Publish Date

EXCHANGE INFORMATION REQUIREMENTS (EIR)

Company Name

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| 8068-ORG-XX-XX-SP-X-5220 |

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| Company Name | Company Name |
| Company Address | Company Address |
| Originator Code | ORG |
| Client Name | Client Name |

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# Overview

## Introduction

The intent of the Exchange Information Requirements (EIR) document is to clearly define and outline the project teams involved in the production of information at each stage of the asset lifecycle. In addition, the requirements will be outlined for producing digital deliverables and standard project information for the implementation, structure, coordination, and management of Building Information Modelling for the Project Name.

This EIR will form the baseline for the BIM Execution Plan (BEP) response, and both items read in conjunction will ensure that the project achieves its information requirements.

## Responding to this EIR

This EIR outlines the process and workflows required to respond to the Pre- and Post-Appointment BIM Execution Plan. The intent is for this information to detail precisely how the information requirements are to be achieved. Upon inclusion in the Project, this EIR and its terms form part of the appointments and must be adhered to and followed by all participating parties. Therefore, this EIR shall take precedence in all instances where Information contradiction occurs.

# Requirements

## Operational Information Requirements

This section of the EIR defines the information required to inform Appointing Party Name high-level strategic and business objectives as the Appointing Party.

### OM & FM Management Systems

The Operational Management (OM) and Facilities Management (FM) system used by the Appointing Party will be OM & FM Management System: DaluxFM. Further information on the system can be found on: Hyperlink.

## Asset Information Requirements

The Asset Information Requirements (AIR) sets out the management, commercial and technical requirements for producing asset information for the asset lifecycle.

Asset information management should be involved in all stages of the asset lifecycle, and functions must be constantly and consistently assigned during the project and asset lifecycle.

BS EN ISO19650-2 guides delivery teams to produce information and minimize wasteful activities collaboratively. Accordingly, the appointing party requires information delivery to the appropriate level of information need for each RIBA Stage.

All information produced during the project lifecycle must be relevant and qualitative to benefit the project. Therefore, only serviceable, and maintainable assets required for Facilities Management[[1]](#footnote-2) will need to be delivered. The information shall be provided to the required level of information need at RIBA Stage 5 in line with the Responsibility Matrix in the BIM Execution Plan (BEP), which the lead shall produce appointed party and appointed parties, and as defined in the AIR document.

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# Project Information Requirements

## Project Scope

|  |  |
| --- | --- |
| Project Name | Project Name |
| Project Address | Project Address |
| Project Number | Project Number |
| Project Value | Project Value |
| Contract Type | Contract Type |
| Project Description | Project Description |
| Estimated Project Cost | Estimated Project Cost |
| BIM Start Up Meeting | Date |
| Main Appointment Commencement | Date |
| Construction Start on Site | Date |
| Project Handover | Date |

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## Project Plan of Works

This project will comply with the RIBA Plan of Works 2020 Compliance. For a complete breakdown of work stages and outline stage requirements, refer to the RIBA Plan of Work website [www.ribaplanofwork.com](http://www.ribaplanofwork.com).

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Figure 1: RIBA Plan of Works 2020 Compliance

## Strategic Project Purpose

The project's strategic purposes will be achieved through the use of the following digital processes, uses and procedures outlined below:

