Active By Design: Promoting Healthy Living through Outreach, Engagement, and Architecture

FitCity 4 Miami: Design and Building for Health

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2017 AIA NY President
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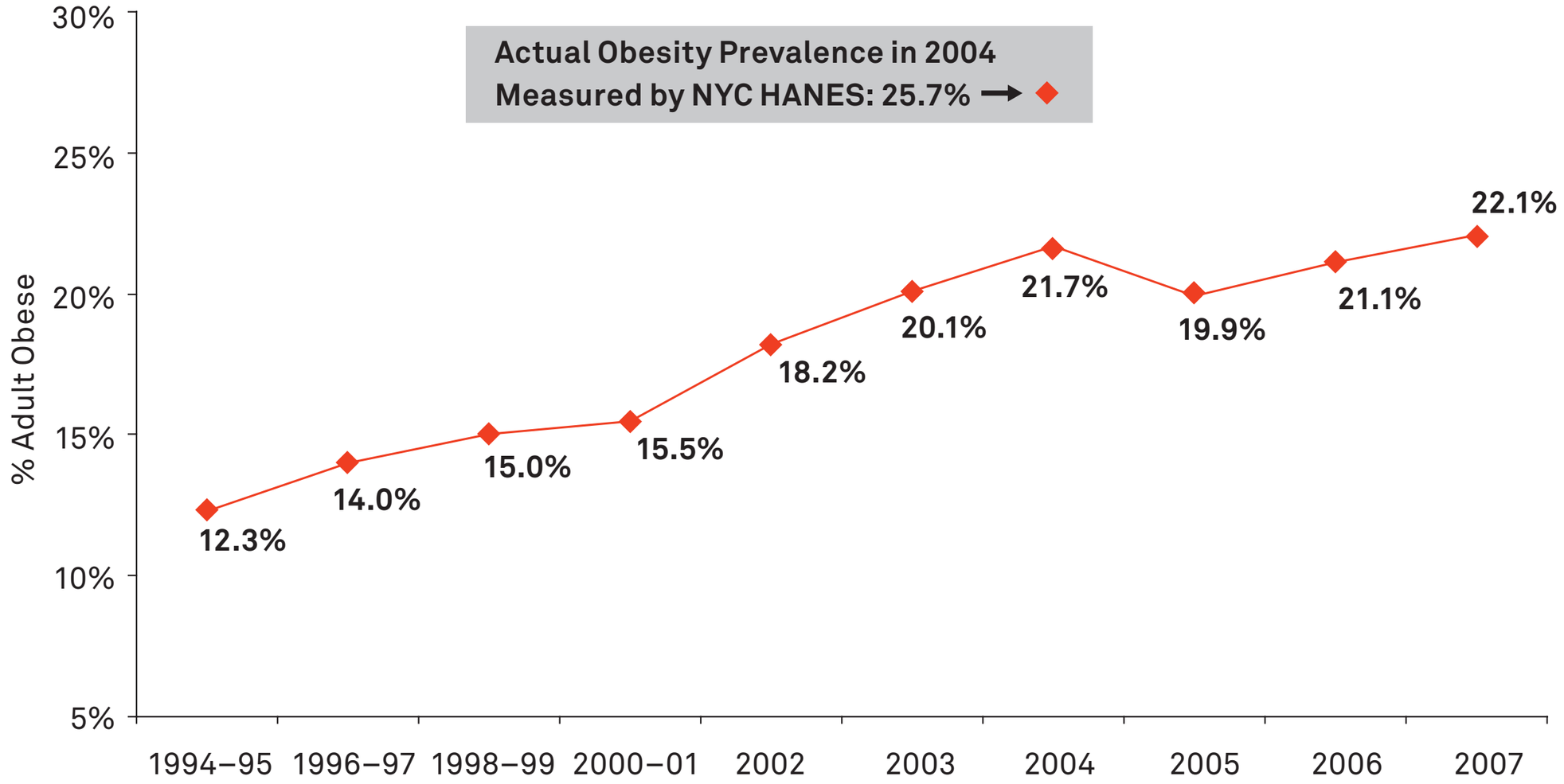
Presentation created with support from:
The Center for Active Design
AIA New York
1100 Architect

