SECTION 01 32 50

BUILDING INFORMATION MODELING REQUIREMENTS

BASED ON DFD MASTER SPECIFICATION DATED August, 2022

*The use of this section, which requires contractors to use Building Information Modeling, is intended for Tier 2 Projects. This does not, however, preclude electing to use a Building Information Modeling on Tier 1 Projects. Reference the BIM Guidelines for definitions of the Tiers.*

1. **GENERAL**

**SCOPE**

This Section specifies administrative and procedural requirements necessary to prepare coordination documents, including a Building Information Model (BIM) using three-dimensional elements. Included are the following topics:

PART 1 – GENERAL

Scope

Reference

Related Work

Submittals

Definitions

Administrative Requirements

PART 2 – PRODUCTS

Not Applicable

PART 3 – EXECUTION

BIM Coordination Model

BIM Coordination Model Participation Requirements

BIM Coordination Model Requirements

BIM Coordination Model - General

**REFERENCE**

Applicable provisions of Division 01 govern work under this section.

**RELATED WORK**

Applicable provisions of Division 01 shall govern work under this section.

**SUBMITTALS**

Submit shop drawings and product data under provisions of Division 01, General Conditions of the Contract.

BIM Project Execution Plan (PxP): Prepare and submit a BIM Project Execution Plan. Submit the BIM PxP in Portable Document Format (PDF) within 30 days after Notice to Proceed to the DFD Project Manager, Construction Representative and A/E of Record. The BIM PxP shall be updated as required and submitted with Final O&Ms. The BIM PxP shall define BIM goals, information exchange protocols, file naming, model coordinate system, schedule for BIM meetings, BIM Leads, and establish a process for tracking progress for BIM related tasks. The BIM PxP shall include requirements for project-specific BIM scope.

**DEFINITIONS**

Building Information Model (BIM): A digital representation of physical and functional characteristics of a facility. A compilation of pertinent layout and systems that show sizes and locations, of system components and required access areas to ensure that no two objects will occupy the same space.

BIM Project Execution Plan (PxP): A document prepared by the General Prime Contractor that defines the expected BIM deliverables and guides the coordination of the construction project team, throughout the construction lifecycle.

Design Intent Model: Building Information Model that demonstrates and communicates the creative objectives of the designer. The Design Intent Model is made available to the contractors solely for convenience and for informational purposes. Contractors are not to rely upon the Design Intent Model and the data and/or information contained therein in preparing any of the BIM coordination model for the project. Updated Design Intent Models will not be provided to the contractor throughout the construction lifecycle.

**ADMINISTRATIVE REQUIREMENTS**

The purpose of BIM is to create a model that will be used for coordination of all trades throughout the construction lifecycle.

Contractor’s Responsibility:

* Develop deliverables required in this section.
* Contractor is solely responsible for the quality and accuracy of all documentation and submittals of this section.

Existing Documents:

The following building information, obtained and developed by the A/E of Record during the design phase, shall be available to the General Prime Contractor upon Notice to Proceed and after completion of the A/E’s electronic release form:

* + - 1. Design Intent Model
			2. Contract Documents (.pdf)
			3. Point Clouds
1. **PRODUCTS**

Not Applicable

1. **EXECUTION**

BIM COORDINATION MODEL

The BIM coordination model shall include the project control grid. This grid shall be visible when viewing the model along with the X, Y or Z axis.

BIM COORDINATION MODEL PARTICIPATION REQUIREMENTS

The General Prime Contractor and subcontractors responsible for the coordination model shall participate in the coordination model process.

The General Prime Contractor shall be designated as the coordinating contractor for purposes of preparing a complete BIM coordination model that includes all applicable trades and for coordinating activities related to this process.

Complete the coordination model process and obtain sign off on the models by all contractors participating in the coordination process. Sign off shall be included in coordination minutes or other form of documentation and submitted to the DFD Project Manager, Construction Representative, and A/E of Record as early in the construction process as possible. Sign off date shall be included in the overall project schedule.

Conflicts that result after the coordination model is signed off shall be the responsibility of the contractor or subcontractor who did not properly identify their work requirements or installed their work without proper coordination.

BIM COORDINATION MODEL REQUIREMENTS

File format and file naming convention shall be coordinated with and agreed to by all contractors participating in the coordination process.

The minimum level of development shall be established at the first coordination meeting and sent to the DFD Project Manager, Construction Representative, and A/E of Record for review. Additional coordination may be required if other areas of congestion are discovered during the coordination process.

BIM COORDINATION MODEL – GENERAL

Coordination model files shall be made available to the DFD Project Manager, Construction Representative, and A/E of Record. The A/E will only review identified conflicts and provide an opinion but will not perform as a coordinator.

A digital up-to-date coordination model in viewable format shall be available at the project site for use by DFD project representatives, A/E team members, and Cx agent(s).

The coordination model is not a shop drawing and shall not be submitted as such.

Contractors will not be allowed additional costs or time extensions due to participation in the coordination process.

Contractors will not be allowed additional costs or time extensions for additional fittings, re-routings, or changes of duct size, that are essentially equivalent to those included within the contract documents and determined necessary through the coordination process.

The A/E reserves the right to determine space priority of equipment in the event of spatial conflicts or interference between equipment, piping, conduit, and ducts.

Changes to the contract documents that are necessary for systems installation and coordination shall be brought to the attention of the DFD Project Manager, Construction Representative, and A/E of Record.

Access panels and doors shall preferably occur only in gypsum board walls or plaster ceilings where indicated on the drawings. The following requirements for access panels shall apply:

* Potential layout changes shall be made to avoid additional access panels and doors.
* Additional access panels shall not be allowed without written approval from the A/E during the coordination model process. Providing additional access panels and doors shall be considered after all other alternatives have been reviewed by the DFD Project Manager, Construction Representative, and A/E of Record.

**END OF SECTION**