### Design & Construction

|  |  |
| --- | --- |
| Strategic Purpose | Digital Processes and Uses to Achieve Purpose |
| * Informed decision making. * Improved coordination. * Improved H&S. * Improved tender & procurement. * Design standardisation. * Offsite fabrication. * Construction documentation. * Business case study. * Security & surveillance. * Energy Analysis | * Enhanced concept communication, stakeholder engagement and decision-making through 3D visualization. * 3D design coordination and clash detection between multiple disciplines allow design teams to identify and resolve issues and clash points early in the design process. * 3D visual safety planning/ 4D sequencing of high-risk activities. * Utilizing BIM components for offsite fabrication reducing risk & cost for project. * Use information models to conduct virtual safety tours to better inform visitors/ suppliers/ employees of risks and hazardous materials during on-site inductions. * 4D construction sequencing for precise project planning and visual coordination between workers and suppliers. * Basic quantity measurement for increased speed and accuracy in cost evaluation leading to early analysis and informed design decisions. * Fully synchronized 2D drawings extracted from the 3D models to communicate design information and meet contractual obligations. * Accurate "Live/ Active" data (i.e. schedules) to inform construction and coordination and QC checks. * Simulations and 5D analysis of designs to create early predictions of life cycle costs and to inform business case studies. * Utilizing the models for various energy analysis studies to better inform design decisions. |

### Operation and Management

|  |  |
| --- | --- |
| Strategic Purpose | Digital Processes and Uses to Achieve Purpose |
| * Archive/ As built. * Registration. * Use & Utilisation. * Operations. * Maintenance & Repair. * Assessment & Reuse. * Impacts & Sustainability. * Regulation & Compliance | * Asset data within the model to inform asset register on handover. * Digital asset register to map automatically with Computer-Aided Facilities Management (CAFM) and other FM tools. * Unified data structure on all projects to improve client's overall asset records. * Allow multiple assets to be quantified in a single database allowing for forecasts of expenditure and maintenance schedules. * Actual usage statistics checked against initial projections to accurately monitor and record the economic and environmental impacts of the Asset throughout its lifecycle. * Abundance of data collected for ongoing business cases and assessment towards the end of the asset's lifecycle. * Standardized classification systems / Taxonomy across assets. * Planning of space utilization and emergency evacuation plans |

## Goals and Objectives Responsibilities

|  |  |  |
| --- | --- | --- |
| Goal Description | Potential BIM Uses | Responsible Party |
| Reduce project risks | Proactive use of BIM to identify and resolve clashes by using 3D BIM models developed progressively, reducing design and construction risks | All |
| Multidisciplinary design coordination | Carry out design coordination using 3D Info models regularly | Lead Designer and Main Contractor Subcontractor |
| Enhance understanding of the design intent | Increased understanding of the design interfaces | All |
| Develop coordinated design documentation (2D drawings, schedules, 3D visuals etc) | Project information up to 1:10 scale to derive only form Info models | All |
| Controlled information management protocols in accordance with BS EN ISO 19650-1 & 2 2018 as the project will be delivered in the UK | Shared model development in a controlled CDE environment. | All |
| Increase collaboration amongst team members | 3D and 4D BIM to increase collaboration | All |
| Improve client engagement | 3D BIM and 4D BIM to improve client engagement | All |
| Increase pre-fabrication possibilities | Use 3D BIM environment to investigate and define pre-fabrication possibilities | All |
| Enhance accuracy and confidence in quantification and cost planning | Use 3D BIM models to extract quantities for key elements such as walls, doors, finish floors, ceilings etc | Main Contractor Subcontractor |
| Design optimization and standardization | Use 3D BIM to standardize key layouts/details in order to build standard "kit of parts" library | All |
| Improve tender information and procurement process | Use 3D BIM a part of procurement and tender analysis | Main Contractor Subcontractor |
| Design coordination and interface with specialist / sub-contractor | Carry out Subcontractor design coordination using 3D BIM models on a regular basis | All |
| Enhance understanding of the subcontractors’ design and key interfaces | Investigate key interfaces using 3D models | All |
| Reduce scope gaps | Use 3D BIM models to define package scope | Lead Appointed Party Name (Tier 1) and Package Specialists |
| Develop coordinated design documentation (2D drawings and schedules) | Project information up to 1:10 scale to derive only form BIM models | All |
| Enhance project communications (site based as well as non-site) and collaboration amongst project stakeholders | 3D/4D BIM during H&S briefings, toolbox talks, regular trade specific briefings etc. | All |
| Improve safety planning and training | 3D/4D BIM used to improve safety planning and training | Main Contractor Subcontractor |
| Improve Inspection, snagging and commissioning process on site | Mobile device-based inspection, snagging, and commissioning to improve overall efficiency | Main Contractor Subcontractor |
| Asset Information Model | Use of BIM data and models for asset management | Owner/operator |

## Procurement Route

The delivery phase of the project will adopt a design and build procurement route in which there is one appointment for carrying out design and construction work. The appointment will use the Contract Type.

