

**Annex 1      –      Enlarged Images for Figures in BIM-AM Acceptance and Upkeeping Guidelines**

**Legends:**

- Project Team (PT)
- Design Consultant/ In-house Design Team
- Main Contractor/ Trade Contractor
- EMSD Central BIM Team (BIMSD)
- EMSD Strategic Business Units (SBU)
- Key reference standards/ guidelines
- Type I** Replacement Work (No models involved)
- Type II** Projects engage Contractor Only
- Type III** Projects engage Consultant and Contractor

**Operation and A&A Works**

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graph TD
    Start((A&A Project Start)) --> ImplementBIM{Implement BIM}
    ImplementBIM --> CreateFolder[To create project folder in Venue CDE]
    CreateFolder --> UploadDocs[O&M team upload as-built documents to dedicated project folder in Venue CDE]
    UploadDocs --> UpdateData[Update asset data and record to AMS/CCS]
    UpdateData --> Complete((Project Complete))

    ImplementBIM --> InvolveUpdate{Involve model update?}
    InvolveUpdate -- No --> Confirmed[Confirmed to proceed internally]
    Confirmed --> Execution[Execution of replacement]
    Execution --> Production[Production of replacement information<br/>1. As-built drawings and documents<br/>2. Master Information Index (.xls)<br/>3. RFID Tags]
    Production --> UpdateData2[Update asset data and record to AMS/CCS;<br/>O&M document to asset mapping on BIM-AM]
    UpdateData2 --> Complete

    InvolveUpdate -- Yes --> ReferBIMAM[Refer to BIM-AM Acceptance and Upkeeping Guidelines]
    ReferBIMAM --> Apply[Apply for the<br/>(i) creation of new Project Folder in Project CDE & AIMP,<br/>(ii) user account for Contractor &<br/>(iii) approval workflow in CDE;<br/>- Advise the works demarcation for A&A works]
    Apply --> ReviewAAR[Review A&A for Consultant/ Contractor's involvement]
    ReviewAAR --> SBUShare[Type III<br/>SBU to share the trimmed models to Consultant]
    SBUShare --> DesignCheck[Design drawings/ model together w/ self QC checklist]
    DesignCheck --> ShareContractor[Share drawings/ model to Contractor]
    ShareContractor --> PrepareShop[Prepare shop drawings submission]
    PrepareShop --> UpdateAsBuilt[Update and produce as-built drawings]
    UpdateAsBuilt --> SelfQC{Self QA/QC check}
    SelfQC -- No --> UpdateAsBuilt
    SelfQC -- Yes --> ProductionDeliverables[Production of deliverables<br/>1. BIM Model<br/>2. Asset relationship (.xls)<br/>3. AIMP templates for assets which cannot be modelled(.xls)<br/>4. As-built docs & photos following folder structure (.zip)<br/>5. COBieLite (.xml)<br/>6. Master Information Index (.xls)<br/>7. RFID and Zone Tags<br/>8.BMS/ IoT (.xls)]
    ProductionDeliverables --> SubmitCloseout[Submit closeout deliverables for review]
    SubmitCloseout --> Clarification{Clarification on deliverables required?}
    Clarification -- Yes --> ProductionDeliverables
    Clarification -- No --> SBUApprove{SBU approve as-built deliverables}
    SBUApprove -- Yes --> UploadAIM[Contractor to upload as-built BIM and drawings with asset data to AIMP]
    UploadAIM --> QAQCIMP{QA/QC check in AIMP and approved in CDE}
    QAQCIMP -- No --> UploadAIM
    QAQCIMP -- Yes --> IncorporatePIM[Incorporate PIM to AIM]
    IncorporatePIM --> UploadAIM2[Upload AIM (record model) to Venue CDE]
    UploadAIM2 --> UpdateData3[Update asset data and record to AMS/CCS;<br/>O&M document to asset mapping on AIMP]
    UpdateData3 --> Complete

    ReferBIMAM --> SBUShare2[SBU to share the trimmed models to Contractor]
    SBUShare2 --> PrepareShop
  
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**Planning & Design**

**Execution of A&A works**

**Acceptance & AIM Aggregation**

Figure 3-1 Detailed Deliverable Preparation Diagram