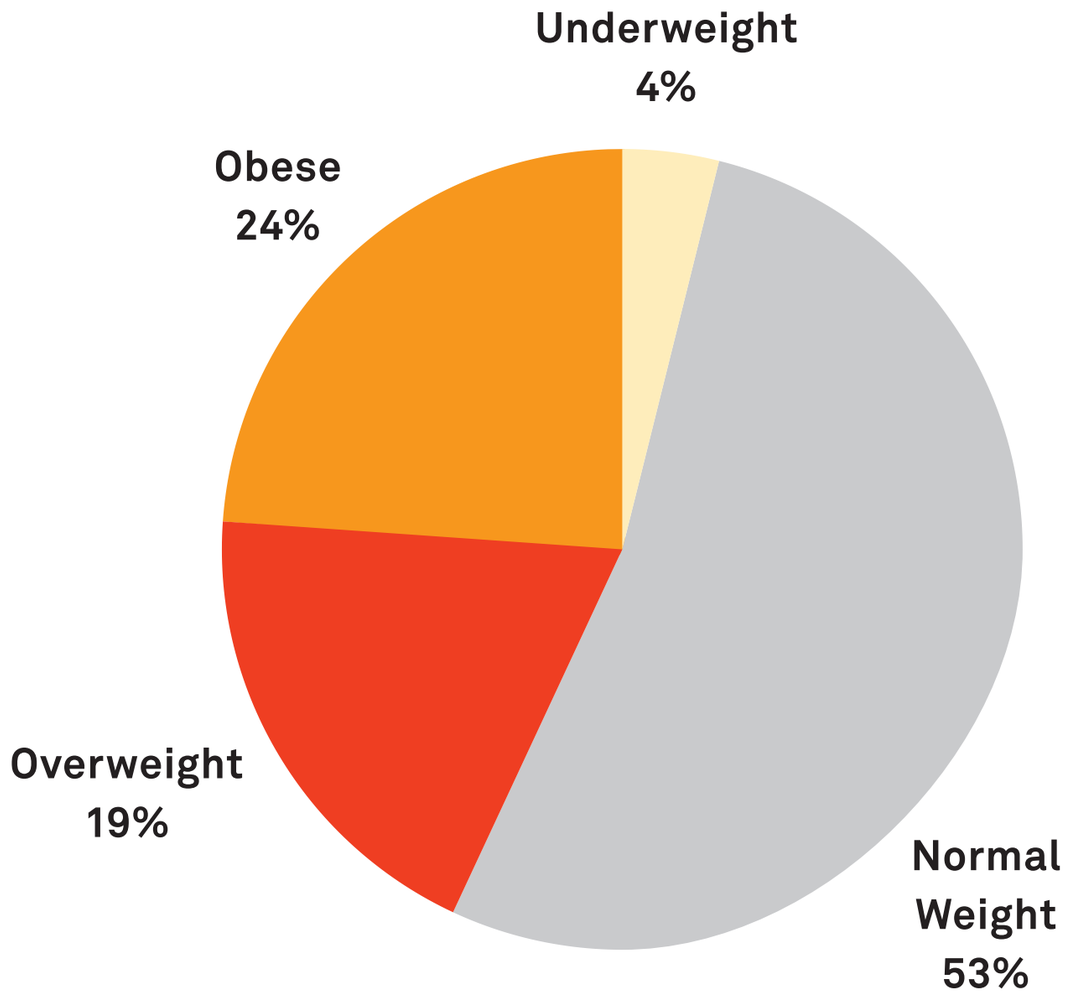
Photo via oyster.com

ADULTS WITH SELF-REPORTED OBESITY, NYC, 1994–2007



Sources: NYC Department of Health and Mental Hygiene, Community Health Survey, 1994–2007; NYC Department of Health and Mental Hygiene, NYC Health and Nutrition Examination Survey, 2004