## Key Decision Points

Key decision points will be aligned to project digital milestones. The proposed dates for information submissions in shall be accordance with project programme. The Master Information Delivery Plan (MIDP) and the Task Information Delivery Plans (TIDPs) shall include official milestones and key decision points shall be identified accordingly. Dates are subjective to the programme and will update accordingly as the project programme adapts during project lifecycle.

## Project Information Standards

Project Information standards shall be covered within the BIM Execution Plan (BEP).

# Management

## Standards

In line with BIM Goals and Uses to ensure continuity that information containers are structured, coordinated, managed, and delivered in line with project requirements, industry standards and best practice. The following table outlines the reference documents that must be followed by all project stakeholders during the entire project lifecycle.

### Core Standards

|  |  |
| --- | --- |
| BS EN 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 |
| BS EN ISO 19650-2:2018 & Revised NA  Incorporating corrigendum February 2021 | Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - Information management using building information modelling - Part 2: Delivery phase of the assets British National Annex |
| BS EN 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 |
| BS EN 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 |
| ISO 16739-1:2018 | Industry Foundation Classes (IFC) for data sharing in the construction and facility management industries — Part 1: Data schema |
| BS EN 17412-1: 2020 | Building Information Modelling — Level of Information Need Part 1: Concepts and principles |
| RiB iTWO Cost Planning: Rules for Modellers | Cost Planning Rules for Modelers |
| RIBA Plan of Work | All stages in the planning, design and building process, from conception to completion |
| The NBS Definitions Library | Descriptions in terms of graphical and non-graphical information requirements. |

### Best Practice Standards

|  |  |
| --- | --- |
| BS 8541-2:2011 | Library objects for architecture, engineering, and construction. Recommended 2D symbols of building elements for use in building information modelling |
| BS 7000-4:2013 | Design management systems. Part 4. Guide to managing design in construction |
| ISO 9001:2015 | Quality Management Systems Requirements |
| BS EN ISO 19650-4:2022 | Collaborative production of information. Part 4: Fulfilling employer's information exchange requirements using COBie - Code of practice |
| PAS 1192-6:2018 | Specification for collaborative sharing and use of structured Health and Safety information using BIM |
| BS 8536-1:2015 | Briefing for design and construction - Part 1: Code of practice for facilities management (Buildings infrastructure) |
| BS 8536-2:2016 | Briefing for design and construction - Part 2: Code of practice for asset management (Linear and geographical infrastructure) |

### Reference Standards and Documents

|  |  |
| --- | --- |
| BS 8541-1:2012 | Library objects for architecture, engineering, and construction. Part 1: Identification and classification - Code of Practice |
| BS 8541-3:2012 | Library objects for architecture, engineering, and construction. Shape and measurement. Code of practice |
| BS 8541-4:2012 | Library objects for architecture, engineering, and construction. Attributes for specification and assessment. Code of practice |
| Information Protocol | ISO 19650 Series compatible protocol for use in projects using building Information models |

### Industry Standards

|  |  |
| --- | --- |
| Uniclass 2015 | <https://toolkit.thenbs.com/articles/classification>  [www.biminteroperabilitytools.com](http://www.biminteroperabilitytools.com) |
| RIBA Plan of Work 2020 | [www.ribaplanofwork.com/](http://www.ribaplanofwork.com/) |

## Functions and Responsibilities

The functions shall not be confused with the job titles of the individuals, which can differ between organizations. The crucial factors are ownership, responsibility, and authority. The functions and responsibilities should be outlined in the RACI[[2]](#footnote-3) Matrix at an organizational level, not an individual level.

