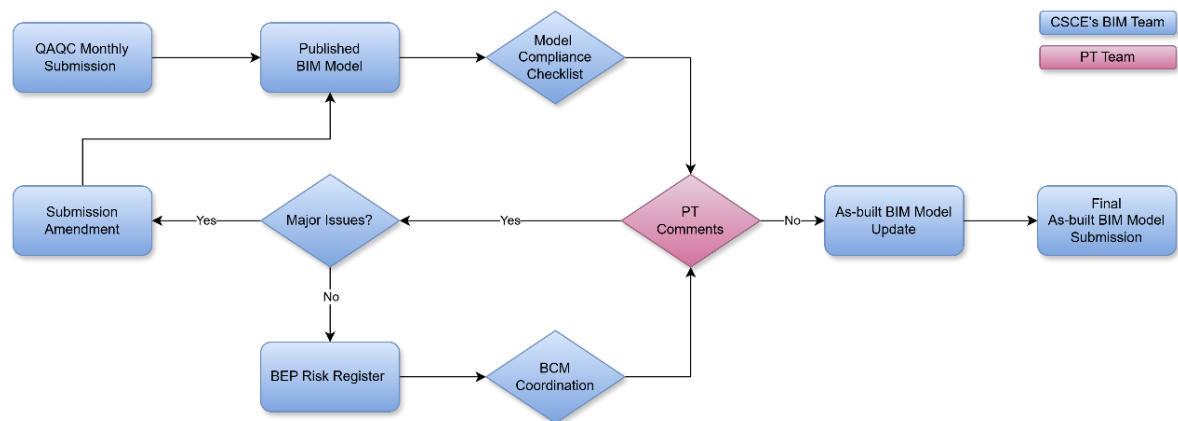


Figure 55. Model Compliance Check Process

Type	Methodology	Responsible	Frequency
Visual Check	The daily construction coordination process involves the regular utilization of Visual Check and Interference Check procedures. These checks are conducted frequently to ensure effective coordination on the construction site. Additionally, the Weekly BIM Coordination Meeting and Daily Internal BIM Workshop facilitate a BIM Walk-through in a 3D environment, allowing for visual validation of the design.	BIM Coordinator	Weekly
Interference Check		BIM Coordinator	Bi-Weekly
Standards Check	To maintain standardization and consistency, this involves conducting a quarterly check of their discipline-specific model, considering object categories and levels of development.	BIM Coordinator	Quarterly
Model Data Integrity Check	This check employs Autodesk Validation Tools to automatically verify predefined checklist items. The process provides valuable feedback and proactive advice, enabling early identification of potential model issues and facilitating improvements within the project team.	BIM Coordinator	Quarterly

Type	Methodology	Responsible	Frequency
Model Compliance Check	Spot check of the above four checks (items 1-4) carried out by Discipline BIM Coordinator	BIM Manager	Submission by floor base
Document Deliverable Check (DOC)	Ensure documentations are generated from the Single Source of Truth Information Model.	BIM Manager	Before each publication to documentation submission



## **11. Handover Procedures**

To streamline the exchange of information and deliverables during the project closeout stage, it is essential to establish an efficient process. The responsibility for defining the information requirements lies with the Employer or Project Manager. They should clearly outline the necessary information that needs to be included in the final handover package.

To ensure accuracy and completeness, the BIM Implementation Meeting should convene to discuss and review each handover package's contents. This review process confirms that all the required information deliverables are included in the final handover package.

In order to monitor the progress of the handover process, regular Handover Meetings should be conducted on a weekly basis. During these meetings, each item within the confirmed handover package should be reviewed to track progress and address any potential issues or delays.

By following these formal procedures, the project team can facilitate a smooth and organized transfer of information and deliverables during the project closeout stage. This ensures that the final handover package contains all the necessary information and allows for regular monitoring of the handover progress.

## Appendix A – Master Information Delivery Plan (MIDP)

## Main Contract for In-Patient Extension Block, Phase 2 (Stage 1) Master Information Delivery Plan (MIDP)

Prepared by:

Start: Fri 6/30/2023  
End: Mon 12/27/2027

Rev.D  
\*Refer Master Programme Rev.4

[illegible]

## Appendix B – Task Information Delivery Plan (TIDP)

Task Information Delivery Plan							Revision : H
Main Works for In-Patient Extension Block, Phase 2 (Stage 1)							
ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G0	BIM Execution Plan						
G0.1	BIM Execution Plan						
G0.1.1		BIM Execution Plan	0	PWH2-CSC-BEP_Rev 0	.pdf	27 Jul 2023	
G0.1.2		BIM Execution Plan	A	PWH2-CSC-BEP_Rev A	.pdf	18 Aug 2023	
G0.1.3		BIM Execution Plan	B	PWH2-CSC-BEP_Rev B	.pdf	13 Oct 2023	
G0.1.4		BIM Execution Plan	C	PWH2-CSC-BEP_Rev C	.pdf	19 Jan 2024	
G0.1.5		BIM Execution Plan	C	PWH2-CSC-BEP_Rev C (post)	.pdf	23 Feb 2024	
G0.1.6		BIM Execution Plan	D	PWH2-CSC-BEP_Rev D (draft)	.pdf	19 Apr 2024	
G0.1.7		BIM Execution Plan	D	PWH2-CSC-BEP_Rev D	.pdf	16 May 2024	
G0.1.8		BIM Execution Plan	E	PWH2-CSC-BEP_Rev E	.pdf	30 Aug 2024	
G0.1.9		BIM Execution Plan	E	PWH2-CSC-BEP_Rev E (Post)	.pdf	16 Sep 2024	
G0.1.10		BIM Execution Plan	E	PWH2-CSC-BEP_Rev E (Post)_r1	.pdf	18 Oct 2024	
G0.1.11		BIM Execution Plan	F	PWH2-CSC-BEP_Rev F	.pdf	27 Nov 2024	
G0.1.12		BIM Execution Plan	G	PWH2-CSC-BEP_Rev G	.pdf	12 May 2025	
G1	1st Draft BIM Model						
G1.1	Architectural BIM Model						
G1.1.1		1st Architectural BIM Model - B02	0	8110098393-CSC-IPB-B02-AR-M3	.rvt	30 Nov 2023	
G1.1.2		1st Architectural BIM Model - B01	0	8110098393-CSC-IPB-B01-AR-M3	.rvt	30 Nov 2023	
G1.1.3		1st Architectural BIM Model - L00	0	8110098393-CSC-IPB-L00-AR-M3	.rvt	30 Nov 2023	
G1.1.4		1st Architectural BIM Model - L01	0	8110098393-CSC-IPB-L01-AR-M3	.rvt	30 Nov 2023	
G1.1.5		1st Architectural BIM Model - L02	0	8110098393-CSC-IPB-L02-AR-M3	.rvt	30 Nov 2023	
G1.1.6		1st Architectural BIM Model - L03	0	8110098393-CSC-IPB-L03-AR-M3	.rvt	30 Nov 2023	
G1.1.7		1st Architectural BIM Model - L04	0	8110098393-CSC-IPB-L04-AR-M3	.rvt	30 Nov 2023	
G1.1.8		1st Architectural BIM Model - L05	0	8110098393-CSC-IPB-L05-AR-M3	.rvt	30 Nov 2023	
G1.1.9		1st Architectural BIM Model - L06	0	8110098393-CSC-IPB-L06-AR-M3	.rvt	30 Nov 2023	
G1.1.10		1st Architectural BIM Model - L07	0	8110098393-CSC-IPB-L07-AR-M3	.rvt	30 Nov 2023	
G1.1.11		1st Architectural BIM Model - L08	0	8110098393-CSC-IPB-L08-AR-M3	.rvt	30 Nov 2023	
G1.1.12		1st Architectural BIM Model - L09	0	8110098393-CSC-IPB-L09-AR-M3	.rvt	30 Nov 2023	
G1.1.13		1st Architectural BIM Model - L10	0	8110098393-CSC-IPB-L10-AR-M3	.rvt	30 Nov 2023	
G1.1.14		1st Architectural BIM Model - L11	0	8110098393-CSC-IPB-L11-AR-M3	.rvt	30 Nov 2023	
G1.1.15		1st Architectural BIM Model - L12	0	8110098393-CSC-IPB-L12-AR-M3	.rvt	30 Nov 2023	
G1.1.16		1st Architectural BIM Model - L13	0	8110098393-CSC-IPB-L13-AR-M3	.rvt	30 Nov 2023	
G1.1.17		1st Architectural BIM Model - L14	0	8110098393-CSC-IPB-L14-AR-M3	.rvt	30 Nov 2023	
G1.1.18		1st Architectural BIM Model - L15	0	8110098393-CSC-IPB-L15-AR-M3	.rvt	30 Nov 2023	
G1.1.19		1st Architectural BIM Model - L16	0	8110098393-CSC-IPB-L16-AR-M3	.rvt	30 Nov 2023	
G1.1.20		1st Architectural BIM Model - L17	0	8110098393-CSC-IPB-L17-AR-M3	.rvt	30 Nov 2023	
G1.1.21		1st Architectural BIM Model - L18	0	8110098393-CSC-IPB-L18-AR-M3	.rvt	30 Nov 2023	
G1.1.22		1st Architectural BIM Model - L19	0	8110098393-CSC-IPB-L19-AR-M3	.rvt	30 Nov 2023	
G1.1.23		1st Architectural BIM Model - MRF	0	8110098393-CSC-IPB-MRF-AR-M3	.rvt	30 Nov 2023	
G1.1.24		1st Architectural BIM Model - URF	0	8110098393-CSC-IPB-URF-AR-M3	.rvt	30 Nov 2023	
G1.1.25		1st Architectural BIM Model - Façade	0	8110098393-CSC-IPB-ZZ-AR_FA-M3	.rvt	30 Nov 2023	
G1.2	Structural BIM Model						
G1.2.1		1st Structural BIM Model - B02	0	8110098393-CSC-IPB-B02-ST-M3	.rvt	30 Nov 2023	
G1.2.2		1st Structural BIM Model - B01	0	8110098393-CSC-IPB-B01-ST-M3	.rvt	30 Nov 2023	
G1.2.3		1st Structural BIM Model - L00	0	8110098393-CSC-IPB-L00-ST-M3	.rvt	30 Nov 2023	
G1.2.4		1st Structural BIM Model - L01	0	8110098393-CSC-IPB-L01-ST-M3	.rvt	30 Nov 2023	
G1.2.5		1st Structural BIM Model - L02	0	8110098393-CSC-IPB-L02-ST-M3	.rvt	30 Nov 2023	
G1.2.6		1st Structural BIM Model - L03	0	8110098393-CSC-IPB-L03-ST-M3	.rvt	30 Nov 2023	
G1.2.7		1st Structural BIM Model - L04	0	8110098393-CSC-IPB-L04-ST-M3	.rvt	30 Nov 2023	
G1.2.8		1st Structural BIM Model - L05	0	8110098393-CSC-IPB-L05-ST-M3	.rvt	30 Nov 2023	

Task Information Delivery Plan					Revision : H		
Main Works for In-Patient Extension Block, Phase 2 (Stage 1)							
ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G1.2.9		1st Structural BIM Model - L06	0	8110098393-CSC-IPB-L06-ST-M3	.rvt	30 Nov 2023	
G1.2.10		1st Structural BIM Model - L07	0	8110098393-CSC-IPB-L07-ST-M3	.rvt	30 Nov 2023	
G1.2.11		1st Structural BIM Model - L08	0	8110098393-CSC-IPB-L08-ST-M3	.rvt	30 Nov 2023	
G1.2.12		1st Structural BIM Model - L09	0	8110098393-CSC-IPB-L09-ST-M3	.rvt	30 Nov 2023	
G1.2.13		1st Structural BIM Model - L10	0	8110098393-CSC-IPB-L10-ST-M3	.rvt	30 Nov 2023	
G1.2.14		1st Structural BIM Model - L11	0	8110098393-CSC-IPB-L11-ST-M3	.rvt	30 Nov 2023	
G1.2.15		1st Structural BIM Model - L12	0	8110098393-CSC-IPB-L12-ST-M3	.rvt	30 Nov 2023	
G1.2.16		1st Structural BIM Model - L13	0	8110098393-CSC-IPB-L13-ST-M3	.rvt	30 Nov 2023	
G1.2.17		1st Structural BIM Model - L14	0	8110098393-CSC-IPB-L14-ST-M3	.rvt	30 Nov 2023	
G1.2.18		1st Structural BIM Model - L15	0	8110098393-CSC-IPB-L15-ST-M3	.rvt	30 Nov 2023	
G1.2.19		1st Structural BIM Model - L16	0	8110098393-CSC-IPB-L16-ST-M3	.rvt	30 Nov 2023	
G1.2.20		1st Structural BIM Model - L17	0	8110098393-CSC-IPB-L17-ST-M3	.rvt	30 Nov 2023	
G1.2.21		1st Structural BIM Model - L18	0	8110098393-CSC-IPB-L18-ST-M3	.rvt	30 Nov 2023	
G1.2.22		1st Structural BIM Model - L19	0	8110098393-CSC-IPB-L19-ST-M3	.rvt	30 Nov 2023	
G1.2.23		1st Structural BIM Model - MRF	0	8110098393-CSC-IPB-MRF-ST-M3	.rvt	30 Nov 2023	
G1.2.24		1st Structural BIM Model - URF	0	8110098393-CSC-IPB-URF-ST-M3	.rvt	30 Nov 2023	
G1.3	Building Services BIM Model						
G1.3.1		1st Building Services BIM Model - B02	0	8110098393-CSC-IPB-B02-BS-M3	.rvt	30 Nov 2023	
G1.3.2		1st Building Services BIM Model - B01	0	8110098393-CSC-IPB-B01-BS-M3	.rvt	30 Nov 2023	
G1.3.3		1st Building Services BIM Model - L00	0	8110098393-CSC-IPB-L00-BS-M3	.rvt	30 Nov 2023	
G1.3.4		1st Building Services BIM Model - L01	0	8110098393-CSC-IPB-L01-BS-M3	.rvt	30 Nov 2023	
G1.3.5		1st Building Services BIM Model - L02	0	8110098393-CSC-IPB-L02-BS-M3	.rvt	30 Nov 2023	
G1.3.6		1st Building Services BIM Model - L03	0	8110098393-CSC-IPB-L03-BS-M3	.rvt	30 Nov 2023	
G1.3.7		1st Building Services BIM Model - L04	0	8110098393-CSC-IPB-L04-BS-M3	.rvt	30 Nov 2023	
G1.3.8		1st Building Services BIM Model - L05	0	8110098393-CSC-IPB-L05-BS-M3	.rvt	30 Nov 2023	
G1.3.9		1st Building Services BIM Model - L06	0	8110098393-CSC-IPB-L06-BS-M3	.rvt	30 Nov 2023	
G1.3.10		1st Building Services BIM Model - L07	0	8110098393-CSC-IPB-L07-BS-M3	.rvt	30 Nov 2023	
G1.3.11		1st Building Services BIM Model - L08	0	8110098393-CSC-IPB-L08-BS-M3	.rvt	30 Nov 2023	
G1.3.12		1st Building Services BIM Model - L09	0	8110098393-CSC-IPB-L09-BS-M3	.rvt	30 Nov 2023	
G1.3.13		1st Building Services BIM Model - L10	0	8110098393-CSC-IPB-L10-BS-M3	.rvt	30 Nov 2023	
G1.3.14		1st Building Services BIM Model - L11	0	8110098393-CSC-IPB-L11-BS-M3	.rvt	30 Nov 2023	
G1.3.15		1st Building Services BIM Model - L12	0	8110098393-CSC-IPB-L12-BS-M3	.rvt	30 Nov 2023	
G1.3.16		1st Building Services BIM Model - L13	0	8110098393-CSC-IPB-L13-BS-M3	.rvt	30 Nov 2023	
G1.3.17		1st Building Services BIM Model - L14	0	8110098393-CSC-IPB-L14-BS-M3	.rvt	30 Nov 2023	
G1.3.18		1st Building Services BIM Model - L15	0	8110098393-CSC-IPB-L15-BS-M3	.rvt	30 Nov 2023	
G1.3.19		1st Building Services BIM Model - L16	0	8110098393-CSC-IPB-L16-BS-M3	.rvt	30 Nov 2023	
G1.3.20		1st Building Services BIM Model - L17	0	8110098393-CSC-IPB-L17-BS-M3	.rvt	30 Nov 2023	
G1.3.21		1st Building Services BIM Model - L18	0	8110098393-CSC-IPB-L18-BS-M3	.rvt	30 Nov 2023	
G1.3.22		1st Building Services BIM Model - L19	0	8110098393-CSC-IPB-L19-BS-M3	.rvt	30 Nov 2023	
G1.3.23		1st Building Services BIM Model - MRF	0	8110098393-CSC-IPB-MRF-BS-M3	.rvt	30 Nov 2023	
G1.3.24		1st Building Services BIM Model - URF	0	8110098393-CSC-IPB-URF-BS-M3	.rvt	30 Nov 2023	
G2	Clash Analysis Report						
G2.1	Clash Analysis Summary						
G2.1.1		Clash Analysis Report	000	Clash Analysis Report.xlsx	.xlsx	25 Jul 2024	
G2.1.2		Clash Analysis Report	001	Clash Analysis Report.xlsx	.xlsx	31 Jul 2024	
G2.1.3		Clash Analysis Report	002	Clash Analysis Report.xlsx	.xlsx	6 Aug 2024	
G2.1.4		Clash Analysis Report	003	Clash Analysis Report.xlsx	.xlsx	13 Aug 2024	

