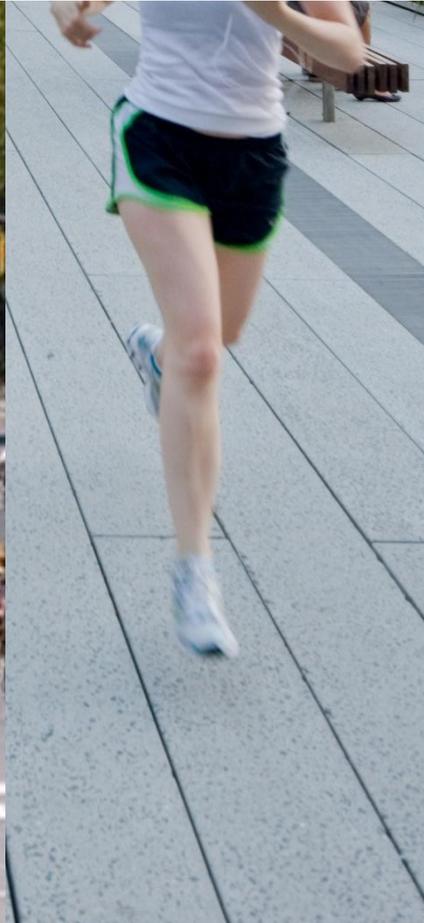


Policy Opportunities in Healthy Building Design



Reena Agarwal, Policy/Design Developer
Center for Active Design, NYC

It is widely understood today that there is a clear relationship between our health and the environment that we inhabit.

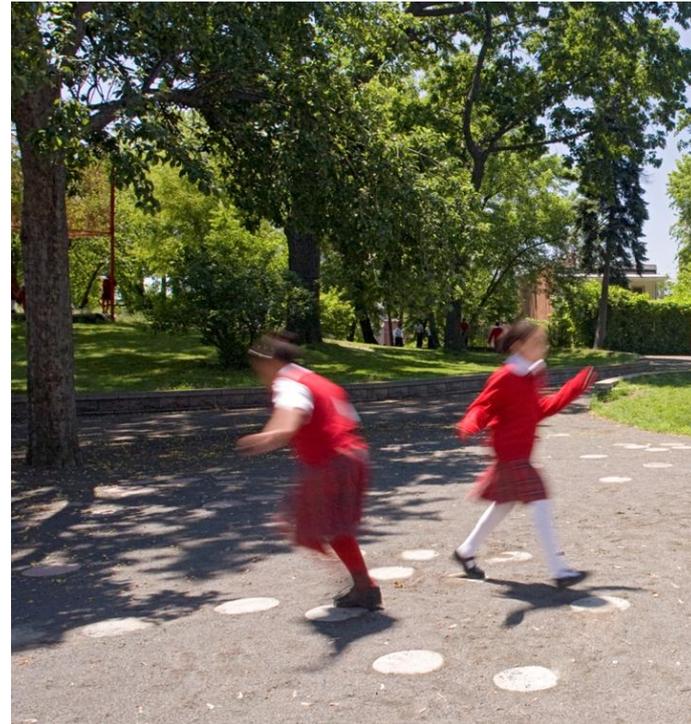


Integrating wellness amenities into buildings can be an important facilitator for physical activity and health.



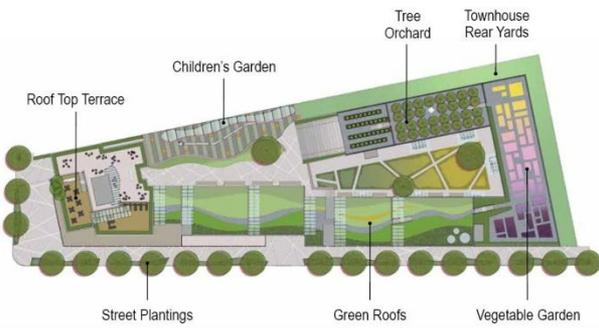
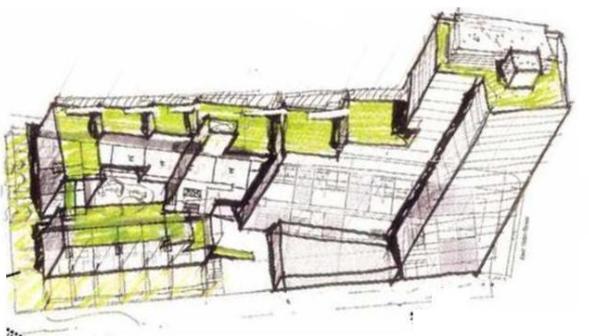
Overview