VERY HIGH RATES OF CHILDHOOD OVERWEIGHT & OBESITY, NYC

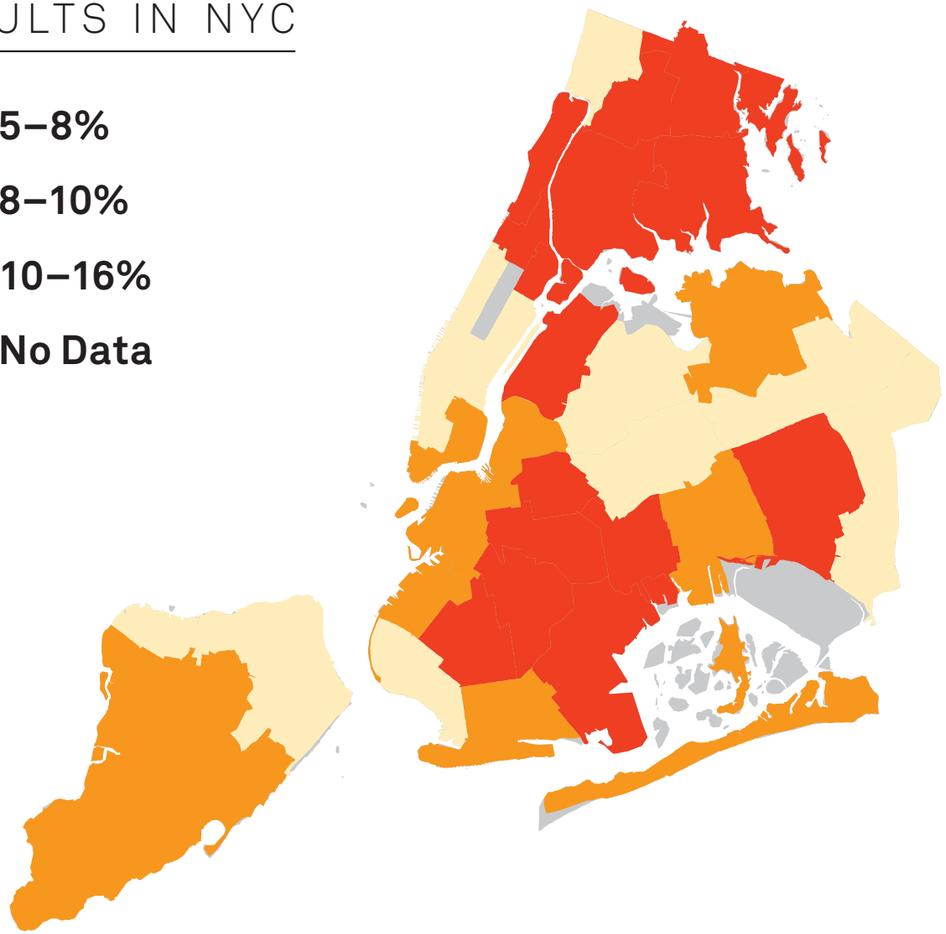


Source: NYC Department of Health and Mental Hygiene, NYC Vital Signs, *2003*

DIABETES AND OBESITY RATES IN NYC BY NEIGHBORHOOD

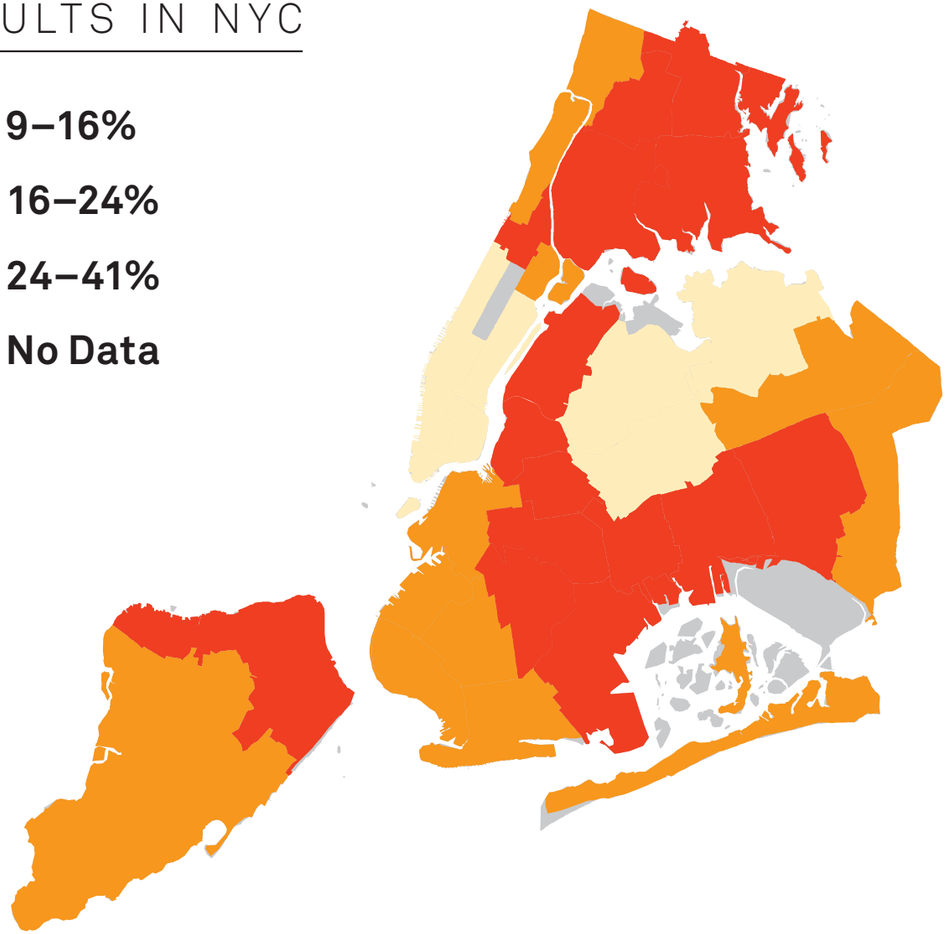
DIABETES IN ADULTS IN NYC

- 5–8%
- 8–10%
- 10–16%
- No Data



OBESITY IN ADULTS IN NYC

- 9–16%
- 16–24%
- 24–41%
- No Data



Source: NYC Department of Health and Mental Hygiene, Community Health Survey, 2006

Provided by The Center for Active Design


I earned Social Security and Medicare, and when I couldn't afford healthy food,
SNAP HELPED.
- ANDRES, RETIRED BUSINESS OWNER
East Harlem
WATCH MY STORY AT FoodHelp.nyc

Photo via Smart Growth America

Photo via AIA NY


WANT TO FIGHT OFF HEART DISEASE?
MAKE NYC YOUR GYM
Get a day's workout a little at a time!
Park your car a few blocks from work..... 10 min.
Walk briskly to and from lunch ..... 20 min.
Take the stairs..... 5 min.
Adds up to a 35 min. workout!
NYC Health
Michael R. Bloomberg
Mayor
Thomas Farley, MD MPH
Commissioner
Call 311, or go to nyc.gov and search:
"Make NYC Your Gym"

