National BIM Standard - U.S., Version 4 BIM Execution Plan Template

National Institute of Building Sciences

INTRODUCTION

The **NBIMS BIM Execution Plan (BEP) Template** may be used to create project-specific BEPs adhering to the U.S. National BIM Standard. The content may be used to make an organization's BEP template or to review content from online commercially available BEP applications. A BEP has become a recognized contract deliverable. The BEP process and this documentation will help all project members achieve an efficient and effective BIM process for project delivery.

<u>UPDATES to the BEP Process</u> The

NBIMS BEP is aligned to ISO 19650 and US project delivery. Various groups develop the BEP information. The *Owner* provides information on BIM projects in the Request for Proposal (RFP) phase. Owners providing this information in an RFP will better understand a team's capability to perform on a BIM project.

Proposers respond with a **Proposal BEP**, and the selected **Project Team** develops the **Project BEP**. The **Project BEP** is updated as new team members begin work on the project. It is used throughout a project to review BIM performance.

BIM Uses (Uses)
Technological Infrastructure Needs (Software) (Info Sharing)
Quality Management (Quality) (QM Strat)
IM Risk Register (Risk Reg)
Model Federation and Standards (Federation Strat)
Information Exchanges (IE)

References	
National BIM Standard - United States	https://www.nationalbimstandard.org
NBIMS-US BIM Use Definitions	
NBIMS-US BIM Execution Plan Standard	
BIMForum LOD Specification	https://bimforum.org/resource
Construction Specification Institute (CSI)	https://www.csiresources.org

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	INSERT BEP COVER PAGE IMAGE HERE	
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BEP & PROJECT SUMMARY						
nstructions: Include a a BEP Executive Summary explaining the process of how this document will be developed. It is a strategic summary of how the team will maximize BIM technology and information to meet the project goals and responsibilities of a project. Include a Project Summary of the project.						
BEP Executive Summary						
Project Description						

BEP & PROJECT REFERENCE INFORMATION						
nstructions: Provide project, contract, and BEP information that will be used in this BEP.						
	Project Reference Information					
Project Name						
Project Owner Name						
Project Legal Address	City	State	Zip			
Facility Type Classification	•					
Facility Type Name						
Project Delivery Method						
Project Information Req. Title						
Project Information Req. Location						
Owner Modeling Guide Title						
Owner Modeling Guide Location						
BEP Development Standard						
BEP Path						
BEP Data Format						
Acknowledgements						
Team Selection Procedure						
BIM Contracting Procedure						
REP Version Log						

BEP Version Log							
			Creator	Creator	Approval	Approval	Approval
Version Number	Date	Description	Org.	Contact	Org.	Contact	Status

Add rows as needed.

Project Identification Table				
Project Identification Description	Project Identification Value			

Add rows as needed.

Project Certifications Information					
Certification Information	Certification Value				

Add rows as needed.

Project Metrics Value					
Project Metric Name	Project Metric Value	Project Metric Unit			

BIM CONTACTS

Instructions: Organizations and persons with roles and responsibilities for project BIM activities should be documented in the BEP. Additional rows may be added as needed.

Project Organizations							
Abbr.	Phone Number	Office Location	Org. Role				
+							
†							
1							

Add rows as needed.

	Contacts						
Org. Abbr.	Name	Contact Role	Email Address	Phone Number	Primary Location		

ORGANIZATIONAL ROLES & RESPONSIBILITIES

Instructions: Provide a clear description of the various BIM related roles on a project along with their responsibilities. Identify if they are required by contract, and provide a brief abbreviated code in the contacts table.

BIM Roles & Responsibilities							
Contact Role	Role Description	Role Responsibility	Req. Contract	Role Code			

PROJECT PHASES & MILESTONES

Instructions: Define the various phases of the project, e.g., planning, design, construction, along with descrete milestones. A phase should have a start and finish date, while a milestone is on a specific date and resides within a phase.

Project Phases								
Phase Name	Phase Description	Est. Start Date	Est. Completion Date	Actual Start Date	Actual Completion Date			

Add rows as needed.

	Project Mileston	es		
Milestone Name	Milestone Description	Est. Date	Actual Date	Phase

PROJECT GOALS

Instructions: Identify project goals that would add value to the project and how it can relate to BIM Uses. These should be documented as part of the BEP process. Once collected, the goals and BIM Uses are prioritized and the final list of requirements is documented in the BEP.

	Project Goals								
Goal Description	Priority	Potential BIM Uses	Customer	Responsible Party	Constraints	Phase			

TEAM COLLABORATION boratively. Document the collaboration activities to be

Instructions: Teams must act collaboratively. Document the collaboration activities to be performed, including meetings, modeling coordination, and information-sharing schedules. Standards for data and other details are provided in other template tables.