1. Components of a physical activity promoting building & policies in different jurisdictions
2. Creating health-promoting policies by integrating into RFPs, contracts and standard documents
3. NYC Lessons Learned



Building that Promotes Physical Activity

Programmed outdoor spaces including **community roof gardens**



18-story tower will **harvest rainwater** for growing food



Will include prominent **stairs, fitness center + bike storage**



Recreation Spaces

Health Benefits of On-Site Recreational Spaces

On-Site Recreational Spaces Promotes Use

- ❑ Access to physical activity spaces such as walking paths and exercise facilities near home and work buildings, is associated with increased physical activity.
- ❑ Proximity to parks and other recreational facilities is consistently associated with higher levels of physical activity.
- ❑ Access to safe neighborhood play spaces for children is associated with higher rates of physical activity and lower rates of time spent watching television and playing video games.
- ❑ Workplace physical activity programs in the US have been shown to reduce short-term sick leave and health care costs and to increase productivity.

Policies to Promote Dedicated Recreational Spaces

- **Policy Examples from other cities:**

Berlin – Building Code

Residential buildings are required to provide on-site playgrounds (when ≥ 6 units)

London – Mayor’s Policy Recommendation

Based on boroughs population estimates and current / future growth, sets a benchmark standard for the provision of children play area

Seattle – Zoning Code

Residential buildings are required to provide recreation space for leisure, play and sports (when ≥ 4 units)

Portland – Zoning Code

Density bonus of up to 5% of allowable FAR, with minimum standards

NYC – Zoning Code

Ensure that all New Yorkers live within a ten-minute walk of a park (from PlaNYC)





Bike Storage

Health Benefits of On-Site Bike Storage Spaces

On-Site Bike Storage Spaces Promotes Use Daily Use

- People bicycle more and obesity rates are lower in countries that have better bicycle infrastructure.
- Providing secure bicycle parking areas supports bicycling.

Policies to Promote Bike Storage Spaces

- **Policy Examples from NYC:**

- **The Bicycle Access to Office Buildings Law** - provides cyclists with secure parking during the workday by requiring office buildings to have a Bicycle Access Plan upon request by a tenant.
- **Requirements for New Multi-Family Residential Buildings** – requires 1 bicycle parking space per two residential units.
- **Requirements for New Commercial Buildings** – requires 1 bicycle parking space per 7,500 SF of floor area for office buildings and 1 bicycle parking space per 10,000 SF of floor area for retail and other commercial uses.
- **Requirements for Public Parking Garages** – requires 1 bicycle parking space for 10 vehicle spaces





On-site Gardens

Health Benefits of On-Site Community Garden Spaces

On-Site Gardening Provides for Increased Access to Active Recreational Spaces and Healthy Food

- Gardening and planting provides opportunities for leisure-time exercise for building occupants.
- Gardening spaces also allows for fresh and healthy food access to building occupants.

