

Annex 1 – Enlarged Figures for Handover Guide

Legends:

- Project Team (PT)
- EMSD Central BIM Team (BIMSD)
- Design Consultant/ In-house Design Team
- EMSD Strategic Business Units (SBU)
- Main Contractor/ Trade Contractor
- Key reference standards/ guidelines

Design and Construction (New Build Project)

Initiation Stage

Project Start

Provide latest BIM-AM Standards and contractual requirement

EMSD BIM-AM Requirement included in Contract (PS)

Refer to BIM-AM Standards and Guidelines

Commencement of project

Project Requirement, BIM Harmonisation Guidelines, CIC BIM Objects

ArchSD & EMSD model categories, system colour requirement and attributes for BIM-AM

Consultant/ Contractor to develop BEP and BIM template with EMSD BIM-AM requirement

Refer to Section 2 of BIM-AM Standards and Guidelines

BIM Models developed based on EMSD BIM-AM best practices (equipment schedules, separate construction details...)

Refer to Section 3&4 of BIM-AM Standards and Guidelines

Consultant issues tender drawings and models complied with EMSD BIM-AM Standard

Contractor accepts design stage drawings and models to further develop construction stage detail in separate works

Interim submission for compliance check

Complete compliance check

No

Yes

Request EMSD to provide correct Building Code

Model update align with site condition, redlines* and BIM-AM attributes. Complete RFID tags and QR codes installation

Refer to Appendix E of BIM-AM Standards and Guidelines

Self QA/QC check

No

Yes

Deliverable submission (Construction drawings/ As-built)

Refer to Particular Specification for BIM-AM Implementation

QA/QC check & approval

No

Yes

Project Complete

Preparation for Handover

DLP and Handover

BIM-AM Workflow would be executed from the sixth month the earliest starting from DLP commencement. AIMP cum CDE will be available for Contractor to work with O&M team for transferring models during DLP to facilitate an early collaboration.

EMSD BIM-AM (model translate in backend)

AMS/CCS (Functional location to be created, import CCS asset templates to create new equipment)

*Data synchronisation between AIMP, BIM-AM System & CCS
Phase 1 - Manually upload the data and models
Phase 2 - automatically (upon completion of system interface)

Refer to Section 3 of BIM-AM Acceptance and Upkeeping Guidelines

End of DLP, O&M team setup of BIM-enabled database for data upkeep and take up as maintenance set in CDE

A&A Project Start

QA/QC check in AIMP and approved in CDE (Conduct site verification if required)

Refer to Annex 3 of BIM-AM Acceptance and Upkeeping Guidelines

Contractor to upload as-built BIM and drawings with asset data

Contractor works with EMSD O&M team from 6th month of DLP. EMSD O&M team will input the specific asset attribute for EMSD's internal system (e.g. CCS)

QA/QC check & approval

No

Yes

QA/QC check before upload to AIMP

No

Yes

Prepare BIM models and asset data complies with templates:
1. Asset relationship (.xls)
2. AIMP templates for assets which cannot be modelled(.xls)
3. As-built docs & photos following folder structure (.zip)
4. COBieLite (.xml)
5. BMS/ IoT (.xls)
6. Master Information Index (.xls)

Refer to Guidelines for the Handover of E&M Installation to EMSD

Grant access right to Contractor and EMSD SBU for AIMP cum CDE

Apply for the (i) creation of venues in CDE & AIMP, (ii) user account for Contractor & (iii) approval workflow in CDE

Adopt workflow to transfer BIM model during DLP?

Yes

No

Remark: Redlines means the markup captured the changes of design/ shop drawings based on actual site condition which agreed to be updated in as-built drawings.

