

work up to 40% faster

Archicad Virtual Building solution helps Oppenheim Architecture + Design revolutionize Miami architecture



Ten Museum Park, Miami, FL

The Archicad Virtual Building solution helped Oppenheim Architecture + Design set the bar for Miami architecture by enabling them to:

- Begin working with minimal training
- Quickly complete the necessary building permits
- Automatically generate documentation from the virtual model
- Explore complex relationships between different parts of the building
- Enable multiple design team members to work simultaneously on the same building model
- Maximize productivity and help set Miami sales records

Oppenheim Architecture + Design is an award-winning Miami design firm specializing in luxury single- and multi-family residences. United by a common passion for creating beautiful and enticing environments, the firm's architects and designers have won national and international recognition for their striking minimalist style. "We're trying to set the bar for architecture in the city," says founder and principal Chad Oppenheim. "We want to do what no one's done before, and do it well." To help the firm reach that goal, Oppenheim hired architect Carlos Ramos in 2003 to implement the **Graphisoft® Archicad®** Virtual Building™ solution. "Our strategy is to use Archicad to create a virtual building model of every project," says Ramos. "Once we solve everything in the model, we know we'll be able to build it accurately in the real world."

A Striking Luxury High-Rise

One of the firm's first Archicad projects was Ten Museum Park, a 50-story luxury high-rise in oceanfront Miami. Currently under construction, this crystalline structure will contain two hundred high-end condominiums, 20,000 square feet of office space, and amenities that include a 25,000-square-foot sky garden, eight swimming pools, and an upscale restaurant and outdoor café.

A Complex Architectural Challenge

The first hurdle the firm faced was how to place a 530-foot building on such a small site—roughly 125 x 250 feet. The architects had to ensure that the slender building could resist the severe wind loads of the Miami hurricane season, while also maximizing both parking space and the number of units with an ocean view.

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Graphisoft Archicad enabled Oppenheim architects and designers to spend more time finding creative solutions to these complicated design challenges by streamlining and automating many of the tedious and repetitive tasks involved in documentation and coordination. Using Archicad, the architects designed in the 3D Virtual Building environment, while Archicad automatically produced all documentation.

Bring Ideas to Life

Oppenheim himself discovered how to maximize the number of ocean-facing units. "We shifted the two-story units in the middle down a floor, and the other units up a floor. As a result, we gave the middle units side exposure on every other floor," says Oppenheim. Once Oppenheim had conceived of the solution, Archicad made it easy to work out the details.

GRAPHISOFT®
Virtual Building Solutions



Get Started Quickly

"Graphisoft Archicad is simple to use," says Ramos. "Any new hire with CAD skills can pick it up. For example, with only two weeks of training, one of our new project architects was able to design the mid-rise and tower stairs in two to three days—something that would have taken weeks using AutoCAD." Archicad also helped the designers model the complex structure of the sheer walls to safely accommodate openings for ramps and driveways. "We could have done it with AutoCAD, but it would have been much more labor-intensive."

Generate a 3D Building Model

Graphisoft Archicad forces designers to carefully think through the assembly of a building before construction begins. "It requires you to do your model," says Ramos. "And then you start getting payback." Once the building model is complete, designers can quickly generate any necessary documentation—floor plans, elevations, sections, and more—for the permit process and construction.

Clearly Communicate Design Intent

"Greater accuracy in the building model enables us to rapidly generate practical 3D images and 2D plans and sections that help the client clearly visualize actual design and construction scenarios, including what the finished project would look like," says Ramos. "Any mistakes show up in the automatically generated sections and elevations where we can easily correct them—without having to create change orders during actual construction."

Easily Identify Conflicts

Using Archicad, the firm's designers can explore complex relationships between different floor levels, stairs, and interstitial spaces, as well as window and glass areas. "For example, using Archicad's Story feature, we are able to instantly move between many different floor levels and clearly understand the relationships above and below," says Ramos. "Using our previous software, we would have had to open a different file for each story to make sure that the columns lined up."

Share Project Loads

Using the **TeamWork** function, many designers can work simultaneously on different aspects of the same file. "For example, we could assign one person to annotate dimensions, another to

design a stairwell, and a third to model the parking structure," says Ramos. "At the end of the day, we update the building model and Archicad automatically coordinates all the changes across the entire model. We're able to work 30–40 percent faster as a result."

Maximize Productivity

Graphisoft Archicad also enables the architects at Oppenheim Architecture + Design to:

- Use zones and the Calculate menu to generate tabulations of building areas that they can transfer to an Excel spreadsheet for further formatting and editing
- Simplify 2D drafting and 3D modeling with a comprehensive library of parts, doors, windows, and storefronts
- Significantly improve coordination by merging DWG format files from outside consultants
- Streamline construction administration by quickly responding to RFIs with Adobe® PDF files
- Enable multiple design team members to work simultaneously on the same building model using the TeamWork feature
- Analyze the building model and make more accurate and rapid decisions
- Handle large projects in a single file without long save times or difficulty accessing content

“Graphisoft **Archicad** enabled us to meet all our deadlines and an aggressive permitting schedule on the Ten Museum Park project. We're now well into construction and 45 days ahead of schedule.”

Carlos Ramos, Architect, OAD

The Result

"Every residential project that we do sets records for prices in that people are willing to pay more for projects that we've designed," says Oppenheim. One sign of just how well Archicad complemented the talent and skill of the firm's designers was the \$130 million sellout of Ten Museum Park in just eight days—at \$150 more per square foot than similar buildings in better locations. "Graphisoft Archicad enables us to provide the highest-quality design and construction documentation services in the most complete, cost-effective, and profitable manner," says Ramos. "Graphisoft Archicad helps us work much more comprehensively."

For more information about Graphisoft Archicad, visit www.graphisoft.com/products/archicad.

To learn more about Oppenheim Architecture + Design, go to www.oppenoffice.com.

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