Please refer to individual Project Specific Assignments (PSA) / contracts aligned with the design responsibility matrix for project lifecycle-specific roles and responsibilities.

## Project Team Stakeholders

All parties appointed for the project are defined as members of the Project Team. Each function can be fulfilled by either an individual or multiple people throughout the course of the project. In addition, function responsibilities can be transferred as the project progresses.

## Acceptance Criteria

Information issued via the Common Data Environment (CDE) must comply with Project Information Requirements (PIR) outlined within the Responsibility Matrix to form part of project deliverables. As such all information circulated via the CDE needs to comply with the following:

Project Protocol[[3]](#footnote-4)

Project Information Standards3

Information Production Methods and Procedures3

Exchange Information Requirements (EIR)

Any information circulated in noncompliance with any of the acceptance criteria will be rejected at initial QA/QC stage.

## Supporting Information

Supporting information must be used where applicable and relevant to understand and evaluate information requirements or acceptance criteria fully. Supporting information includes but is not limited to:

Existing site surveys

Existing information containers

Shared resources

### Project Information Delivery Date Management

Project dates relative to the project information delivery milestones and key decision points are to be managed by the appointing party through Task Information Delivery Plans (TIDP).

TIDPs are to be generated and maintained by any task team or team member on the project producing an information container for the entirety of their contribution of the project lifecycle. TIDPs are to be issued in advance of project submissions for the appointing party to review and comment on and will ensure alignment of all information containers, i.e. reports, schedules etc. as opposed to 2D productions drawings only.

Programs will be reviewed and commented on to ensure compliance with:

Project Programme.

Functions and responsibilities (i.e. contract deliverables).

The time needed for the appointing party to review and accept information.

The time required by the appointing party internal assurance procedures.

Alignment with relevant QA/QC[[4]](#footnote-5) procedure related to Key Decision Points.

### Master Information Delivery Plan

Specific responsibilities for information container exchange delivery should be recorded through a Master Information Delivery Plan (MIDP). The lead appointed party shall collate project TIDPs from each task team to produce the delivery team's Master Information Delivery Plan (MIDP). The MIDP shall incorporate or consider:

* Assigned responsibilities within the responsibility matrix and design responsibility matrix.
* Information predecessors and dependencies, particularly for information between task teams.
* The review time the lead appointed party will require to review and authorize the information model.
* The review time appointing party will require to review and accept the information model.

Following the production of the MIDP the lead appointed party shall ensure:

* Deliverables and dates are baselined within the MIPD.
* Inform each task team of the MIDP production.
* Notify the task team if any changes are required to their TIDP.
* Inform the appointing party of any risks or issues which could impact on the project information delivery milestones.

## Internal Assurance Process (Compliance Planning)

Project compliance assessment reports are to be used at key decision points to ensure data and information quality. The BEP will define the methodology for information production and compliance to achieve the employer's requirements.

The appointing party BIM Compliance Report is required at each key decision point and project milestone to ensure project compliance is achieved. The BIM Execution Plan should refer to:

* Quality Assurance / Quality Control procedure (Data, Models and Documents).
* Associated software(s).
* Level of assurance.
* Period of aftercare: 12 months.

The appointing partywill monitor the CDE during the project and perform independent audits throughout the project and key decision points and milestone stages during the entire project delivery to ensure information is developed in accordance and compliance with this EIR and ERs.

## Federation Strategy and Information Breakdown

The purpose of the federation strategy and the Information Container (model) breakdown structure is to help plan the production of information by separate task teams to the appropriate level of information need at each stage of the project.

The breakdown of information containers relevant to their disciplines should be outlined and defined in the BEP. The breakdown of these information models should consider possible further splitting of the models (due to size or package) at later stages and should be planned for.

Identifying and breaking the information down into packages/ zones at an early stage will ensure the stability of models and the size.

