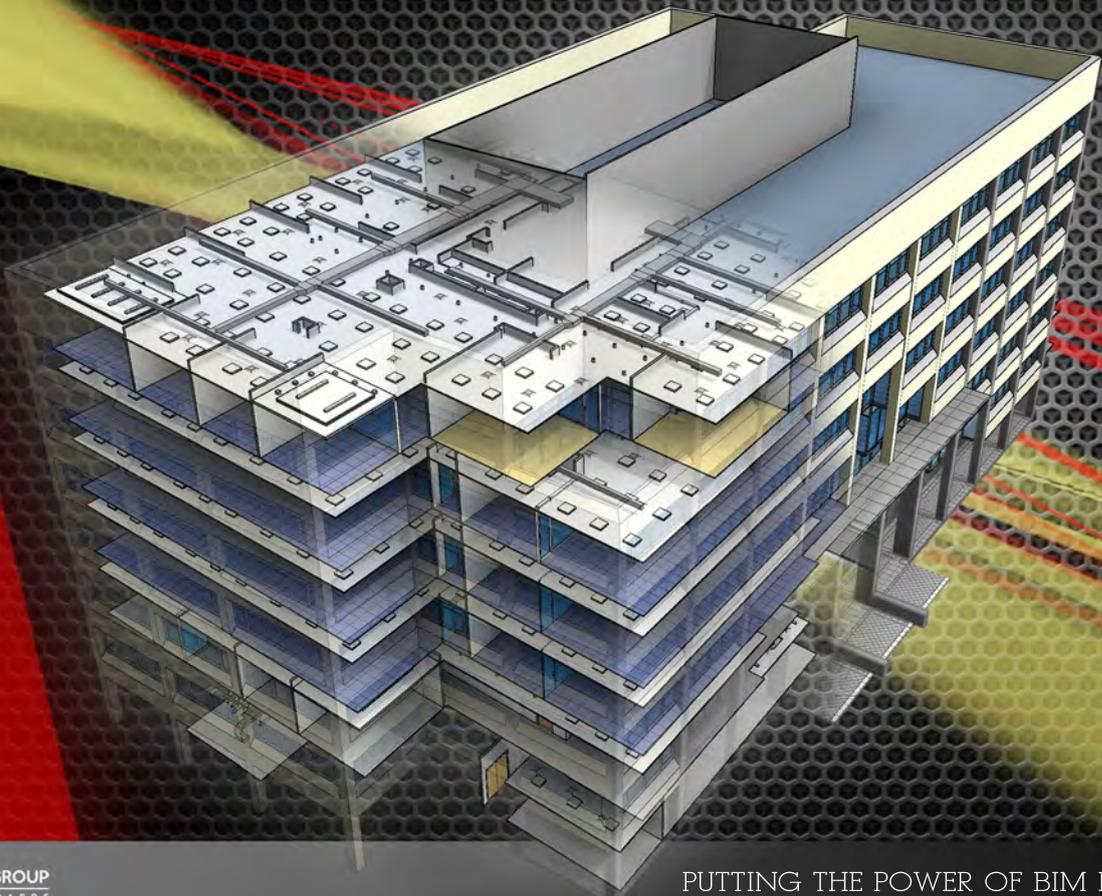


# BIMBINDER

POST CONSTRUCTION SOFTWARE



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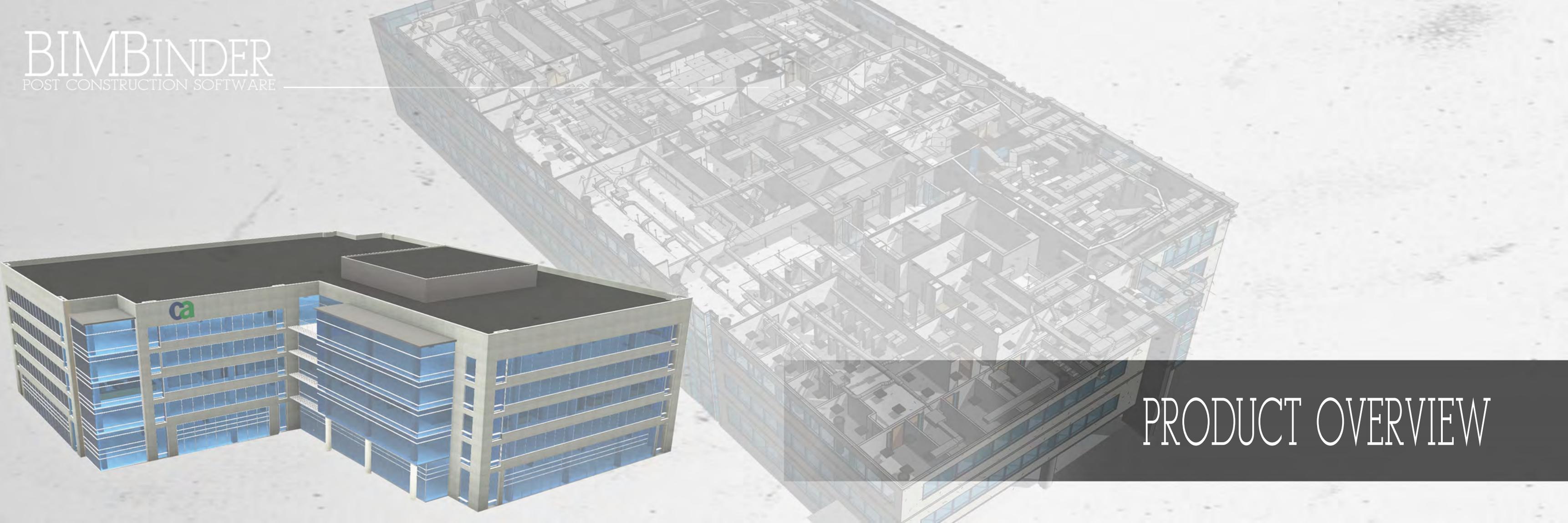
# BIMBINDER

POST CONSTRUCTION SOFTWARE

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BIMBINDER  
POST CONSTRUCTION SOFTWARE



PRODUCT OVERVIEW



# PRODUCT OVERVIEW



BIMBinder not only allows the building management team to view all construction and design data but also provides many benefits for the lifecycle of the traditional tenant commercial building. All of BIMBinder's data is stored in the cloud along with all CAD and Revit files for the project. Since tenant spaces are renovated traditionally every 3, 5 or 10 years, having the asbuilt CAD and Revit files from the previous project allows building owners to save on Architectural and MEP surveys as well as cut down the time to design projects by 2-3 weeks, letting landlords take advantage of tighter lease commencement schedules and help cut down on overall vacancy percentage.



