

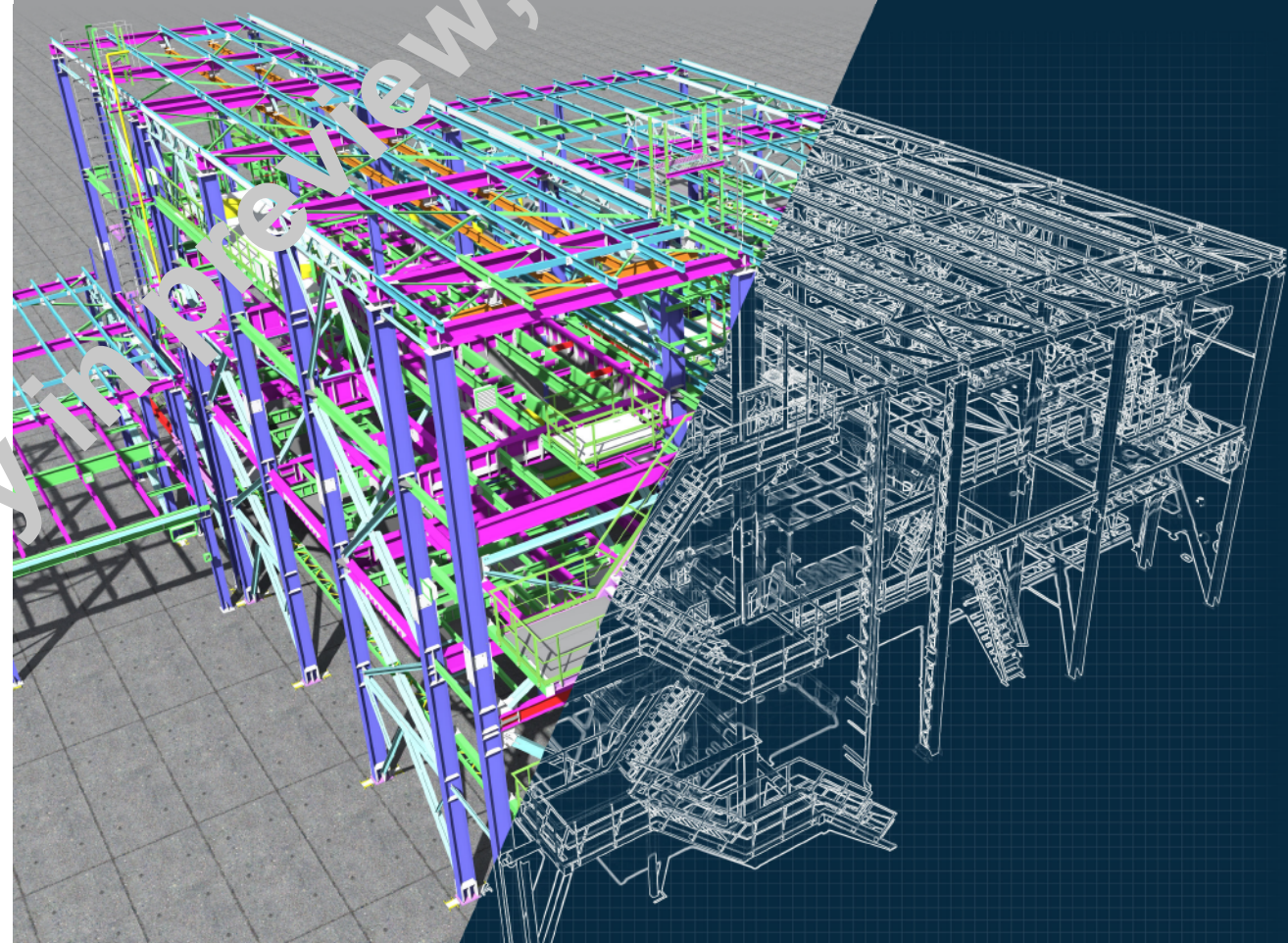
STANDARDS



a BICSI International Standard

ANSI/BICSI 003-2024

**Building Information Modeling (BIM)
Practices for Information
Communication Technology Systems**



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ANSI/BICSI 003-2024

Building Information Modeling (BIM) Practices for Information Communication Technology Systems

