

6th Annual Green Dot Awards

# Elementary Teachers' Foundation of Ontario

KPMB Architects

KPMB was founded in 1987 by Bruce Kuwabara, Thomas Payne, Marianne McKenna and Shirley Blumberg. The firm has since earned hundreds of awards for architectural excellence including 14 Governor General's Medals, Canada's highest honour.

In the last decade, KPMB has played a major role in the development of Toronto as an internationally recognized centre with projects for the Bell Lightbox for the Toronto International Film Festival, Canada's National Ballet School, the Gardiner Museum, the Young Centre for Performing Arts and the Royal Conservatory TELUS Centre. KPMB has also contributed to projects across Canada including the Canadian Museum of Nature in Ottawa, Manitoba Hydro Place (LEED Platinum) in Winnipeg and the forthcoming Remail Art Gallery of Saskatchewan in Saskatoon. KPMB is currently working on projects for Princeton University, Boston University, Northwestern University, the University of Pennsylvania, the Aga Khan Foundation of Canada and is part of the consortium to design and build the 2015 Pan American Games Athletes' Village

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# Elementary Teachers' Foundation of Ontario, 2013

Toronto, Ontario

## Project Team

Bruce Kuwabara (design partner), Shirley Blumberg (partner-in-charge), Kael Opie (associate), Geoffrey Turnbull, Bruno Weber, David Constable, Zachary Hinchliffe, Christopher Pfiffner, Joseph Kan, Bryn Marler, Joy Charbonneau, Lynn Pilon, Carolyn Lee, Danielle Sucher, Bridget Freeman-Marsh, Lang Cheung

## Project Background

The Elementary Teachers Federation of Ontario (ETFO) represents over 76,000 teachers and education workers in the province of Ontario. It plays a critical role in recognizing that the people who teach our children are pivotal in building a better future. ETFO's also set ambitious objectives for their new headquarters to provide a highly sustainable, green exemplar to teach and inspire students, citizens, developers and the City. The challenges of the site and context also provided an opportunity to highlight the power of architecture to act as an agent for positive change and community.

## Sustainable Materials

A façade of vision glazing, fibre-cement panels and vertical sunshade fins reduces solar gains. For south and west façades, late-day solar gains are countered by a fully automated exterior shading blind system — one of the only large-scale applications in Canada. Passive solar shading fins and panels are detailed to provide a finer grain and articulated façade. Large, brick-coloured fibre-cement panels and muted warm greys complement adjacent heritage buildings.

## Energy/Water Efficiency

An integrated design process was used to choreograph a holistic design, including reductions of 64.3% energy, 50% water consumption, and LEED Platinum certification. Features include a geothermal field, 100% fresh air 24/7 displacement ventilation, overhead radiant heating and cooling, green roofs, integrated grey water systems, operable windows, automated interior and exterior shade systems and dimming lighting systems to harvest daylight.

## Community Impact

The project is located in the Upper Jarvis neighbourhood of downtown Toronto, a Victorian enclave of historic homes

designated a 'community in transition.' The site is also surrounded by high-rise commercial and condominium towers, a social housing complex, the massive Roger's Communication Headquarters, a nine-storey, 1970s-era rental apartment building and Casey House, Toronto's first AIDS hospice complex. To create a thoughtful response to the low-rise residential designation and zoning constraints, almost two years were invested in developing the design and consulting with the neighbourhood and the City.