# Executive Project Details

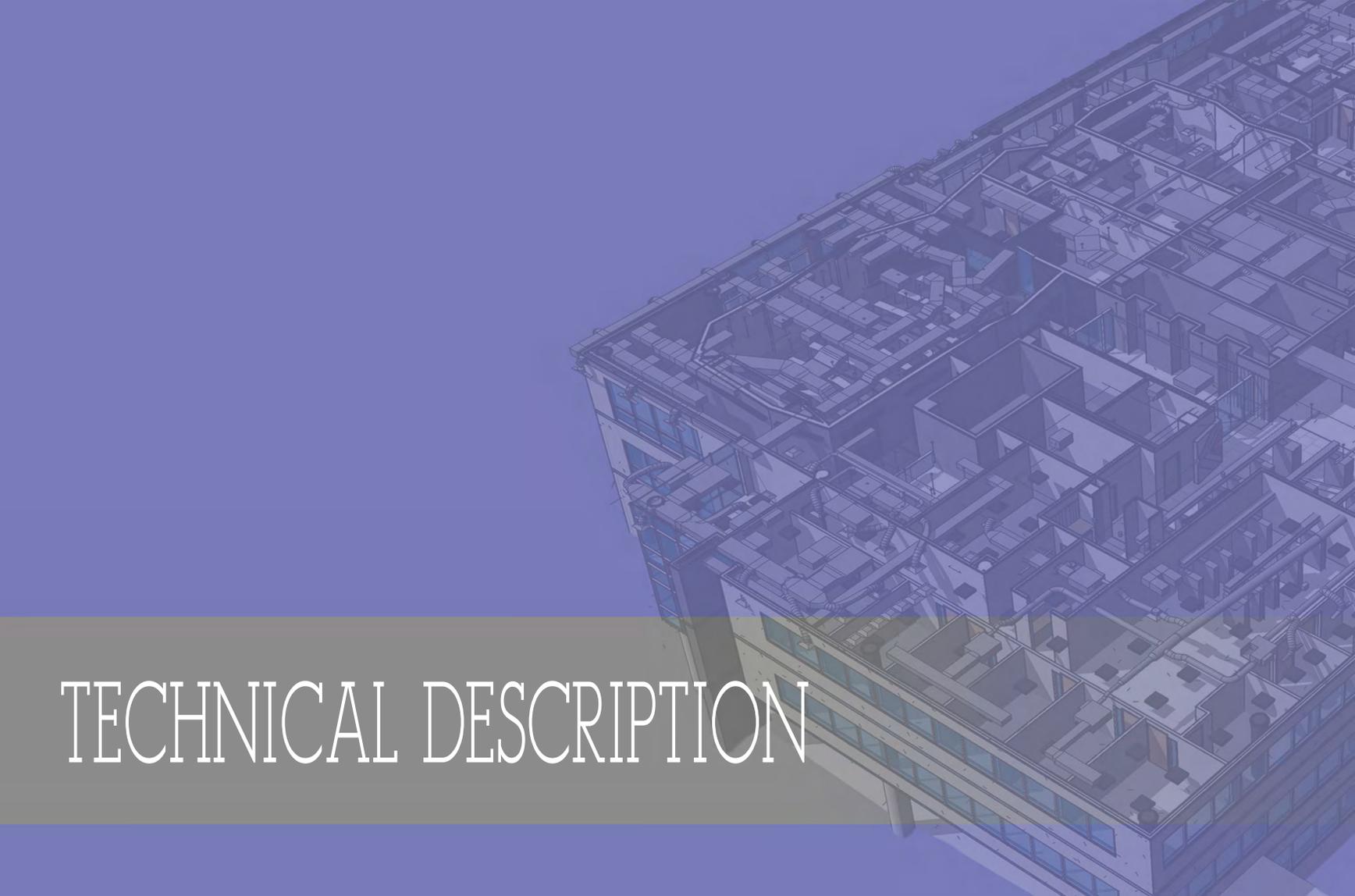
BIMBinder contains a built in building data details button that allows executive team members to easily view all project information (such as price per sq. ft, project team, project size and schedule), building information (building common finishes, building data, etc.) and code information. This allows executive members to quickly access and send this information to leasing teams, building management teams and the design team of future projects to help keep all building information in one central place and reduce the amount of front time needed on future budgets, leasing deals and permit submissions.

2277 Research Blvd - CNSI	
<b>Team Information</b>	
Building Owner	Brandywine Realty
Project Architect	Gensler Architects
Project MEP Engineer	KTA Engineers
Project Structural Engineer	Luis Fernandez and Associates
Project General Contractor	E Construction Group
Warranty Commencement Date	14-Mar-15
<b>Building Information</b>	
Project Name	CNSI
Project Address	2277 Research Blvd, Rockville MD 20850
Project Size (SQ FT)	117,000
Building Class	Class A
Building Size	142,000
Building Height	7 Stories
Building Occupancy Load	
Existing Structure	Steel and Concrete
<b>Building Standards</b>	
2x2 Light Fixture Standard	Lithonia 2VT5-2-24T5HO-ADP-MVOLT-GEB GFS
Carpet Standard	Shaw Contract Color 93555 Tinsmith
Base Standard	Johnstone #55, 2.5" High, Silver Grey
Wall Finish Standard	Sherwin Williams #SW7017 Dorian Gray - Eggshell
Control Contractor	System4
Fire Alarm Contractor	Simplex
Door Hardware/ Doors/ Keyway	Schlage SC-4
<b>Code Information</b>	
IBC Occupancy Classification	2012 IBC
Is Building Fully Sprinkled	Yes
Automatic Sprinkler System Tied to an Approved Central	

BIMBINDER  
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TECHNICAL DESCRIPTION



# TECHNICAL DESCRIPTION

# TECHNICAL DESCRIPTION

## Import File Type

BuildingSMART (formally the International Alliance for Interoperability) is the consortium that was founded by the top companies in the AEC industry back in 1995. BuildingSMART's goal was create a file type that all building information modeling (BIM) programs could import and work off of. The file type they created is the IFC file and that is the file that BIMBinder uses for import so that BIMBinder is interoperable with all BIM platforms. Due to this, BIMBinder will be able to be utilized not only by our team but by any team looking to hand off a building information model to the client for post construction management.