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ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G2.1.5		Clash Analysis Report	004	Clash Analysis Report.xlsx	.xlsx	20 Aug 2024	
G2.1.6		Clash Analysis Report	005	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.7		Clash Analysis Report	006	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.8		Clash Analysis Report	007	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.9		Clash Analysis Report	008	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.10		Clash Analysis Report	009	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.11		Clash Analysis Report	010	Clash Analysis Report.xlsx	.xlsx	25 Jul 2024	
G2.1.12		Clash Analysis Report	011	Clash Analysis Report.xlsx	.xlsx	31 Jul 2024	
G2.1.13		Clash Analysis Report	012	Clash Analysis Report.xlsx	.xlsx	6 Aug 2024	
G2.1.14		Clash Analysis Report	013	Clash Analysis Report.xlsx	.xlsx	13 Aug 2024	
G2.1.15		Clash Analysis Report	014	Clash Analysis Report.xlsx	.xlsx	20 Aug 2024	
G2.1.16		Clash Analysis Report	015	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.17		Clash Analysis Report	016	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.18		Clash Analysis Report	017	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.19		Clash Analysis Report	018	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.20		Clash Analysis Report	019	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.21		Clash Analysis Report	020	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.22		Clash Analysis Report	021	Clash Analysis Report.xlsx	.xlsx	6 Aug 2024	
G2.1.23		Clash Analysis Report	022	Clash Analysis Report.xlsx	.xlsx	13 Aug 2024	
G2.1.24		Clash Analysis Report	023	Clash Analysis Report.xlsx	.xlsx	20 Aug 2024	
G2.1.25		Clash Analysis Report	024	Clash Analysis Report.xlsx	.xlsx	27 Aug 2024	
G2.1.26		Clash Analysis Report	025	Clash Analysis Report.xlsx	.xlsx	3 Sep 2024	
G2.1.27		Clash Analysis Report	026	Clash Analysis Report.xlsx	.xlsx	10 Sep 2024	
G2.1.28		Clash Analysis Report	027	Clash Analysis Report.xlsx	.xlsx	20 Sep 2024	
G2.1.29		Clash Analysis Report	028	Clash Analysis Report.xlsx	.xlsx	24 Sep 2024	
G2.1.30		Clash Analysis Report	029	Clash Analysis Report.xlsx	.xlsx	30 Sep 2024	
G2.1.31		Clash Analysis Report	030	Clash Analysis Report.xlsx	.xlsx	8 Oct 2024	
G2.1.32		Clash Analysis Report	031	Clash Analysis Report.xlsx	.xlsx	15 Oct 2024	
G2.1.33		Clash Analysis Report	032	Clash Analysis Report.xlsx	.xlsx	29 Oct 2024	
G2.1.34		Clash Analysis Report	033	Clash Analysis Report.xlsx	.xlsx	5 Nov 2024	
G2.1.35		Clash Analysis Report	034	Clash Analysis Report.xlsx	.xlsx	12 Nov 2024	
G2.1.36		Clash Analysis Report	035	Clash Analysis Report.xlsx	.xlsx	19 Nov 2024	
G2.1.37		Clash Analysis Report	036	Clash Analysis Report.xlsx	.xlsx	26 Nov 2024	
G2.1.38		Clash Analysis Report	037	Clash Analysis Report.xlsx	.xlsx	3 Dec 2024	
G2.1.39		Clash Analysis Report	038	Clash Analysis Report.xlsx	.xlsx	10 Dec 2024	
G2.1.40		Clash Analysis Report	039	Clash Analysis Report.xlsx	.xlsx	17 Dec 2024	
G2.1.41		Clash Analysis Report	040	Clash Analysis Report.xlsx	.xlsx	31 Dec 2024	
G2.1.42		Clash Analysis Report	041	Clash Analysis Report.xlsx	.xlsx	31 Dec 2024	
G2.1.43		Clash Analysis Report	042	Clash Analysis Report.xlsx	.xlsx	7 Jan 2025	
G2.1.44		Clash Analysis Report	043	Clash Analysis Report.xlsx	.xlsx	14 Jan 2025	
G2.1.45		Clash Analysis Report	044	Clash Analysis Report.xlsx	.xlsx	21 Jan 2025	
G2.1.46		Clash Analysis Report	045	Clash Analysis Report.xlsx	.xlsx	28 Jan 2025	
G2.1.47		Clash Analysis Report	046	Clash Analysis Report.xlsx	.xlsx	4 Feb 2025	
G2.1.48		Clash Analysis Report	047	Clash Analysis Report.xlsx	.xlsx	11 Feb 2025	
G2.1.49		Clash Analysis Report	048	Clash Analysis Report.xlsx	.xlsx	18 Feb 2025	
G2.1.50		Clash Analysis Report	049	Clash Analysis Report.xlsx	.xlsx	25 Feb 2025	
G2.1.51		Clash Analysis Report	050	Clash Analysis Report.xlsx	.xlsx	4 Mar 2025	
G2.1.52		Clash Analysis Report	051	Clash Analysis Report.xlsx	.xlsx	11 Mar 2025	
G2.1.53		Clash Analysis Report	052	Clash Analysis Report.xlsx	.xlsx	18 Mar 2025	
G2.1.54		Clash Analysis Report	053	Clash Analysis Report.xlsx	.xlsx	25 Mar 2025	
G2.1.55		Clash Analysis Report	054	Clash Analysis Report.xlsx	.xlsx	1 Apr 2025	
G2.1.56		Clash Analysis Report	055	Clash Analysis Report.xlsx	.xlsx	8 Apr 2025	
G2.1.57		Clash Analysis Report	056	Clash Analysis Report.xlsx	.xlsx	15 Apr 2025	
G2.1.58		Clash Analysis Report	057	Clash Analysis Report.xlsx	.xlsx	22 Apr 2025	
G2.1.59		Clash Analysis Report	058	Clash Analysis Report.xlsx	.xlsx	29 Apr 2025	
G2.1.60		Clash Analysis Report	059	Clash Analysis Report.xlsx	.xlsx	6 May 2025	
G2.1.61		Clash Analysis Report	060	Clash Analysis Report.xlsx	.xlsx	13 May 2025	
G2.1.62		Clash Analysis Report	061	Clash Analysis Report.xlsx	.xlsx	20 May 2025	
G2.1.63		Clash Analysis Report	062	Clash Analysis Report.xlsx	.xlsx	28 May 2025	
G2.1.64		Clash Analysis Report	063	Clash Analysis Report.xlsx	.xlsx	3 Jun 2025	
G2.1.65		Clash Analysis Report	064	Clash Analysis Report.xlsx	.xlsx	10 Jun 2025	
G2.1.66		Clash Analysis Report	065	Clash Analysis Report.xlsx	.xlsx	17 Jun 2025	
G2.1.67		Clash Analysis Report	066	Clash Analysis Report.xlsx	.xlsx	24 Jun 2025	
G2.1.68		Clash Analysis Report	067	Clash Analysis Report.xlsx	.xlsx	30 Jun 2025	
G2.1.69		Clash Analysis Report	068	Clash Analysis Report.xlsx	.xlsx	8 Jul 2025	
G2.1.70		Clash Analysis Report	069	Clash Analysis Report.xlsx	.xlsx	15 Jul 2025	
G2.1.71		Clash Analysis Report	070	Clash Analysis Report.xlsx	.xlsx	22 Jul 2025	
G2.2	Exisiting ELS						
G2.2.1		Existing ELS Clash Analysis	000	PWH-CSC-IPB-ELS-ZZ.nwd	.nwd	14 Jun 2023	
G2.3	External Area						
G2.3.1		IPB External Area Issue Summary	000	PWH2_BIM Issue and Clash Analysis Report_20240322.pdf	.pdf	25 Mar 2024	
G2.3.2		IPB External Area Issue Summary	001	PWH BCM_No.19.pdf	.pdf	26 Mar 2024	
G2.3.3		IPB External Area Issue Summary	002	PWH BCM_No.20.pdf	.pdf	15 Apr 2024	
G2.3.4		IPB External Area Issue Summary	003	PWH BCM No.21.pdf	.pdf	26 Apr 2024	

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G2.3.5		IPB External Area Issue Summary	004	PWH BCM No.22.pdf	.pdf	13 May 2024	
G2.3.6		IPB External Area Issue Summary	005	PWH BCM No.23.pdf	.pdf	29 May 2024	
G2.3.7		IPB External Area Issue Summary	006	PWH BCM No.24.pdf	.pdf	12 Jun 2024	
G2.3.8		IPB External Area Issue Summary	007	PWH BCM No.25.pdf	.pdf	21 Jun 2024	
G2.3.9		IPB External Area Issue Summary	008	PWH BCM No.26.pdf	.pdf	17 Jul 2024	
G2.4	B02						
G2.4.1		IPB B02 Clash Analysis Report	000	BLV-Clash Analysis Report-B02_20231013.pdf	.pdf	17 Oct 2023	
G2.4.2		IPB B02 Clash Analysis Report	001	PWH BCM_No.11.pdf	.pdf	22 Nov 2023	
G2.4.3		IPB B02 Clash Analysis Report	002	PWH BCM_No.12.pdf	.pdf	30 Nov 2023	
G2.4.4		IPB B02 Clash Analysis Report	003	PWH BCM_No.13.pdf	.pdf	18 Dec 2023	
G2.4.5		IPB B02 Clash Analysis Report	004	PWH BCM_No.14.pdf	.pdf	17 Jan 2024	
G2.4.6		IPB B02 Clash Analysis Report	005	8110098393-Clash Analysis Report-B02B_20240119.pdf	.pdf	19 Jan 2024	
G2.4.7		IPB B02 Clash Analysis Report	006	8110098393-Clash Analysis Report-B02_20240123.pdf	.pdf	25 Jan 2024	
G2.4.8		IPB B02P Clash Analysis Report	007	PWH BCM_No.15.pdf	.pdf	29 Jan 2024	
G2.4.9		IPB B02 Clash Analysis Report	008	PWH BCM_No.15.pdf	.pdf	29 Jan 2024	
G2.4.10		IPB B02P Clash Analysis Report	009	PWH BCM_No.16.pdf	.pdf	6 Feb 2024	
G2.4.11		IPB B02 Clash Analysis Report	010	PWH BCM_No.16.pdf	.pdf	6 Feb 2024	
G2.4.12		IPB B02P Clash Analysis Report	011	PWH BCM_No.17.pdf	.pdf	26 Feb 2024	
G2.4.13		IPB B02 Clash Analysis Report	012	PWH BCM_No.17.pdf	.pdf	26 Feb 2024	
G2.4.14		IPB B02 Issue and Clash Analysis Report	013	PWH2_BIM Issue and Clash Analysis Report_20240301.pdf	.pdf	4 Mar 2024	
G2.4.15		IPB B02 Issue and Clash Analysis Report	014	PWH2_BIM Issue and Clash Analysis Report_20240311.pdf	.pdf	11 Mar 2024	
G2.4.16		IPB B02 Issue and Clash Analysis Report	015	PWH2_BIM Issue and Clash Analysis Report_20240322.pdf	.pdf	25 Mar 2024	
G2.4.17		IPB B02 Issue Summary	016	PWH BCM_No.20.pdf	.pdf	15 Apr 2024	
G2.4.18		IPB B02 Issue Summary	017	PWH BCM No.21.pdf	.pdf	26 Apr 2024	
G2.4.19		IPB B02 Issue Summary	018	PWH BCM No.22.pdf	.pdf	13 May 2024	
G2.4.20		IPB B02 Issue Summary	019	PWH BCM No.23.pdf	.pdf	29 May 2024	
G2.4.21		IPB B02 Issue Summary	020	PWH BCM No.24.pdf	.pdf	12 Jun 2024	
G2.4.22		IPB B02 Issue Summary	021	PWH BCM No.25.pdf	.pdf	21 Jun 2024	
G2.4.23		IPB B02 Issue Summary	022	PWH BCM No.26.pdf	.pdf	17 Jul 2024	
G2.4.24		IPB B02 Issue Summary	023	PWH BCM No.27.pdf	.pdf	26 Jul 2024	
G2.4.25		IPB B02 Issue Summary	024	PWH BCM No.28.pdf	.pdf	9 Aug 2024	
G2.4.26		IPB B02 Issue Summary	025	PWH BCM No.29.pdf	.pdf	23 Aug 2024	
G2.4.27		IPB B02 Issue Summary	026	PWH BCM No.30.pdf	.pdf	6 Sep 2024	
G2.4.28		IPB B02 Issue Summary	027	PWH BCM No.31.pdf	.pdf	20 Sep 2024	
G2.4.29		IPB B02 Issue Summary	028	PWH BCM No.32.pdf	.pdf	10 Oct 2024	
G2.4.30		IPB B02 Issue Summary	029	PWH BCM No.33.pdf	.pdf	25 Oct 2024	
G2.4.31		IPB B02 Issue Summary	030	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
G2.4.32		IPB B02 Issue Summary	031	PWH BCM No.35.pdf	.pdf	6 Dec 2024	
G2.4.33		IPB B02 Issue Summary	032	PWH BCM No.36.pdf	.pdf	20 Dec 2024	
G2.4.34		IPB B02 Issue Summary	033	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
G2.4.35		IPB B02 Issue Summary	034	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
G2.4.36		IPB B02 Issue Summary	035	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
G2.4.37		IPB B02 Issue Summary	036	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.4.38		IPB B02 Issue Summary	037	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.4.39		IPB B02 Issue Summary	038	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
G2.4.40		IPB B02 Issue Summary	039	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.4.41		IPB B02 Issue Summary	040	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.4.42		IPB B02 Issue Summary	041	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.4.43		IPB B02 Issue Summary	042	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.4.44		IPB B02 Issue Summary	043	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.4.45		IPB B02 Issue Summary	044	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.4.46		IPB B02 Issue Summary	045	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.5	B01						
G2.5.1		IPB B01 Clash Analysis Report	000	BLV-Clash Analysis Report-B01_20231013.pdf	.pdf	17 Oct 2023	
G2.5.2		IPB B01 Clash Analysis Report	001	PWH BCM_No.11.pdf	.pdf	22 Nov 2023	
G2.5.3		IPB B01 Clash Analysis Report	002	PWH BCM_No.12.pdf	.pdf	30 Nov 2023	
G2.5.4		IPB B01 Clash Analysis Report	003	PWH BCM_No.13.pdf	.pdf	18 Dec 2023	
G2.5.5		IPB B01 Clash Analysis Report	004	PWH BCM_No.14.pdf	.pdf	17 Jan 2024	
G2.5.6		IPB B01 Clash Analysis Report	005	PWH BCM_No.15.pdf	.pdf	29 Jan 2024	
G2.5.7		IPB B01 Clash Analysis Report	006	PWH BCM_No.16.pdf	.pdf	6 Feb 2024	
G2.5.8		IPB B01 Clash Analysis Report	007	PWH BCM_No.17.pdf	.pdf	26 Feb 2024	
G2.5.9		IPB B01 Clash Analysis Report	008	8110098393-Clash Analysis Report-B01_20240123.pdf	.pdf	25 Jan 2024	
G2.5.10		IPB B01 Issue and Clash Analysis Report	009	PWH2_BIM Issue and Clash Analysis Report_20240301.pdf	.pdf	4 Mar 2024	
G2.5.11		IPB B01 Issue and Clash Analysis Report	010	PWH2_BIM Issue and Clash Analysis Report_20240311.pdf	.pdf	11 Mar 2024	
G2.5.12		IPB B01 Issue and Clash Analysis Report	011	PWH BCM_No.18.pdf	.pdf	14 Mar 2024	
G2.5.13		IPB B01 Issue and Clash Analysis Report	012	PWH2_BIM Issue and Clash Analysis Report_20240322.pdf	.pdf	25 Mar 2024	
G2.5.14		IPB B01 Issue Summary	013	PWH BCM_No.19.pdf	.pdf	26 Mar 2024	
G2.5.15		IPB B01 Issue Summary	014	PWH BCM_No.20.pdf	.pdf	15 Apr 2024	
G2.5.16		IPB B01 Issue Summary	015	PWH BCM No.21.pdf	.pdf	26 Apr 2024	
G2.5.17		IPB B01 Issue Summary	016	PWH BCM No.22.pdf	.pdf	13 May 2024	
G2.5.18		IPB B01 Issue Summary	017	PWH BCM No.23.pdf	.pdf	29 May 2024	
G2.5.19		IPB B01 Issue Summary	018	PWH BCM No.24.pdf	.pdf	12 Jun 2024	
G2.5.20		IPB B01 Issue Summary	019	PWH BCM No.25.pdf	.pdf	21 Jun 2024	
G2.5.21		IPB B01 Issue Summary	020	PWH BCM No.26.pdf	.pdf	17 Jul 2024	



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ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G2.5.22		IPB B01 Issue Summary	021	PWH BCM No.27.pdf	.pdf	26 Jul 2024	
G2.5.23		IPB B01 Issue Summary	022	PWH BCM No.28.pdf	.pdf	9 Aug 2024	
G2.5.24		IPB B01 Issue Summary	023	PWH BCM No.29.pdf	.pdf	23 Aug 2024	
G2.5.25		IPB B01 Issue Summary	026	PWH BCM No.30.pdf	.pdf	6 Sep 2024	
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G2.5.27		IPB B01 Issue Summary	028	PWH BCM No.32.pdf	.pdf	10 Oct 2024	
G2.5.28		IPB B01 Issue Summary	029	PWH BCM No.33.pdf	.pdf	25 Oct 2024	
G2.5.29		IPB B01 Issue Summary	030	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
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G2.5.32		IPB B01 Issue Summary	033	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
G2.5.33		IPB B01 Issue Summary	034	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
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G2.5.35		IPB B01 Issue Summary	036	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.5.36		IPB B01 Issue Summary	037	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.5.37		IPB B01 Issue Summary	038	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
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G2.5.39		IPB B01 Issue Summary	040	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.5.40		IPB B01 Issue Summary	041	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.5.41		IPB B01 Issue Summary	042	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.5.42		IPB B01 Issue Summary	043	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.5.43		IPB B01 Issue Summary	044	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.5.44		IPB B01 Issue Summary	045	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.6	L00						
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G2.6.8		IPB L00 Issue and Clash Analysis Report	007	PWH2_BIM Issue and Clash Analysis Report_20240311.pdf	.pdf	11 Mar 2024	
G2.6.9		IPB L00 Issue and Clash Analysis Report	008	PWH BCM_No.18.pdf	.pdf	14 Mar 2024	
G2.6.10		IPB L00 Issue and Clash Analysis Report	009	PWH2_BIM Issue and Clash Analysis Report_20240322.pdf	.pdf	25 Mar 2024	
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G2.6.12		IPB L00 Issue Summary	011	PWH BCM_No.20.pdf	.pdf	15 Apr 2024	
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G2.6.15		IPB L00 Issue Summary	014	PWH BCM No.23.pdf	.pdf	29 May 2024	
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G2.6.17		IPB L00 Issue Summary	016	PWH BCM No.25.pdf	.pdf	21 Jun 2024	
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G2.6.20		IPB L00 Issue Summary	019	PWH BCM No.28.pdf	.pdf	9 Aug 2024	
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G2.6.22		IPB L00 Issue Summary	021	PWH BCM No.30.pdf	.pdf	6 Sep 2024	
G2.6.23		IPB L00 Issue Summary	022	PWH BCM No.31.pdf	.pdf	20 Sep 2024	
G2.6.24		IPB L00 Issue Summary	023	PWH BCM No.32.pdf	.pdf	10 Oct 2024	
G2.6.25		IPB L00 Issue Summary	024	PWH BCM No.33.pdf	.pdf	25 Oct 2024	
G2.6.26		IPB L00 Issue Summary	025	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
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G2.6.28		IPB L00 Issue Summary	027	PWH BCM No.36.pdf	.pdf	20 Dec 2024	
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G2.6.30		IPB L00 Issue Summary	029	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
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G2.6.32		IPB L00 Issue Summary	031	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.6.33		IPB L00 Issue Summary	032	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.6.34		IPB L00 Issue Summary	033	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
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G2.6.36		IPB L00 Issue Summary	035	PWH BCM No.44.pdf	.pdf	9 May 2025	
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G2.6.38		IPB L00 Issue Summary	037	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.6.39		IPB L00 Issue Summary	038	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.6.40		IPB L00 Issue Summary	039	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.6.41		IPB L00 Issue Summary	040	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.7	L01						
G2.7.1		IPB L01 Clash Analysis Report	000	PWH BCM_No.14.pdf	.pdf	17 Jan 2024	
G2.7.2		IPB L01 Clash Analysis Report	001	PWH BCM_No.15.pdf	.pdf	29 Jan 2024	
G2.7.3		IPB L01 Clash Analysis Report	002	PWH BCM_No.16.pdf	.pdf	6 Feb 2024	
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G2.7.5		IPB L01 Issue and Clash Analysis Report	004	PWH2_BIM Issue and Clash Analysis Report_20240301.pdf	.pdf	4 Mar 2024	
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G2.7.7		IPB L01 Issue and Clash Analysis Report	006	PWH BCM_No.18.pdf	.pdf	14 Mar 2024	
G2.7.8		IPB L01 Issue and Clash Analysis Report	007	PWH2_BIM Issue and Clash Analysis Report_20240322.pdf	.pdf	25 Mar 2024	

Task Information Delivery Plan					Revision : H		
Main Works for In-Patient Extension Block, Phase 2 (Stage 1)							
ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G2.7.9		IPB L01 Issue Summary	008	PWH BCM_No.19.pdf	.pdf	26 Mar 2024	
G2.7.10		IPB L01 Issue Summary	009	PWH BCM_No.20.pdf	.pdf	15 Apr 2024	
G2.7.11		IPB L01 Issue Summary	010	PWH BCM No.21.pdf	.pdf	26 Apr 2024	
G2.7.12		IPB L01 Issue Summary	011	PWH BCM No.22.pdf	.pdf	13 May 2024	
G2.7.13		IPB L01 Issue Summary	012	PWH BCM No.23.pdf	.pdf	29 May 2024	
G2.7.14		IPB L01 Issue Summary	013	PWH BCM No.24.pdf	.pdf	12 Jun 2024	
G2.7.15		IPB L01 Issue Summary	014	PWH BCM No.25.pdf	.pdf	21 Jun 2024	
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G2.7.17		IPB L01 Issue Summary	016	PWH BCM No.27.pdf	.pdf	26 Jul 2024	
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G2.9.12		IPB L03 Issue Summary	012	PWH BCM No.32.pdf	.pdf	10 Oct 2024	