Photo and map via Curbed NYC

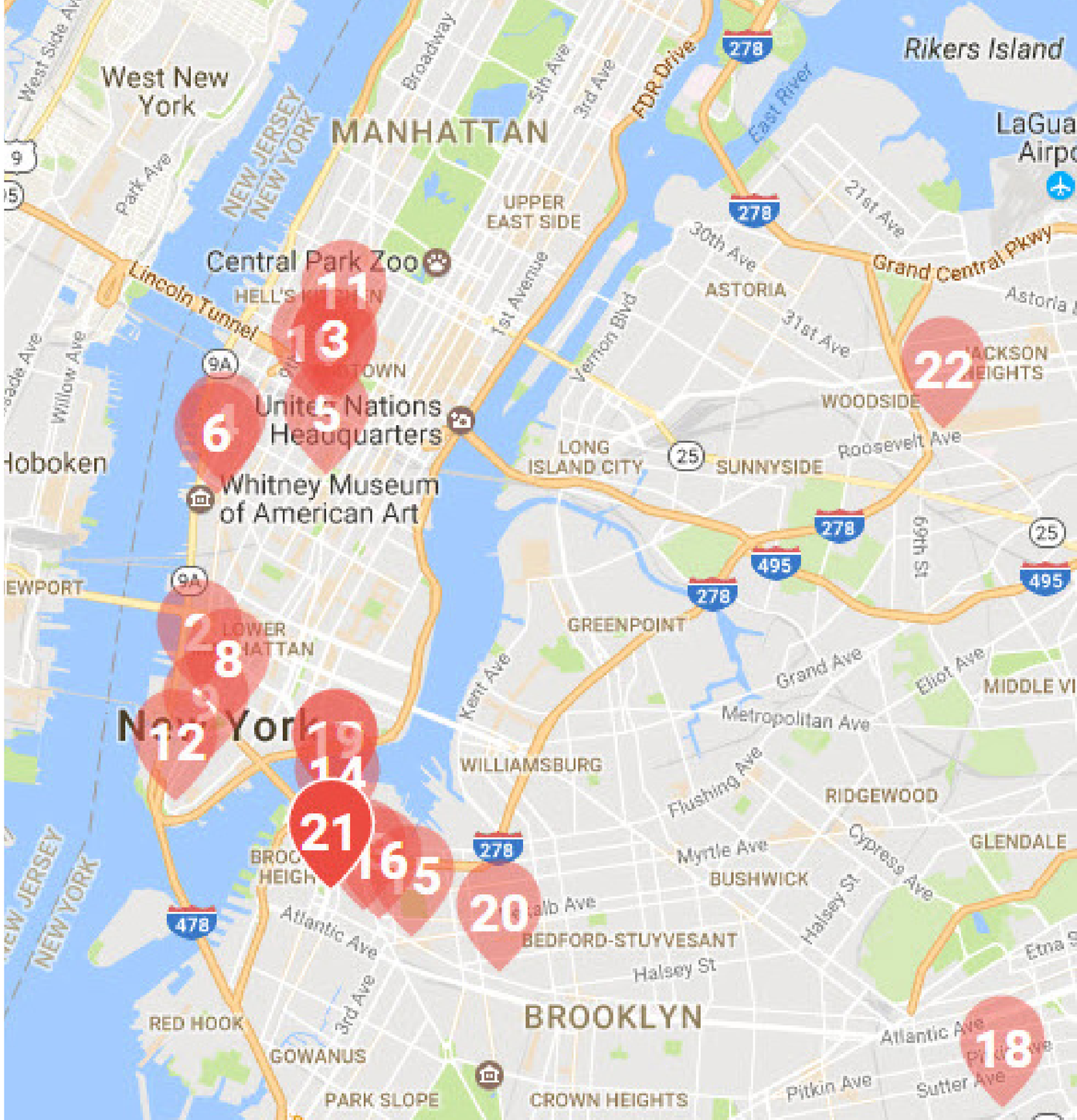