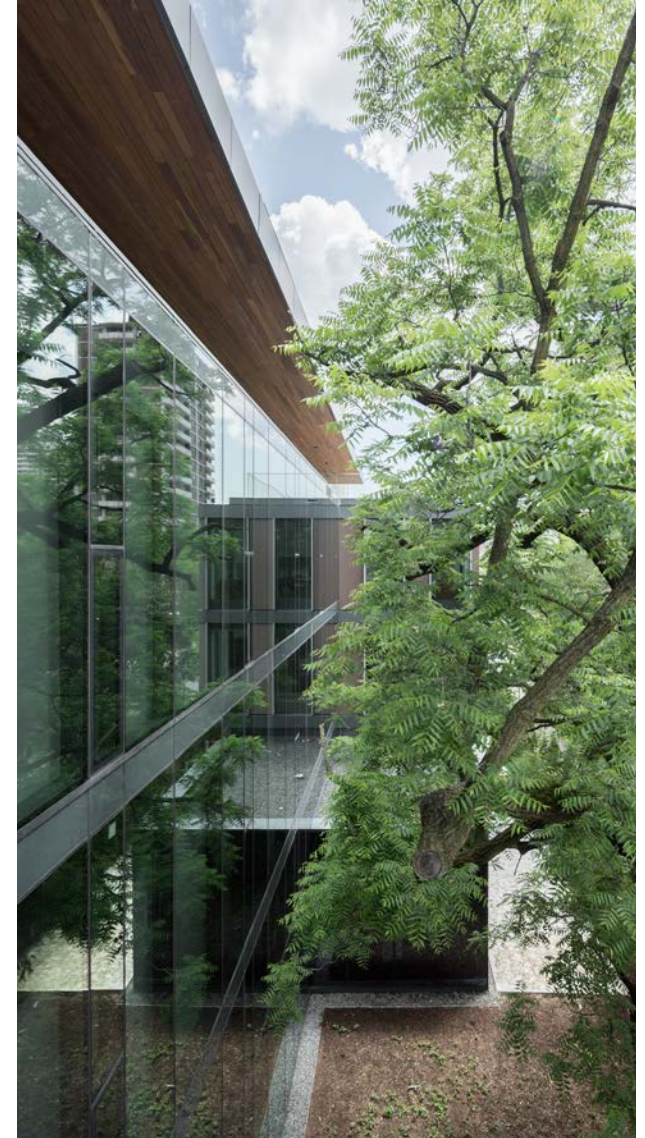
## Design

Early in the process the design team and the client group established a set of primary goals for the project. All decisions were weighed against this list, which effectively became a guiding charter for the development of the project. Those primary design goals were to create a welcoming home for ETFO; a highly sustainable and efficient green building; use architecture as an educational opportunity; effective neighbourhood integration and signature architecture. The owner-occupied office building includes training and conference facilities, flexible event space for owner and community use and a coffee bar.

Deep roof overhangs provide passive shade yet allow winter light to penetrate deep into the floor plate. A top-lit central entrance atrium draws in additional daylight and provides ETFO with a central gathering place.

## Land Use

The design solution focused on a contextual, responsive design to harmonize with the diverse neighbourhood and its edge conditions. The massing is stepped and terraced to respond to the rhythm and scale of Victorian residences to prevent casting shadows on adjacent properties, preserve the existing tree canopy as a natural shading device. For example, a courtyard carved into the west strategically preserves a magnificent black walnut tree. The greening of the site also involved transplanting mature trees, and varied 'front yard' sized gardens near the sidewalk, as well as water collection for ground plane integration.







Aerial view of building and neighbourhood





View of south elevation





Exterior view facing north-east (left); energy models for summer and winter (right)