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G2.10.2		IPB L04 Issue Summary	002	PWH BCM No.21.pdf	.pdf	26 Apr 2024	
G2.10.3		IPB L04 Issue Summary	003	PWH BCM No.22.pdf	.pdf	13 May 2024	
G2.10.4		IPB L04 Issue Summary	004	PWH BCM No.23.pdf	.pdf	29 May 2024	
G2.10.5		IPB L04 Issue Summary	005	PWH BCM No.24.pdf	.pdf	12 Jun 2024	
G2.10.6		IPB L04 Issue Summary	006	PWH BCM No.25.pdf	.pdf	21 Jun 2024	
G2.10.7		IPB L04 Issue Summary	007	PWH BCM No.26.pdf	.pdf	17 Jul 2024	
G2.10.8		IPB L04 Issue Summary	008	PWH BCM No.27.pdf	.pdf	26 Jul 2024	
G2.10.9		IPB L04 Issue Summary	009	PWH BCM No.28.pdf	.pdf	9 Aug 2024	
G2.10.10		IPB L04 Issue Summary	010	PWH BCM No.29.pdf	.pdf	23 Aug 2024	
G2.10.11		IPB L04 Issue Summary	011	PWH BCM No.30.pdf	.pdf	6 Sep 2024	
G2.10.12		IPB L04 Issue Summary	012	PWH BCM No.31.pdf	.pdf	20 Sep 2024	
G2.10.13		IPB L04 Issue Summary	013	PWH BCM No.32.pdf	.pdf	10 Oct 2024	
G2.10.14		IPB L04 Issue Summary	014	PWH BCM No.33.pdf	.pdf	25 Oct 2024	
G2.10.15		IPB L04 Issue Summary	015	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
G2.10.16		IPB L04 Issue Summary	016	PWH BCM No.35.pdf	.pdf	6 Dec 2024	
G2.10.17		IPB L04 Issue Summary	017	PWH BCM No.36.pdf	.pdf	20 Dec 2024	
G2.10.18		IPB L04 Issue Summary	018	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
G2.10.19		IPB L04 Issue Summary	019	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
G2.10.20		IPB L04 Issue Summary	020	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
G2.10.21		IPB L04 Issue Summary	021	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.10.22		IPB L04 Issue Summary	022	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.10.23		IPB L04 Issue Summary	023	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
G2.10.24		IPB L04 Issue Summary	024	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.10.25		IPB L04 Issue Summary	025	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.10.26		IPB L04 Issue Summary	026	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.10.27		IPB L04 Issue Summary	027	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.10.28		IPB L04 Issue Summary	028	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.10.29		IPB L04 Issue Summary	029	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.10.30		IPB L04 Issue Summary	030	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.11	L05						
G2.11.1		IPB L05 Issue Summary	001	PWH BCM No.21.pdf	.pdf	26 Apr 2024	
G2.11.2		IPB L05 Issue Summary	002	PWH BCM No.22.pdf	.pdf	13 May 2024	
G2.11.3		IPB L05 Issue Summary	003	PWH BCM No.23.pdf	.pdf	29 May 2024	
G2.11.4		IPB L05 Issue Summary	004	PWH BCM No.24.pdf	.pdf	12 Jun 2024	
G2.11.5		IPB L05 Issue Summary	005	PWH BCM No.25.pdf	.pdf	21 Jun 2024	
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G2.11.7		IPB L05 Issue Summary	007	PWH BCM No.27.pdf	.pdf	26 Jul 2024	
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G2.11.9		IPB L05 Issue Summary	009	PWH BCM No.29.pdf	.pdf	23 Aug 2024	
G2.11.10		IPB L05 Issue Summary	010	PWH BCM No.30.pdf	.pdf	6 Sep 2024	
G2.11.11		IPB L05 Issue Summary	011	PWH BCM No.31.pdf	.pdf	20 Sep 2024	
G2.11.12		IPB L05 Issue Summary	012	PWH BCM No.32.pdf	.pdf	10 Oct 2024	
G2.11.13		IPB L05 Issue Summary	013	PWH BCM No.33.pdf	.pdf	25 Oct 2024	
G2.11.14		IPB L05 Issue Summary	014	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
G2.11.15		IPB L05 Issue Summary	015	PWH BCM No.35.pdf	.pdf	6 Dec 2024	
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G2.11.18		IPB L05 Issue Summary	018	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
G2.11.19		IPB L05 Issue Summary	019	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
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G2.11.22		IPB L05 Issue Summary	022	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
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G2.11.24		IPB L05 Issue Summary	024	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.11.25		IPB L05 Issue Summary	025	PWH BCM No.45.pdf	.pdf	23 May 2025	

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ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G2.11.26	L06	IPB L05 Issue Summary	026	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.11.27		IPB L05 Issue Summary	027	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.11.28		IPB L05 Issue Summary	028	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.11.29		IPB L05 Issue Summary	029	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.12	L06						
G2.12.1		IPB L06 Issue Summary	001	PWH BCM No.25.pdf	.pdf	21 Jun 2024	
G2.12.2		IPB L06 Issue Summary	002	PWH BCM No.26.pdf	.pdf	17 Jul 2024	
G2.12.3		IPB L06 Issue Summary	003	PWH BCM No.27.pdf	.pdf	26 Jul 2024	
G2.12.4		IPB L06 Issue Summary	004	PWH BCM No.28.pdf	.pdf	9 Aug 2024	
G2.12.5		IPB L06 Issue Summary	005	PWH BCM No.29.pdf	.pdf	23 Aug 2024	
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G2.12.7		IPB L06 Issue Summary	007	PWH BCM No.31.pdf	.pdf	20 Sep 2024	
G2.12.8		IPB L06 Issue Summary	008	PWH BCM No.32.pdf	.pdf	10 Oct 2024	
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G2.12.10		IPB L06 Issue Summary	010	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
G2.12.11		IPB L06 Issue Summary	011	PWH BCM No.35.pdf	.pdf	6 Dec 2024	
G2.12.12		IPB L06 Issue Summary	012	PWH BCM No.36.pdf	.pdf	20 Dec 2024	
G2.12.13		IPB L06 Issue Summary	013	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
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G2.12.18		IPB L06 Issue Summary	018	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
G2.12.19		IPB L06 Issue Summary	019	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.12.20		IPB L06 Issue Summary	020	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.12.21		IPB L06 Issue Summary	021	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.12.22		IPB L06 Issue Summary	022	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.12.23		IPB L06 Issue Summary	023	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.12.24		IPB L06 Issue Summary	024	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
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G2.13.1		IPB L07 Issue Summary	001	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
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G2.13.3		IPB L07 Issue Summary	003	PWH BCM No.36.pdf	.pdf	20 Dec 2024	
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G2.13.10		IPB L07 Issue Summary	010	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.13.11		IPB L07 Issue Summary	011	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.13.12		IPB L07 Issue Summary	012	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.13.13		IPB L07 Issue Summary	013	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.13.14		IPB L07 Issue Summary	014	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
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G2.13.16		IPB L07 Issue Summary	016	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.14	L08						
G2.14.1		IPB L08 Issue Summary	001	PWH BCM No.28.pdf	.pdf	9 Aug 2024	
G2.14.2		IPB L08 Issue Summary	002	PWH BCM No.29.pdf	.pdf	23 Aug 2024	
G2.14.3		IPB L08 Issue Summary	003	PWH BCM No.30.pdf	.pdf	6 Sep 2024	
G2.14.4		IPB L08 Issue Summary	004	PWH BCM No.31.pdf	.pdf	20 Sep 2024	
G2.14.5		IPB L08 Issue Summary	005	PWH BCM No.32.pdf	.pdf	10 Oct 2024	
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G2.14.7		IPB L08 Issue Summary	007	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
G2.14.8		IPB L08 Issue Summary	008	PWH BCM No.35.pdf	.pdf	6 Dec 2024	
G2.14.9		IPB L08 Issue Summary	009	PWH BCM No.36.pdf	.pdf	20 Dec 2024	
G2.14.10		IPB L08 Issue Summary	010	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
G2.14.11		IPB L08 Issue Summary	011	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
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G2.14.13		IPB L08 Issue Summary	013	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.14.14		IPB L08 Issue Summary	014	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
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G2.14.17		IPB L08 Issue Summary	017	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.14.18		IPB L08 Issue Summary	018	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.14.19		IPB L08 Issue Summary	019	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
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G2.15	L09						
G2.15.1		IPB L09 Issue Summary	001	PWH BCM No.34.pdf	.pdf	14 Nov 2024	
G2.15.2		IPB L09 Issue Summary	002	PWH BCM No.35.pdf	.pdf	6 Dec 2024	
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Task Information Delivery Plan					Revision : H		
Main Works for In-Patient Extension Block, Phase 2 (Stage 1)							
ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G2.15.4		IPB L09 Issue Summary	004	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
G2.15.5		IPB L09 Issue Summary	005	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
G2.15.6		IPB L09 Issue Summary	006	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
G2.15.7		IPB L09 Issue Summary	007	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.15.8		IPB L09 Issue Summary	008	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.15.9		IPB L09 Issue Summary	009	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
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G2.15.12		IPB L09 Issue Summary	012	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.15.13		IPB L09 Issue Summary	013	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
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G2.18.4		IPB L13 Issue Summary	004	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
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G2.19	L14						
G2.19.1		IPB L14 Issue Summary	001	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
G2.19.2		IPB L14 Issue Summary	002	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
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G2.20.5		IPB L15 Issue Summary	005	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.20.6		IPB L15 Issue Summary	006	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
G2.20.7		IPB L15 Issue Summary	007	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.20.8		IPB L15 Issue Summary	008	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.20.9		IPB L15 Issue Summary	009	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.20.10		IPB L15 Issue Summary	010	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.20.11		IPB L15 Issue Summary	011	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.20.12		IPB L15 Issue Summary	012	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.20.13		IPB L15 Issue Summary	013	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.21	L16						
G2.21.1		IPB L16 Issue Summary	001	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
G2.21.2		IPB L16 Issue Summary	002	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.21.3		IPB L16 Issue Summary	003	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.21.4		IPB L16 Issue Summary	004	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
G2.21.5		IPB L16 Issue Summary	005	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.21.6		IPB L16 Issue Summary	006	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.21.7		IPB L16 Issue Summary	007	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.21.8		IPB L16 Issue Summary	008	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.21.9		IPB L16 Issue Summary	009	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.21.10		IPB L16 Issue Summary	010	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.21.11		IPB L16 Issue Summary	011	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.22	L17						
G2.22.1		IPB L17 Issue Summary	001	PWH BCM No.36.pdf	.pdf	20 Dec 2024	
G2.22.2		IPB L17 Issue Summary	002	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
G2.22.3		IPB L17 Issue Summary	003	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
G2.22.4		IPB L17 Issue Summary	004	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
G2.22.5		IPB L17 Issue Summary	005	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.22.6		IPB L17 Issue Summary	006	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.22.7		IPB L17 Issue Summary	007	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
G2.22.8		IPB L17 Issue Summary	008	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.22.9		IPB L17 Issue Summary	009	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.22.10		IPB L17 Issue Summary	010	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.22.11		IPB L17 Issue Summary	011	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.22.12		IPB L17 Issue Summary	012	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.22.13		IPB L17 Issue Summary	013	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.22.14		IPB L17 Issue Summary	014	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.23	L18						
G2.23.1		IPB L18 Issue Summary	001	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
G2.23.2		IPB L18 Issue Summary	002	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
G2.23.3		IPB L18 Issue Summary	003	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
G2.23.4		IPB L18 Issue Summary	004	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.23.5		IPB L18 Issue Summary	005	PWH BCM No.41.pdf	.pdf	18 Mar 2025	
G2.23.6		IPB L18 Issue Summary	006	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
G2.23.7		IPB L18 Issue Summary	007	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.23.8		IPB L18 Issue Summary	008	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.23.9		IPB L18 Issue Summary	009	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.23.10		IPB L18 Issue Summary	010	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.23.11		IPB L18 Issue Summary	011	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.23.12		IPB L18 Issue Summary	012	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.23.13		IPB L18 Issue Summary	013	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.24	L19						
G2.24.1		IPB L19 Issue Summary	001	PWH BCM No.36.pdf	.pdf	20 Dec 2024	
G2.24.2		IPB L19 Issue Summary	002	PWH BCM No.37.pdf	.pdf	6 Jan 2025	
G2.24.3		IPB L19 Issue Summary	003	PWH BCM No.38.pdf	.pdf	20 Jan 2025	
G2.24.4		IPB L19 Issue Summary	004	PWH BCM No.39.pdf	.pdf	14 Feb 2025	
G2.24.5		IPB L19 Issue Summary	005	PWH BCM No.40.pdf	.pdf	4 Mar 2025	
G2.24.6		IPB L19 Issue Summary	006	PWH BCM No.41.pdf	.pdf	18 Mar 2025	

Task Information Delivery Plan					Revision : H		
Main Works for In-Patient Extension Block, Phase 2 (Stage 1)							
ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G2.24.7		IPB L19 Issue Summary	007	PWH BCM No.42.pdf	.pdf	11 Apr 2025	
G2.24.8		IPB L19 Issue Summary	008	PWH BCM No.43.pdf	.pdf	25 Apr 2025	
G2.24.9		IPB L19 Issue Summary	009	PWH BCM No.44.pdf	.pdf	9 May 2025	
G2.24.10		IPB L19 Issue Summary	010	PWH BCM No.45.pdf	.pdf	23 May 2025	
G2.24.11		IPB L19 Issue Summary	011	PWH BCM No.46.pdf	.pdf	9 Jun 2025	
G2.24.12		IPB L19 Issue Summary	012	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.24.13		IPB L19 Issue Summary	013	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.24.14		IPB L19 Issue Summary	014	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.25	MRF						
G2.25.1		IPB MRF Issue Summary	001	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.25.2		IPB MRF Issue Summary	002	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.25.3		IPB MRF Issue Summary	003	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.26	URF						
G2.26.1		IPB URF Issue Summary	001	PWH BCM No.47.pdf	.pdf	20 Jun 2025	
G2.26.2		IPB URF Issue Summary	002	PWH BCM No.48.pdf	.pdf	3 Jul 2025	
G2.26.3		IPB URF Issue Summary	003	PWH BCM No.49.pdf	.pdf	21 Jul 2025	
G2.27	Headroom Issues Report						
G2.27.1		IPB Headroom Issues Report (B01-L11)	001	PWH_BIM Clash Analysis Report_Headroom	.pdf	04/25/2025	
G2.27.2		IPB Headroom Issues Report (B01-L11)	002	PWH_BIM Clash Analysis Report_Headroom	.pdf	05/09/2025	
G2.27.3		IPB Headroom Issues Report (B01-L11)	003	PWH_BIM Clash Analysis Report_Headroom	.pdf	05/23/2025	
G2.27.4		IPB Headroom Issues Report (B01-L11)	004	PWH_BIM Clash Analysis Report_Headroom	.pdf	06/06/2025	
G2.27.5		IPB Headroom Issues Report (B01-L11)	005	PWH_BIM Clash Analysis Report_Headroom	.pdf	06/20/2025	
G2.27.6		IPB Headroom Issues Report (B01-L11)	006	PWH_BIM Clash Analysis Report_Headroom	.pdf	07/03/2025	
G2.27.7		IPB Headroom Issues Report (B01-L11)	007	PWH_BIM Clash Analysis Report_Headroom	.pdf	07/18/2025	
G3	Phase Planning						
G3.1	Phase Planning						
G3.1.1		Planned vs Actual Progress	0	4D Construction Sequence of Master Programme (Rev.0)	.mp4	7 Sep 2023	
G3.1.2		Planned vs Actual Progress	A	4D Construction Sequence of Master Programme (Rev.A)_MP(Rev.0)	.mp4	6 Oct 2023	
G3.1.3		Planned vs Actual Progress	B	4D Construction Sequence of Master Programme (Rev.B)_MP(Rev.0)_B02-L00	.mp4	18 Oct 2023	
G3.1.4		Planned vs Actual Progress	C	4D Construction Sequence of Master Programme (Rev.C)_MP(Rev.0)_B02-L00	.mp4	18 Oct 2023	
G3.1.5		Planned vs Actual Progress	D	4D Construction Sequence of Master Programme (Rev.D)_MP(Rev.0)_B02-L00	.mp4	30 Nov 2023	
G3.1.6		Planned vs Actual Progress	005	4D Construction Sequence of Master Programme (Rev.05)_MP(Rev.0)_B02-L00	.mp4	18 Dec 2023	
G3.1.7		Planned vs Actual Progress	006	4D Construction Sequence of Master Programme (Rev.006)_MP(Rev.0)_B02-L00	.mp4	3 Jan 2024	
G3.1.8		Planned vs Actual Progress	007	4D Construction Sequence of Master Programme (Rev.007)_MP(Rev.0)	.mp4	18 Jan 2024	
G3.1.9		Planned vs Actual Progress	008	4D Construction Sequence of Master Programme (Rev.008)_MP(Rev.0)	.mp4	24 Jan 2024	
G3.1.10		Planned vs Actual Progress	009	4D Construction Sequence of Master Programme (Rev.009)_MP(Rev.1)	.mp4	14 Feb 2024	
G3.1.11		Planned vs Actual Progress	010	4D Construction Sequence of Master Programme (Rev.010)_MP(Rev.1)	.mp4	22 Feb 2024	
G3.1.12		Planned vs Actual Progress	011	4D Construction Sequence of Master Programme (Rev.011)_MP(Rev.1)	.mp4	6 Mar 2024	
G3.1.13		Planned vs Actual Progress	012	4D Construction Sequence of Master Programme (Rev.012)_MP(Rev.1)	.mp4	25 Mar 2024	
G3.1.14		Planned vs Actual Progress	013	4D Construction Sequence of Master Programme (Rev.013)_MP(Rev.2)	.mp4	16 Apr 2024	
G3.1.15		Planned vs Actual Progress	014	4D Construction Sequence of Master Programme (Rev.014)_MP(Rev.2)	.mp4	8 May 2024	
G3.1.16		Planned vs Actual Progress	015	4D Construction Sequence of Master Programme (Rev.015)_MP(Rev.2)	.mp4	17 May 2024	
G3.1.17		Planned vs Actual Progress	016	4D Construction Sequence of Master Programme (Rev.016)_MP(Rev.2)	.mp4	7 Jun 2024	
G3.1.18		Planned vs Actual Progress	017	4D Construction Sequence of Master Programme (Rev.017)_MP(Rev.2)	.mp4	12 Jun 2024	
G3.1.19		Planned vs Actual Progress	018	4D Construction Sequence of Master Programme (Rev.018)_MP(Rev.2)	.mp4	25 Jun 2024	
G3.1.20		Planned vs Actual Progress	019	4D Construction Sequence of Master Programme (Rev.019)_MP(Rev.2)	.mp4	15 Jul 2024	
G3.1.21		Planned vs Actual Progress	020	4D Construction Sequence of Master Programme (Rev.020)_MP(Rev.2)	.mp4	25 Jul 2024	
G3.1.22		Planned vs Actual Progress	021	4D Construction Sequence of Master Programme (Rev.021)_MP(Rev.2)	.mp4	12 Aug 2024	
G3.1.23		Planned vs Actual Progress	022	4D Construction Sequence of Master Programme (Rev.022)_MP(Rev.3)	.mp4	22 Aug 2024	
G3.1.24		Planned vs Actual Progress	023	4D Construction Sequence of Master Programme (Rev.023)_MP(Rev.3)	.mp4	5 Sep 2024	
G3.1.25		Planned vs Actual Progress	024	4D Construction Sequence of Master Programme (Rev.024)_MP(Rev.3)	.mp4	17 Sep 2024	
G3.1.26		Planned vs Actual Progress	025	4D Construction Sequence of Master Programme (Rev.025)_MP(Rev.3A)	.mp4	7 Oct 2024	
G3.1.27		Planned vs Actual Progress	026	4D Construction Sequence of Master Programme (Rev.026)_MP(Rev.3A)	.mp4	16 Oct 2024	
G3.1.28		Planned vs Actual Progress	027	4D Construction Sequence of Master Programme (Rev.027)_MP(Rev.3A)	.mp4	1 Nov 2024	