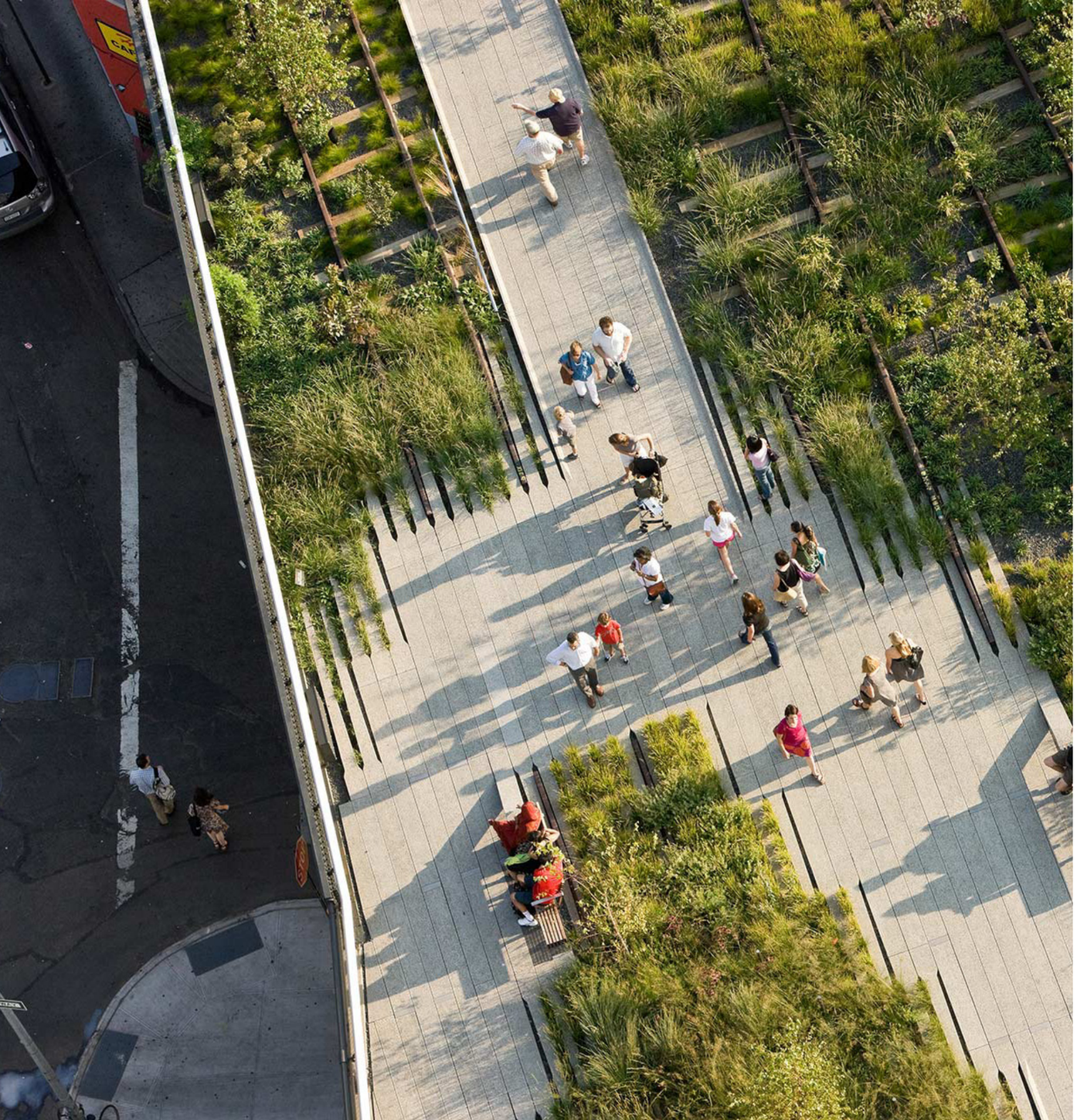
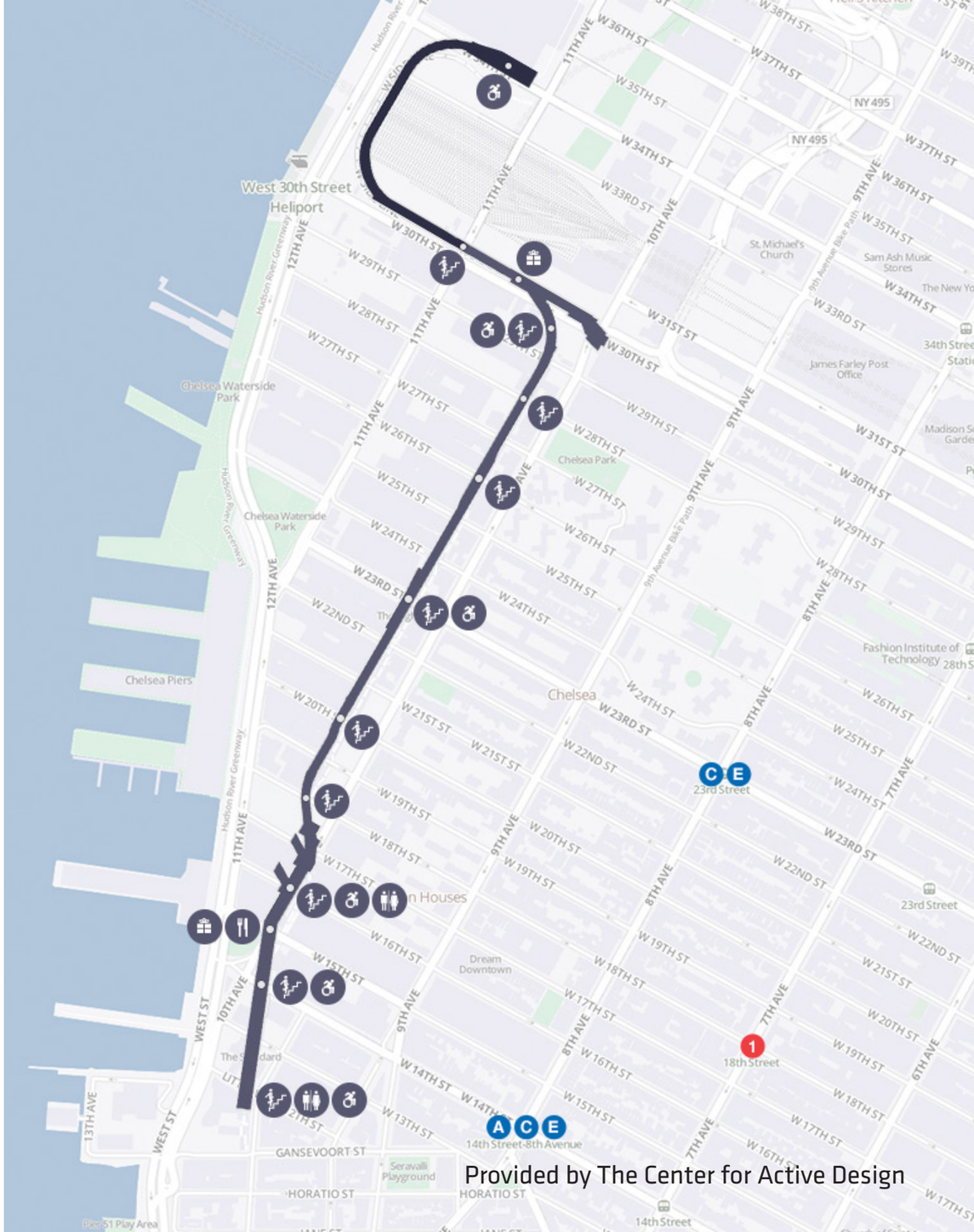


