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HMFH Architects wins lighting design award from N.E. IESNA for work on Brookline Town Hall

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Brookline, Ma HMFH Architects, a leading architectural firm focused on the design of innovative learning environments, was honored by the New England Section of the Illuminating Engineering Society of North America (IESNA), the recognized technical authority on illumination, for the firm's extensive renovation of Town Hall.

The International Illumination Design Awards (IIDA) program of the IESNA provides a unique opportunity for public recognition of professionalism, ingenuity and originality in lighting design. Judges are selected from a broad professional spectrum, representing lighting knowledge and design excellence. The judging system is based entirely on how well the lighting design meets the program criteria. Brookline Town Hall was cited for its energy-efficient lighting system.

At the Brookline Town Hall, an 18-month long project included extensive renovation of a 7-story, 1960s-era office building to improve both energy and operational efficiency. The structure's strong grid pattern of limestone and glass required careful lighting design to achieve the community's ambitious sustainability goals.

Almost 85% of the building is allocated to offices, defined by a strong existing structural arrangement. Measured in window bays, offices span either two, three, or four windows. Although an office with four windows is 33% larger than an office with only three windows, both have spaces contain the same number of light fixtures due to the geometry of the building. To avoid under-lighting larger spaces or over-lighting smaller spaces, HMFH made creative use of ballast factor design. Because the ballast factor is balanced individually for each space, maximum efficiency is achieved, resulting in significant energy savings. In addition to ballast factor-based dimming, daylight dimming systems were installed in all perimeter offices and occupancy sensors were installed throughout the building to further reduce the level of artificial light used.

Through these methods, HMFH was able to achieve a rating of .9 W/sf, or 36% less than the code-mandated 1.4W/sf. Considering that lighting typically accounts for 35-40% of an office building's total electricity use, Brookline Town Hall will save about 12-14% on its electricity bills for the life of the building. At the reopening of the building, the chair of the selectmen announced that the building's electric bill is now half of the cost prior to renovation.

"Lighting improvements in town hall are integrally linked to energy performance upgrades in the building," said Chin Lin, AIA, LEED AP of HMFH. "The project also included new windows, upgraded mechanical, electrical and plumbing systems and a complete overhaul of how the public spaces are organized. This award is a wonderful testament to the long-term sustainable commitment of the Brookline community. The reduction of energy costs allows the town to reinvest in other critical needs areas."

With high-efficiency fixtures selected individually for each space, HMFH's lighting design shows that

energy efficiency can be achieved without sacrificing good design.

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