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Main Works for In-Patient Extension Block, Phase 2 (Stage 1)							
ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G3.1.29		Planned vs Actual Progress	028	4D Construction Sequence of Master Programme (Rev.028)_MP(Rev.3A)	.mp4	15 Nov 2024	
G3.1.30		Planned vs Actual Progress	029	4D Construction Sequence of Master Programme (Rev.029)_MP(Rev.3A)	.mp4	20 Dec 2024	
G3.1.31		Planned vs Actual Progress	030	4D Construction Sequence of Master Programme (Rev.030)_MP(Rev.3A)	.mp4	3 Jan 2025	
G3.1.32		Planned vs Actual Progress	031	4D Construction Sequence of Master Programme (Rev.031)_MP(Rev.3A)	.mp4	13 Jan 2025	
G3.1.33		Planned vs Actual Progress	032	4D Construction Sequence of Master Programme (Rev.032)_MP(Rev.3A)	.mp4	23 Jan 2025	
G3.1.34		Planned vs Actual Progress	033	4D Construction Sequence of Master Programme (Rev.033)_MP(Rev.3A)	.mp4	28 Feb 2025	
G3.1.35		Planned vs Actual Progress	034	4D Construction Sequence of Master Programme (Rev.034)_MP(Rev.4)	.mp4	17 Mar 2025	
G3.1.36		Planned vs Actual Progress	035	4D Construction Sequence of Master Programme (Rev.035)_MP(Rev.4)	.mp4	26 Mar 2025	
G3.1.37		Planned vs Actual Progress	036	4D Construction Sequence of Master Programme (Rev.036)_MP(Rev.4)	.mp4	10 Apr 2025	
G3.1.38		Planned vs Actual Progress	037	4D Construction Sequence of Master Programme (Rev.037)_MP(Rev.4)	.mp4	25 Apr 2025	
G3.1.39		Planned vs Actual Progress	038	4D Construction Sequence of Master Programme (Rev.038)_MP(Rev.4)	.mp4	7 May 2025	
G3.1.40		Planned vs Actual Progress	039	4D Construction Sequence of Master Programme (Rev.039)_MP(Rev.4)	.mp4	23 May 2025	
G3.1.41		Planned vs Actual Progress	040	4D Construction Sequence of Master Programme (Rev.040)_MP(Rev.4)	.mp4	4 Jun 2025	
G3.1.42		Planned vs Actual Progress	041	4D Construction Sequence of Master Programme (Rev.041)_MP(Rev.4)	.mp4	20 Jun 2025	
G3.2	Detail 4D Simulation						
G3.2.1		4DMS for MiC Installation Method	0	4DMS for MiC Installation Method (Rev.0).mp4	.mp4	18 Nov 2023	
G3.2.2		4DMS for MiC Installation Method	A	4DMS for MiC Installation Method (Rev.A).mp4	.mp4	14 Feb 2024	
		4DMS for MiC Installation Method	B	4DMS for MiC Installation Method (Rev.B).mp4	.mp4	30 Sep 2024	
		4DMS for MiC Installation Method	C	4DMS for MiC Installation Method (Rev.C).mp4	.mp4	20 Dec 2024	
G3.2.3		4DMS for MiC Logistic Delivery	0	4DMS for MiC Logistic Delivery (Rev.0).mp4	.mp4	18 Nov 2023	
G3.2.3		4DMS for MiC Logistic Delivery	A	4DMS for MiC Logistic Delivery (Rev.A).mp4	.mp4	30 Sep 2024	
		4DMS for Façade Installation Method	0	4DMS for Facade Installation Method (Rev.0)	.mp4	26 May 2025	
G3.3	Integrated Construction Activities						
G3.3.1		4D Construction Sequence of IPEB & TWB	000	4D Construction Sequence of IPEB & TWB (Rev.000)_MP(Rev.2)	.mp4	7 Aug 2024	
G3.3.2		4D Construction Sequence of IPEB & TWB	001	4D Construction Sequence of IPEB & TWB (Rev.001)_MP(Rev.3A)	.mp4	16 Oct 2024	
		4D Construction Sequence of IPEB & TWB	002	4D Construction Sequence of IPEB & TWB (Rev.002)_MP(Rev.4)	.mp4	24 Mar 2025	
G4	Existing Condition Model						
G4.1	Existing Condition Model						
G4.1.1		UU BIM Model	0	8110098393-CSC-IPB-ZZ-ZZ-CM.nwd	.nwd	27 Feb 2024	
G5	As-Built Model						
G5.1	Architectural As-Built BIM Model						
G5.1.1		Architectural As-built BIM Model	0	8110098393-CSC-IPB-ZZ-AR-M3	.rvt	27 Jan 2026	
G5.1.2		Architectural As-built BIM Model - Furniture & Equipment	0	8110098393-CSC-IPB-ZZ-AR_FE-M3	.rvt	27 Jan 2026	
G5.1.3		Architectural As-built BIM Model - Forward Procured Equipment	0	8110098393-CSC-IPB-ZZ-FE-M3	.rvt	27 Jan 2026	
G5.1.4		Architectural As-built BIM Model - Façade	0	8110098393-CSC-IPB-ZZ-AR_FA-M3	.rvt	27 Jan 2026	
G5.2	Structural As-Built BIM Model						
G5.2.1		Structural As-built BIM Model	0	8110098393-CSC-IPB-ZZ-ST-M3	.rvt	27 Jan 2026	
G5.3	Building Services As-Built BIM Model						
G5.3.1		Building Services As-built BIM Model - Underground Utilities	0	8110098393-CSC-IPB-XX-BS_UU-M3	.rvt	27 Jan 2026	
G5.3.2		Building Services As-built BIM Model - HVAC	0	8110098393-CSC-IPB-B01-BS_AC-M3	.rvt	27 Jan 2026	
G5.3.3		Building Services As-built BIM Model - EL	0	8110098393-CSC-IPB-L00-BS_EL-M3	.rvt	27 Jan 2026	
G5.3.4		Building Services As-built BIM Model - ELV	0	8110098393-CSC-IPB-L01-BS_ELV-M3	.rvt	27 Jan 2026	
G5.3.5		Building Services As-built BIM Model - FS	0	8110098393-CSC-IPB-L02-BS_FS-M3	.rvt	27 Jan 2026	
G5.3.6		Building Services As-built BIM Model - PL	0	8110098393-CSC-IPB-L03-BS_PL-M3	.rvt	27 Jan 2026	
G5.3.7		Building Services As-built BIM Model - DR	0	8110098393-CSC-IPB-L04-BS_DR-M3	.rvt	27 Jan 2026	
G5.3.8		Building Services As-built BIM Model - MG	0	8110098393-CSC-IPB-L05-BS_MG-M3	.rvt	27 Jan 2026	
G5.3.9		Building Services As-built BIM Model - TG	0	8110098393-CSC-IPB-L06-BS_TG-M3	.rvt	27 Jan 2026	
G5.3.10		Building Services As-built BIM Model - PTS	0	8110098393-CSC-IPB-L07-BS_PTS-M3	.rvt	27 Jan 2026	
G6	QAQC Model Compliance Report						
G6.1	QAQC Model Compliance Report						
G6.1.1		QAQC Model Compliance Report - B02	0	PWH - BIM Model Audit Check List - B02	.pdf	15 Mar 2024	
G6.1.2		QAQC Model Compliance Report - B01	0	PWH - BIM Model Audit Check List - B01	.pdf	18 Apr 2024	
G6.1.3		QAQC Model Compliance Report - L00	0	PWH - BIM Model Audit Check List - L00	.pdf	17 May 2024	
G6.1.4		QAQC Model Compliance Report - L01	0	PWH - BIM Model Audit Check List - L01	.pdf	19 Jun 2024	
G6.1.5		QAQC Model Compliance Report - L02	0	PWH - BIM Model Audit Check List - L02	.pdf	15 Jul 2024	
G6.1.6		QAQC Model Compliance Report - L03	0	PWH - BIM Model Audit Check List - L03	.pdf	15 Aug 2024	
G6.1.7		QAQC Model Compliance Report - L04	0	PWH - BIM Model Audit Check List - L04	.pdf	20 Sep 2024	
G6.1.8		QAQC Model Compliance Report - L05	0	PWH - BIM Model Audit Check List - L05	.pdf	22 Oct 2024	
G6.1.9		QAQC Model Compliance Report - L06	0	PWH - BIM Model Audit Check List - L06	.pdf	21 Nov 2024	
G6.1.10		QAQC Model Compliance Report - L07	0	PWH - BIM Model Audit Check List - L07	.pdf	27 Dec 2024	
G6.1.11		QAQC Model Compliance Report - L08	0	PWH - BIM Model Audit Check List - L08	.pdf	24 Jan 2025	
G6.1.12		QAQC Model Compliance Report - L09	0	PWH - BIM Model Audit Check List - L09	.pdf	28 Feb 2025	
G6.1.13		QAQC Model Compliance Report - L10	0	PWH - BIM Model Audit Check List - L10	.pdf	24 Mar 2025	
G6.1.14		QAQC Model Compliance Report - L11	0	PWH - BIM Model Audit Check List - L11	.pdf	24 Apr 2025	



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ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
G6.1.15		QAQC Model Compliance Report - L12	0	PWH - BIM Model Audit Check List - L12	.pdf	27 May 2025	
G6.1.16		QAQC Model Compliance Report - L13	0	PWH - BIM Model Audit Check List - L13	.pdf	27 Jun 2025	
G6.1.17		QAQC Model Compliance Report - L14	0	PWH - BIM Model Audit Check List - L14	.pdf	15 Jul 2025	
G6.1.18		QAQC Model Compliance Report - L15	0	PWH - BIM Model Audit Check List - L15	.pdf	15 Aug 2025	
G6.1.19		QAQC Model Compliance Report - L16	0	PWH - BIM Model Audit Check List - L16	.pdf	15 Sep 2025	
G6.1.20		QAQC Model Compliance Report - L17	0	PWH - BIM Model Audit Check List - L17	.pdf	15 Oct 2025	
G6.1.21		QAQC Model Compliance Report - L18	0	PWH - BIM Model Audit Check List - L18	.pdf	17 Nov 2025	
G6.1.22		QAQC Model Compliance Report - L19	0	PWH - BIM Model Audit Check List - L19	.pdf	15 Dec 2025	
G6.1.23		QAQC Model Compliance Report - MRF	0	PWH - BIM Model Audit Check List - MRF	.pdf	15 Jan 2026	
G6.1.24		QAQC Model Compliance Report - URF	0	PWH - BIM Model Audit Check List - URF	.pdf	16 Feb 2026	
G6.1.25		QAQC Model Compliance Report - Façade	0	PWH - BIM Model Audit Check List - Façade	.pdf	16 Feb 2026	
G7	5D Modelling						
G7.1	Interim Payment						
G7.1.1		2024 Jan Payment	000	8110098393-CSC-IPB-B02-ST-M3	.rvt	19 Feb 2024	
		2024 Jan Payment	000	8110098393-CSC-IPB-B01-ST-M3	.rvt	19 Feb 2024	
G7.1.2		2024 Feb Payment	000	8110098393-CSC-IPB-B02-ST-M3	.rvt	13 Mar 2024	
		2024 Feb Payment	000	8110098393-CSC-IPB-B01-ST-M3	.rvt	13 Mar 2024	
G7.1.3		2024 Mar Payment	000	8110098393-CSC-IPB-B02-ST-M3	.rvt	5 Apr 2024	
		2024 Mar Payment	000	8110098393-CSC-IPB-B01-ST-M3	.rvt	5 Apr 2024	
G7.1.4		2024 Apr Payment (IP11)	IP11	8110098393-CSC-IPB-B02-ST-M3	.rvt	8 May 2024	
		2024 Apr Payment (IP11)	IP11	8110098393-CSC-IPB-B01-ST-M3	.rvt	8 May 2024	
		2024 Apr Payment (IP11)	IP11	8110098393-CSC-IPB-L00-ST-M3	.rvt	8 May 2024	
G7.1.5		2024 May Payment (IP12)	IP12	8110098393-CSC-IPB-B01-ST-M3	.rvt	31 May 2024	
		2024 May Payment (IP12)	IP12	8110098393-CSC-IPB-L00-ST-M3	.rvt	31 May 2024	
		2024 May Payment (IP12)	IP12	8110098393-CSC-IPB-ZZ-ST-CM	.rvt	31 May 2024	
G7.1.6		2024 Jun Payment (IP13)	IP13	8110098393-CSC-IPB-B01-ST-M3	.rvt	28 Jun 2024	
		2024 Jun Payment (IP13)	IP13	8110098393-CSC-IPB-L00-ST-M3	.rvt	28 Jun 2024	
		2024 Jun Payment (IP13)	IP13	8110098393-CSC-IPB-ZZ-ST-CM	.rvt	28 Jun 2024	
G7.1.7		2024 Jul Payment (IP14)	IP14	8110098393-CSC-IPB-B01-ST-M3	.rvt	5 Aug 2024	
		2024 Jul Payment (IP14)	IP14	8110098393-CSC-IPB-L00-ST-M3	.rvt	5 Aug 2024	
		2024 Jul Payment (IP14)	IP14	8110098393-CSC-IPB-L01-ST-M3	.rvt	5 Aug 2024	
		2024 Jul Payment (IP14)	IP14	8110098393-CSC-IPB-ZZ-ST-CM	.rvt	5 Aug 2024	
G7.1.8		2024 Aug Payment (IP15)	IP15	8110098393-CSC-IPB-B01-ST-M3	.rvt	4 Sep 2024	
		2024 Aug Payment (IP15)	IP15	8110098393-CSC-IPB-L00-ST-M3	.rvt	4 Sep 2024	
		2024 Aug Payment (IP15)	IP15	8110098393-CSC-IPB-L01-ST-M3	.rvt	4 Sep 2024	
		2024 Aug Payment (IP15)	IP15	8110098393-CSC-IPB-ZZ-ST-CM	.rvt	4 Sep 2024	
G7.1.9		2024 Sep Payment (IP16)	IP16	8110098393-CSC-IPB-B01-ST-M3	.rvt	3 Oct 2024	
		2024 Sep Payment (IP16)	IP16	8110098393-CSC-IPB-L00-ST-M3	.rvt	3 Oct 2024	
		2024 Sep Payment (IP16)	IP16	8110098393-CSC-IPB-L01-ST-M3	.rvt	3 Oct 2024	
		2024 Sep Payment (IP16)	IP16	8110098393-CSC-IPB-L02-ST-M3	.rvt	3 Oct 2024	
		2024 Sep Payment (IP16)	IP16	8110098393-CSC-IPB-ZZ-ST-CM	.rvt	3 Oct 2024	
G7.1.11		2024 Oct Payment (IP17)	IP17	8110098393-CSC-IPB-B01-ST-M3	.rvt	5 Nov 2024	
		2024 Oct Payment (IP17)	IP17	8110098393-CSC-IPB-L00-ST-M3	.rvt	5 Nov 2024	
		2024 Oct Payment (IP17)	IP17	8110098393-CSC-IPB-L01-ST-M3	.rvt	5 Nov 2024	
		2024 Oct Payment (IP17)	IP17	8110098393-CSC-IPB-L02-ST-M3	.rvt	5 Nov 2024	
		2024 Oct Payment (IP17)	IP17	8110098393-CSC-IPB-ZZ-ST-CM	.rvt	5 Nov 2024	
G7.1.12		2024 Oct Payment (IP18)	IP18	8110098393-CSC-IPB-B01-ST-M3	.rvt	6 Dec 2024	
		2024 Oct Payment (IP18)	IP18	8110098393-CSC-IPB-L00-ST-M3	.rvt	6 Dec 2024	
		2024 Oct Payment (IP18)	IP18	8110098393-CSC-IPB-L01-ST-M3	.rvt	6 Dec 2024	
		2024 Oct Payment (IP18)	IP18	8110098393-CSC-IPB-L02-ST-M3	.rvt	6 Dec 2024	
G7.1.13		2024 Oct Payment (IP19)	IP19	8110098393-CSC-IPB-B01-ST-M3	.rvt	31 Dec 2024	
		2024 Oct Payment (IP19)	IP19	8110098393-CSC-IPB-L00-ST-M3	.rvt	31 Dec 2024	
		2024 Oct Payment (IP19)	IP19	8110098393-CSC-IPB-L01-ST-M3	.rvt	31 Dec 2024	
		2024 Oct Payment (IP19)	IP19	8110098393-CSC-IPB-L02-ST-M3	.rvt	31 Dec 2024	
		2024 Oct Payment (IP19)	IP19	8110098393-CSC-IPB-L03-ST-M3	.rvt	31 Dec 2024	
G7.1.14		2024 Oct Payment (IP20)	IP20	8110098393-CSC-IPB-B01-ST-M3	.rvt	6 Feb 2025	
		2024 Oct Payment (IP20)	IP20	8110098393-CSC-IPB-L00-ST-M3	.rvt	6 Feb 2025	
		2024 Oct Payment (IP20)	IP20	8110098393-CSC-IPB-L01-ST-M3	.rvt	6 Feb 2025	
		2024 Oct Payment (IP20)	IP20	8110098393-CSC-IPB-L02-ST-M3	.rvt	6 Feb 2025	
		2024 Oct Payment (IP20)	IP20	8110098393-CSC-IPB-L03-ST-M3	.rvt	6 Feb 2025	
G7.1.15		2024 Oct Payment (IP21)	IP21	8110098393-CSC-IPB-B01-ST-M3	.rvt	4 Mar 2025	
		2024 Oct Payment (IP21)	IP21	8110098393-CSC-IPB-L00-ST-M3	.rvt	4 Mar 2025	
		2024 Oct Payment (IP21)	IP21	8110098393-CSC-IPB-L01-ST-M3	.rvt	4 Mar 2025	
		2024 Oct Payment (IP21)	IP21	8110098393-CSC-IPB-L02-ST-M3	.rvt	4 Mar 2025	
		2024 Oct Payment (IP21)	IP21	8110098393-CSC-IPB-L03-ST-M3	.rvt	4 Mar 2025	
		2024 Oct Payment (IP21)	IP21	8110098393-CSC-IPB-L04-ST-M3	.rvt	4 Mar 2025	
G7.1.16		2024 Oct Payment (IP22)	IP22	8110098393-CSC-IPB-B01-ST-M3	.rvt	8 Apr 2025	
		2024 Oct Payment (IP22)	IP22	8110098393-CSC-IPB-L00-ST-M3	.rvt	8 Apr 2025	
		2024 Oct Payment (IP22)	IP22	8110098393-CSC-IPB-L01-ST-M3	.rvt	8 Apr 2025	
		2024 Oct Payment (IP22)	IP22	8110098393-CSC-IPB-L02-ST-M3	.rvt	8 Apr 2025	
		2024 Oct Payment (IP22)	IP22	8110098393-CSC-IPB-L03-ST-M3	.rvt	8 Apr 2025	
		2024 Oct Payment (IP22)	IP22	8110098393-CSC-IPB-L04-ST-M3	.rvt	8 Apr 2025	
G7.1.17		2024 Oct Payment (IP23)	IP23	8110098393-CSC-IPB-B01-ST-M3	.rvt	29 Apr 2025	
		2024 Oct Payment (IP23)	IP23	8110098393-CSC-IPB-L00-ST-M3	.rvt	29 Apr 2025	