Photo via NYC DOT



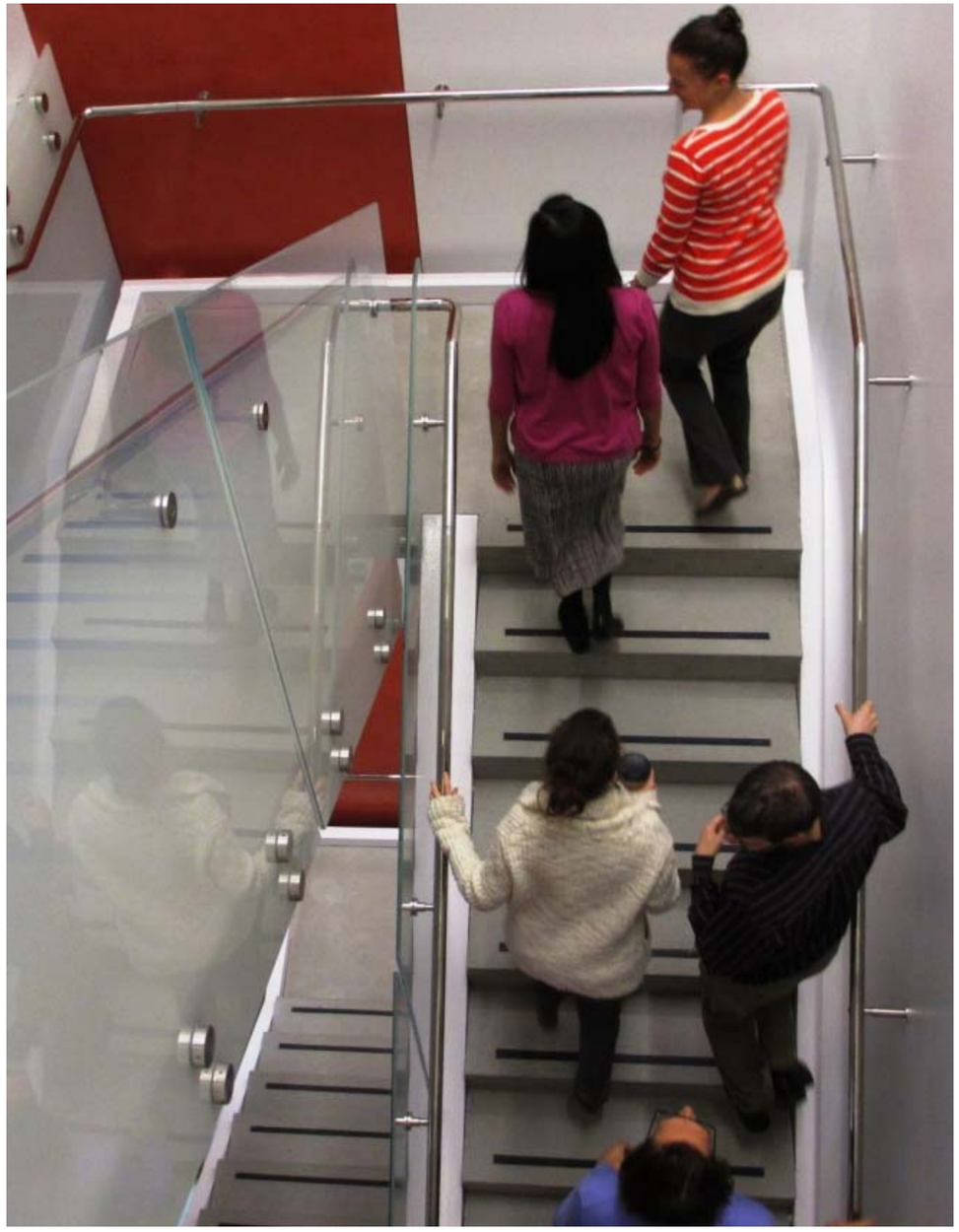


Provided by The Center for Active Design

Photo via iStock

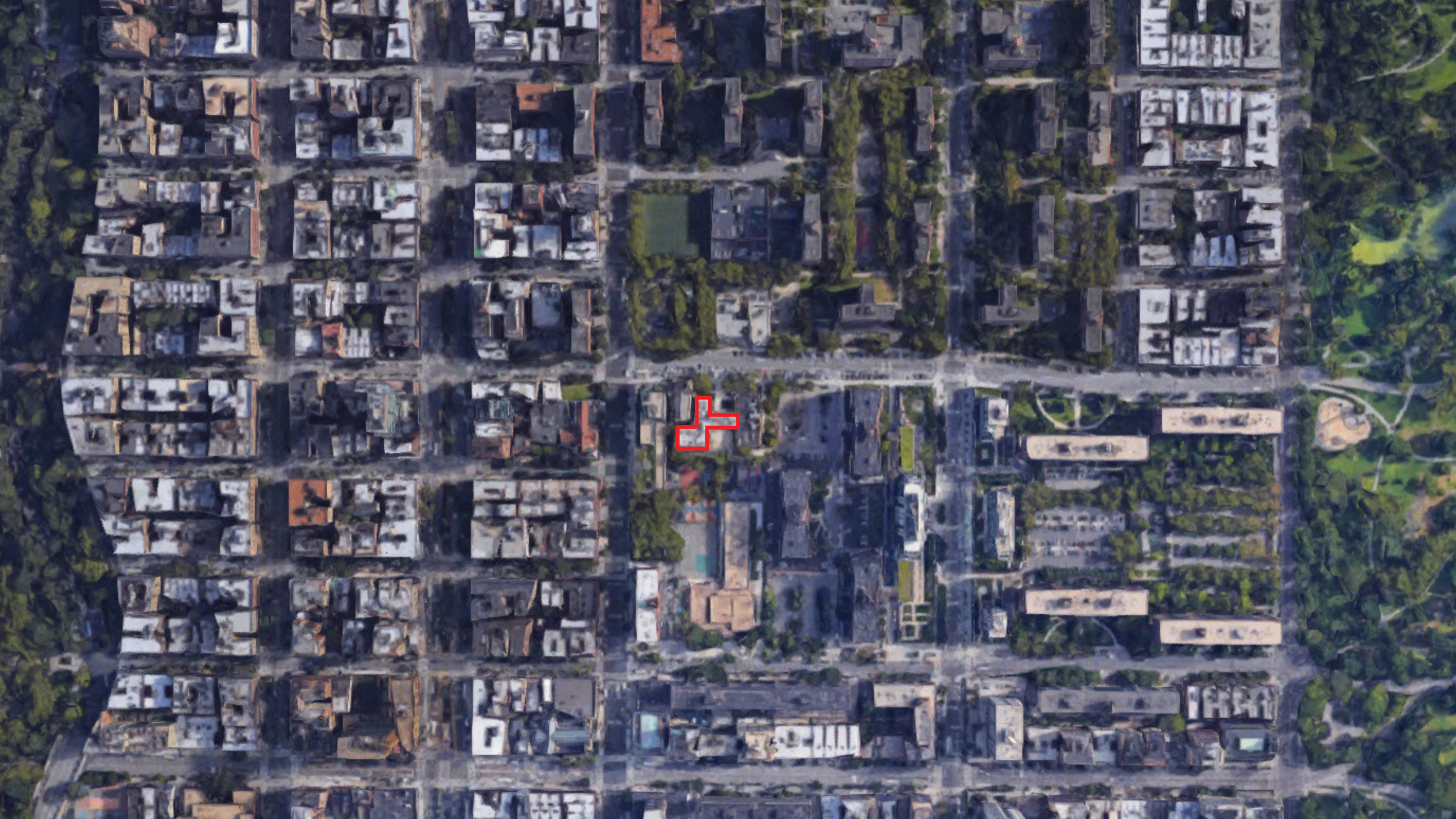
Credit: Rowa Lee

DOHMH Health and Movement Initiative



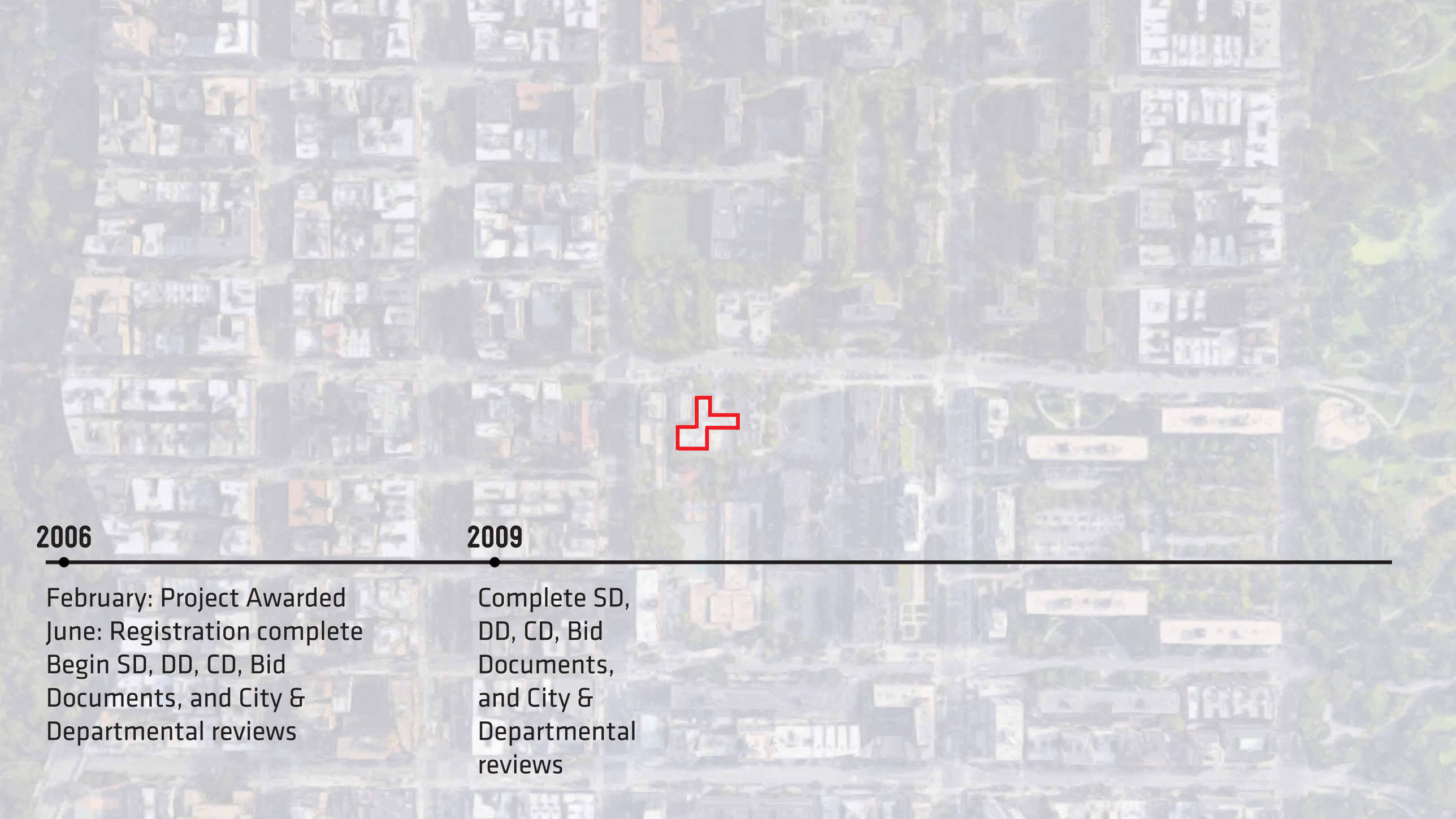
Photos via DOHMH