Collaboration Strategy Description

Collaboration Activities									
Activity Type Resp. Party Phase Frequency Participants Location									

RIMHISES

instructions: Enter each potential BIM Use considered for the project along with the appropriate attribute. Reference the BIM Use Definition section of NBIMS-US to identify potential BIM Uses. Evaluate the value of the use for the project, competency levels, and experience for each use. Document the current decision to proceed or not proceed with the BIM use.

Instructions: Include a path to the the Level 1 BIM Use process map showing the interaction of all BIM Uses. Include a list of the Level 2 BIM Uses and links to the Level 2 process maps for each BIM Use. Level 1 BIM Use Process Map Path Level 2 BIM Use Case Process Maps BIM Use Name BIM Use Process Map Path BIM Use Process Map Path

TECHNOLOGICAL INFRASTRUCTURE NEEDS

Instructions: Provide required software and hardware to be used on the project. Include how it can relate to BIM Uses. The software documentation includes what software, versions, who uses the tool, how it is used in the BIM or project process, and additional information to manage the software during the project lifecycle. Include a table of the types of hardware that will be used for Building Information Management.

Software Table

Software Name	Version	File Format	Max Model Size	BIM Use	Resp. Party	Discipline	Contact	Hardware Considerations	Software Update Process	Notes

Add rows as needed.

	Hardware Table								
Hardware Name	Owner	Specification	Quantity	BIM Use	Procurement Approach	Notes			

TECHNOLOGICAL INFRASTRUCTURE NEEDS

Instructions: Provide the methods of access to internet on the project. Include how and where the model can be accessed.

Internet Access								
Location Description	Access Method	Speed	Security Requirements					

Add rows as needed.

	Shared Model Development Resources							
Resource Name Version Owner Description B								

Add rows as needed.

	Information Sharing Platforms							
Platform Name	Version	Owner	Manager	Capability Breadth	Compliance w. CDE Req.			

	QUALITY MANAGEMENT									
structions: Provide a description of the overall strategy that will be used to manage quality of the model and derivative information. Include quality control acitivites at will be used on the project. Required tasks are defined in the BEP tables. Additional information should be documented in the QM strategy statement.										
	Quality Management Strategy									
		Qu	ality Control	Activity						
Activity Type	Contract Req.	Description	Resp. Party	Software	Frequency	Location	Reference Doc.			
			1							

QUALITY MANAGEMENT

Instructions: Provide information regarding the model data accuracy and how the software will be tested for compatibility.

Model Data Accuracy Existing Conditions Data Source Survey Data Type Level of Accuracy

Add rows as needed.

	Software Compatibility Testing							
Export Software Application	Import Software Application	Test Date	Notes					

INFORMATION MANAGEMENT (IM) RISK REGISTER

Instruction: Add all risk items associated with information management tasks. These risk register entries should also be placed within the overal project risk register.

Risk Register

Risk Title	Description	Probability	Consequence	Mitigation Methods	Category	Status	Resp. Party

	MODEL F	EDERATION S	TANDARDS								
Instructions: Multiple models (by discipline and use) are shared and integrated during the project. Provide the strategy and methods used											
for sharing models and data.											
Model Federation Description											
		Namina Campantia	••								
Naming Conventions											
	Naming Convention	Naming Convention	5	Location of Naming							
Convention Type	Title Req.	Version	Description	Conv. Details							
		Add rows as needed.									
Reference Coordinate System											
UTM Zone											
Horizontal Units of Measurement											
Vertical Units of Measurements											
Horizontal Datum											
Vertical Datum											
Project Origin Longitude											
Project Origin Latitude											
Project Origin Elevation											
Project Grid Offset from True N											
Reference Grid											
Reference Survey											

Building Information Management Standards									
Standard Name	Standard Version	Standard Purpose							

INFORMATION EXCHANGES

instructions: Information Exchanges document the technical information, the how, and when for sharing models and data during a project. This works with the model element tables showing the individual elements "what" is to be exchanged.

Information Exchange																
IE Name	IE Description	Milestone	Sender	Reciever	Frequency	Due Date	Location (Path)	Software	Source Format	IE Format	BIM Use	Req. Contract	Permitted Uses	Req. Approvals	Req. IE Delivery	IE Definition

Project Phases	Project Delivery	Project Goal Priority	QC Activity Type	Project Types	BIM Use Value	Required by	Proceed with	Risk Register	Risk Register
	Method					Contract	BIM Use?	Probability	Consequence
Planning	Design - Bid - Build	4- Essential	Model Verification	ENTER ORGANIZATION PROJECT TYPES	High	Yes	Yes	High	High
Preliminary Design	CM at Risk	3- High	Survey Model Accuracy Validation		Medium	No	No	Medium	Medium
Design Development	CM Agency	2- Medium	Software Compatibility Test		Low	Maybe	Maybe	Low	Low
Construction Documents	Design-Bid	1- Low							
Construction	Integrated Project Delivery								

Commissioning Operation