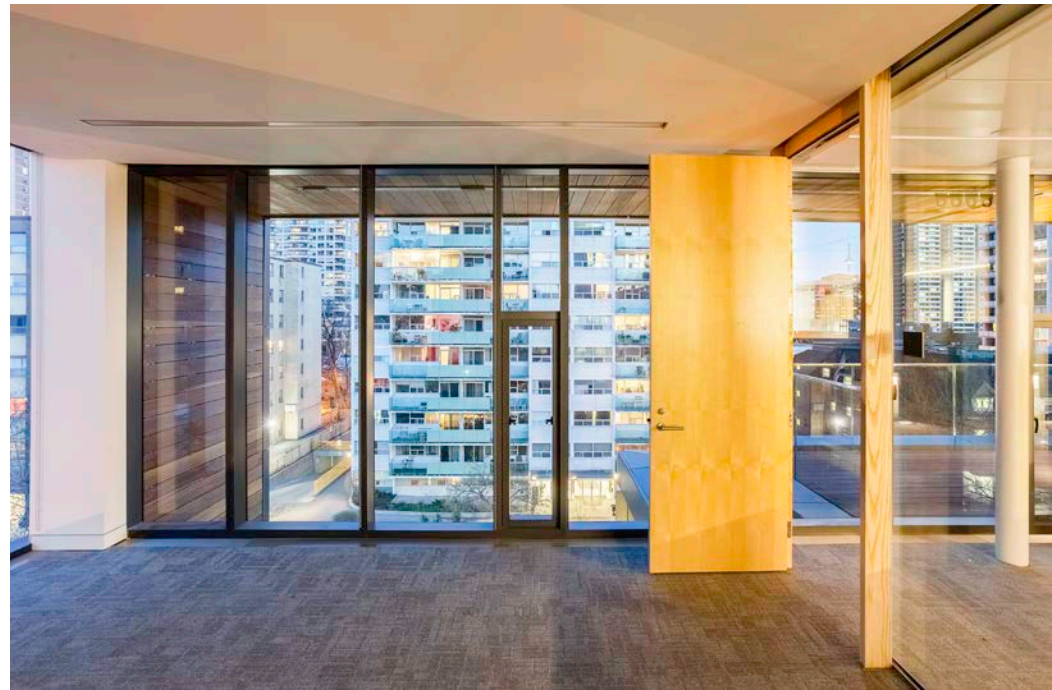
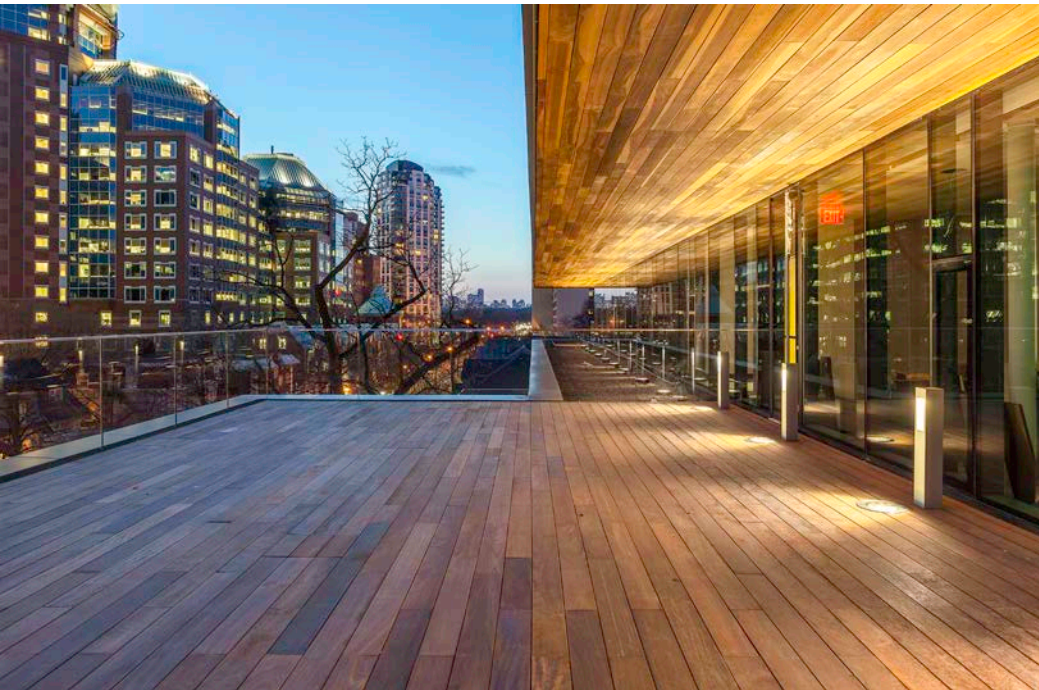




Central Atrium and stairs







Balcony/exterior event space (left); training room detail (right)