Riverside Health Center
New York, NY
2006-2014



2006

February: Project Awarded
June: Registration complete
Begin SD, DD, CD, Bid Documents, and City & Departmental reviews



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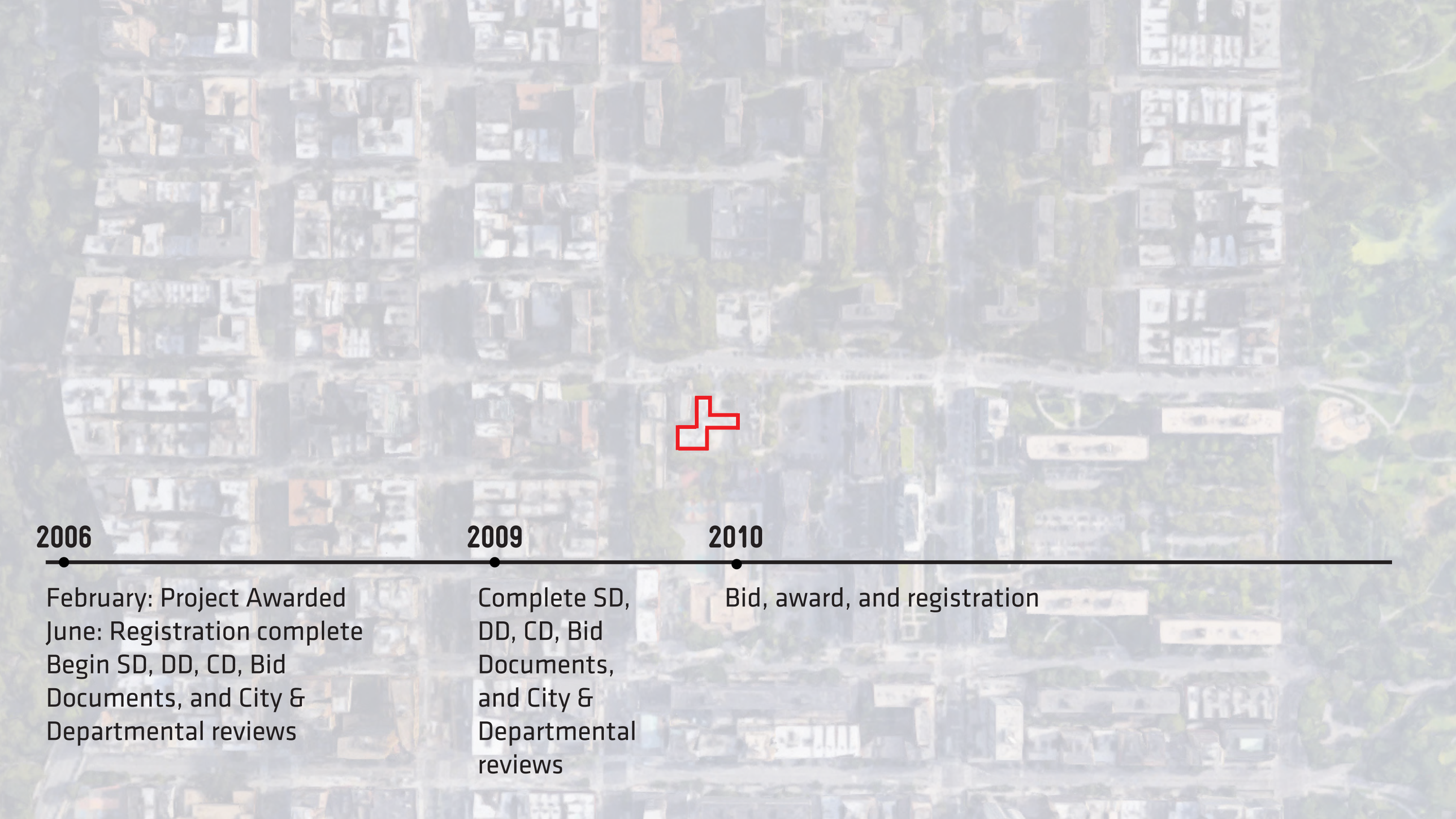