## Role and Responsibility Matrix - Information Management Activities

The roles and responsibility RACI matrix[[5]](#footnote-6) are further outlined in the BEP. The RACI Matrix is generated as part of the information delivery planning process. The below responsibility matrix is taken from Annex A Table A.1 of ISO 19650-2:2018 and outlines information management functions and information management tasks related to information deliverables.

## Handover Information Requirements

It is required that construction information will consider 'as built' conditions on-site within the handover. Because the 2D drawings are solely derived from 3D Project Information Model(s), these are considered relevant as-built aspects.

Site verification will also be used to ensure any tolerances or deviations on site are captured in project information models and asset information models; this will be coordinated through the project cloud-based issue tracker Dalux including PDF and COBie. Further Information requirements are outlined in section 5.3, Software, and Information container Formats section of the BIM Execution Plan.

## Collaboration Workflow

All teams and parties will be required to collaborate and share information during the lifecycle of the project. The project team are required to manage this process and the Common Data Environment (CDE) as defined in the BS EN ISO 19650 Series. It is essential that standards defined in section 5.1 of BS EN ISO 19650-2:2018 are complied with during information authoring. Management of the processes within each organization and are to be agreed at the start of the project and defined in the BEP.

## CDM Strategy

The appointing partyexpects the use of BIM to support the projects Health & Safety (H&S) and CDM management and information delivery requirements as per the CDM: Construction (Design and Management) Regulations 2015 aligned with projects goals and objectives (Section 4.4).

Use of BIM includes but is not limited to best identifying and reducing Health & Safety hazards, Health & Safety risks in design, construction and operational phase through early identification and mitigation. Any residual hazards and/or risks in the project are to be tracked via single risk register administered by the project Information Manager.

The BIM Execution Plan must include the following to clearly illustrate capability and competency related to CDM:

* Schedule of work stages and overview of key H&S deliverables against each relevant stage.
* Conformation of how information shall be stored and exchanged/shared.
* Approach to design authoring and model interrogation.

### CDE Management

The project Common Data Environment (CDE) software platform for the project shall be Name of Project CDE and shall be provided and managed by the Lead Appointing Party during the delivery phase. New Joiner and refresher training will be provided on a monthly basis hosted by the Lead Appointing Party. Unless noted in the BEP, remaining project related training will remain the responsibility of the relevant party and its teams with no additional cost or programme delays to the appointing party.

The Common Data Environment (CDE) enables multidisciplinary design teams to collaborate and share information in a managed environment in which the accrual and development of information follows the design, construction, and operation sequence.

Refer to the project CDE Protocol which outlines the CDE for project lifecycle, the protocol is aligned with the definition and use of a CDE as part of BS EN ISO 19650 Series of documents. Revisions and status codes as defined in BS EN ISO 19650-2:2018 need to be implemented as both drawing information and metadata.

## Information Container Identification

The unique ID for information containers shall comply the project CDE Protocol which has been developed to align with the BS EN ISO 19650-2:2018; National Annex standard. Naming conventions for Information Containers shall be strictly adhered to. Any information issued within the CDE in non-compliance with the Information Container Identification protocol shall be rejected as part of QA/QC compliance.

### Information Container Auditing

Information Container audits will be carried out during interim and final stage submissions. Elements/ metadata that will be audited against are outlined in section 6.2 of the EIR which outlines the minimum requirements for what level of information need is required at each stage of the project lifecycle.

Information Containers will be rejected if they do not meet these requirements per stage when reviewed under the QA/QC and compliance audits per key decision point. As defined in BS EN ISO 19650-1:2018, section 11.1 *"Issues in the information model should be avoided during the production of information rather than detected after the delivery of information. Issues could be spatial, … or functional".*

Information Containers should be fully coordinated for key decision points and stages approval / project information requirements (this includes a clash free or as reasonable clash free Project Information Model).

