



BIM Contract Language Design Phase

1.0 REQUIREMENTS

The Design Consultant shall utilize BIM (Building Information Modeling) methodology throughout the duration of this project. All work and development involving BIM shall comply with the **CLIENT** BIM Standards Manual (BIM Manual).

- A. The Design Consultant shall provide at its own cost the software, hardware, personnel, and training as needed to comply with the BIM requirements and responsibilities defined herein and in the **CLIENT** BIM Standards Manual.
- B. The Design Consultant shall be responsible for achieving the following BIM uses, defined as mandatory for this Project:
- Design Authoring
 - 3D Coordination
 - Quantity Takeoff
 - Contract Set

BIM uses as defined by Penn State College of Engineering
(https://www.bim.psu.edu/bim_uses/)

- C. The Design Consultant may, at its own discretion, select additional BIM uses to further benefit from a BIM methodology.
- D. The Design Consultant shall appoint a BIM Manager to act as follows:
- Lead the development of the BIM Execution Plan (BEP) and the adherence throughout the Project, by all Agents for which the Design Consultant is responsible. This includes but is not limited to Design Architects and Engineers.
 - Supervise the development of Models, integration, and execution, so they support the BIM uses defined in this document.
 - Coordinate with the Airport's appointed representative, or Group, for all BIM-related concerns.

CLIENT's BIM Standards Manual includes a BEP Template for use and reference. The BEP requires **CLIENT's** approval prior to taking any effect and be considered as a valid Project Document.

- E. The Design Consultant shall use the most current version of Autodesk's Revit, Navisworks and or Civil 3D software in use by **CLIENT** at the time of the acceptance of the Design Consultant's Proposal.
- F. The Design Consultant shall be responsible for the progressive development and update of a Federated Model throughout the design. The Federated Model will be comprised of the aggregate Discipline/Trade Models as needed. For project geometry and layout, the Model shall be the primary source of information (single coordinated database). The Design Consultant may refer to other contract documents for performance requirements, finishes, and additional product information.
- G. The Design Consultant is responsible for organizing inter-disciplinary coordination meetings, including all Disciplines/Trades, on the regular basis, to ensure the delivery of coordinated clash-free BIM Models.
- H. The Design Consultant shall generate the quantity takeoffs from the BIM Model.
- I. The Design Consultant is responsible for creating all drawings (plans, sections, elevations, details, etc.) from the BIM Model.

2.0 DELIVERABLES

- A. Within 30 calendar days of the acceptance of the Design Consultant's Proposal, the Design Consultant shall prepare and submit to **CLIENT** a BIM Execution Plan. At a minimum, the BEP shall define:
- Project directory, roles, and responsibilities
 - Strategy for achieving each of the primary BIM uses defined herein, including but not limited to Workflows, Roles and responsibilities, partial and final deliverables, etc.
 - Any additional BIM use adopted by the Design Consultant and the strategy to achieve it.
 - Project Milestones and associated BIM milestones.
 - Model Development Specification (MDS), showing the Level of Development (LOD) to be achieved by each category for each milestone.
- B. The Design Consultant shall submit for review (on the defined Project Milestones and/or when required by **CLIENT**) a Federate Model update submissions, by posting files to the platform defined by **CLIENT**. The Design Consultant's appointed BIM Manager for the Project shall prepare a narrative explaining the progress made since the last submission, which shall include, at a minimum:
- Progress made on the Completeness of each individual Model
 - Approximate percentage of target LOD, for the current phase, for each individual Model.
 - A brief summary of progress on 3D coordination made since the last submission.
- C. Prior to the Design Completion, the Design Consultant shall submit to **CLIENT** a final BIM Model meeting both the geometric and non-geometric requirements made herein. **CLIENT** will have thirty (30) days to review the final model submission, and the Design Consultant shall have an additional thirty (30) days to incorporate all comments to the satisfaction of **CLIENT** to complete this requirement.