

# Mount Sinai Hess Center for Science and Medicine

New York, NY



**SQ FT**  
420,000 BGSF



**OWNER/AFFILIATION**  
Mount Sinai Health System



**ARCHITECT(S)**  
SOM



**COMPLETION DATE**  
2013



EXTERIOR VIEW



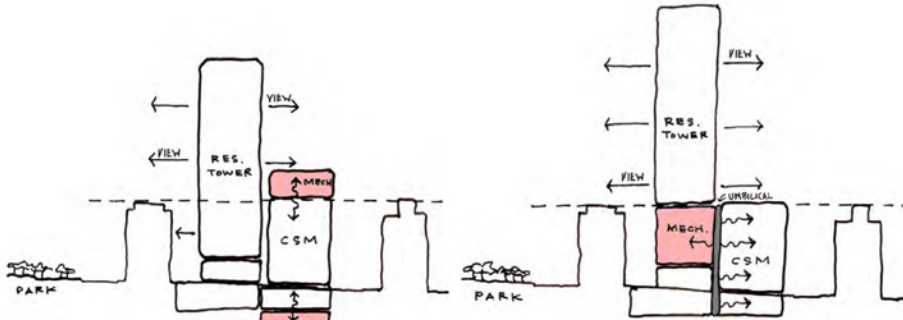
STREET LEVEL IN CONTEXT



EXTERIOR VIEW

Envisioned as a place of discovery and healing, the Hess Center for Science and Medicine (CSM) is shaped by its translational mission and its urban context. Located in Upper Manhattan, the 420,000 sf facility integrates clinical and basic science research with an ambulatory care center and image facility. The building unites scientists, clinicians and educators in a unique and collaborative way.

**The primary objective was to create an environment that would be functional and inspiring for researchers and clinicians as well as gracious and calming for the patient who motivate and benefit from their work.**



TRADITIONAL MECHANICAL MODEL

MECHANICAL UMBILICAL MODEL



CAMPUS CONTEXT



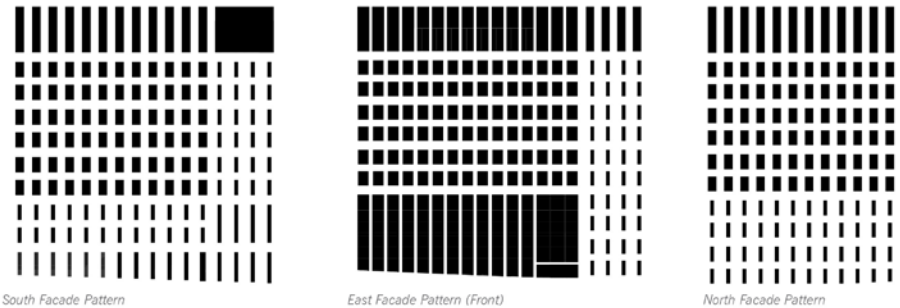
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citation from design concept

## Campus Language

Viewing the building as the latest evolution of the campus language, the exterior envelope is a **masonry solid** that articulates both the 2-story sectional organization and plan modulations of the interior. The **rhythm** established in the window placement is an outward expression of the rigorous planning modules established for the laboratories, exam rooms and offices. In detailing the exterior, the **vertical stacked brick bond** serves to reinforce the building geometries and the system of the **pre-cast panels** with half-brick facing responds to concerns of cost and schedules.



## SITE PLAN



## Site

Located on the edge of Spanish Harlem and the Upeer East Side, the Mount Sinai Campus is situated on the fault line between some of the poorest and wealthiest New Yorkers. The campus extends from 98th to 102nd Street and is bracketed by Central Park to the west and low-income housing projects along Madison Avenue to the east.

While Mount Sinai's medium-scale brick campus is dominated by a 31-story modern research tower of cor-ten steel. It is the buff-masonry and heavy, punched-window aesthetic of I.M.Pei's hospital pavilion that has influenced subsequent Sinai building s and established, in the Institutions's eyes, "**a campus style**". The design team responded to the mixed nature of the neighborhood by creating a **contextual building** that comfortably mediates between the two different worlds that meet at its doorstep.

Mount Sinai's request that the CSM be an integrated campus building with a sense of "**quiet dignity**" and free of ostentation, led the design team to a process that distilled the building to its most basic and essential nature.