IFC File (**BIM**)



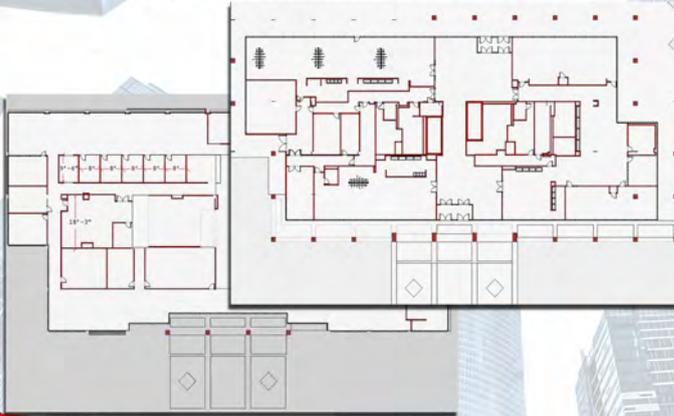
All Construction Documents & Information  
(plans, submittals, MSDS sheets, etc)



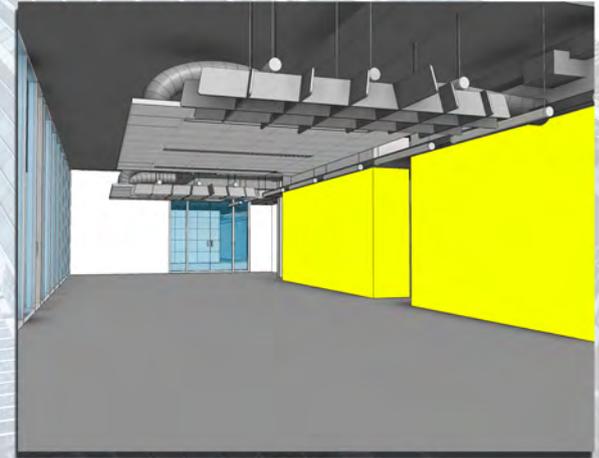
BIMBinder

Typical plans are viewed in a two dimensional manner, but daily life is seen in three dimensions. Due to this, we thought it was imperative to transfer in the 2D views from the model but also focus on allowing all tools to be used in the 3D view. This way, users can select/see data in which ever view they prefer. Using the 2D views, users can dimension plans, understand floor layout and select/ view desired information about building components. 3D views allow users to view the building as they see it in real life and select/view components just like they would touch an object in everyday life.

### 2D Views inside BIMBinder



### 3D View inside BIMBinder



## Cloud Hosted Data

Building information, when delivered in a traditional manner (paper O&M manuals), is typically lost or misplaced shortly after a construction project is completed. Due to this, we wanted to ensure that our clients not only had all necessary information available at their fingertips but all information was stored in the cloud so that it is always available. Not only will the BIMBinder project files be under the client's directory within the cloud but also all CAD files and Revit files (or other capable building information modeling creation program) that were used by the projects design team will be located there as well. This allows building owners, managers and building maintenance to all separately access current and correct building information from anywhere in the world.

