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Growing Green

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Lighting Design and Application www.ies.org Daylighting and energy-efficient luminaires complement the green cuisine at Founding Farmers restaurant

BY ELIZABETH HALL

onths before Michelle Obama planted the new White House vegetable garden, the LEED-Gold certified Founding Farmers restaurant brought sustainable food to the nation's capital. Located just four blocks away from the Obama's new residence, the restaurant is a tribute to the ever-growing green movement–both gastronomically and in its design.

The idea for Founding Farmers came from a co-op of 40,000 North Dakota farmers looking to spread the word about agricultural sustainability and the importance of locally grown food. Their concept for a sustainable, farmfresh restaurant touched a cord with the International Monetary Fund, which was searching for a restaurant tenant to fill a vacant 8,530-sq ft space at its new headquarters on Pennsylvania Avenue.

Designed by Pei Cobb Freed & Partners and constructed in 2005, the new IMF headquarters building is sleek and modern with expansive glass windows that lend the space a transparency and openness. The two-story restaurant, which includes dining areas on the first and second floors and a bar on the first floor, is quite the opposite. Playing on the farming thread that runs throughout Founding Farmer's mission and menu, architect Peter Hapstak, principal of CORE ar-





GREINS

Cloud-like fixtures are a nod to nature, while hanging bare-bulbs connected to an aluminum bar recall the stripped-down simplicity of farm (Opposite, left) A two-story glass curtain wall brings in natural light. (Opposite, right) Ceramic reinforcement-socket fixtures with xenon lamps are mounted to

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PROJECT

chitecture and design in Washington D.C., framed the design around "metaphors about a farm," including wood-beamed ceilings, silo-shaped booths and decorative elements that recall nature.

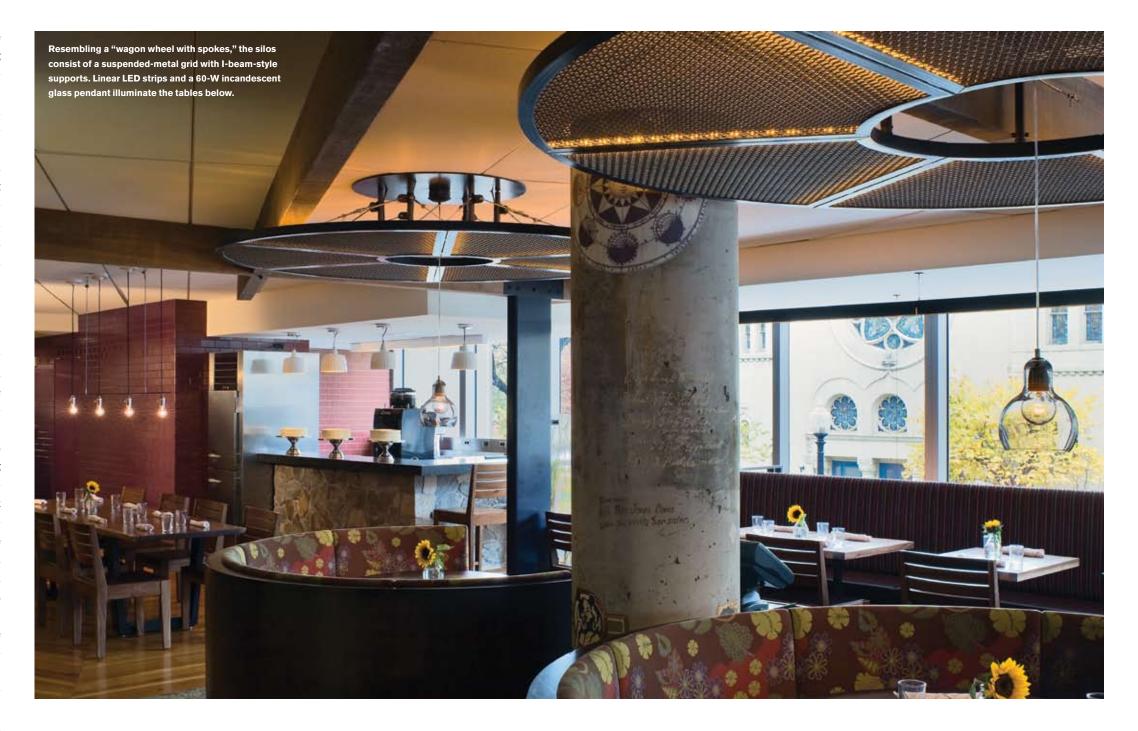
Traversing the line between the two different design aesthetics became a mainstay of the project, and lighting was essential to the balancing act. "The project was complicated in that we have a very modern space with a curtain wall and then we have a rustic farm theme going on inside," recalls senior lighting designer Scott Guenther from MCLA in Washington D.C. "The play between the two was a challenge, as was keeping the views and connections to the outside open." As expected with such a green-conscious client, sustainable design was paramount and LEED certification was a requirement.