Figure 2-1 Overall Handover Workflow

Legends:

Project Team (PT)

Main Contractor/ Trade Contractor

EMSD Strategic Business Units (SBU)

EMSD Central BIM Team (BIMSD)

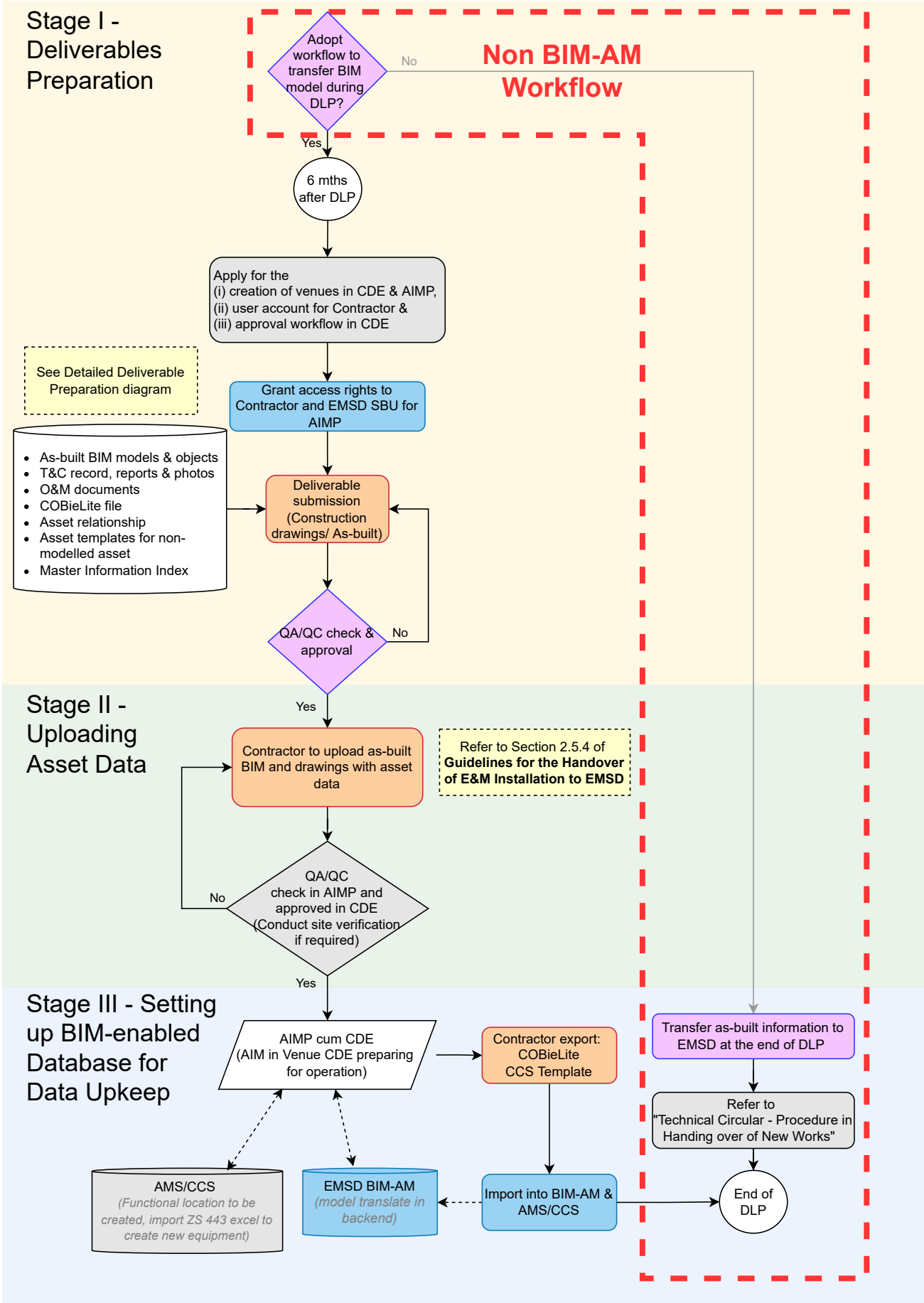


Figure 2-2 Handover Deliverables- Stage I Detailed Deliverable Preparation Diagram