# Mount Sinai Hess Center for Science and Medicine

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DEPARTMENTAL KEY PLAN:

- Offices
- Lobby
- Core/Mechanical

KEY SPACES:

- Office (113 nsf)
- Lobby (8896 nsf)
- Staff Work core (304 nsf)

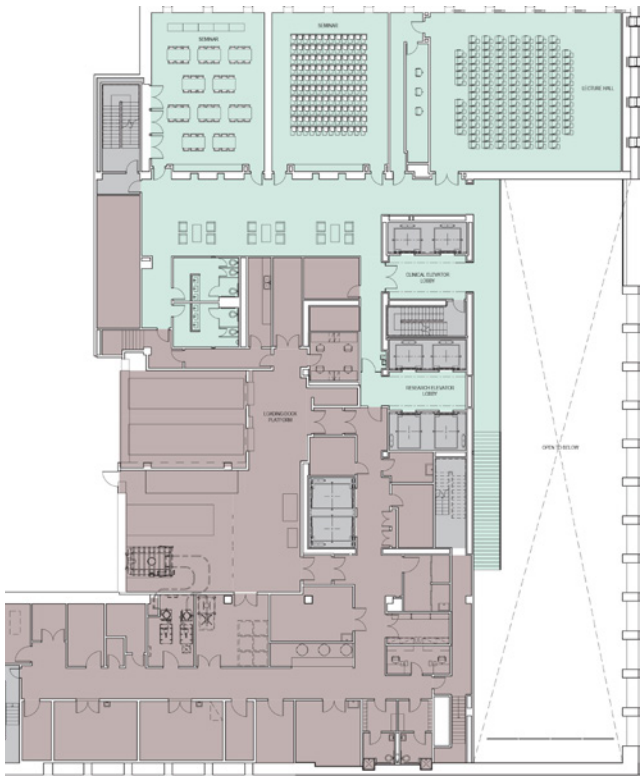
DEPARTMENTAL GROSS SQUARE FOOT TAKE-OFFS

	Net	Gross
Offices	6849 SF	8686 SF
Lobby	2516 SF	2762 SF
Core/Mechanical	11801 SF	13449 SF

GROUND LEVEL:



SECOND FLOOR PLAN



DEPARTMENTAL KEY PLAN:

- CONFERENCE/EDUCATION CENTER
- STORAGE/WASTE HOLD/EQUIPMENT ROOM AREA

DEPARTMENTAL GROSS SQUARE FOOT TAKE-OFFS

	Net	Gross
Conference/ Education Center	4,784 SF	7,527 SF
Storage/Waste Hold	7,056 SF	11,572 SF

Note: "Departmental Square footages take-off based on 'Analysis of Departmental Area in Contemporary Hospitals calculation methodologies & Design Factors Report, 2014



# Mount Sinai Hess Center for Science and Medicine

New York, NY

DEPARTMENTAL KEY PLAN:

- Laboratories
- Lab support
- Offices
- Collaboration
- Public Circulation
- Core/Mechanical

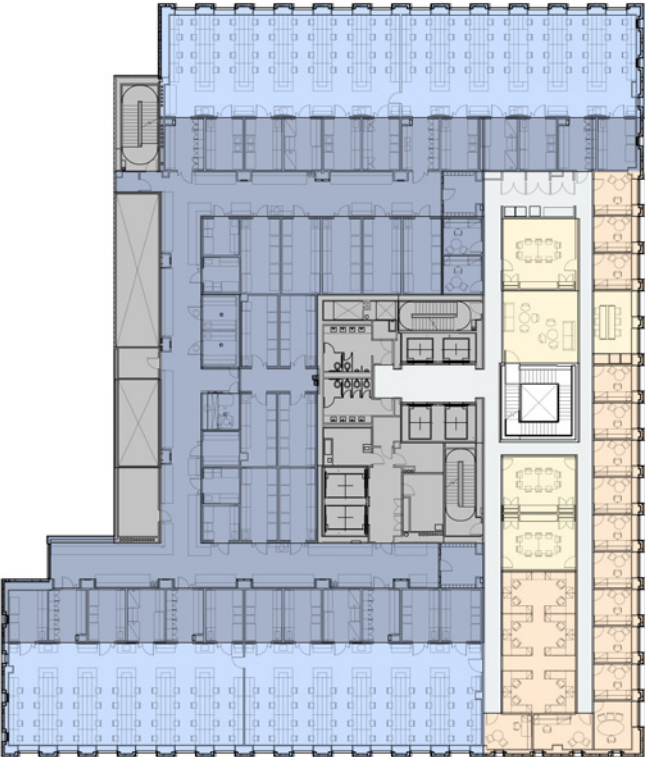
KEY SPACES:

- Office (95 nsf)
- Laboratories (1666 nsf)
- Staff Work core (209 nsf)

DEPARTMENTAL GROSS SQUARE FOOT TAKE-OFFS

	Net	Gross
Laboratories	6,598 SF	6,779 SF
Lab support	7,246 SF	10,396 SF
Offices/Collaboration	3,768 SF	5,968 SF