Task Information Delivery Plan					Revision : H		
Main Works for In-Patient Extension Block, Phase 2 (Stage 1)							
ITEM ID	GROUP OF ITEM	DESCRIPTION OF ITEM	REV.	FILE NAME	FORMAT (.rvt .dwg .pdf .nwd & etc.)	Planned Submission Date	CDE LOCATION
		2024 Oct Payment (IP23)	IP23	8110098393-CSC-IPB-L01-ST-M3	.rvt	29 Apr 2025	
		2024 Oct Payment (IP23)	IP23	8110098393-CSC-IPB-L02-ST-M3	.rvt	29 Apr 2025	
		2024 Oct Payment (IP23)	IP23	8110098393-CSC-IPB-L03-ST-M3	.rvt	29 Apr 2025	
		2024 Oct Payment (IP23)	IP23	8110098393-CSC-IPB-L04-ST-M3	.rvt	29 Apr 2025	
		2024 Oct Payment (IP23)	IP23	8110098393-CSC-IPB-L05-ST-M3	.rvt	29 Apr 2025	
		2024 Oct Payment (IP23)	IP23	8110098393-CSC-IPB-L06-ST-M3	.rvt	29 Apr 2025	
G7.1.18		2024 Oct Payment (IP24)	IP24	8110098393-CSC-IPB-L02-ST-M3	.rvt	4 Jun 2025	
		2024 Oct Payment (IP24)	IP24	8110098393-CSC-IPB-L03-ST-M3	.rvt	4 Jun 2025	
		2024 Oct Payment (IP24)	IP24	8110098393-CSC-IPB-L04-ST-M3	.rvt	4 Jun 2025	
		2024 Oct Payment (IP24)	IP24	8110098393-CSC-IPB-L05-ST-M3	.rvt	4 Jun 2025	
		2024 Oct Payment (IP24)	IP24	8110098393-CSC-IPB-L06-ST-M3	.rvt	4 Jun 2025	
		2024 Oct Payment (IP24)	IP24	8110098393-CSC-IPB-L07-ST-M3	.rvt	4 Jun 2025	
G7.1.19		2024 Oct Payment (IP25)	IP25	8110098393-CSC-IPB-L04-ST-M3	.rvt	3 Jul 2025	
		2024 Oct Payment (IP25)	IP25	8110098393-CSC-IPB-L05-ST-M3	.rvt	3 Jul 2025	
		2024 Oct Payment (IP25)	IP25	8110098393-CSC-IPB-L06-ST-M3	.rvt	3 Jul 2025	
		2024 Oct Payment (IP25)	IP25	8110098393-CSC-IPB-L07-ST-M3	.rvt	3 Jul 2025	
		2024 Oct Payment (IP25)	IP25	8110098393-CSC-IPB-L08-ST-M3	.rvt	3 Jul 2025	

## Appendix C – LOD Matrix

# 1. Site, Landscape and Architectural Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Topography (Existing Site and surrounding land use)	CS	400	400	CS	400	500
Topography (Site Formation)	CS	400	400	CS	400	500
Natural Slope	CS	400	400	CS	400	500
Artificial Slope	CS	400	400	CS	400	500
Flexible Barrier	CS	400	400	CS	400	500
Rigid Barrier	CS	400	400	CS	400	500
Geological model (soil, fill, rock)	CS	400	400	CS	400	500
Pavement (Carriageway, Footpath, Cycle Track)	CS	400	400	CS	400	500
Profile Barrier, Parapet, Kerbs, Traffic island	CS	400	400	CS	400	500
Noise Barrier	CS	400	400	CS	400	500
Planter	CS	400	400	CS	400	500
Planter Tree	CS	400	400	CS	400	500
Bollard	CS	400	400	CS	400	500
Signage	CS	400	400	CS	400	500
Gully, Services Channel / Covers	CS	400	400	CS	400	500
Building Massing Model	CS	400	400	CS	400	500
Temporary Works and False Works (Including Earth works, ELS works & RC works, etc.)	CS	400	400	CS	400	500
Construction Site Facilities (Including Hoarding, Guard House, Site Office & Entrance Associated Facilities, etc.)	CS	400	400	CS	400	500
Construction Plant and Equipment (Including Crane, Site Machine, etc.)	CS	400	400	CS	400	500
Room space, corridor, plant & equipment room	CS	400	400	CS	400	500
Elevator shaft space	CS	400	400	CS	400	500
Floor, slab, ramp, roof	CS	400	400	CS	400	500
Floor Finishes	CS	400	400	CS	400	500
Basic columns	CS	400	400	CS	400	500
Exterior wall	CS	400	400	CS	400	500
Interior wall / Partition/ Non-structural wall	CS	400	400	CS	400	500
Toilet Cubicle	CS	400	400	CS	400	500
Wall Finishes	CS	400	400	CS	400	500
Curtain wall, including shading devices	CS	400	400	CS	400	500
Precast Facade	CS	400	400	CS	400	500
Door / Lift Door	CS	400	400	CS	400	500
Fire Shutter	CS	400	400	CS	400	500
Window	CS	400	400	CS	400	500
Louver	CS	400	400	CS	400	500
Skylight	CS	400	400	CS	400	500
Ceiling	CS	400	400	CS	400	500
FRR Enclosure	CS	400	400	CS	400	500
Stairs, Steps	CS	400	400	CS	400	500
Railing, balustrade, handrail	CS	400	400	CS	400	500
Fire Hose/ Enclosure	CS	400	400	CS	400	500
Smoke Curtain/ Barriers	CS	400	400	CS	400	500
Bench Top	CS	400	400	CS	400	500
Basin	CS	400	400	CS	400	500
Water Closet	CS	400	400	CS	400	500
Access ladder, catwalk & maintenance Platform	CS	400	400	CS	400	500
Furniture, fixtures & fittings including desks, workstations, casework, cabinets, appliances, loose equipment	CS	400	400	CS	400	500
Internal Signage	CS	400	400	CS	400	500

## 2. Structural Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Foundations (piles, pile caps, tie/ground beams & footings)	CS	400	400	CS	400	500
Diaphragm wall, retaining wall	CS	400	400	CS	400	500
Excavation & lateral stability system	CS	400	400	CS	400	500
Beam	CS	400	400	CS	400	500
Column, post, hangar	CS	400	400	CS	400	500
Structural Wall	CS	400	400	CS	400	500
Slab, floor, ramp, roof	CS	400	400	CS	400	500
Mass Concrete	CS	400	400	CS	400	500
Transfer Structure	CS	400	400	CS	400	500
Stairs (steps, risers, threads, landings)	CS	400	400	CS	400	500
Bracing	CS	400	400	CS	400	500
Temporary works, temporary structures, platforms	CS	400	400	CS	400	500
Tunnel Structure	CS	400	400	CS	400	500

## 3. Bridges Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Bridge column/pier	CS	400	400	CS	400	500
Bridge abutment	CS	400	400	CS	400	500
Precast bridge segment	CS	400	400	CS	400	500
Steel bridge segment	CS	400	400	CS	400	500
Bridge deck	CS	400	400	CS	400	500

## 4. Mechanical, Electrical and Plumbing Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
HVAC Installation						
Chiller	CS	400	400	CS	400	500
Heat pump	CS	400	400	CS	400	500
Cooling tower	CS	400	400	CS	400	500
Heat exchanger	CS	400	400	CS	400	500
Calorifier	CS	400	400	CS	400	500
Chilled water pump	CS	400	400	CS	400	500
Heating water pump	CS	400	400	CS	400	500
Condenser tube cleaning equipment	CS	400	400	CS	400	500
VRV/DX indoor and outdoor unit	CS	400	400	CS	400	500
Standalone air-conditioner /Split-type unit	CS	400	400	CS	400	500
Primary air unit (PAU)	CS	400	400	CS	400	500
Air-handling unit (AHU)	CS	400	400	CS	400	500
Fan-coil unit (FCU)	CS	400	400	CS	400	500
Computer room air-conditioning (CRAC) unit	CS	400	400	CS	400	500
Ventilation fan	CS	400	400	CS	400	500
Booster fan	CS	400	400	CS	400	500
Jet fan	CS	400	400	CS	400	500
Rotary fan (fixed type)	CS	400	400	CS	400	500
Ceiling fan	CS	400	400	CS	400	500
Water scrubber	CS	400	400	CS	400	500
Constant air volume box /air valve	CS	400	400	CS	400	500
Variable air volume box /air valve	CS	400	400	CS	400	500
Air duct	CS	400	400	CS	400	500
Chilled /Heating water pipe	CS	400	400	CS	400	500
Condensate drain pipe	CS	400	400	CS	400	500
Water pipe (others)	CS	400	400	CS	400	500
Valve (>20mm dia.)	CS	400	400	CS	400	500
Air damper	CS	400	400	CS	400	500
Fire /smoke damper	CS	400	400	CS	400	500
Air diffuser /grille	CS	400	400	CS	400	500
Direct digital control (DDC) panel	CS	400	400	CS	400	500
CCMS server /server rack	CS	400	400	CS	400	500
Control console	CS	400	400	CS	400	500

## 4. Mechanical, Electrical and Plumbing Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
HVAC Installation						
Commercial Boiler	CS	400	400	CS	400	500
Furnace	CS	400	400	CS	400	500
HVAC Heating Unit	CS	400	400	CS	400	500
Air Handling Unit	CS	400	400	CS	400	500
Air Humidity Control Equipment	CS	400	400	CS	400	500
HVAC Damper	CS	400	400	CS	400	500
Ventilator	CS	400	400	CS	400	500
Air Circulator	CS	400	400	CS	400	500
Fan	CS	400	400	CS	400	500
Exhaust Hood	CS	400	400	CS	400	500
Power Ventilator	CS	400	400	CS	400	500
Fan Coil Unit	CS	400	400	CS	400	500
HVAC Coil	CS	400	400	CS	400	500
Refrigerant Condensing Unit	CS	400	400	CS	400	500
Air Conditioner	CS	400	400	CS	400	500
Split System Air Conditioning Unit	CS	400	400	CS	400	500
Air Curtain	CS	400	400	CS	400	500
High Pressure Air Conditioning Unit	CS	400	400	CS	400	500
Make Up Air Unit	CS	400	400	CS	400	500
HVAC Air Terminal	CS	400	400	CS	400	500
Variable Air Volume Induction Terminal Air Unit	CS	400	400	CS	400	500
HVAC Condenser Unit	CS	400	400	CS	400	500
HVAC Cooler	CS	400	400	CS	400	500
Ventilation Duct	CS	400	400	CS	400	500
Ventilation Diffuser	CS	400	400	CS	400	500
Plate Radiator	CS	400	400	CS	400	500
Duct Acces Panel	CS	400	400	CS	400	500
Duct Insulation	CS	400	400	CS	400	500
Grille	CS	400	400	CS	400	500
Hanger	CS	400	400	CS	400	500
Support	CS	400	400	CS	400	500
Solar Water Heating Equipment	CS	400	400	CS	400	500
Heat Wheel	CS	400	400	CS	400	500
Steam and Hot Water System						
Steam /hot water boiler	CS	400	400	CS	400	500
Heat exchanger	CS	400	400	CS	400	500
Calorifier	CS	400	400	CS	400	500
Feed /blow down water tank	CS	400	400	CS	400	500
Steam /hot water pipe	CS	400	400	CS	400	500
Steam condensate pipe	CS	400	400	CS	400	500
Steam flash vessel	CS	400	400	CS	400	500
Steam trap	CS	400	400	CS	400	500
Main control console /panel	CS	400	400	CS	400	500
Electrical Installation						
Transformer (customer owned)	CS	400	400	CS	400	500
Switchboard cubicle	CS	400	400	CS	400	500
Cut-out supply panel	CS	400	400	CS	400	500
Motor control centre	CS	400	400	CS	400	500
Motor control panel	CS	400	400	CS	400	500
Uninterruptible power supply unit	CS	400	400	CS	400	500
Variable speed drive (standalone)	CS	400	400	CS	400	500
MCCB /MCB board	CS	400	400	CS	400	500
Socket outlet	CS	400	400	CS	400	500
Floor box	CS	400	400	CS	400	500
Fuse spur unit	CS	400	400	CS	400	500
Electric vehicle charging panel /station	CS	400	400	CS	400	500
Generator set	CS	400	400	CS	400	500
Generator remote radiator	CS	400	400	CS	400	500
Generator cooling water pump	CS	400	400	CS	400	500
Fuel tank	CS	400	400	CS	400	500

## 4. Mechanical, Electrical and Plumbing Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Electrical Installation						
Fuel pump	CS	400	400	CS	400	500
Fuel pipe	CS	400	400	CS	400	500
Fuel valve (>20mm dia.)	CS	400	400	CS	400	500
Photovoltaic panel	CS	400	400	CS	400	500
Wind turbine	CS	400	400	CS	400	500
Capacitor bank cubicle	CS	400	400	CS	400	500
Harmonic filter cubicle	CS	400	400	CS	400	500
Control /metering panel	CS	400	400	CS	400	500
Luminaire /light fitting	CS	400	400	CS	400	500
Lamp pole / bollard	CS	400	400	CS	400	500
Stage lighting bar	CS	400	400	CS	400	500
Occupancy /daylight sensor	CS	400	400	CS	400	500
Power busduct	CS	400	400	CS	400	500
Cable ladder	CS	400	400	CS	400	500
Cable tray	CS	400	400	CS	400	500
Trunking	CS	400	400	CS	400	500
Electrical Generator	CS	400	400	CS	400	500
Transformer	CS	400	400	CS	400	500
Electric Motor	CS	400	400	CS	400	500
Batterie	CS	400	400	CS	400	500
Battery Rack	CS	400	400	CS	400	500
Battery Charger	CS	400	400	CS	400	500
Harmonic Control Device	CS	400	400	CS	400	500
Uninterrupted Power Supply (UPS) Unit	CS	400	400	CS	400	500
Electrical Meter	CS	400	400	CS	400	500
Electrical Terminal	CS	400	400	CS	400	500
Circuit Breaker	CS	400	400	CS	400	500
Fuse	CS	400	400	CS	400	500
Electrical Power Distribution Device	CS	400	400	CS	400	500
Power Supply Device	CS	400	400	CS	400	500
Electrical Distribution Control Panel	CS	400	400	CS	400	500
Motor Control Center	CS	400	400	CS	400	500
Power Distribution Unit	CS	400	400	CS	400	500
Switchboard	CS	400	400	CS	400	500
Switchgear	CS	400	400	CS	400	500
Electrical Busbar	CS	400	400	CS	400	500
Electrical Feeder	CS	400	400	CS	400	500
Electrical Junction Boxe	CS	400	400	CS	400	500
Electrical Conduit	CS	400	400	CS	400	500
Electrical Cable Tray	CS	400	400	CS	400	500
Electrical Bu Duct	CS	400	400	CS	400	500
Electrical Rack	CS	400	400	CS	400	500
Electrical Wireway	CS	400	400	CS	400	500
Electrical Contactor	CS	400	400	CS	400	500
Electrical Switche	CS	400	400	CS	400	500
Automatic Transfer Switch	CS	400	400	CS	400	500
Manual Transfer Switch	CS	400	400	CS	400	500
Flow Switch	CS	400	400	CS	400	500
Pressure Switch	CS	400	400	CS	400	500
Electrical Grounding Device	CS	400	400	CS	400	500
Earth Connection Electrode	CS	400	400	CS	400	500
Lightning Protection	CS	400	400	CS	400	500
Electrical Isolation Equipment	CS	400	400	CS	400	500
Electrical Relay	CS	400	400	CS	400	500
Non Electrical Lighting	CS	400	400	CS	400	500
Lighting Fixture	CS	400	400	CS	400	500
Wind Generator Set	CS	400	400	CS	400	500
Photovoltaic Generator	CS	400	400	CS	400	500
Emergency Lighting	CS	400	400	CS	400	500

## 4. Mechanical, Electrical and Plumbing Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Fire Service Installation						
Sprinkler / FS / Booster water pump	CS	400	400	CS	400	500
Water tank	CS	400	400	CS	400	500
Street fire hydrant	CS	400	400	CS	400	500
Fire hydrant / Hose reel	CS	400	400	CS	400	500
Sprinkler control valve	CS	400	400	CS	400	500
Sprinkler pre-action valve set	CS	400	400	CS	400	500
Sprinkler flow switch	CS	400	400	CS	400	500
Sprinkler head	CS	400	400	CS	400	500
Gas flooding spray head	CS	400	400	CS	400	500
Drencher spray head	CS	400	400	CS	400	500
Fire /Smoke /Heat /Beam detector	CS	400	400	CS	400	500
Breakglass unit	CS	400	400	CS	400	500
Alarm bell	CS	400	400	CS	400	500
Visual fire alarm	CS	400	400	CS	400	500
Fire alarm / battery panel	CS	400	400	CS	400	500
Portable fire extinguisher	CS	400	400	CS	400	500
Fixed automatically operated appliance	CS	400	400	CS	400	500
Exit /Directional sign	CS	400	400	CS	400	500
Emergency luminaire	CS	400	400	CS	400	500
Water pipe	CS	400	400	CS	400	500
Valve (>20mm dia.)	CS	400	400	CS	400	500
Pressurization fan	CS	400	400	CS	400	500
Smoke extraction fan	CS	400	400	CS	400	500
Smoke extraction air duct	CS	400	400	CS	400	500
Total flooding gas pipe	CS	400	400	CS	400	500
Closed Circuit Television Equipment	CS	400	400	CS	400	500
Security Sensor	CS	400	400	CS	400	500
Security Acces Control	CS	400	400	CS	400	500
Fireproofing Component	CS	400	400	CS	400	500
Fire Hydrant	CS	400	400	CS	400	500
Fire Hose Equipment	CS	400	400	CS	400	500
Fire Nozzle	CS	400	400	CS	400	500
Fire Extinguisher	CS	400	400	CS	400	500
Fire Ventilation Equipment	CS	400	400	CS	400	500
Fire Notification Appliance	CS	400	400	CS	400	500
Fire Detection Device	CS	400	400	CS	400	500
Smoke Detector	CS	400	400	CS	400	500
Heat Detector	CS	400	400	CS	400	500
Flame Detector	CS	400	400	CS	400	500
Fire Alarm Control Panel	CS	400	400	CS	400	500
Fire Pump Controller	CS	400	400	CS	400	500
Jockey Pump Controller	CS	400	400	CS	400	500
Pendant Sprinkler Head	CS	400	400	CS	400	500
Non Water Based Suppression Equipment	CS	400	400	CS	400	500
Burglar Alarm and Security Installation						
Drop arm barrier	CS	400	400	CS	400	500
Mechanical road block	CS	400	400	CS	400	500
Access card reader	CS	400	400	CS	400	500
Door release button	CS	400	400	CS	400	500
Emergency breakglass unit	CS	400	400	CS	400	500
Doorphone unit	CS	400	400	CS	400	500
CCTV camera	CS	400	400	CS	400	500
Movement detector	CS	400	400	CS	400	500
Glass break detector	CS	400	400	CS	400	500
Watchman tour patrol point	CS	400	400	CS	400	500
Centralized security system server /rack	CS	400	400	CS	400	500
CCTV video recorder /rack	CS	400	400	CS	400	500
CCTV control console	CS	400	400	CS	400	500
CCTV /Security system display panel	CS	400	400	CS	400	500
Security system control panel	CS	400	400	CS	400	500