Stage I Detailed Deliverable Preparation diagram

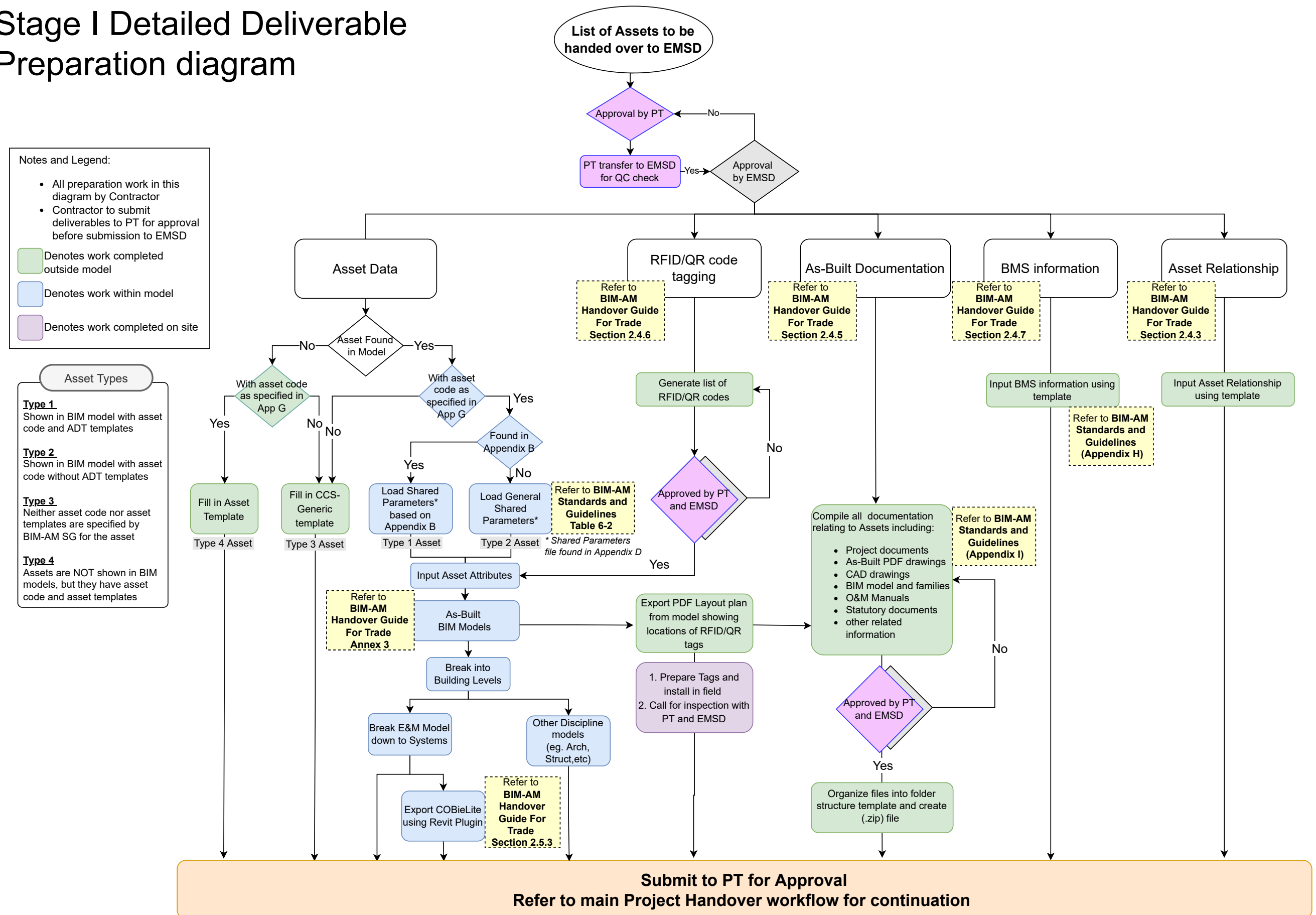


Figure 3-2 Handover Deliverables- Stage I Detailed Deliverable Preparation Diagram (A&A)

Stage I Detailed Deliverable Preparation diagram (A&A)