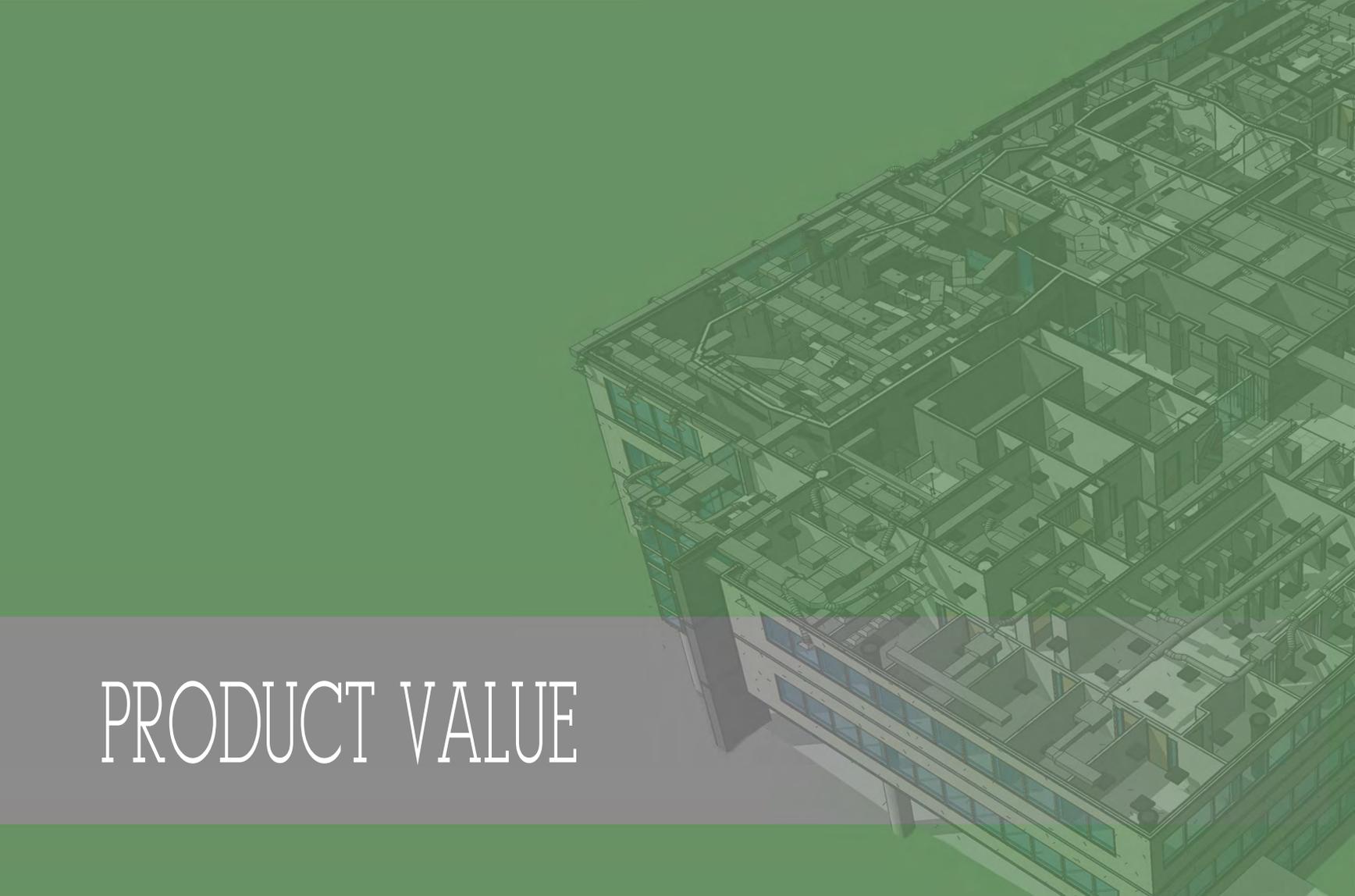


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PRODUCT VALUE



PRODUCT VALUE

# PRODUCT VALUE

## As-built Surveys and Rent Timelines

During the lifecycle of commercial tenant buildings, tenants end their lease and leave / renovate every 3, 5 or 10 years. Once a tenant signs a lease or extends their lease, traditional building lifecycle practices (loss of information on the space, no drawings from previous build out, etc.) cause the building owner to hire an Architect and MEP Engineer to do an existing survey of the space to determine what exactly is there before they can design the new space. The Architect and MEP engineer survey period takes anywhere from 2-4 weeks, thus delaying tenant lease commencement by 2-4 weeks on every lease deal. Furthermore, the surveys cost the Owner money in the form of design costs. We have developed the below table which determines the cost and rent loss that a typical Owner will see throughout the 5 year renovation cycle of tenant space (we assumed that every square foot of the tenant space in a building is renovated every 5 years on average). Through the use of BIMBinder by landlords, these costs are eliminated due to having all necessary documentation required for future build outs.