## 4. Mechanical, Electrical and Plumbing Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Burglar Alarm and Security Installation						
Broadcast Reception Installation	CS	400	400	CS	400	500
Aerials	CS	400	400	CS	400	500
Preamplifier /Amplifier	CS	400	400	CS	400	500
Fibre optical panel	CS	400	400	CS	400	500
Outlet	CS	400	400	CS	400	500
Lift and Escalator Installation						
Lift car	CS	400	400	CS	400	500
Lift machine	CS	400	400	CS	400	500
Lift landing call panel	CS	400	400	CS	400	500
Fireman's switch	CS	400	400	CS	400	500
Dumbwaiter car	CS	400	400	CS	400	500
Escalator	CS	400	400	CS	400	500
Passenger conveyor	CS	400	400	CS	400	500
Vertical lifting platform	CS	400	400	CS	400	500
Stairlift	CS	400	400	CS	400	500
Elevator	CS	400	400	CS	400	500
Lift and Escalator Installation						
Food processing equipment	CS	400	400	CS	400	500
Sink	CS	400	400	CS	400	500
Dish washer	CS	400	400	CS	400	500
Refrigerator	CS	400	400	CS	400	500
Freezer	CS	400	400	CS	400	500
Liquefied Petroleum /Town Gas Installation						
Gas pipe	CS	400	400	CS	400	500
Gas valve	CS	400	400	CS	400	500
Outlet	CS	400	400	CS	400	500
Swimming Pool Water Treatment Installation						
Sand filter	CS	400	400	CS	400	500
Ozone reaction tank	CS	400	400	CS	400	500
Carbon filter tank	CS	400	400	CS	400	500
Ozonator	CS	400	400	CS	400	500
Sodium hypochlorite generation equipment	CS	400	400	CS	400	500
Hypochlorite storage tank	CS	400	400	CS	400	500
Hydrogen blower	CS	400	400	CS	400	500
Hydrogen gas detection system	CS	400	400	CS	400	500
pH and Chlorine controller	CS	400	400	CS	400	500
Mixed oxidant disinfection equipment	CS	400	400	CS	400	500
Brine tank	CS	400	400	CS	400	500
Mixed oxidant solution tank	CS	400	400	CS	400	500
UV chamber	CS	400	400	CS	400	500
Water pump set	CS	400	400	CS	400	500
Water pipe (>20mm dia.)	CS	400	400	CS	400	500
Water valve (>20mm dia.)	CS	400	400	CS	400	500
Medical Gas Pipeline System						
Vacuum insulated Evaporator (VIE) tank	CS	400	400	CS	400	500
Oxygen manifold	CS	400	400	CS	400	500
Medical /non-medical air compressor plant	CS	400	400	CS	400	500
Air receiver	CS	400	400	CS	400	500
Air dryer	CS	400	400	CS	400	500
Dust /carbon filter	CS	400	400	CS	400	500
Bacteria filter	CS	400	400	CS	400	500
Compressed air manifold	CS	400	400	CS	400	500
Anaesthetic gas scavenging manifold	CS	400	400	CS	400	500
Vacuum air compressor	CS	400	400	CS	400	500
Vacuum receiver /vessel	CS	400	400	CS	400	500
Medical gas alarm zone panel	CS	400	400	CS	400	500
Medical gas pipe	CS	400	400	CS	400	500
Medical gas valve	CS	400	400	CS	400	500
Medical gas outlet	CS	400	400	CS	400	500

## 4. Mechanical, Electrical and Plumbing Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Mechanical Installation						
Gondola	CS	400	400	CS	400	500
Fuel filling station	CS	400	400	CS	400	500
Fuel Tank	CS	400	400	CS	400	500
Fuel pipe	CS	400	400	CS	400	500
Fuel valve	CS	400	400	CS	400	500
Car washing equipment	CS	400	400	CS	400	500
Compressed air equipment	CS	400	400	CS	400	500
Winch and pulley set	CS	400	400	CS	400	500
Hoisting set	CS	400	400	CS	400	500
Pneumatic Tube Transportation System						
Blower	CS	400	400	CS	400	500
Diverter	CS	400	400	CS	400	500
Reject station	CS	400	400	CS	400	500
Empty chamber storage station	CS	400	400	CS	400	500
Valve	CS	400	400	CS	400	500
Transport station	CS	400	400	CS	400	500
Transport tube	CS	400	400	CS	400	500
Controller panel	CS	400	400	CS	400	500
Automatic Refuse Collection System						
Refuse chute /pipe	CS	400	400	CS	400	500
Compactor	CS	400	400	CS	400	500
Exhauster	CS	400	400	CS	400	500
Container	CS	400	400	CS	400	500
Conveyor	CS	400	400	CS	400	500
Refuse separator	CS	400	400	CS	400	500
Refuse disposal inlet	CS	400	400	CS	400	500
Inlet/ discharge valve	CS	400	400	CS	400	500
Diverter valve	CS	400	400	CS	400	500
Air treatment device	CS	400	400	CS	400	500
Air blower	CS	400	400	CS	400	500
Plumbing Installation						
Water tank	CS	400	400	CS	400	500
Water pump set	CS	400	400	CS	400	500
Pneumatic tank	CS	400	400	CS	400	500
Water pipe (>20mm. Dia.)	CS	400	400	CS	400	500
Valve (>20mm. Dia.)	CS	400	400	CS	400	500
Faucet	CS	400	400	CS	400	500
Sink	CS	400	400	CS	400	500
Bathtub	CS	400	400	CS	400	500
Shower	CS	400	400	CS	400	500
Toilet	CS	400	400	CS	400	500
Urinal	CS	400	400	CS	400	500
Toilet and Bath Specialtie	CS	400	400	CS	400	500
Water Closet Tank	CS	400	400	CS	400	500
Floor Drain	CS	400	400	CS	400	500
Hot Water Heater	CS	400	400	CS	400	500
Drinking Fountain	CS	400	400	CS	400	500
Rainwater Harvesting Installation						
Water tank	CS	400	400	CS	400	500
Sand filter	CS	400	400	CS	400	500
Carbon filter	CS	400	400	CS	400	500
Cartridge filter	CS	400	400	CS	400	500
UV chamber	CS	400	400	CS	400	500
Pump set	CS	400	400	CS	400	500
Pneumatic tank	CS	400	400	CS	400	500
Water pipe (>20mm. Dia.)	CS	400	400	CS	400	500
Valve (>20mm. Dia.)	CS	400	400	CS	400	500

## 4. Mechanical, Electrical and Plumbing Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Drainage Installation						
Drainage pipe	CS	400	400	CS	400	500
Manhole	CS	400	400	CS	400	500
Storm water inlet	CS	400	400	CS	400	500
Floor drain inlet	CS	400	400	CS	400	500
Sewage Pumping System						
Sewage pump	CS	400	400	CS	400	500
Sewage pipe	CS	400	400	CS	400	500
Sewage valve	CS	400	400	CS	400	500
Greywater Recycling System						
Water Tank	CS	400	400	CS	400	500
Sand /Coarse filter	CS	400	400	CS	400	500
Membrane bioreactor unit	CS	400	400	CS	400	500
UV chamber	CS	400	400	CS	400	500
Pump set	CS	400	400	CS	400	500
Pneumatic tank	CS	400	400	CS	400	500
Water pipe	CS	400	400	CS	400	500
Valve	CS	400	400	CS	400	500
Sewage Water Treatment System						
Water tank	CS	400	400	CS	400	500
Sand /Coarse filter	CS	400	400	CS	400	500
Membrane bioreactor unit	CS	400	400	CS	400	500
UV chamber	CS	400	400	CS	400	500
Pump set	CS	400	400	CS	400	500
Pneumatic tank	CS	400	400	CS	400	500
Water pipe (>20mm. Dia.)	CS	400	400	CS	400	500
Valve (>20mm. Dia.)	CS	400	400	CS	400	500
Fixing and Maintenance Accessories						
Hanger	CS	400	400	CS	400	500
Spring Isolation Unit	CS	400	400	CS	400	500
Hoisting beam and chain block	CS	400	400	CS	400	500
Hoisting eye	CS	400	400	CS	400	500
General Facility Services Products						
Temperature Measuring Instrument And Control	CS	400	400	CS	400	500
Pressure Measuring Instrument And Control	CS	400	400	CS	400	500
Flow Measuring Instrument And Control	CS	400	400	CS	400	500
Concentration Measuring Instrument And Control	CS	400	400	CS	400	500
Heat Measuring Instrument And Control	CS	400	400	CS	400	500
Level Measuring Instrument And Control	CS	400	400	CS	400	500
Ga Instrument And Control	CS	400	400	CS	400	500
Building Monitoring Control Panel	CS	400	400	CS	400	500
Building Lighting Control Panel	CS	400	400	CS	400	500
HVAC Main Control Panel	CS	400	400	CS	400	500
Pump	CS	400	400	CS	400	500
Axial Split Pump	CS	400	400	CS	400	500
Centrifugal Pump	CS	400	400	CS	400	500
Rotary Pump	CS	400	400	CS	400	500
Engine	CS	400	400	CS	400	500
Compressor	CS	400	400	CS	400	500
Tank and Storage Structure	CS	400	400	CS	400	500
Tank Foundation	CS	400	400	CS	400	500
Tank	CS	400	400	CS	400	500
Backflow Preventor	CS	400	400	CS	400	500
Balancing Valve	CS	400	400	CS	400	500
Ball Valve	CS	400	400	CS	400	500
Butterfly Valve	CS	400	400	CS	400	500
Float Valve	CS	400	400	CS	400	500
Check Valve	CS	400	400	CS	400	500
Gate Valve	CS	400	400	CS	400	500
Globe Valve	CS	400	400	CS	400	500
Liquid Strainer	CS	400	400	CS	400	500

## 4. Mechanical, Electrical and Plumbing Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
General Facility Services Products						
Pressure Regulating Valve	CS	400	400	CS	400	500
Valve Actuator	CS	400	400	CS	400	500
Piping	CS	400	400	CS	400	500
Pipe Fitting	CS	400	400	CS	400	500
Pipe Flange	CS	400	400	CS	400	500
Pipe Expansion Joint	CS	400	400	CS	400	500
Pipe Coupling	CS	400	400	CS	400	500
Pipe Elbow	CS	400	400	CS	400	500
Pipe Cap	CS	400	400	CS	400	500
Flexible Pipe Coupling	CS	400	400	CS	400	500
Liquid Treatment Component	CS	400	400	CS	400	500
Ga Treatment Component	CS	400	400	CS	400	500
Air Filter	CS	400	400	CS	400	500
Pipe Insulation	CS	400	400	CS	400	500
Equipment Acoustic Insulation	CS	400	400	CS	400	500
Building Maintenance Cradle and Platform	CS	400	400	CS	400	500
Water Hammer Arrestor	CS	400	400	CS	400	500
Vibration Equipment Mount	CS	400	400	CS	400	500
Fall Arrest System	CS	400	400	CS	400	500
Information and Communication Specific Products and Equipment						
Personal Computer Equipment	CS	400	400	CS	400	500
Computer Monitor	CS	400	400	CS	400	500
Audio Visual Equipment	CS	400	400	CS	400	500
Audio Visual System	CS	400	400	CS	400	500

## 5. UnderGround Utilities Model

Model Element List	Construction			As-built		
	AUT	G	I	AUT	G	I
Underground Private & Public Utilities for water supply, Pipe Trenches, Pump Pit	CS	400	400	CS	400	500
Underground Private & Public Utilities for Sewer, Drainage, Manhole	CS	400	400	CS	400	500
Underground Private & Public Utilities for Power, Electrical, Cable Trenches, Lighting, Lighting cables, Earthing, Pits and Ducts	CS	400	400	CS	400	500
Underground Private & Public Utilities for Communications, TV, Intercom, Cables, Pits and Ducts	CS	400	400	CS	400	500
Underground Private & Public Utilities for Gas & Oil System	CS	400	400	CS	400	500
Underground Private & Public Utilities for Irrigation	CS	400	400	CS	400	500

# Appendix D – Clash Detection Matrix

Discipline & Sub-Discipline	Code		AR								ST				BS																						UU																											
			CL	WL	WD	DOR	MIC	STA	SPE	FAC	SF	SC	SW	SS	AC_DF	AC_ME	AC_PF	FS_PF	FS_ME	FS_SP	PL_PF	PL_ME	PL_FX	DR_PF	DR_ME	EL_TF	EL_DV	EL_FX	EL_EE	MG_PF	MG_ME	PTS_PF	PTS_ME	TG_PF	TG_DF	TG_ME	USW	UFW	UVP	UFS	UCLP	UEL	UTG	UPL																				
			A1	A2	A3	A4	A5	A6	A7	A8	S1	S2	S3	S4	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	B22	U1	U2	U3	U4	U5	U6	U7	U8																				
Architectural			AR																																																													
Ceiling	CL	1																																																														
Wall	WL	2	A1-2																																																													
Window	WD	3	A1-3	A2-3																																																												
Door	DOR	4	A1-4	A2-4	A3-4	A4-4																																																										
MIC Module (Type...)	MIC	5	A1-5	A2-5	A3-5	A4-5	A5-5																																																									
Staircase	STA	6	A1-6	A2-6	A3-6	A4-6	A5-6																																																									
Specialty Equipment	SPE	7	A1-7	A2-7	A3-7	A4-7	A5-7	A6-7																																																								
Facade	FAC	8	A1-8	A2-8	A3-8	A4-8	A5-8	A6-8	A7-8																																																							
Structural			ST																																																													
Structural Framing	SF	9	A1-9	A3-9		A4-9	A5-9	A6-9	A7-9	A8-9																																																						
Structural Column	SC	10	A1-10	A3-10		A4-10	A5-10	A6-10	A7-10	A8-10																																																						
Structural Wall	SW	11	A1-11	A3-11		A4-11	A5-11	A6-11	A7-11	A8-11																																																						
Structural Slab	SS	12	A1-12	A3-12		A4-12	A5-12	A6-12	A7-12	A8-12																																																						
HVAC			AC																																																													
Ducts, Accessories, Flex Ducts & Fitting	AC_DF	13	A1-13	A2-13	A3-13	A4-13	A5-13	A6-13	A7-13	A8-13	S1-13	S2-13	S3-13	S4-13	B1-13																																																	
HVAC - Mechanical Equipment	AC_ME	14	A1-14	A2-14	A3-14	A4-14	A5-14	A6-14	A7-14	A8-14	S1-14	S2-14	S3-14	S4-14	B1-14	B2-14																																																
Pipes, Accessones & Fittings	AC_PF	15	A1-15	A2-18	A3-15	A4-15	A5-15	A6-15	A7-15	A8-15	S1-15	S2-15	S3-15	S4-15	B1-15	B2-15	B3-15																																															
Fire Services			FS																																																													
Pipes, Accessories & Fittings	FS_PF	16	A1-16	A2-16	A3-16	A4-16	A5-16	A6-16	A7-16	A8-16	S1-16	S2-16	S3-16	S4-16	B1-16	B2-16	B3-16	B4-16																																														
FS - Mechanical Equipment	FS_ME	17	A1-17	A2-17	A3-17	A4-17	A5-17	A6-17	A7-17	A8-17	S1-17	S2-17	S3-17	S4-17	B1-17	B2-17	B3-17	B4-17	B5-17																																													
Sprinklers	FS_SP	18	A1-18	A2-18	A3-18	A4-18	A5-18	A6-18	A7-18	A8-18	S1-18	S2-18	S3-18	S4-18	B1-18	B2-18	B3-18	B4-18	B5-18	B6-18																																												
Plumbing			PL																																																													
Pipes, Accessories & Fittings	PL_PF	19	A1-19	A2-19	A3-19	A4-19	A5-19	A6-19	A7-19	A8-19	S1-19	S2-19	S3-19	S4-19	B1-19	B2-19	B3-19	B4-19	B5-19	B6-19	B7-19																																											
PL - Mechanical Equipment	PL_ME	20	A1-20	A2-20	A3-20	A4-20	A5-20	A6-20	A7-20	A8-20	S1-20	S2-20	S3-20	S4-20	B1-20	B2-20	B3-20	B4-20	B5-20	B6-20	B7-20	B8-20																																										
PL - Fixtures	PL_FX	21	A1-21	A2-21	A3-21	A4-21	A5-21	A6-21	A7-21	A8-21	S1-21	S2-21	S3-21	S4-21	B1-21	B2-21	B3-21	B4-21	B5-21	B6-21	B7-21	B8-21	B9-21																																									
Drainage			DR																																																													
Pipes, Accessories & Fittings	DR_PF	22	A1-22	A2-22	A3-22	A4-22	A5-22	A6-22	A7-22	A8-22	S1-22	S2-22	S3-22	S4-22	B1-22	B2-22	B3-22	B4-22	B5-22	B6-22	B7-22	B8-22	B9-22	B10-22																																								
DR - Mechanical Equipment	DR_ME	23	A1-23	A2-23	A3-23	A4-23	A5-23	A6-23	A7-23	A8-23	S1-23	S2-23	S3-23	S4-23	B1-23	B2-23	B3-23	B4-23	B5-23	B6-23	B7-23	B8-23	B9-23	B10-23	B11-23																																							
Electrical			EL																																																													
Ducts, Trays with Fittings	EL_TF	24	A1-24	A2-24	A3-24	A4-24	A5-24	A6-24	A7-24	A8-24	S1-24	S2-24	S3-24	S4-24	B1-24	B2-24	B3-24	B4-24	B5-24	B6-24	B7-24	B8-24	B9-24	B10-24	B11-24	B12-24																																						
Devices & Fixtures	EL_DV	25	A1-25	A2-25	A3-25	A4-25	A5-25	A6-25	A7-25	A8-25	S1-25	S2-25	S3-25	S4-25	B1-25	B2-25	B3-25	B4-25	B5-25	B6-25	B7-25	B8-25	B9-25	B10-25	B11-25	B12-25	B13-25																																					
Electrical Fixtures	EL_FX	26	A1-26	A2-26	A3-26	A4-26	A5-26	A6-26	A7-26	A8-26	S1-26	S2-26	S3-26	S4-26	B1-26	B2-26	B3-26	B4-26	B5-26	B6-26	B7-26	B8-26	B9-26	B10-26	B11-26	B12-26	B13-26	B14-26																																				
Electrical Equipment	EL_EE	27	A1-27	A2-27	A3-27	A4-27	A5-27	A6-27	A7-27	A8-27	S1-27	S2-27	S3-27	S4-27	B1-27	B2-27	B3-27	B4-27	B5-27	B6-27	B7-27	B8-27	B9-27	B10-27	B11-27	B12-27	B13-27	B14-27	B15-27																																			
Medical Gas			MG																																																													
Pipes, Accessories & Fittings	MG_PF	28	A1-28	A2-28	A3-28	A4-28	A5-28	A6-28	A7-28	A8-28	S1-28	S2-28	S3-28	S4-28	B1-28	B2-28	B3-28	B4-28	B5-28	B6-28	B7-28	B8-28	B9-28	B10-28	B11-28	B12-28	B13-28	B14-28	B15-28	B16-28																																		
MG - Mechanical Equipment	MG_ME	29	A1-29	A2-29	A3-29	A4-29	A5-29	A6-29	A7-29	A8-29	S1-29	S2-29	S3-29	S4-29	B1-29	B2-29	B3-29	B4-29	B5-29	B6-29	B7-29	B8-29	B9-29	B10-29	B11-29	B12-29	B13-29	B14-29	B15-29	B16-29	B17-29																																	
Pneumatic Tube System			PTS																																																													
Pipes, Accessories & Fittings	PTS_PF	30	A1-30	A2-30	A3-30	A4-30	A5-30	A6-30	A7-30	A8-30	S1-30	S2-30	S3-30	S4-30	B1-30	B2-30	B3-30	B4-30	B5-30	B6-30	B7-30	B8-30	B9-30	B10-30	B11-30	B12-30	B13-30	B14-30	B15-30	B16-30	B17-30	B18-30																																
PTS - Mechanical Equipment	PTS_ME	31	A1-31	A2-31	A3-31	A4-31	A5-31	A6-31	A7-31	A8-31	S1-31	S2-31	S3-31	S4-31	B1-31	B2-31	B3-31	B4-31	B5-31	B6-31	B7-31	B8-31	B9-31	B10-31	B11-31	B12-31	B13-31	B14-31	B15-31	B16-31	B17-31	B18-31	B19-31																															
Town Gas			TG																																																													
Pipes, Accessories & Fittings	TG_PF	32	A1-32	A2-32	A3-32	A4-32	A5-32	A6-32	A7-32	A8-32	S1-32	S2-32	S3-32	S4-32	B1-32	B2-32	B3-32	B4-32	B5-32	B6-32	B7-32	B8-32	B9-32	B10-32	B11-32	B12-32	B13-32	B14-32	B15-32	B16-32	B17-32	B18-32	B19-32	B20-32																														
Ducts, Accessories & Fittings	TG_DF	33	A1-33	A2-33	A3-33	A4-33	A5-33	A6-33	A7-33	A8-33	S1-33	S2-33	S3-33	S4-33	B1-33	B2-33	B3-33	B4-33	B5-33	B6-33	B7-33	B8-33	B9-33	B10-33	B11-33	B12-33	B13-33	B14-33	B15-33	B16-33	B17-33	B18-33	B19-33	B21-33																														
TG - Mechanical Equipment	TG_ME	34	A1-34	A2-34	A3-34	A4-34	A5-34	A6-34	A7-34	A8-34	S1-34	S2-34	S3-34	S4-34	B1-34	B2-34	B3-34	B4-34	B5-34	B6-34	B7-34	B8-34	B9-34	B10-34	B11-34	B12-34	B13-34	B14-34	B15-34	B16-34	B17-34	B18-34	B19-34	B20-34	B21-34	B22-34																												
MIMEP			MIMEP																																																													
MIMEP Framing	MIMEP	35	A1-35	A2-35	A3-35	A4-35	A5-35	A6-35	A7-35	A8-35	S1-35	S2-35	S3-35	S4-35	B1-35	B2-35	B3-35	B4-35	B5-35	B6-35	B7-35	B8-35	B9-35	B10-35	B11-35	B12-35	B13-35	B14-35	B15-35	B16-35	B17-35	B18-35	B19-35	B20-35	B21-35	B22-35																												
HEADROOM			HR																																																													
Head Room	HR	36																																																														
Utility Underground			UU																																																													
Storm Water	USW	37																																																														
Sewerage Water	UFW	38																																																														
Vent Pipe	UVP	39																																																														
Fire Services	UFS	40																																																														
CLP	UCLP	41																																																														
Electrical	UEL	42																																																														
Town Gas	UTG	43																																																														
PL	UPL	44																																																														

