

NEW YORK LAW SCHOOL

New Community Facility

185 West Broadway
New York, NY



Building Statistics Part 2

October 15, 2007

Adam Kroll

Lighting / Electrical

Primary Consultants: R. Mistrick, T. Dannerth

General Building Data

Building name: New Community Facility

Location: 185 West Broadway, New York, NY 10013

Building occupant: New York Law School

Size: 207,192 GSF

Floors: 6 above grade, 4 below

Height: 82.15' above mean curb elevation

Project Team

Client: New York Law School (www.nyls.edu)

Management Company: Studley, Inc. (www.studley.com)

Project Management: VVA (www.vvainc.com)

Architect / Lighting Designer: Smithgroup (www.smithgroup.com)

MEP Engineers: Jaros Baum & Bolles (www.jbb.com)

Structural Engineers: Thornton-Tomasetti (www.ttengineers.com/)

Foundation & Geotechnical Engineers: Mueser Rutledge Consulting Engineers (www.mrce.com)

Acoustic / AV Technology: Cerami & Associates (www.ceramiassociates.com)

Landscape Architect: JJR (www.jjr-us.com)

Curtainwall: Raymond Wilson & Associates Ltd.

Associate Architect: BSKS Architects (www.bkskarch.com)

Food Service: Cini-Little (www.cinilittle.com)

Land Use Attorney: Stroock Stroock & Lavan LLP (www.stroock.com)

Code Consultant / Expeditor: Milrose Consultants Inc. (www.milrose.com)

Signage: Two Twelve Associates

Specifications: Heller & Metzger PC

Applicable Codes

New York City Building Code – 1968 Amended

New York City Electrical Code – 2001 Amended

New York State Energy Conservation Construction Code - 2002

Zoning

Zoning district: C6-4

Block: 176

Tax lot: 18

Zoning map: 12a

Special districts / landmark status: None

Restrictive declarations: D-54, CP/ULURP No. C790579ZMM

Building classification: Occupancy Group G (Education)

Construction classification: I-C

- Allowable area: no limit
- Sprinklers required
- Maximum height: 85'-0" (per restrictive declarations)

Architecture

The New Community Facility consolidates the functions of various aging New York Law School structures. The building will house a library, a 284-seat auditorium, dining areas, student gathering areas, a roof terrace, classrooms, administrative offices, and a large multi-purpose space. Located on the corner of Broadway and Leonard Street, a glass façade will display the high level of activity within the building. The facility will be built with an unusually deep 62-foot basement, with four complete floors below grade. The building also features a roof terrace located on the fifth floor.

Building Envelope

The northern side of the building, facing Broadway and Leonard Street, has a glass façade. The glass is double-paned insulated and tempered. The other two sides of the building have non-structural limestone and granite cladding over the steel frame.

Construction

Construction was permitted to begin on May 22, 2006 and is scheduled to end in 2010. The total cost is approximately \$80 million. The delivery method is design-bid-build. The building is the first phase of redesign of a larger site. This facility will be new construction, and the surrounding buildings will be renovated during the second phase of the project.

Structural

The building's structural system uses steel and reinforced concrete. The foundation is an 8"-thick two-way slab-on-grade with wire mesh reinforcement. The floors and roof are composite metal decking ranging in thickness from 6" to 12". Steel beams and columns range in size from W24 to W40. The beams are generally 10' O.C.

Mechanical

The heating system relies on a steam network provided by the local utility, Con Edison. The steam is piped into the building through the basement, and then travels to each floor to local radiant heaters. The cooling system relies on two roof-top cooling towers. Each floor has water-cooled packaged air conditioning systems. Air handling units are located on the upper floor of the building.

Electrical

Two service entrances provide power to the building. Both service entrances are on the northern corner of the building, on the first basement level. A transformer owned by the utility company, Con Edison, is located in a vault underneath Leonard Street. The transformer provides power on a 208Y/120V 3P 4W system. The building operates at this single voltage; no other transformers step up the voltage. The two systems operate independently as simple radial networks; no redundancy is built in to allow one switchboard to take over the entire building load in case of a failure on one side.

A 700KW oil-fueled emergency generator is located on the roof. The generator provides power at 208Y/120V 3P 4W and supplies critical systems during power failure. A 550-gallon tank in the basement stores fuel for the generator. There is also a UPS battery system located in the MDF room on the lowest basement level that provides power to the information technology system for approximately 15 minutes after a power failure.

Lighting

Almost all of the lighting systems use fluorescent sources. Some low-voltage halogen sources are used. The front façade has exterior color-changing LEDs to produce nighttime effects. The main entry lobby features glass panels on the walls and ceiling, etched with the words of the U.S. constitution. These etched glass panels are backlit by color-changing LEDs. Due to the large amount of glass façade, daylight is abundant in many of the spaces. However, there is no integration between the daylight and electrical illumination system through the use of photosensors. Dimming control systems are common throughout the building. Most of the lighting is regulated automatically by relay control panels that operate on an astronomical time clock.

Fire Protection

The fire protection system includes sprinklers and water pumps to maintain pressure. There are three fire department connections, located on West Broadway, Leonard Street, and Worth Street.

The fire alarm system includes sensors, audible and visual alarms, and manual pull boxes located throughout the building. The central control and monitoring station is located at the information/security desk in the main lobby on level 1. The fire alarm system is normally powered by a designated feeder from one of the switchboards. If primary power is lost, an automatic transfer switch changes the power source to the emergency generator.

Minimum fire resistive requirements, per NYC Building Code:

Element	Rating (hours)
Exterior bearing walls	2
Interior bearing walls	2
Exterior non-bearing walls	0-2
Structural frame (supporting 1 floor or roof)	1.5
Structural frame (supporting more than 1 floor)	2
Shaft enclosures	2
Floor construction (including beams)	1.5
Roof construction	1.5
Stairway construction	2
Hoistway construction	2

Vertical Transportation Systems

One service elevator and six passenger elevators serve the building. One bay has one service and four passenger elevators, while the other bay has the other two passenger elevators. The elevator control room is located on level B2. The elevators transfer to emergency power if primary power is lost.

Information Technology Systems

This information technology system provides communications both within the building and through the internet. Data jacks are located throughout the building, to provide service for computers, phones, and AV equipment. The central control area is the MDF (main distribution frame) room on level B4, where computer servers are stored. Every floor also has an IDF (intermediate distribution frame) room.

Security System

The security system includes video cameras, door exit alarms, card readers, and intercom stations located throughout the building. The control center for this system is located at the information/security desk in the main entry lobby on level 1.