

AMWAY CENTER, HOME OF THE ORLANDO MAGIC



ARENA STATS

Location: Orlando, Florida

Began Construction: July 25, 2008

Opened: October 1, 2010

Seating Capacity: 18,846

Owner: City of Orlando

Operator: Orlando Venues

Venue Uses: NBA and collegiate basketball; lacrosse, arena football and hockey games; and a variety of concerts

Construction Cost: \$512 million (in 2012 dollars)

LEED Certification: LEED Gold-Certified for New Construction (NC), October 1, 2010

THE MAGIC'S GREENING STORY: MOTIVATIONS, CHALLENGES AND LESSONS FROM THE FIELD

In October 2010, the Amway Center became the first LEED Gold-certified designed and constructed professional basketball arena in North America. Today it remains the only NBA arena to be awarded LEED Gold certification within the New Construction standard. The arena uses approximately 25 percent less energy and 40 percent less water than arenas of similar size and type, saving the team hundreds of thousands of dollars each year—including close to \$700,000 annually in energy costs alone.

As a sports industry leader in advanced green building approaches for venue construction, the Amway Center is a local and national role model for efficiency and environmental stewardship. The Magic have worked hard to spread the green message embodied in their arena to fans nationwide, including through their role as hosts of the 2012 NBA All-Star Game.

WHY GO GREEN?

The Magic recognized the significant financial benefit of investing in a resource-efficient building for their new arena early in the planning process. From the outset, their operations team also had the mission of building a unique venue that would be a sustainability role model for the Orlando community. According to Orlando Magic CEO Alex Martins, the Magic are devoted to corporate social responsibility that has a positive impact citywide. "Amway Center is living up to its expectations," Martins said at the unveiling of the LEED Gold award. "We promised to create an

arena that was civic-oriented, pedestrian-friendly and added to downtown development. We promised a sustainable arena, and are proud to say that with today's announcement and with great teamwork, we have surpassed our goal for LEED certification."¹

The Magic's design team was driven to establish the Amway Center as a community symbol of sustainability, efficiency and green design throughout the development process. "Amway Center's sustainable reach is well beyond the LEED certification," said Brad Clark of Populous, the arena's designer, at the certification announcement. "Not only did we achieve something that few other sports buildings have, but we've created a building that is a sustainable community gathering space, and that was the driving force behind the design."² The Magic recognize that they can best commit to greening by using their prominent arena to communicate the green message and through leading by example.

WHERE TO START?

"We started researching environmental certifications in December 2006, six months prior to our project approval, which was in June 2007," says Charles Freeman, executive vice president and chief revenue officer for the Magic. "We created a sustainability team to discuss and work on the green certification process. We brought in a couple of representatives from each of the parties involved in the arena development, which consisted of our development team, including Turner Construction and Hunt Construction, the City of Orlando, TFC Engineering, and Populous, our designer. We got together on a weekly basis to research certification options, and we eventually chose LEED as the right standard for us at that time and place."

STANDOUT GREENING ACCOMPLISHMENTS

- ★ Nearly 90 percent of construction waste, including more than 8,000 tons of wood, concrete and steel, was diverted from landfills.
- ★ Over 20 percent of the facility's building materials included recycled content, and 30 percent came from local sources.
- ★ High-efficiency systems at the Amway Center consume approximately 25 percent less energy than a comparable code-compliant design. This saves nearly \$750,000 a year.
- ★ Water used inside the building was reduced by 40 percent through the use of high-efficiency water closets, urinals and lavatory faucets, and low-flow plumbing fixtures like dual-flush toilets, resulting in savings of more than 800,000 gallons of water per year.
- ★ Rainwater and air-conditioning condensation are captured and stored onsite in a 5,000-gallon cistern and used for irrigation.
- ★ Preferred parking spots have been designated onsite and in the adjacent parking garage for low-emitting vehicles and carpools.
- ★ Multiple bus lines, a future light-rail system near the site, and bicycle parking racks on or near the site encourage alternate transportation to events.
- ★ The Amway Center uses only environmentally friendly cleaning products.
- ★ Both the roof of the building and the hardscape areas around the building have been designed to minimize daytime heat gain and subsequent nighttime release.

By using an integrated approach, the Magic were able to both rely on the expertise of their many development partners for the green building work and ensure that all were committed to the team's environmental objectives. "We had about 15 folks meeting to discuss environmental issues more generally to begin with, and then we narrowed it down to achieving LEED certification for our new arena," says Freeman. "We have no 'sustainability director,' as we try to reinforce that greening is a kind of philosophy throughout the operations team at the Amway Center."

Freeman explains that because all departments were committed to the LEED process, the Magic's sustainability team was able to set high standards for the project. "The Magic support LEED all the way up to the DeVos family—which includes the owner, chairman and other significant Magic executives—as does the mayor of Orlando," explains

Freeman. "Early buy-in from the top and from all team members made our certification a success. Our goal was to achieve a minimum of LEED Silver, and we were awarded LEED Gold."