The appointing partyQA/QC and compliance processes are to be strictly adhered to for any submission to the shared container of the CDE. Refer to Project Information Standards and Project Information Protocol for quality checks to be carried out.

## Asset Information Delivery Strategy

Referring to the level of information need at Stage 6 of the RIBA Plan of Work to section 4.7 of the Plan, which defines what metadata is expected at handover, the provision of further definitions of naming conventions for asset tags are to be developed by project team and agreed by the client for future use.

In preparation for data handover, all geometrical data will be Classified using Uniclass 2015. Design teams will use BIM Interoperability Tools to classify their geometry if Revit is the authoring tool.

Deviations from the authoring tool need to ensure interoperability and cross compatibility through identically named parameters so that metadata can be uniformly extracted and used. Further details for classification should be outlined in the Information Protocol.

# Technical

## Hardware

It is expected that all appointed parties have adequate hardware to support their authoring platforms. Advice can be given should any appointed party be unsure of what is needed.

## Level of Information Need

Part 1 & 2 of BS EN ISO 19650:2018 set of standards introduced a new term, 'Level of information need' which is designed to replace the terms used in PAS1192, such as Level of model definition/level of detail (LOD) and level of information (LOI). The PAS1192-2:2013 has been withdrawn[[6]](#footnote-7), and the new BS EN ISO 19650-2:2018 does not define the Maturity Model Progression requirements. Therefore, the trade contractor (task team) should propose suitable model maturity throughout different project stages; the proposal should be submitted to the BIM lead Consultant for review and approval. The BIM Lead Consultant shall have the final right to determine the Level of Information need in any circumstance. The LOD and LOI should refer to the definition mentioned in the NBS BIM Toolkit to achieve the suitable model maturity level in the specific project stage.

The NBS Toolkit can be accessed by the following: <https://toolkit.thenbs.com/definitions>.

## Element Interoperability

As Information Containers (Models) develop from design intent to trade specific, the elements will need to be sufficiently deconstruct-able/adaptable to allow for detailed design elements to be substituted in as defined in the Responsibility Matrix. This is particularly important for interfacing trades such as walls where; the drylining will be modelled by a team or party and the SFS wall systems will be modelled by and different team or party. Each team or party is to define how PIM elements will be adapted as the project lifecycle evolves, i.e. through modelling separate elements or using Parts during model export.

## Training

The CDE will be provided by the lead appointed party. Training and education requirements for the project delivery team involved in the process of production, analysis, and review of the Project Information Model (PIM) shall be assessed and recorded in the appointed parties' BEP in response to the EIR. Training for the CDE will be provided monthly by the Lead Appointed Party. Unless noted in the BEP, remaining project-related training will remain the responsibility of the relevant party and its teams with no additional cost of programme delays to the appointing party.

## Coordination and Clash Detection Strategy

Throughout the project's duration, the ethos of clash avoidance is to be adopted by all disciplines, with model authors having ultimate responsibility for the maintenance and integrity of their Work in Progress models. The clash detection tests will be expected to be hard, soft and 4D tests. This will involve undertaking regular checks, reviews, and interface coordination with other disciplines throughout the development of the project's design.

Any identified clashes or coordination issues by each model author are to be uploaded to the designated cloud-based issue management platform, Dalux. All project parties and team members must engage fully with this process.

Attendance to regular model coordination workshops is included but not limited to the BIM process. In addition, all relevant suppliers and their team members must ensure attendance to virtual and in-person model coordination meetings with the appropriate individuals who can make decisions on behalf of their team.

2D documentation produced for key decision points and project milestones should also be used for commenting and tagging of issues. In addition, the work-in-progress 2D drawings should be made available via the cloud-based application for design review. Information Containers issued within the CDE will remain a single source of truth for all issues. 2D Drawings will remain contractual documents. In accordance with BS EN ISO 19650-2:2018 the following workflow outlines the process for collaborative design and clash avoidance to be followed on this project to ensure clash avoidance is maintained throughout the project delivery.