## Appendix E – Model Division List

## Appendix E – BIM Model Division List

Architecture Model List										
Description	Project	Originator	Volume	Location_(Sub-Location)	Discipline_(Sub-discipline)	Type_(Characteristic)	File Format	Proposed File Name		
Architectural Model of IPB Building – B02F	8110098393	- CSC	- IPB	- B02	- AR	- M3	. rvt	8110098393-CSC-IPB-B02-AR-M3.rvt		
Architectural Model of IPB Building – B01F	8110098393	- CSC	- IPB	- B01	- AR	- M3	. rvt	8110098393-CSC-IPB-B01-AR-M3.rvt		
Architectural Model of IPB Building – L00F	8110098393	- CSC	- IPB	- L00	- AR	- M3	. rvt	8110098393-CSC-IPB-L00-AR-M3.rvt		
Architectural Model of IPB Building – L01F	8110098393	- CSC	- IPB	- L01	- AR	- M3	. rvt	8110098393-CSC-IPB-L01-AR-M3.rvt		
Architectural Model of IPB Building – L02F	8110098393	- CSC	- IPB	- L02	- AR	- M3	. rvt	8110098393-CSC-IPB-L02-AR-M3.rvt		
Architectural Model of IPB Building – L03F	8110098393	- CSC	- IPB	- L03	- AR	- M3	. rvt	8110098393-CSC-IPB-L03-AR-M3.rvt		
Architectural Model of IPB Building – L04F	8110098393	- CSC	- IPB	- L04	- AR	- M3	. rvt	8110098393-CSC-IPB-L04-AR-M3.rvt		
Architectural Model of IPB Building – L05F	8110098393	- CSC	- IPB	- L05	- AR	- M3	. rvt	8110098393-CSC-IPB-L05-AR-M3.rvt		
Architectural Model of IPB Building – L06F	8110098393	- CSC	- IPB	- L06	- AR	- M3	. rvt	8110098393-CSC-IPB-L06-AR-M3.rvt		
Architectural Model of IPB Building – L07F	8110098393	- CSC	- IPB	- L07	- AR	- M3	. rvt	8110098393-CSC-IPB-L07-AR-M3.rvt		
Architectural Model of IPB Building – L08F	8110098393	- CSC	- IPB	- L08	- AR	- M3	. rvt	8110098393-CSC-IPB-L08-AR-M3.rvt		
Architectural Model of IPB Building – L09F	8110098393	- CSC	- IPB	- L09	- AR	- M3	. rvt	8110098393-CSC-IPB-L09-AR-M3.rvt		
Architectural Model of IPB Building – L10F	8110098393	- CSC	- IPB	- L10	- AR	- M3	. rvt	8110098393-CSC-IPB-L10-AR-M3.rvt		
Architectural Model of IPB Building – L11F	8110098393	- CSC	- IPB	- L11	- AR	- M3	. rvt	8110098393-CSC-IPB-L11-AR-M3.rvt		
Architectural Model of IPB Building – L12F	8110098393	- CSC	- IPB	- L12	- AR	- M3	. rvt	8110098393-CSC-IPB-L12-AR-M3.rvt		
Architectural Model of IPB Building – L13F	8110098393	- CSC	- IPB	- L13	- AR	- M3	. rvt	8110098393-CSC-IPB-L13-AR-M3.rvt		
Architectural Model of IPB Building – L14F	8110098393	- CSC	- IPB	- L14	- AR	- M3	. rvt	8110098393-CSC-IPB-L14-AR-M3.rvt		
Architectural Model of IPB Building – L15F	8110098393	- CSC	- IPB	- L15	- AR	- M3	. rvt	8110098393-CSC-IPB-L15-AR-M3.rvt		
Architectural Model of IPB Building – L16F	8110098393	- CSC	- IPB	- L16	- AR	- M3	. rvt	8110098393-CSC-IPB-L16-AR-M3.rvt		
Architectural Model of IPB Building – L17F	8110098393	- CSC	- IPB	- L17	- AR	- M3	. rvt	8110098393-CSC-IPB-L17-AR-M3.rvt		
Architectural Model of IPB Building – L18F	8110098393	- CSC	- IPB	- L18	- AR	- M3	. rvt	8110098393-CSC-IPB-L18-AR-M3.rvt		
Architectural Model of IPB Building – L19F	8110098393	- CSC	- IPB	- L19	- AR	- M3	. rvt	8110098393-CSC-IPB-L19-AR-M3.rvt		
Architectural Model of IPB Building – RF	8110098393	- CSC	- IPB	- RF	- AR	- M3	. rvt	8110098393-CSC-IPB-RF-AR-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – B02F	8110098393	- CSC	- IPB	- B02	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-B02-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – B01F	8110098393	- CSC	- IPB	- B01	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-B01-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L00F	8110098393	- CSC	- IPB	- L00	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L00-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L01F	8110098393	- CSC	- IPB	- L01	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L01-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L02F	8110098393	- CSC	- IPB	- L02	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L02-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L03F	8110098393	- CSC	- IPB	- L03	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L03-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L04F	8110098393	- CSC	- IPB	- L04	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L04-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L05F	8110098393	- CSC	- IPB	- L05	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L05-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L06F	8110098393	- CSC	- IPB	- L06	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L06-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L07F	8110098393	- CSC	- IPB	- L07	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L07-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L08F	8110098393	- CSC	- IPB	- L08	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L08-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L09F	8110098393	- CSC	- IPB	- L09	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L09-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L10F	8110098393	- CSC	- IPB	- L10	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L10-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L11F	8110098393	- CSC	- IPB	- L11	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L11-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L12F	8110098393	- CSC	- IPB	- L12	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L12-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L13F	8110098393	- CSC	- IPB	- L13	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L13-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L14F	8110098393	- CSC	- IPB	- L14	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L14-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L15F	8110098393	- CSC	- IPB	- L15	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L15-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L16F	8110098393	- CSC	- IPB	- L16	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L16-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L17F	8110098393	- CSC	- IPB	- L17	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L17-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L18F	8110098393	- CSC	- IPB	- L18	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L18-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – L19F	8110098393	- CSC	- IPB	- L19	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-L19-AR_FE-M3.rvt		
Architectural Model (Furniture & Equipment) of IPB Building – RF	8110098393	- CSC	- IPB	- RF	- AR_FE	- M3	. rvt	8110098393-CSC-IPB-RF-AR_FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – B02F	8110098393	- CSC	- IPB	- B02	- FE	- M3	. rvt	8110098393-CSC-IPB-B02-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – B01F	8110098393	- CSC	- IPB	- B01	- FE	- M3	. rvt	8110098393-CSC-IPB-B01-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – L00F	8110098393	- CSC	- IPB	- L00	- FE	- M3	. rvt	8110098393-CSC-IPB-L00-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – L01F	8110098393	- CSC	- IPB	- L01	- FE	- M3	. rvt	8110098393-CSC-IPB-L01-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – L02F	8110098393	- CSC	- IPB	- L02	- FE	- M3	. rvt	8110098393-CSC-IPB-L02-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – L03F	8110098393	- CSC	- IPB	- L03	- FE	- M3	. rvt	8110098393-CSC-IPB-L03-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – L04F	8110098393	- CSC	- IPB	- L04	- FE	- M3	. rvt	8110098393-CSC-IPB-L04-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – L05F	8110098393	- CSC	- IPB	- L05	- FE	- M3	. rvt	8110098393-CSC-IPB-L05-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – L06F	8110098393	- CSC	- IPB	- L06	- FE	- M3	. rvt	8110098393-CSC-IPB-L06-FE-M3.rvt		
Architectural Model (Forward Procured Equipment) of IPB Building – L07F	8110098393	- CSC	- IPB	- L07	- FE	- M3	. rvt	8110098393-CSC-IPB-L07-FE-M3.rvt		



# Appendix E – BIM Model Division List

Architecture Model List													
Description	Project		Originator		Volume		Location_(Sub-Location)		Discipline_(Sub-discipline)		Type_(Characteristic)	File Format	Proposed File Name
Architectural Model (Forward Procured Equipment) of IPB Building – L08F	8110098393	-	CSC	-	IPB	-	L08	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L08-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L09F	8110098393	-	CSC	-	IPB	-	L09	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L09-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L10F	8110098393	-	CSC	-	IPB	-	L10	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L10-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L11F	8110098393	-	CSC	-	IPB	-	L11	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L11-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L12F	8110098393	-	CSC	-	IPB	-	L12	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L12-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L13F	8110098393	-	CSC	-	IPB	-	L13	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L13-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L14F	8110098393	-	CSC	-	IPB	-	L14	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L14-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L15F	8110098393	-	CSC	-	IPB	-	L15	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L15-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L16F	8110098393	-	CSC	-	IPB	-	L16	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L16-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L17F	8110098393	-	CSC	-	IPB	-	L17	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L17-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L18F	8110098393	-	CSC	-	IPB	-	L18	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L18-FE-M3.rvt
Architectural Model (Forward Procured Equipment) of IPB Building – L19F	8110098393	-	CSC	-	IPB	-	L19	-	FE	-	M3	. rvt	8110098393-CSC-IPB-L19-FE-M3.rvt
Architectural Model (Facade) of IPB Building	8110098393	-	CSC	-	IPB	-	ZZ	-	AR_FAC	-	M3	. rvt	8110098393-CSC-IPB-ZZ-AR_FAC-M3.rvt
Architectural Model (Bridges) of IPB Building - L02F	8110098393	-	CSC	-	LBR	-	L02	-	AR	-	M3	. rvt	8110098393-CSC-LBR-L02-AR-M3.rvt
Architectural Model (Bridges) of IPB Building - L03F	8110098393	-	CSC	-	LBR	-	L03	-	AR	-	M3	. rvt	8110098393-CSC-LBR-L03-AR-M3.rvt
Architectural Model (Bridges) of IPB Building - L05F	8110098393	-	CSC	-	LBR	-	L05	-	AR	-	M3	. rvt	8110098393-CSC-LBR-L05-AR-M3.rvt
Combined Architectural Model of IPB Building	8110098393	-	CSC	-	IPB	-	ZZ	-	AR	-	CM	. rvt	8110098393-CSC-IPB-ZZ-AR-CM.rvt

# Appendix E – BIM Model Division List

Structure Model List													
Description	Project		Originator		Volume		Location_(Sub-Location)		Discipline_(Sub-discipline)		Type_(Characteristic)	File Format	Proposed File Name
Structural Model of IPB Building – B02F	8110098393	-	CSC	-	IPB	-	B02	-	ST	-	M3	. rvt	8110098393-CSC-IPB-B02-ST-M3.rvt
Structural Model of IPB Building – B01F	8110098393	-	CSC	-	IPB	-	B01	-	ST	-	M3	. rvt	8110098393-CSC-IPB-B01-ST-M3.rvt
Structural Model of IPB Building – L00F	8110098393	-	CSC	-	IPB	-	L00	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L00-ST-M3.rvt
Structural Model of IPB Building – L01F	8110098393	-	CSC	-	IPB	-	L01	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L01-ST-M3.rvt
Structural Model of IPB Building – L02F	8110098393	-	CSC	-	IPB	-	L02	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L02-ST-M3.rvt
Structural Model of IPB Building – L03F	8110098393	-	CSC	-	IPB	-	L03	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L03-ST-M3.rvt
Structural Model of IPB Building – L04F	8110098393	-	CSC	-	IPB	-	L04	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L04-ST-M3.rvt
Structural Model of IPB Building – L05F	8110098393	-	CSC	-	IPB	-	L05	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L05-ST-M3.rvt
Structural Model of IPB Building – L06F	8110098393	-	CSC	-	IPB	-	L06	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L06-ST-M3.rvt
Structural Model of IPB Building – L07F	8110098393	-	CSC	-	IPB	-	L07	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L07-ST-M3.rvt
Structural Model of IPB Building – L08F	8110098393	-	CSC	-	IPB	-	L08	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L08-ST-M3.rvt
Structural Model of IPB Building – L09F	8110098393	-	CSC	-	IPB	-	L09	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L09-ST-M3.rvt
Structural Model of IPB Building – L10F	8110098393	-	CSC	-	IPB	-	L10	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L10-ST-M3.rvt
Structural Model of IPB Building – L11F	8110098393	-	CSC	-	IPB	-	L11	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L11-ST-M3.rvt
Structural Model of IPB Building – L12F	8110098393	-	CSC	-	IPB	-	L12	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L12-ST-M3.rvt
Structural Model of IPB Building – L13F	8110098393	-	CSC	-	IPB	-	L13	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L13-ST-M3.rvt
Structural Model of IPB Building – L14F	8110098393	-	CSC	-	IPB	-	L14	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L14-ST-M3.rvt
Structural Model of IPB Building – L15F	8110098393	-	CSC	-	IPB	-	L15	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L15-ST-M3.rvt
Structural Model of IPB Building – L16F	8110098393	-	CSC	-	IPB	-	L16	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L16-ST-M3.rvt
Structural Model of IPB Building – L17F	8110098393	-	CSC	-	IPB	-	L17	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L17-ST-M3.rvt
Structural Model of IPB Building – L18F	8110098393	-	CSC	-	IPB	-	L18	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L18-ST-M3.rvt
Structural Model of IPB Building – L19F	8110098393	-	CSC	-	IPB	-	L19	-	ST	-	M3	. rvt	8110098393-CSC-IPB-L19-ST-M3.rvt
Structural Model of IPB Building – RF	8110098393	-	CSC	-	IPB	-	RF	-	ST	-	M3	. rvt	8110098393-CSC-IPB-RF-ST-M3.rvt
Structural Model of IPB Building - FDN	8110098393	-	CSC	-	IPB	-	FDN	-	ST	-	M3	. rvt	8110098393-CSC-IPB-FDN-ST-M3.rvt
Structural Model of IPB Building - VIE	8110098393	-	CSC	-	IPB	-	VIE	-	ST	-	M3	. rvt	8110098393-CSC-IPB-VIE-ST-M3.rvt
Structural Model (Bridges) of IPB Building - L02F	8110098393	-	CSC	-	LBR	-	L02	-	ST	-	M3	. rvt	8110098393-CSC-LBR-L02-ST-M3.rvt
Structural Model (Bridges) of IPB Building - L03F	8110098393	-	CSC	-	LBR	-	L03	-	ST	-	M3	. rvt	8110098393-CSC-LBR-L03-ST-M3.rvt
Structural Model (Bridges) of IPB Building - L05F	8110098393	-	CSC	-	LBR	-	L05	-	ST	-	M3	. rvt	8110098393-CSC-LBR-L05-ST-M3.rvt
Combined Structural Model of IPB Building	8110098393	-	CSC	-	IPB	-	ZZ	-	ST	-	CM	. rvt	8110098393-CSC-IPB-ZZ-ST-CM.rvt

## Appendix E – BIM Model Division List

[illegible]

Appendix E – BIM Model Division List

Civil Model List														
Description	Project		Originator		Volume		Location_(Sub-Location)		Discipline_(Sub-discipline)		Type_(Characteristic)		File Format	Proposed File Name
Underground Utility Model of IPB Building (External)	8110098393	-	CSC	-	IPB	-	XX	-	CV_UU	-	M3	.	rvt	8110098393-CSC-IPB-XX-CV_UU-M3.rvt
ELS Model of Site	8110098393	-	CSC	-	IPB	-	XX	-	CV_ELS	-	M3	.	rvt	8110098393-CSC-IPB-XX-CV_ELS-M3.rvt
Architectural Model of External Area	8110098393	-	CSC	-	IPB	-	XX	-	CV_AR	-	M3	.	rvt	8110098393-CSC-IPB-XX-CV_AR-M3.rvt
Structural Model of External Area	8110098393	-	CSC	-	IPB	-	XX	-	CV_ST	-	M3	.	rvt	8110098393-CSC-IPB-XX-CV_ST-M3.rvt
Temproary Works Model of External Area	8110098393	-	CSC	-	IPB	-	XX	-	CV_TEM	-	M3	.	rvt	8110098393-CSC-IPB-XX-CV_TEM-M3.rvt
Hoarding Model of External Area	8110098393	-	CSC	-	IPB	-	XX	-	CV_HOR	-	M3	.	rvt	8110098393-CSC-IPB-XX-CV_HOR-M3.rvt
Site Model of Site	8110098393	-	CSC	-	IPB	-	XX	-	STE	-	M3	.	rvt	8110098393-CSC-IPB-XX-STE-M3.rvt

Appendix E – BIM Model Division List

MiC Model List											
Description	Project		Originator		Volume		Location_(Sub-Location)		Discipline_(Sub-discipline)		Type_(Characteristic)
Modular Integrated Construction (MiC) – L04F	8110098393	-	CSC	-	IPB	-	L04	-	MI	-	M3
Modular Integrated Construction (MiC) – L05F	8110098393	-	CSC	-	IPB	-	L05	-	MI	-	M3
Modular Integrated Construction (MiC) – L08F	8110098393	-	CSC	-	IPB	-	L08	-	MI	-	M3
Modular Integrated Construction (MiC) – L09F	8110098393	-	CSC	-	IPB	-	L09	-	MI	-	M3
Modular Integrated Construction (MiC) – L10F	8110098393	-	CSC	-	IPB	-	L10	-	MI	-	M3
Modular Integrated Construction (MiC) – L11F	8110098393	-	CSC	-	IPB	-	L11	-	MI	-	M3
Modular Integrated Construction (MiC) – L12F	8110098393	-	CSC	-	IPB	-	L12	-	MI	-	M3
Modular Integrated Construction (MiC) – L13F	8110098393	-	CSC	-	IPB	-	L13	-	MI	-	M3
Modular Integrated Construction (MiC) – L14F	8110098393	-	CSC	-	IPB	-	L14	-	MI	-	M3
Modular Integrated Construction (MiC) – L15F	8110098393	-	CSC	-	IPB	-	L15	-	MI	-	M3
Modular Integrated Construction (MiC) – L16F	8110098393	-	CSC	-	IPB	-	L16	-	MI	-	M3
Modular Integrated Construction (MiC) – L17F	8110098393	-	CSC	-	IPB	-	L17	-	MI	-	M3
Modular Integrated Construction (MiC) – L18F	8110098393	-	CSC	-	IPB	-	L18	-	MI	-	M3
Modular Integrated Construction (MiC) – L19F	8110098393	-	CSC	-	IPB	-	L19	-	MI	-	M3