During 2009 the Magic worked with a consultant to measure and evaluate the environmental impacts of their former arena, the Amway Arena. "We hired a consultant, International Carbon Bank & Exchange, several years ago to conduct an energy, paper and water audit to assess our carbon footprint," says Freeman. His team sought to improve operations at the new Amway Center by better understanding their resource use at the old arena. "We also wanted the consultant to create an educational awareness campaign for our fans and employees," he explains.

To best integrate their environmental agenda organization-wide, the Magic sought buy-in from staff in all departments. "We had visionary sessions and had each of the departments nominate an ambassador to effect daily operations and create solutions," says Freeman. "For example, to minimize waste we implemented a comprehensive recycling program throughout the old building and new building. We worked with Rock and Wrap It Up! to take the leftover prepared food from all games and deliver it to local shelters and food banks."

To better engage fans on green issues, the Magic became one of the first teams to partner with PepsiCo to incentivize recycling, with immediate rewards. "We installed a Pepsi Dream Machine in the Amway center in a partnership with PepsiCo," reports Freeman. "The Dream Machine is an initiative that rewards fans for recycling on the go. For every bottle or can you return, you receive coupons for Pepsi products at various retail locations."

CHALLENGES: OVERCOME AND ONGOING

From the outset the Magic's operations team recognized that pursuing LEED certification is often an expensive process and requires significant capital outlay in order to invest in advanced and efficient technologies. "We made sure we started putting money aside even before we got into the design process," says Freeman. "We put money aside to make sure we could manage the up-front investments needed to achieve the LEED certification, and ultimately the LEED Gold level." Nevertheless, the Magic sustainability team expected to quickly recoup the initial outlay with significant resource savings. In fact, the Amway Center's high-efficiency systems use about 25 percent less energy and save the team nearly \$750,000 every year, relative to a comparable code-compliant design.

"Setting the goals and the parameters at the front end helped us achieve LEED Gold. We took the time, the energy, the resources and the money to do it right and help the environment," Freeman explains. "Building an arena is a complex task. Setting our goals early made it efficient and effective, allowing us to maximize how environmentally friendly we could be because we thought about it from the beginning."

“THE AMWAY CENTER IS ONE OF OUR MOST VISIBLE EXAMPLES OF HOW THE CITY AND OUR PARTNERS ARE EMBRACING SUSTAINABLE PRACTICES AND WILL ALLOW US TO FURTHER ENGAGE THE COMMUNITY IN THE EFFORT TO ‘GO GREEN,’”
says Orlando Mayor Buddy Dyer.

Because the Magic were starting from scratch on their new arena, they were also able to integrate green efficiency measures that rely on optimizing the building's orientation. “We have minimal use of glass on the east and west sides of the Amway Center, which helps with the high-level insulation energy efficiency for the project,” says Freeman. “The glass that is prevalent on the north side of the building is out of direct sunlight and thus doesn't sacrifice energy performance. We also orient the windows to minimize heat gain.” The Amway Center's downtown location also provides fan access to and from the city center with multiple bus lines. “There are bicycle racks and parking spots for high-efficiency vehicles,” he adds, “and a direct rail system in the works.”

The Magic's operations team continues to work closely with city officials to expand and improve their green programs. “We have weekly meetings with the City of Orlando, and we continue to talk through the green initiatives throughout the year,” says Freeman.

LESSONS FROM THE FIELD

SET GOALS EARLY: Freeman strongly emphasizes the importance of early research and goal-setting to best accomplish the system-wide improvements and greening initiatives that have the greatest payoff. “Set your goals as early as possible, and set aside the resources and the capital to achieve them,” he advises. “Setting our goals early made it efficient and effective, allowing us to maximize how environmentally friendly we could be because we thought about it from the beginning.”

DON'T FEEL RESTRICTED BY THE LEED POINT SYSTEM; INCORPORATE YOUR OWN INITIATIVES: According to Freeman, one of the interesting things that the Magic's operations team learned during the LEED process was how to incorporate efficient green practices that made sense for the Amway Center but weren't necessarily part of the standard. “For example, we run on a chilled water plant, and the LEED certification never really included recognition for having a centralized chilled water facility,” says Freeman. “So we had to work with the U.S. Green Building Council to ultimately create a new chilled water facility that provided all the air-conditioning. While our LEED certification didn't take into consideration our chilled water system, we had to make it effective for future groups to use the same technique. We were able to have those discussions and make our chilled water system more efficient. As chilled water was not in the LEED certification process when we pursued it, we had to integrate it ourselves.”

TAKE ADVANTAGE OF THE LEAGUE PLATFORM FOR EXTRA PRESS: The Magic piggyback on the NBA's national green campaigns to draw awareness to their advanced sustainability work in Orlando. “NBA Green Week is our big platform for environmental outreach. We rally around that week so that our fans become more environmentally aware, but obviously we continue having many ongoing green initiatives during the year as well,” says Freeman. “The NBA has an environmental campaign, NBA Green, on the national level and we take it locally to impact our fans in Orlando, regionally and elsewhere.”

ENDNOTES

- 1 www.nba.com/magic/news/amwaycenter_goldcertification_040711.html.
- 2 Ibid.