## Information Exchange Formats / COBie

All project Information Containers will need to be exchanged in their native file formats or using an IFC file format. 2D information and COBie[[7]](#footnote-8) will need to be provided:

* Native discipline-based 3D model files product specific for all design and analysis of models.
* 3D discipline-based models extracted from native files, for collaboration and clash detection.
* COBie-COBie-UK-2012 version 2.4 extracted from native files.
* PDF files (for associated documentation).
* 2D drawing files in dwg format cut from the submitted models.

The lead appointed party, or the responsible appointed party shall enter all hand over information, i.e. O&M information, H&S information, Asset schedules, PPM schedule, Commissioning data etc, into the Dalux cloud-based Asset Information Model (AIM). The intent of inclusion of COBie is to enable the Project appointing party to maintain and manage the asset.

## Competence Assessment

All involved parties and teams must complete the following capability and capacity assessment forms:

* Delivery Team Capability and Capacity.
* Capability and Capacity to Manage Information.
* Capability and Capacity to Produce Information.
* Assessment of the Availability of Information Technology.

Competence Assessments are part of the overall tender submission and in response to this EIR. The purpose of this assessment is to determine if the prospective lead appointed party and/or the appointed parties are capable and experienced enough to answer the project information requirements.

Prospective appointed parties which are certified by any national or international BIM Scheme are not exempted and are expected to provide the assessment forms as part of their tender response.

# Commercial

## Project Deliverables

All appointed parties and task teams shall ensure the structure of their work deliverables and information exchanges is as per the RIBA Plan of Work stages 2013 and to the level of information need defined in the BEP.

In cases where information will be provided in the model and other formats the priority is to provide the model information with supplementary information provided in other document formats as agreed and noted within the BEP response's specific to suppliers' design package.

## Model Ownership and Use

The Information Protocol is to be completed and appended to the appointment to illustrate understanding and compliance with all associated BIM procedures and requirements. All parties and teams grant the appointing party a non-exclusive license as well as, to the extent that the material and any rights subsiding therein are owned by a third party or parties, a sub license to allow the appointing partyto transmit, copy and use the material and any proprietary work contained in the model for uses listed in the EIR as well as the activities listed in the BEP.

## BIM and Digital Assessment

All involved parties and teams must complete the BIM Capability and Capacity Assessment forms provided as part of the overall tender submission and in response to this EIR. The purpose of this assessment is to determine if the lead appointed party and appointed parties are capable and experienced enough in order to achieve the project information requirements.

Evidence of planning, delivery, and management of resources as well as technical capabilities or limitations through the supply chain is to be provided in the BIM Capability Assessment form returns. All teams with a package specific Scope of Works are required to respond fully to this EIR and the requirements within, including BIM Capability Assessment forms in order to return a compliant bid. Any tender returns not addressing this EIR will be treated as non-compliant.

## Security Requirements

It should be noted that all project information, unless otherwise explicitly agreed, is to be treated as confidential. Information uploaded to the CDE (Dalux) is to adhere to the Dalux Protocol provided under separate cover.

Dalux is configured to achieve compliance with the principles of PAS1192-5:2015 Specification for security-minded building information modelling, digital built environments, and smart asset management.

1. Asset Information Requirements document reference 0000-XXX-XX-XX-SP-X-XXXX. [↑](#footnote-ref-2)
2. BEP Appendix: Roles and Responsibilities RACI Matrix [↑](#footnote-ref-3)
3. Further explanation provided in the BEP [↑](#footnote-ref-4)
4. QA/QC procedure outlined in the BEP [↑](#footnote-ref-5)
5. BEP Appendix: Roles and Responsibility RACI Matrix [↑](#footnote-ref-6)
6. PAS1192-22013 Figure 20 – Level of Definition [↑](#footnote-ref-7)
7. BEP: Appendix: COBie Delivery & Responsibilities [↑](#footnote-ref-8)