



“When you see the model and the detail, the city comes to life.”

Tom Wilson / Olympia Entertainment

Concept model of the new Little Caesars Arena, future home of the Detroit Red Wings.

CASE STUDY

Bringing Downtown Detroit to Life

THE DISTRICT DETROIT PROJECT USED 3D PRINTING TO SHOWCASE A NEW MOTOR CITY.

Olympia Entertainment, a division of Ilitch Holdings, Inc., which owns the Detroit Red Wings and Detroit Tigers, among others, has an ambitious plan to breathe new life into downtown Detroit and revitalize a great American city.

A new stadium, Little Caesars Arena, will be home to the Detroit Red Wings and is the centerpiece of The District Detroit, a 50-block mixed-used project adding to the positive momentum already underway in Detroit's redevelopment.

The District Detroit will be made up of a mix of sports and entertainment venues, including six theaters and three multi-use sports venues. It will also feature residential, office and retail developments that connect these venues into one contiguous, walkable area, where people can connect with each other and the city they love. It will also generate new job opportunities, boost the economy and provide civic infrastructure to the home of the U.S. automotive industry.

Making the Vision a Reality

In a bid to drum up support for The District Detroit project and illustrate their grand vision, Olympia Entertainment and local architectural design agency Zoyes Creative Group teamed up with Stratasys Direct Manufacturing to create the The District Detroit Preview Center. The core of this multimedia demonstration comprises two large 3D printed scale models. First, there is the detailed arena itself, and then the entire 50-block district, in miniature. It was a simple concept, but a Herculean task.

“That model actually puts you in real Detroit,” Wilson said. “There’s no question that this was the game changer for us. We had a dream that within six months, we would be able to market all of our suites, and we would be happy with that. As it turned out, in 40 days, all of the suites were gone.”

These incredibly intricate models are more than a simple sales tool; they helped drive the success of this project, which analysis by the University of Michigan estimates will ultimately generate \$2.1 billion in economic impact for the city, region and state of Michigan.

To date, more than \$300 million in contracts have been awarded to Michigan-based organizations, including \$200 million to businesses with operations or headquarters in Detroit.

“You can always look at a rendering and you kind of get a feeling for how it is going to look, but it really doesn’t have the chance to come alive until you can put yourself and your clients in it,” Wilson said. “There’s telling the story, and then there’s being part of the story. When you see the model and the detail, the city comes to life.”

Stratasys Direct Manufacturing Helps Manufacture Solutions

Dean Zoyes, co-founder and president of Zoyes Creative Group, set Imaging Director Rich Rozeboom to work converting the basic renderings into printable files, which is a more complex task than it first seems. Every piece had to be manipulated, and in some cases, reimagined to make these models come to life, and Stratasys Direct Manufacturing was indispensable in this capacity. They checked every file, helped fix any issues and provided that extra layer of quality control.

“Stratasys Direct Manufacturing has been key in helping us get through some of the project deadlines, as well as some of the larger print volumes that are associated with this type of build,” Zoyes said.

With the files in hand, Zoyes set their own Stratasys printers to work, and enlisted the help of Stratasys Direct Manufacturing to cope with the sheer size, number of prints and level of detail that went into these models. That included intricate light columns and more than 20,000 individual people in their own seats, as well as huge sections of the arena — up to 36 or 40 inches in length.



3D printed downtown cityscape for the Preview Center.



Scale 3D models of the 50-block downtown development.



CAD design of the arena being converted into a 3D printable file.

“There was a lot of time pressure, from the stadium, from the city, from everywhere, and Stratasys Direct Manufacturing jumped right into the water with us,” Rozeboom said. “The day we sent them our first files, they were printing. Four days later, they were shipping here.”

Because of the speed and flexibility that comes with 3D printing, Stratasys Direct Manufacturing was able to print pieces, review them, make changes when needed, and then reprint without affecting their timeline. Zoyes had his own machines running around the clock on occasion, but he always knew he could rely on Stratasys Direct Manufacturing to help them solve any problem.

3D printing is all about turning an idea into something tangible. It seems fitting, then, that Stratasys Direct Manufacturing and 3D printing is playing such an integral part in rebuilding one of America’s greatest cities and injecting life into an arena set to open in 2017.



Zoyes team assembling the 3D printed components to create the complex arena model.



Individual people within the arena concept model.



Profile view of downtown development models.

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