SHIP IN A BOTTLE

To reconcile contemporary with rural, the team decided to treat "the window wall as a view into something else, like a ship in a bottle or a terrarium," says Hapstak. The glass façade also brings the outside into the restaurant, recalling the presence of nature in a rural farm landscape.

The curtain wall allows the building to reap the benefits of daylight that enters through the west- and north-facing façades, with some areas receiving as much as 1,500 foot-candles of light on sunny days. For Guenther, this meant "we could use less artificial illumination along the perimeter. It was a great benefit as we could minimize the amount of fixtures used. We were able to save energy and cut down on costs," he notes. Perimeter lights are linked to a daylight dimming system from Leviton which adjusts all lights 15 ft in from the fenestration to the level of available natural light. Areas in the back of the restaurant use slightly more electric light during the day, so that even illumination is maintained throughout the space.

Even more energy was saved by the use of low-wattage, long-life lamps, including linear LED pendants that light tables along the glass-walled front of house. To achieve "a warm glow that shows off the food and table settings" the team color-corrected the LEDs using pale gold-colored gels, notes Guenther. Originally designed for fluorescent lamps, the pendant fixtures were altered to fit LED strips. Frosted glass and lensed optics were added for a softer, more opaque effect.



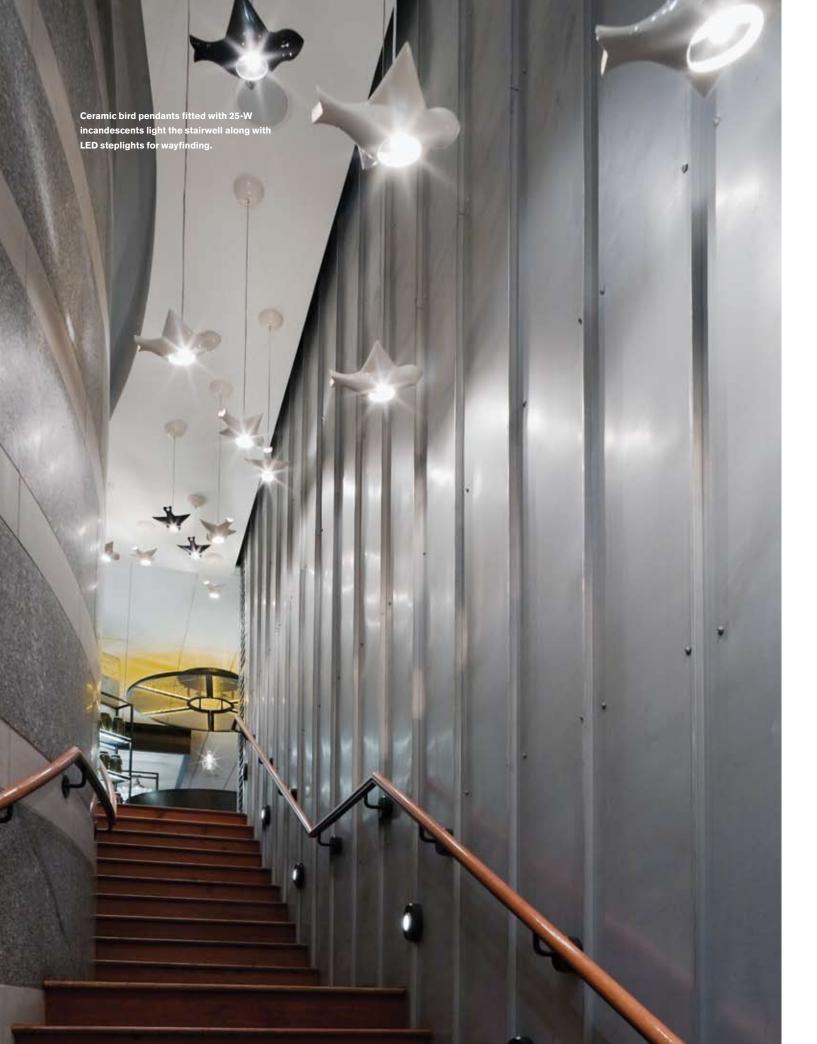
DOWN ON THE FARM

Another measure used to warm the space was rustic decorative lighting inspired by farm life and nature. These fixtures "reinforce the farm atmosphere, speaking to the architect's playful take on it and adding an element of humor. The goal was to have fun while meeting the LEED criteria," says Guenther.