Description of Cost	Cost/SF per Renovation	Total Cost for 120,000 SQ FT Building
<b>Survey Cost</b>		
Architectural - Survey/Input	\$0.62	\$74,400.00
Mechanical - Survey/Input	\$0.67	\$80,400.00
Electrical - Survey/Tracing/Input	\$0.50	\$60,000.00
Plumbing - Survey/Input	\$0.37	\$44,400.00
Fire Protection - Survey/Input	\$0.30	\$36,000.00
Audio Visual/Data - Survey/ Tracing/ Input	\$0.30	\$36,000.00
<b>Loss of Rent Due to Survey Timeline</b>		
3 Weeks of Rent @ \$45 SQ FT per year	\$2.60	\$311,538.46
<b>Savings Per Overall Renovation (assuming 1 renovation per sqft very 5 years)</b>		<b>\$642,738.46</b>

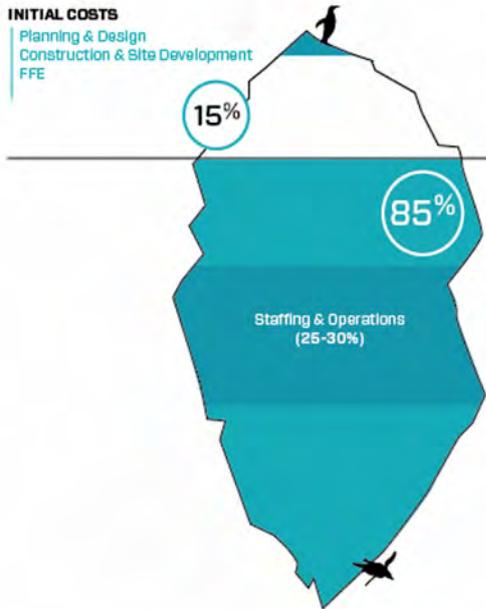
Building Engineers traditionally rely on operation and maintenance manuals to maintain their building. They utilize the material within the O&M manuals to trace back electrical, HVAC issues and determine the cause of many other issues that occur on the day to day operation of a commercial building. However, with traditional O&M manuals, this information is lost or hard to look up / verify. Using BIMBinder, building engineers can simply select any object and view every piece of vital information they may need, saving all the time of traditional research and information gathering. Furthermore, no longer will building engineers have to make decisions due to having no correct information on file that could potentially damage systems or cause loss of tenant rental. We have calculated the below table of values based on approximate time savings per year due to the utilization of BIMBinder for a full 120,000 SQ FT building.

Description of Cost	Cost/SF Per Year	Total Cost for 120,000 SQ FT Building
Building Engineers Time Savings*	\$0.20	\$24,000.00
Functional Building Information Sharing*	\$0.15	\$18,000.00
Inventory Documentation*	\$0.20	\$24,000.00
Loss of Work and Material/ Inaccurate Records*	\$0.25	\$30,000.00
<b>Savings per Year</b>		<b>\$96,000.00</b>

\*These figures are conservative approximations used for quantification purposes.

# Overall Lifecycle Savings

Since we have determined the cost savings every 5 years for existing condition surveys and also determined the cost savings every year for building maintenance, we can calculate the total cost saved over the lifecycle of a typical building due to the use of BIMBinder. In our previous calculations and in this one, we will be using a 120,000 SQ FT building as the example building. The table below was developed to show the total savings realized by an Owner over the 50 year life cycle of a building.



Description of Cost	Savings/Year	Typical Lifecycle of Building (Yrs)	Savings for 120,000 SQ FT Building
As-built Surveys and Rent Timeline Savings / 5	\$128,547.69	50	\$6,427,384.60
Building Maintenance Savings	\$96,000.00	50	\$4,800,000.00
<b>Total Savings</b>			<b>\$11,227,384.60</b>

Initial Costs + Future Costs =

**LIFE CYCLE COSTS (LCC)**

### FUTURE COSTS

- Energy
- Maintenance & Repair
- Staffing & Operations
- Renovations
- Interest
- Salvage

Direct Savings of Life Cycle Costs



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