Committee Approval: December 10, 2023

ANSI Final Action: January 29, 2024

First Published: February 29, 2024



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Preface

Revision History

January 14, 2014 First publication of this standard, titled ANSI/BICSI 003-2014, *Building Information Modeling (BIM) Practices for Information Technology Systems*

February 29, 2024 Revision of ANSI/BICSI 003-2014, retitled and published as ANSI/BICSI 003-2024, *Building Information Modeling (BIM) Practices for Information Communication Technology Systems*

Major Revisions include:

- Revision of Section 5, *BIM Project Design* to reflect changes in BIM projects and methodologies
- Update to terminology related to BIM content
- Update to Section 7.5.4, *Electronic Safety and Security (ESS) Parameters*
- Update to Section 8.3, *BAS Considerations*

Minor Revisions include:

- Removal of unneeded information in Section 6.4, *Hosting Behavior*
- General updates to Section 7, *Object Parameters*
- General updates to Section 8, *Information Communication Technology Systems Considerations*
- Other content updates and editorial corrections

Document Format (Usability Features)

This standard has the following usability features as aids to the user:

- Additions and changes, other than those for editorial purposes, are indicated with a vertical rule within the left page margin.
- Deletion of one or more sentences within unrevised content is indicated with a bullet (•) within the left page margin.

NOTE: The relocation of content within or between sections related to structure, readability, or content alignment is not indicated.

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1 Introduction

1.1 Overview

Building information modeling (BIM) is the process of generating and managing building data during its lifecycle. BIM software can generate three-dimensional models used to support the design of a building. Utilizing BIM can incorporate detailed product information, quantities, and properties into the models. This added intelligence has huge potential for improving construction projects and ongoing facilities service. Just as the introduction of computer aided design (CAD) software brought major advancements over hand drawings, BIM is dramatically altering how we communicate building design.

1.2 Purpose

The intent of this document is to expand the implementation of BIM in the telecommunications industry; explain the function and different elements of BIM and suggest which are most useful for telecommunications; and to recommend best practices for BIM's implementation and use.

1.3 Categories of Criteria

Two categories of criteria are specified—mandatory and advisory:

- Mandatory criteria generally apply to protection, performance, administration, and compatibility; they specify the absolute minimum acceptable requirements.
- Advisory or desirable criteria are presented when their attainment will enhance the general performance of the system in all its contemplated applications.

Mandatory requirements are designated by the word *shall*; advisory recommendations are designated by the words *should*, *may*, or *desirable*, which are used interchangeably in this standard. Where possible, requirements and recommendations are separated to aid in clarity.

Notes, cautions, and warnings found in the text, tables, or figures are used for emphasis or for offering informative suggestions.

Where equivalent local codes and standards exist, requirements from these local specifications shall apply. Where reference is made to a requirement that exceeds minimum code requirements, the specification requirement shall take precedence over any apparent conflict with applicable codes.

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2 Scope

The scope of this document will explain the usage of BIM elements provided by product manufacturers as well as the “level of intelligence” integrated once these have been inserted to be part of the overall model. The “level of intelligence” term refers to the very well-defined Level of Detail (LOD) of which each model is comprised by its components and design elements, (this will be elaborated further on this document). This document also attempts to guide the ICT designer:

- During the development process of the 3D model and related modeling tasks
- Throughout the coordination with all disciplines to maintain standardization among all the different low voltage systems
- To deliver an efficient lean model

The development of the BICSI BIM Standard reflects the importance of maintaining a good balance between the 3D modeling industry trends; the project basis of design modeling requirements; and the applicable Codes and Industry Standards. This Standard is based on the current BIM experience of many A/E firms and telecommunications industry experts. With the BICSI BIM Standards the ICT designer should be able to:

- Evaluate the benefits and requirements of BIM before engaging on a new project
- Better define the scope of work on a BIM project
- Have a reference point while designing for BIM
- Efficiently manage the BIM coordination

Finally, the intent of releasing this document is to provide the telecommunications industry a tool and Standard to meet the demands of the fast-paced BIM world.