## Appendix E – BIM Model Division List

Sheet Model List												
Description	Project		Originator		Volume		Location_(Sub-Location)		Discipline_(Sub-discipline)	Type_(Characteristic)	File Format	Proposed File Name
Combined Services Drawings & Sheet Model of IPB Building – B02F	8110098393	-	CSC	-	IPB	-	B02	-	CSD	-	rvt	8110098393-CSC-IPB-B02-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – B01F	8110098393	-	CSC	-	IPB	-	B01	-	CSD	-	rvt	8110098393-CSC-IPB-B01-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L00F	8110098393	-	CSC	-	IPB	-	L00	-	CSD	-	rvt	8110098393-CSC-IPB-L00-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L01F	8110098393	-	CSC	-	IPB	-	L01	-	CSD	-	rvt	8110098393-CSC-IPB-L01-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L02F	8110098393	-	CSC	-	IPB	-	L02	-	CSD	-	rvt	8110098393-CSC-IPB-L02-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L03F	8110098393	-	CSC	-	IPB	-	L03	-	CSD	-	rvt	8110098393-CSC-IPB-L03-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L04F	8110098393	-	CSC	-	IPB	-	L04	-	CSD	-	rvt	8110098393-CSC-IPB-L04-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L05F	8110098393	-	CSC	-	IPB	-	L05	-	CSD	-	rvt	8110098393-CSC-IPB-L05-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L06F	8110098393	-	CSC	-	IPB	-	L06	-	CSD	-	rvt	8110098393-CSC-IPB-L06-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L07F	8110098393	-	CSC	-	IPB	-	L07	-	CSD	-	rvt	8110098393-CSC-IPB-L07-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L08F	8110098393	-	CSC	-	IPB	-	L08	-	CSD	-	rvt	8110098393-CSC-IPB-L08-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L09F	8110098393	-	CSC	-	IPB	-	L09	-	CSD	-	rvt	8110098393-CSC-IPB-L09-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L10F	8110098393	-	CSC	-	IPB	-	L10	-	CSD	-	rvt	8110098393-CSC-IPB-L10-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L11F	8110098393	-	CSC	-	IPB	-	L11	-	CSD	-	rvt	8110098393-CSC-IPB-L11-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L12F	8110098393	-	CSC	-	IPB	-	L12	-	CSD	-	rvt	8110098393-CSC-IPB-L12-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L13F	8110098393	-	CSC	-	IPB	-	L13	-	CSD	-	rvt	8110098393-CSC-IPB-L13-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L14F	8110098393	-	CSC	-	IPB	-	L14	-	CSD	-	rvt	8110098393-CSC-IPB-L14-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L15F	8110098393	-	CSC	-	IPB	-	L15	-	CSD	-	rvt	8110098393-CSC-IPB-L15-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L16F	8110098393	-	CSC	-	IPB	-	L16	-	CSD	-	rvt	8110098393-CSC-IPB-L16-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L17F	8110098393	-	CSC	-	IPB	-	L17	-	CSD	-	rvt	8110098393-CSC-IPB-L17-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L18F	8110098393	-	CSC	-	IPB	-	L18	-	CSD	-	rvt	8110098393-CSC-IPB-L18-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – L19F	8110098393	-	CSC	-	IPB	-	L19	-	CSD	-	rvt	8110098393-CSC-IPB-L19-CSD-DR.rvt
Combined Services Drawings & Sheet Model of IPB Building – RF	8110098393	-	CSC	-	IPB	-	RF	-	CSD	-	rvt	8110098393-CSC-IPB-RF-CSD-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – B02F	8110098393	-	CSC	-	IPB	-	B02	-	CBW	-	rvt	8110098393-CSC-IPB-B02-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – B01F	8110098393	-	CSC	-	IPB	-	B01	-	CBW	-	rvt	8110098393-CSC-IPB-B01-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L00F	8110098393	-	CSC	-	IPB	-	L00	-	CBW	-	rvt	8110098393-CSC-IPB-L00-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L01F	8110098393	-	CSC	-	IPB	-	L01	-	CBW	-	rvt	8110098393-CSC-IPB-L01-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L02F	8110098393	-	CSC	-	IPB	-	L02	-	CBW	-	rvt	8110098393-CSC-IPB-L02-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L03F	8110098393	-	CSC	-	IPB	-	L03	-	CBW	-	rvt	8110098393-CSC-IPB-L03-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L04F	8110098393	-	CSC	-	IPB	-	L04	-	CBW	-	rvt	8110098393-CSC-IPB-L04-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L05F	8110098393	-	CSC	-	IPB	-	L05	-	CBW	-	rvt	8110098393-CSC-IPB-L05-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L06F	8110098393	-	CSC	-	IPB	-	L06	-	CBW	-	rvt	8110098393-CSC-IPB-L06-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L07F	8110098393	-	CSC	-	IPB	-	L07	-	CBW	-	rvt	8110098393-CSC-IPB-L07-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L08F	8110098393	-	CSC	-	IPB	-	L08	-	CBW	-	rvt	8110098393-CSC-IPB-L08-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L09F	8110098393	-	CSC	-	IPB	-	L09	-	CBW	-	rvt	8110098393-CSC-IPB-L09-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L10F	8110098393	-	CSC	-	IPB	-	L10	-	CBW	-	rvt	8110098393-CSC-IPB-L10-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L11F	8110098393	-	CSC	-	IPB	-	L11	-	CBW	-	rvt	8110098393-CSC-IPB-L11-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L12F	8110098393	-	CSC	-	IPB	-	L12	-	CBW	-	rvt	8110098393-CSC-IPB-L12-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L13F	8110098393	-	CSC	-	IPB	-	L13	-	CBW	-	rvt	8110098393-CSC-IPB-L13-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L14F	8110098393	-	CSC	-	IPB	-	L14	-	CBW	-	rvt	8110098393-CSC-IPB-L14-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L15F	8110098393	-	CSC	-	IPB	-	L15	-	CBW	-	rvt	8110098393-CSC-IPB-L15-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L16F	8110098393	-	CSC	-	IPB	-	L16	-	CBW	-	rvt	8110098393-CSC-IPB-L16-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L17F	8110098393	-	CSC	-	IPB	-	L17	-	CBW	-	rvt	8110098393-CSC-IPB-L17-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L18F	8110098393	-	CSC	-	IPB	-	L18	-	CBW	-	rvt	8110098393-CSC-IPB-L18-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – L19F	8110098393	-	CSC	-	IPB	-	L19	-	CBW	-	rvt	8110098393-CSC-IPB-L19-CBW-DR.rvt
Combined Builders Work Drawings & Sheet Model of IPB Building – RF	8110098393	-	CSC	-	IPB	-	RF	-	CBW	-	rvt	8110098393-CSC-IPB-RF-CBW-DR.rvt

## Appendix E – BIM Model Division List

Sheet Model List													
Description	Project		Originator		Volume		Location_(Sub-Location)		Discipline_(Sub-discipline)		Type_(Characteristic)	File Format	Proposed File Name
Individual Services Drawings & Sheet Model of IPB Building – B02F	8110098393	-	CSC	-	IPB	-	B02	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-B02-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – B01F	8110098393	-	CSC	-	IPB	-	B01	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-B01-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L00F	8110098393	-	CSC	-	IPB	-	L00	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L00-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L01F	8110098393	-	CSC	-	IPB	-	L01	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L01-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L02F	8110098393	-	CSC	-	IPB	-	L02	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L02-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L03F	8110098393	-	CSC	-	IPB	-	L03	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L03-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L04F	8110098393	-	CSC	-	IPB	-	L04	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L04-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L05F	8110098393	-	CSC	-	IPB	-	L05	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L05-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L06F	8110098393	-	CSC	-	IPB	-	L06	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L06-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L07F	8110098393	-	CSC	-	IPB	-	L07	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L07-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L08F	8110098393	-	CSC	-	IPB	-	L08	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L08-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L09F	8110098393	-	CSC	-	IPB	-	L09	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L09-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L10F	8110098393	-	CSC	-	IPB	-	L10	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L10-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L11F	8110098393	-	CSC	-	IPB	-	L11	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L11-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L12F	8110098393	-	CSC	-	IPB	-	L12	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L12-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L13F	8110098393	-	CSC	-	IPB	-	L13	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L13-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L14F	8110098393	-	CSC	-	IPB	-	L14	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L14-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L15F	8110098393	-	CSC	-	IPB	-	L15	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L15-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L16F	8110098393	-	CSC	-	IPB	-	L16	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L16-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L17F	8110098393	-	CSC	-	IPB	-	L17	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L17-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L18F	8110098393	-	CSC	-	IPB	-	L18	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L18-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – L19F	8110098393	-	CSC	-	IPB	-	L19	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-L19-ISD-DR.rvt
Individual Services Drawings & Sheet Model of IPB Building – RF	8110098393	-	CSC	-	IPB	-	RF	-	ISD	-	DR	. rvt	8110098393-CSC-IPB-RF-ISD-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – B02F	8110098393	-	CSC	-	IPB	-	B02	-	FE	-	DR	. rvt	8110098393-CSC-IPB-B02-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – B01F	8110098393	-	CSC	-	IPB	-	B01	-	FE	-	DR	. rvt	8110098393-CSC-IPB-B01-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L00F	8110098393	-	CSC	-	IPB	-	L00	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L00-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L01F	8110098393	-	CSC	-	IPB	-	L01	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L01-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L02F	8110098393	-	CSC	-	IPB	-	L02	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L02-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L03F	8110098393	-	CSC	-	IPB	-	L03	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L03-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L04F	8110098393	-	CSC	-	IPB	-	L04	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L04-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L05F	8110098393	-	CSC	-	IPB	-	L05	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L05-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L06F	8110098393	-	CSC	-	IPB	-	L06	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L06-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L07F	8110098393	-	CSC	-	IPB	-	L07	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L07-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L08F	8110098393	-	CSC	-	IPB	-	L08	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L08-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L09F	8110098393	-	CSC	-	IPB	-	L09	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L09-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L10F	8110098393	-	CSC	-	IPB	-	L10	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L10-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L11F	8110098393	-	CSC	-	IPB	-	L11	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L11-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L12F	8110098393	-	CSC	-	IPB	-	L12	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L12-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L13F	8110098393	-	CSC	-	IPB	-	L13	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L13-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L14F	8110098393	-	CSC	-	IPB	-	L14	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L14-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L15F	8110098393	-	CSC	-	IPB	-	L15	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L15-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L16F	8110098393	-	CSC	-	IPB	-	L16	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L16-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L17F	8110098393	-	CSC	-	IPB	-	L17	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L17-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L18F	8110098393	-	CSC	-	IPB	-	L18	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L18-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – L19F	8110098393	-	CSC	-	IPB	-	L19	-	FE	-	DR	. rvt	8110098393-CSC-IPB-L19-FE-DR.rvt
Forward Procured Equipment Drawings & Sheet Model of IPB Building – RF	8110098393	-	CSC	-	IPB	-	RF	-	FE	-	DR	. rvt	8110098393-CSC-IPB-RF-FE-DR.rvt

Appendix E – BIM Model Division List

Sheet Model List													
Description	Project		Originator		Volume		Location_(Sub-Location)		Discipline_(Sub-discipline)		Type_(Characteristic)	File Format	Proposed File Name
Wall Elevation Drawings & Sheet Model of IPB Building – B02F	8110098393	-	CSC	-	IPB	-	B02	-	WE	-	DR	. rvt	8110098393-CSC-IPB-B02-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – B01F	8110098393	-	CSC	-	IPB	-	B01	-	WE	-	DR	. rvt	8110098393-CSC-IPB-B01-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L00F	8110098393	-	CSC	-	IPB	-	L00	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L00-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L01F	8110098393	-	CSC	-	IPB	-	L01	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L01-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L02F	8110098393	-	CSC	-	IPB	-	L02	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L02-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L03F	8110098393	-	CSC	-	IPB	-	L03	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L03-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L04F	8110098393	-	CSC	-	IPB	-	L04	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L04-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L05F	8110098393	-	CSC	-	IPB	-	L05	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L05-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L06F	8110098393	-	CSC	-	IPB	-	L06	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L06-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L07F	8110098393	-	CSC	-	IPB	-	L07	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L07-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L08F	8110098393	-	CSC	-	IPB	-	L08	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L08-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L09F	8110098393	-	CSC	-	IPB	-	L09	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L09-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L10F	8110098393	-	CSC	-	IPB	-	L10	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L10-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L11F	8110098393	-	CSC	-	IPB	-	L11	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L11-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L12F	8110098393	-	CSC	-	IPB	-	L12	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L12-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L13F	8110098393	-	CSC	-	IPB	-	L13	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L13-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L14F	8110098393	-	CSC	-	IPB	-	L14	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L14-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L15F	8110098393	-	CSC	-	IPB	-	L15	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L15-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L16F	8110098393	-	CSC	-	IPB	-	L16	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L16-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L17F	8110098393	-	CSC	-	IPB	-	L17	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L17-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L18F	8110098393	-	CSC	-	IPB	-	L18	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L18-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – L19F	8110098393	-	CSC	-	IPB	-	L19	-	WE	-	DR	. rvt	8110098393-CSC-IPB-L19-WE-DR.rvt
Wall Elevation Drawings & Sheet Model of IPB Building – RF	8110098393	-	CSC	-	IPB	-	RF	-	WE	-	DR	. rvt	8110098393-CSC-IPB-RF-WE-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L04F	8110098393	-	CSC	-	IPB	-	L04	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L04-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L05F	8110098393	-	CSC	-	IPB	-	L05	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L05-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L08F	8110098393	-	CSC	-	IPB	-	L08	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L08-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L09F	8110098393	-	CSC	-	IPB	-	L09	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L09-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L10F	8110098393	-	CSC	-	IPB	-	L10	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L10-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L11F	8110098393	-	CSC	-	IPB	-	L11	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L11-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L12F	8110098393	-	CSC	-	IPB	-	L12	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L12-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L13F	8110098393	-	CSC	-	IPB	-	L13	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L13-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L14F	8110098393	-	CSC	-	IPB	-	L14	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L14-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L15F	8110098393	-	CSC	-	IPB	-	L15	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L15-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L16F	8110098393	-	CSC	-	IPB	-	L16	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L16-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L17F	8110098393	-	CSC	-	IPB	-	L17	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L17-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L18F	8110098393	-	CSC	-	IPB	-	L18	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L18-MI-DR.rvt
MiC Elevation Drawings & Sheet Model of IPB Building – L19F	8110098393	-	CSC	-	IPB	-	L19	-	MI	-	DR	. rvt	8110098393-CSC-IPB-L19-MI-DR.rvt



## Appendix F – Model Compliance Checklist Template

PWH BIM Checklist\_MCB

Project no./name:	Issue no: 006 (2023-11_1)
Description of items: PWH-WTP-ARC-MDL-0000-MCB-ALL.rvt PWH-WTP-ARC-MDL-0000-MCB-FFE.rvt PWH-WTP-ARC-MDL-0000-MCB-RCP.rvt PWH-WTP-ARC-MDL-0001-MCB-FAC.rvt	Model Version Date: 08/12/2023

## Submitted Items

Document:	<input type="checkbox"/>	Models :	WIP <input checked="" type="checkbox"/>	Deliverables	<input type="checkbox"/> Number
Federation Map	<input type="checkbox"/>				
Model & Drawing Register List	<input type="checkbox"/>	Format :	RVT <input checked="" type="checkbox"/>	IFC	<input type="checkbox"/>
			NWF <input type="checkbox"/>	NWC	<input type="checkbox"/>
Format: DOCX <input type="checkbox"/>	XLSX <input checked="" type="checkbox"/>		NWD <input type="checkbox"/>	XML	<input type="checkbox"/>
PDF <input type="checkbox"/>	PPT <input type="checkbox"/>		DWG <input type="checkbox"/>	RCS	<input type="checkbox"/>
JPG, PNG, TIFF <input type="checkbox"/>	MOV, MP4, MPEG <input type="checkbox"/>		DWG <input type="checkbox"/>	RCP	<input type="checkbox"/>
Others: _____		Others: _____			

Item	Requirements	Compliance (Y = Yes, in Compliance, NC = NOT in Compliance, NA = Not applicable)	Remarks and additional explanation	Auditor observation / comment	
A.	Documentation Check				
A1.	Documentation Authoring				
A1.1	Is Model Division Federation Map provided or does model hierarchy match with the federation structure in the BIM execution plan?	Y			
B.	Project Setup				
B1.	Software and File Format				
B1.1	Does the software used fulfil minimum functional requirements in accordance with the BIM execution plan? If Revit is used, is software version and format in accordance with the BIM execution plan?	Y	Revit 2023		
B2.	General setting				
B2.1	Has the starting view been setup and necessary information e.g. model author, project information, project number, etc., been filled in?	Y			
B2.2	Do the naming for the views align with the BEP?	Y			
B2.3	Do the naming for the sheet align with the BEP?	NA			
B2.4	Are elements placed in correct worksets?	Y			
B3.	Coordinate and Unit				
B3.1	Are all models at the correct location and direction in true coordinates?	Y			
B3.2	Is drawing unit set to Metric? (The commonly recognized unit for building projects is millimeter(mm). Meter(m) may be used for projects with larger footprint or span.)	Y			
B3.3	Is Hong Kong 1980 grid Hong Kong 1980 Datum adopted as project Coordinate System?	Y			
B3.4	Does Survey Point have the correct coordinates (x,y) and correct elevation?	Y			
B3.5	Does Project Base Point have the correct coordinates according to BIM execution plan?	Y			
B3.6	Does Project Base Point and Internal Origin Point aligned?	Y			
B3.7	Are Levels and Grids aligned between different discipline models?	Y			
C.	Model Quality Check				
C1.	General Housekeeping				
C1.1	Are all views in model grouped in the project browser and aligned with BEP?	Y			
C1.2	Are all sheets grouped in the project browser and aligned with BEP?	Y			
C1.3	Are all warnings and errors resolved in the model?	Y			
C1.4	Have all unnecessary elements been removed?	Y			
C1.5	Do all relevant external references use "Relative path" as path type?	Y			
C1.6	Is the file size less than 500 Mb?	Y			
C2.	Visual Check (LOD-G)				
C2.1	Without overlapping elements	Y			
C2.2	Without flying objects or misplacement	Y			
C2.3	Without visible clashes	Y			
C2.4	Visible sufficient LOD	Y			
C3.	Model Data Integrity Check (LOD-I)				
C3.1	Do the naming for provided models align with the BEP?	Y			
C3.2	Do the naming for provided BIM objects align with the BEP?	Y			
C3.3	Is the BIM object assigned in correct category?	Y			
C3.4	Have parameters for AI / RFI Tracking been setup and assigned correctly in the models?	Y			
C3.5	Is the BIM object assigned necessary parameter for asset management?	Y			
C3.6	Does the naming for the workset align with as proposed in the BEP?	Y			
C4.	Documentation Check (DOC) - Drawing Generation				
C4.1	Are drawings generated directly from BIM as far as practicable and as required?	NA			
C4.2	Are drawings generated from model and aligned with BEP stated the project's drawing standards (linetypes, line weights, colour, etc.)?	NA			
C4.3	Have unnecessary and excessive Manual Editing Works been avoided for drawings generated from BIM?	NA			

Y 22  
NC 0  
NA 4

Degree of Compliance (Y / applicable items) 100.00%

Main Works for In-Patient Extension Block, Phase 2 (Stage 1)

Main Contractor BIM Team Detail O-Chart with Discipline Lead

