

# Columbia Alumni Center Green from the Inside Out

- Location:** New York, N.Y.
- Building Type:** University office/conference/seminar space
- Description:** Total renovation of 51,000 sq. ft. nine-story historic building
- Built:** 1908 – Architect: Schwartz & Gross
- Renovation:** 2009 – Architect: WASA/Studio A
- Rating:** U.S. Green Building Council LEED-NC, v. 2.2, Gold level pursued

## Renovation of Columbia Alumni Center (formerly McVickar Hall):

The Columbia Alumni Center at 622 113th Street provides a home in Morningside Heights for almost 300,000 alumni to catch up on University news, check e-mail, explore benefits, peruse a yearbook, or just have a cup of coffee. The Alumni Center also houses the University's Office of Alumni and Development and Columbia College Alumni Affairs and Development.

The building was constructed in 1908 as an apartment building (Victor Hall) and subsequently reconfigured to accommodate the offices and classrooms of Columbia University's School of Social Work (McVickar Hall).

The Columbia Alumni Center renovation included top-to-bottom rehabilitation of the façade, as well as replacement of the building's heating and cooling systems, lighting and electrical systems, and plumbing systems. The interior now features an alumni welcome center, offices, conference rooms, and phone-bank facilities.



Reusing the existing building has had several significant environmental benefits, setting high standards for both historic preservation and sustainability.

### Preservation highlights:

- **Restoration of historically accurate parapets and cornices**
- **Replacement and rehabilitation of terra cotta ornamentation**
- **Use of traditional window profiles matching originals on street façade**



### Energy conserving features supporting LEED application include:

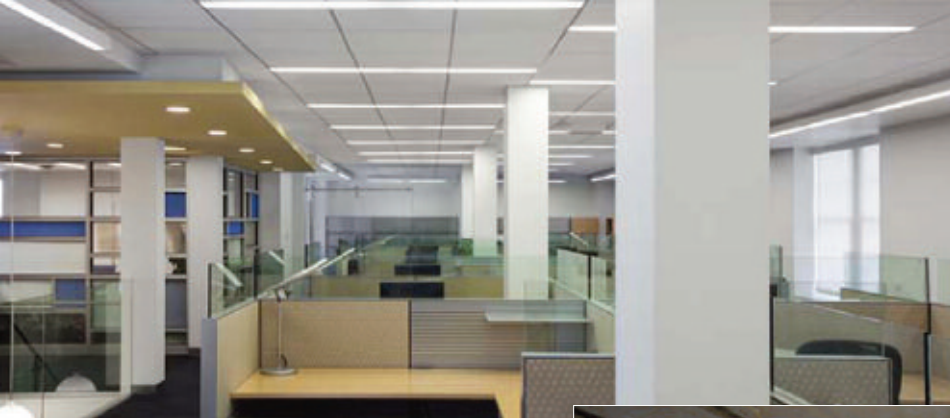
**Preservation of historic building:** Virtually all of the existing structure of the building was preserved and reused. The existing masonry façade was repaired, cleaned, and restored.

**White roof:** Roofing material with a high solar reflectivity index results in lower roof temperatures in summer, and reduces air-conditioning costs.

**Cooling:** Demand for electricity is drastically reduced throughout the year, especially during the summertime, thanks to a steam absorption chiller. Premium efficiency motors and variable speed fans are utilized in order to increase system efficiency.

**Energy recovery unit:** Energy is recovered from building exhaust, and used to pre-heat or pre-cool fresh air for the building.





**Carpet, Paint, and Adhesives:** Materials and finishes were selected to meet stringent air quality standards, and contain low or zero volatile organic compounds.

**Plumbing:** Fixtures are low-flow types, and water use is anticipated to be 40 percent lower than required by code. Project is set to save 250,000 gallons a water per year above EPA water efficiency baseline requirements.

**Green Cleaning:** Building maintenance follows a set of guidelines and protocols designed for the health of building visitors and staff. Cleaning supplies are environmentally friendly and non-toxic.

**Furniture and Appliances:** Systems furniture and equipment were selected to meet recognized environmental standards including Energy Star and Greenguard.

**Boiler:** A dual fuel, high-efficiency boiler was installed.

**Other LEED credits:**

By virtue of its location in a dense urban area, the project qualified for several of the LEED sustainable sites credits, including:

- **Site selection**
- **Development density and community connectivity**
- **Public transportation access (close to both subway and bus lines)**
- **Building systems subject to enhanced commissioning and free of ozone depleting refrigerants.**
- **Indoor air quality management plan implemented during construction and before occupancy**

**For more information about the Columbia Alumni Center, visit [alumni.columbia.edu/alumnicenter](http://alumni.columbia.edu/alumnicenter).**

**100 percent fresh air:** Outdoor air is filtered through high-efficiency filters. Exhaust from the building is actually cleaner than air that is taken in.

**Heating and cooling system:** The low floor-to-floor heights in the existing structure limited options for heating and cooling systems. For spatial efficiency, a four-pipe fan coil system was chosen, featuring superior energy performance and responsiveness.

**Insulation:** The exterior walls and roof exceed code requirements in order to improve energy performance.

**Local building materials and recycled content:** Building materials, including steel framing, drywall, glass, aluminum, finish materials, and carpet substrates were selected for their local availability and recycled content.

**Daylighting and views:** Virtually every location in the building is near a window that admits daylight and provides views out. Lighting is on a “daylight harvesting” control system, which automatically dims light fixtures when there is sufficient daylight.

**Lighting:** Light fixtures utilize energy efficient ballasts and compact fluorescent lamps. Desks are provided with task lights, offering additional lighting upon demand.



**Windows:** Replacement windows have thermally broken frames and double-pane, argon-filled, low-emissivity coated glass, substantially exceeding energy code requirements for glazed windows.



Photo by Alan Orling