Policies to Promote Community Garden Spaces

- **Policy Examples from NYC:**

- **Vegetative Roofs** - Revisions to the Zoning Code include the allowance of vegetative roofs to extend up to 3'-6" above the maximum permitted height limit of the building.
- **Rooftop Greenhouses** – Revisions to the Zoning Code allow for floor area used by a rooftop greenhouse to be excluded from the building's total floor area. Greenhouses may also exceed the governing height limitations.
- **LEED Green Building Certification** - Innovation Credit for Health through Increased Physical Activity includes item for a dedicated community garden space.





stairs

Health & Safety Benefits of Stair Use

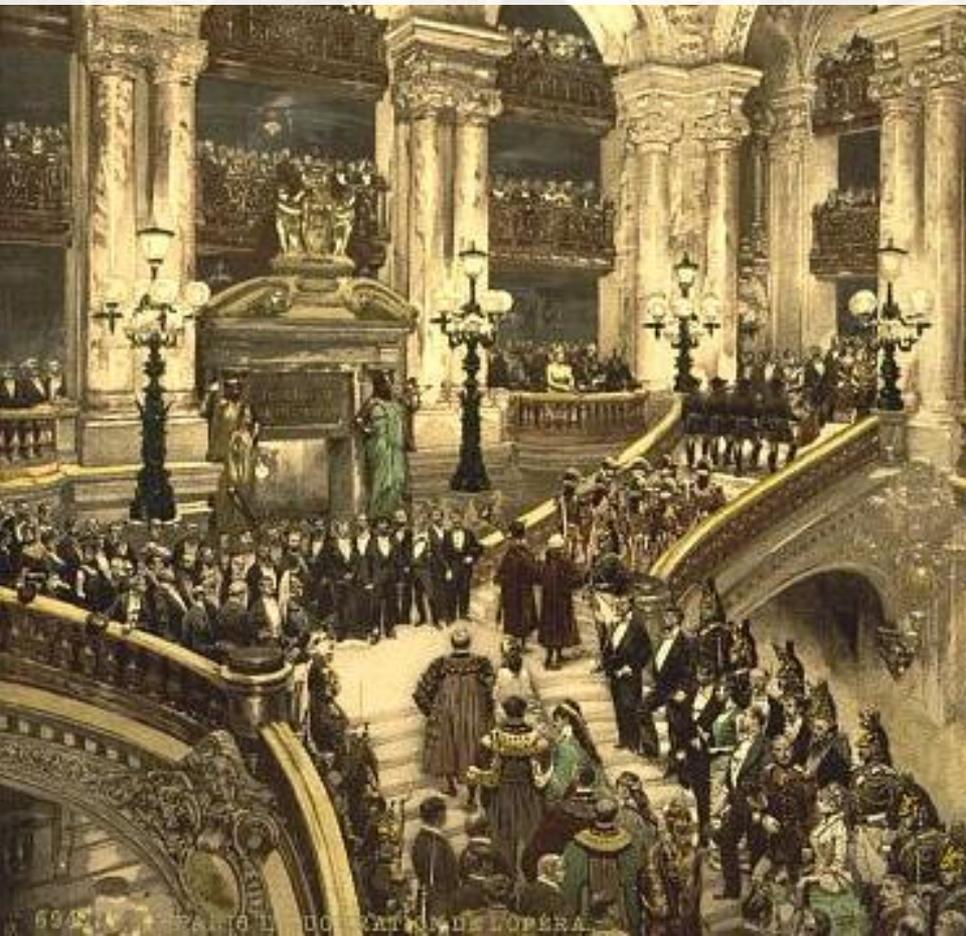
Regular Stair Use has an Effect on Health and Safety

- ❑ Just 2 minutes of stair climbing a day burns enough calories to eliminate the yearly average weight gain in U.S. adults.
- ❑ Harvard study of alumni showed that men who climbed 20-34 floors of stairs per week (3-5 floors per day) had a 29% lower risk of stroke.
- ❑ Research has linked stair use to health benefits such as better cardiovascular health and good cholesterol levels.
- ❑ (Safety) According to the Public Health Agency of Canada, the majority of fire deaths associated with high rise fires can be traced to a lack of familiarity with emergency exits and location of these exits.