Note: "Departmental Square footages take-off based on 'Analysis of Departmental Area in Contemporary Hospitals calculation methodologies & Design Factors Report, 2014



IMAGING AND RADIATION THERAPY CENTER



DEPARTMENTAL KEY PLAN:

- Imaging/RadOnc/Nuclear Medicine
- Research/support
- Public Circulation
- Core/Mechanical

KEY SPACES:

- Nuclear Medicine (4401 nsf)
- RadOnc (869 nsf)
- Imaging (464 nsf)

DEPARTMENTAL GROSS SQUARE FOOT TAKE-OFFS

	Net	Gross
Imaging/RadOnc/ Nuclear Medicine	14,771 SF	21,0145 SF
Research/support	3,376 SF	5,463 SF
Core/Mechanical?	3768 SF	5968 SF

# Mount Sinai Hess Center for Science and Medicine

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DEPARTMENTAL KEY PLAN:

- Clinical Areas
- Clinical Support
- Offices
- Collaboration
- Public Circulation
- Core/Mechanical

KEY SPACES:

- ▶ Exam rooms (116 nsf)
- ▶ Offices (74 nsf)

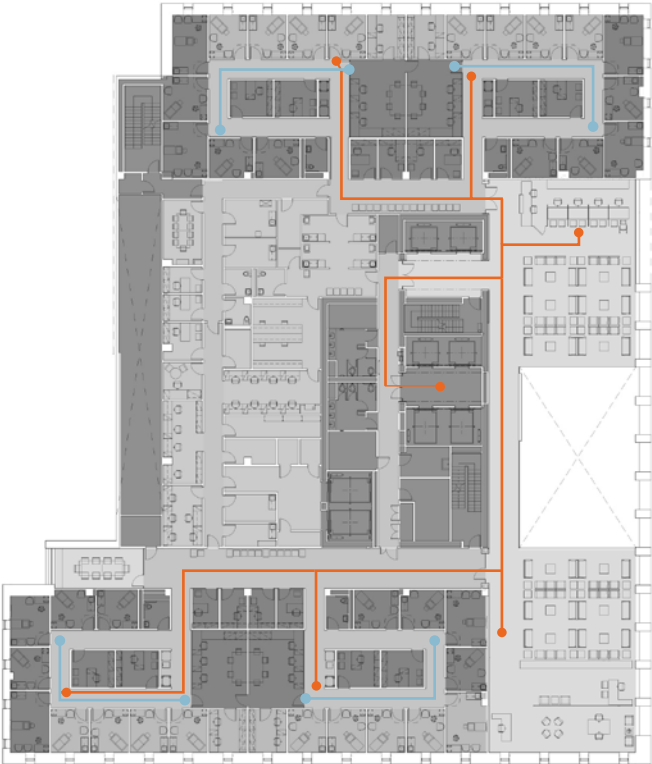
DEPARTMENTAL GROSS SQUARE FOOT TAKE-OFFS

	Net	Gross
Clinical area	7,815 SF	11,289 SF
Offices	3,179 SF	4,401 SF
Collaboration	3,396 SF	4,535 SF

Note: “Departmental Square footages take-off based on ‘Analysis of Departmental Area in Contemporary Hospitals calculation methodologies & Design Factors Report, 2014



TRAVEL DISTANCE ANALYSIS



KEY SPACES:

- ▶ Exam Rooms (116 nsf)
- ▶ Staff Work area (308 nsf)
- ▶ Staff Office (112 nsf)