Hung over tables in the back of the restaurant, barebulb fixtures from Rejuvenation are connected to a stark aluminum bar "suggesting the simplicity and almost utilitarianism of the theme," notes Guenther. The fixtures are fitted with 40-W incandescents dimmed to 50 percent during the day and 20 percent at night to reduce glare. "The idea was to get just that bare filament," he explains. "It's visually comfortable and it puts off this really nice warm yellow light that makes your skin tone look fantastic. And it's very efficient with the dimming."

The spill from the bare-bulb fixtures provides ambient lighting for most areas of the restaurant along with simple ceramic reinforcement-socket fixtures that are mounted to wood beams throughout the space. Like the hanging

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bare-bulbs, these exposed fixtures suggest a strippeddown purity, but with clean, modern lines. Fitted with very-long-life, low-wattage xenon lamps, the fixtures also meet the requirements for energy efficiency.

Two other farm-inspired elements—the metal silos and the canned vegetable display—use LEDs. Constructed from a suspended, metal grid and I-beam-style supports, the silo structure "resembles a wagon wheel with spokes," says Guenther. The team inserted small, linear LED strips (i-LèD) in the I-beams. The strips are "hidden from view and graze light across the metal grid to backlight it. They face one another so you get a graze across in two directions and it pretty much illu-

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minates the whole structure," explains Guenther. Providing additional tabletop illumination, a clear glass pendant with a 60-W globe incandescent lamp hangs from the silo's center.

LED strips were also used to light the canned vegetable displays. The displays are found on shelves throughout the space, including on the wall near the entrance stairway, over the bar and in the upstairs dining area. The frosted glass shelves are lighted by 6-watts-per-ft LED strips which "create a glow that reflects off the ceiling and provides additional ambient lighting," notes Guenther. Harkening back to the theme, a West Virginia farmer provided the canned vegetables for the displays.

Several other themed luminaires bring the outdoors in. Nuvola cloud fixtures from Studio Italia Design signal "the idea of a beautiful day," explains Hapstak. The fixtures are linked to a motorized system that causes them to oscillate, mimicking the movement of clouds in the sky. Each of the four clouds is fitted with six 26-W CFLs.

In the stairwell, more than 30 clay bird pendants also suggest nature. The fixtures were created by Brooklyn-

based artist Amy Adams, who uses environmentally friendly glazes and finishes in her work. Guenther notes that "they were treated as sculpture" and were hung at varying heights to resemble birds flying. Lighted by 25-W incandescent lamps, the birds light the stairwell along with round LED steplights from i-LèD. The birds, clouds and silos reflect a homespun ambiance that, like the menu, proves sustainable doesn't have to be bland.

The project won an Earth-Minded Award from *Hospitality Design* Magazine and the American Society of Interior Designers, and the Grand Prize Award from the Association of Retail Environments in the Restaurant Design category.

METRICS THAT MATTER

Founding Farmers

Watts per sq ft: 1.16 (complies with ASHRAE/IESNA 90.1-2004)

Illuminance Levels: 15-1,500 fc during the day (depending upon sunlight level); 2-5 fc at night

Lamp Types: 10
Fixture Types: 25
LEED-certified (Gold)



About the Designers: Scott G. Guenther, LC, IALD, is a senior designer who has been with MCLA since 1997. He has designed the lighting for numerous projects including: hotels, restaurants, corporate offices, museums, retail and educational facilities. Mr. Guenther has received numerous IIDA Awards of Merit and an

IALD Award of Merit for the lighting at the L2 Lounge in Washington, D.C.



Maureen Moran, LC, IALD, Member IES (1983), is the principal of MCLA, Inc. in Washington D.C., founded in 1996. MCLA designs a wide variety of project types, including hotels, offices and historic preservation projects with a focus on sustainable design. Ms. Moran is a recipient of numerous lighting awards, including a recent

IALD Award of Merit for the L2 Lounge in Washington, D.C.



Peter F. Hapstak III, AIA, IIDA, ISP, is the design principal for CORE architecture and design. He has more than 27 years of experience in architecture, interiors, restaurant and retail design. Mr. Hapstak founded CORE in 1991 and has provided design for The Smithsonian Institution, Sprint PCS, Discovery Channel, Hudson Trail Out-

fitters, Mie N Yu, Jackie's Restaurant, Buck's Camping & Fishing and BlackSalt. Mr. Hapstak is also a board member of the Washington Project for the Arts\Corcoran.

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