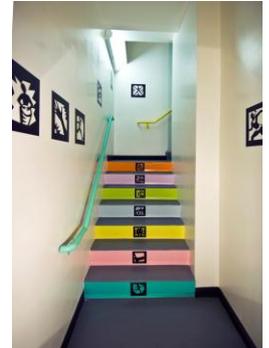
Stairs used to provide an opportunity for a grand centerpiece of any great building, and were an everyday part of our lives.

Overtime they have slowly been relegated to the hidden back corners in buildings to be used only during emergency situations.



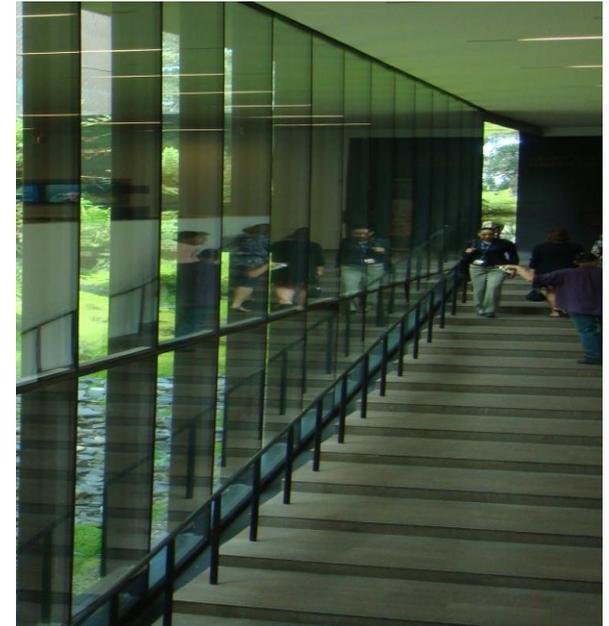
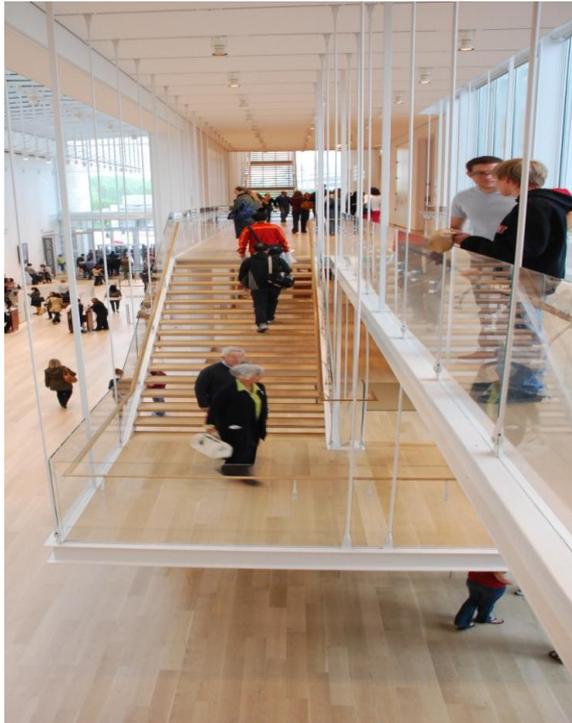
Policies to Promote Stair Use

- **Policy Examples from NYC and elsewhere:**
 - Examples of possible policies:
 - Permit stair access to each building floor
 - Increase visibility of stairs by using glass on entry doors
 - Post active living signs at points of decisions, such as elevator waiting areas
 - Allow stair doors to be held open by magnetic catches as is allowed in the International Building Code, but not routinely allowed in some local jurisdictions.



Policies to Promote Stair Use

- **Study to explore incentivizing stairs through the NYC Zoning Code:**
 - Can we provide zoning incentives for stairs that:
 - Are well located within the building footprint
 - Allow for visibility of the stair
 - Are large enough to allow for everyday travel
 - Provide occupant comfort





Tap Water

Benefits of Increased Access to Tap Water

Increased access to tap water can reduce environmental impacts and improve health.

- Promoting tap water drinking over consumption of sugary beverages can decrease caloric intake and assist in addressing obesity and chronic diseases.
- Increased access to tap water can reduce plastic waste. Although bottles can be recycled, only about 13% get recycled and the rest end up in landfills.