TRAVEL DISTANCE ANALYSIS

- Patient 158ft - 220ft
- Staff 15 ft - 53 ft



# Mount Sinai Hess Center for Science and Medicine

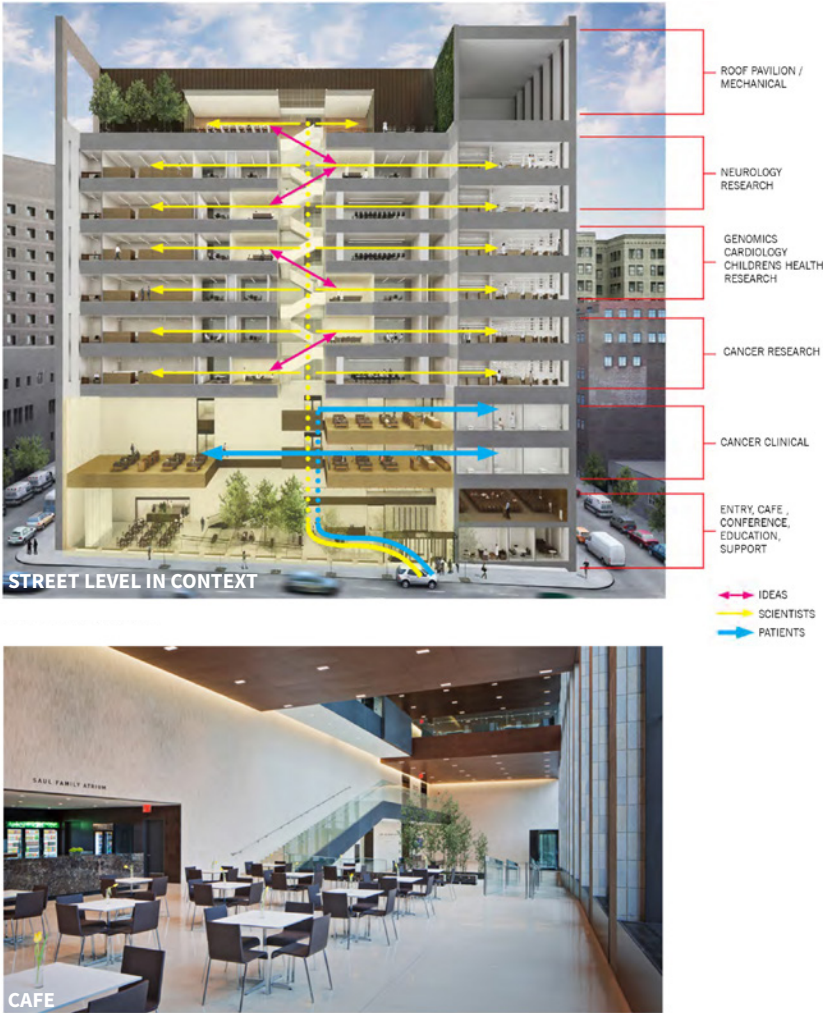
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## A Collaborative Environment

The bench-to-bedside tranlational model is emded in the overall section of teh Hess Center.

The building is organized vertically into a series of two-story "**neighborhoods**". In order to foster interaction and collaboration between these neighborhoods and their diverse collection of researchers, clinicians and educators, the design team created a vertical "**interaction network**" of formal and informal spaces. The netwrok is composed of three parts:

- **Atrium** (multi-purpose lobby with cafe, conference/education center and patient waiting areas)
- **Interaction Spine** (convenience stair with adjacent lounges, pantries conference rooms)
- **Rooftop Pavillion** and **Rooftop Garden** (potential future phase)



While the design creates ideal conditions for both clinical and research activities, most importantly, it emphasizes the connection between the two. **By highlighting the ties between the patients and researchers exploring cures to their disease, the Hess Center creates a profound sense of immediacy.**





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## Patient-Centered Care

As a continuation of the tranlational model at the Center for Science & Medicine, Both The Tisch Cancer Institute and Imaging Center and Radiation Oncology Center are co-located within the Hess Center.

The Tisch Cancer Institute occupies the 3rd and 4th floors and provides an outpatient facility where the latest oncology treatments can be applied and evaluated. Clinical programs reside alongside a chemotherapy pharmacy that will produce both conventional and experimental products. **The facility provides a research continuum that connects the laboratory to the bedside, which is the sin qua non of translational research.**

The Institute comprises **48 exam rooms and 54 infusion bays**. The large waiting areas overlooking the atrium space provide a comfortable environment for the patients, and easy patient flow into the exam and infusion suites.

Located in the sub-celler, The Radiation Oncology suite, with two linear accelerator vaults and adjacent CT Simulator provides a cutting-edge outpatient treatment experience.

By incorporating the full spectrum of radiation therapy components in direct adjacency the patient experience is streamlined, wait time is reduced, and medical staff gain workspace efficiencies.

The linear accelerator vaults features LED chromatography ceiling panels that are customizable to each patient's preferences for color therapy during treatment session.



GROUND FLOOR



CENTRAL NURSING STATION

## AIA/AAH DESIGN AWARD WINNER

Category B Built: More than \$25 million (construction cost)

## JURY COMMENT

- ▶ This project is an understated and beautiful response to the difficult functional program of translational medicine. The needs of academic research, clinical medicine and community on an iconic campus were thoughtfully combined with this design.
- ▶ In a context sensitive urban setting, this facility creates a bench to bed (or clinic exam room) facility that will accommodate a wide variety of research efforts that is still welcoming to the patients.
- ▶ Material selection exterior and interior are sophisticated and technical while imparting a comfort and warmth. This is an exemplary solution of how design can foster interdisciplinary collaboration between departments and research teams.



LAB SPACE



LOBBY