Policies to Promote Access to Tap Water

- **Policy Examples from NYC:**

- Amendments made to the NYC Plumbing Code to **improve access to tap water:**

- All required drinking fountains must now include a regular spout and a faucet for filling a container that is at least 10” high.
- Previously vending machines that dispensed bottled water were permitted to replace required drinking fountains. This provision was removed from the code.



Strategy Integration into Comprehensive Plans



Integration of Active Design.

Public Health Chapter of PlaNYC:

“...promoting public transportation, pedestrian plazas, safe walking routes, and calming and reducing vehicular traffic, we will encourage more and safer walking and physical activity. By piloting a bike-sharing program, improving bicycle parking, and completing our citywide bike route network, more people will enjoy the health benefits of safe cycling...”

Active Design Strategy Integration

Integration of Active Design into planning, real estate development, design & construction RFPs, contracts and standards documents.

- Example from a NYC RFP:

*The Developer of the Site will be required to seek a LEED rating of Silver and should strive to **include credits that promote physical activity and health** from the US Green Building Council and from **The Active Design Guidelines** (the “Guidelines”).*

*Requirements for this rating can be found at www.usgbc.org. The Guidelines can be found at www.nyc.gov/adg. Respondents must submit a Green Building Plan as part of the RFP submission package. **The Green Building Plan should also reference the policies in the Guidelines.** The Developer is specifically requested to **include an innovation credit for health through physical activity** as shown on pages 130-131 of the Guidelines. Additionally, wherever feasible, the Developer should **adopt the strategies shown on page 114-115 that link LEED credits and healthy design.***

- Example from NYC Design Guideline:

The ground floor entrance lobby establishes circulation patterns within the building. The primary vertical circulation must be visible and accessible from the lobby...encourages consideration of the NYC Active Design Guidelines, which promote fitness & treatment of stairs in buildings.

Synergize with the Green Movement



Executive Summary
February 2010

NYC GREEN CODES TASK FORCE

A REPORT TO MAYOR MICHAEL R. BLOOMBERG & SPEAKER CHRISTINE C. QUINN

USGBC + MOLTPS + Taskforces

Health + Toxicity

Energy + Carbon
Emissions

Building Resilience

Resource
Conservation

Water Efficiency

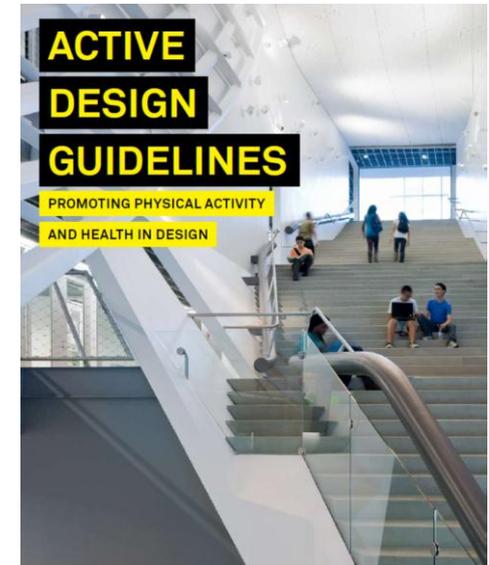
Stormwater

Urban Ecology



Collaboration between Private & Public Sectors

- Collaborators on the *Active Design Guidelines* and other built environment initiatives include:
 - NYC Departments of
 - Health and Mental Hygiene
 - Design and Construction
 - Transportation
 - City Planning
 - Buildings
 - Parks and Recreation
 - Aging
 - Citywide Administrative Services
 - School Construction Authority
 - Housing, Preservation and Development
 - Mayors Offices of People with Disabilities & Long-Term Planning & Sustainability
 - American Institute of Architects
 - American Planning Association
 - US Green Building Council
 - Community Organizations
 - Private sector architects and developers
 - Academic Researchers



Thank You!

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