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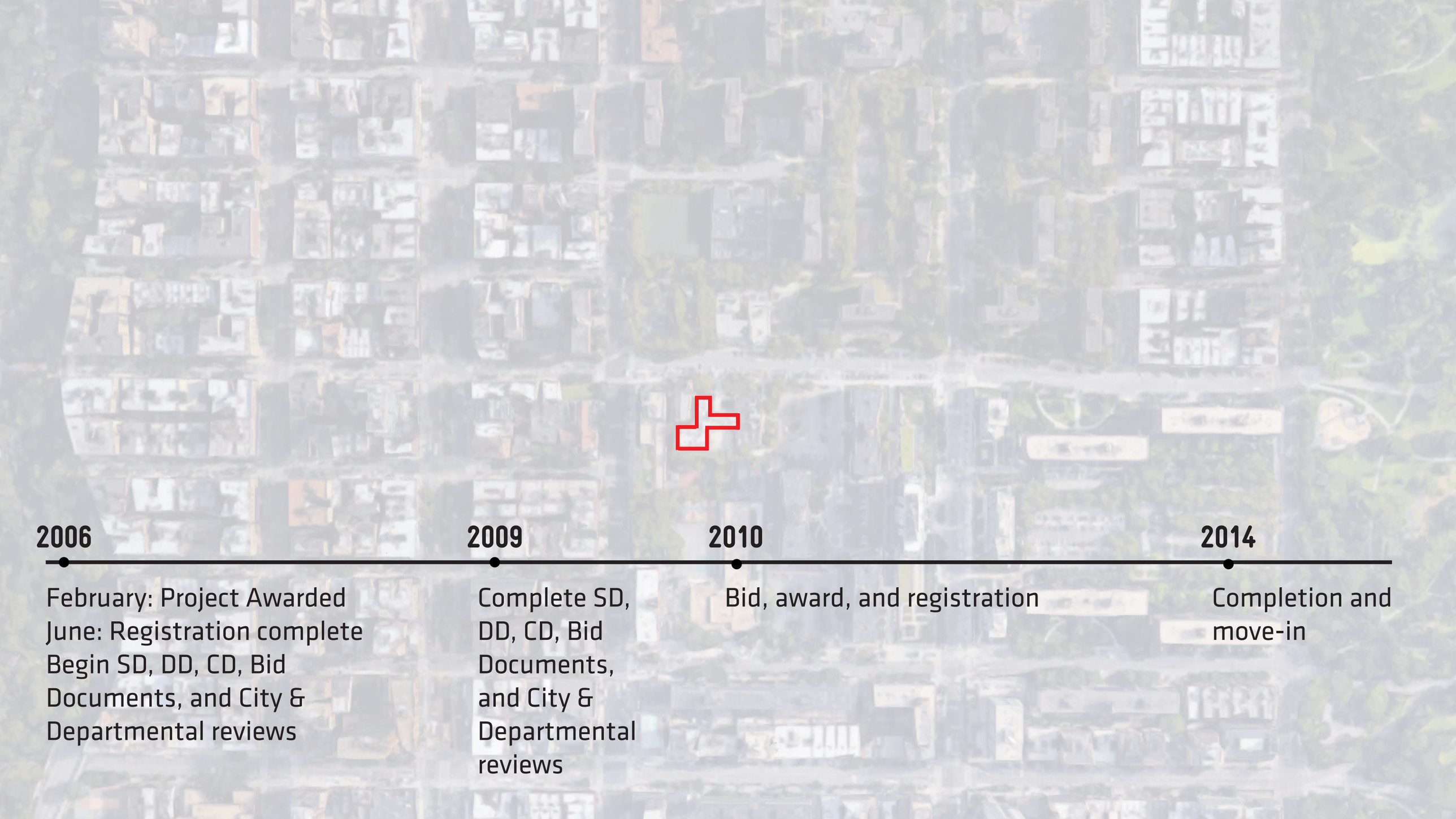
2010

Bid, award, and registration



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2009

Complete SD, DD, CD, Bid Documents, and City & Departmental reviews

2010

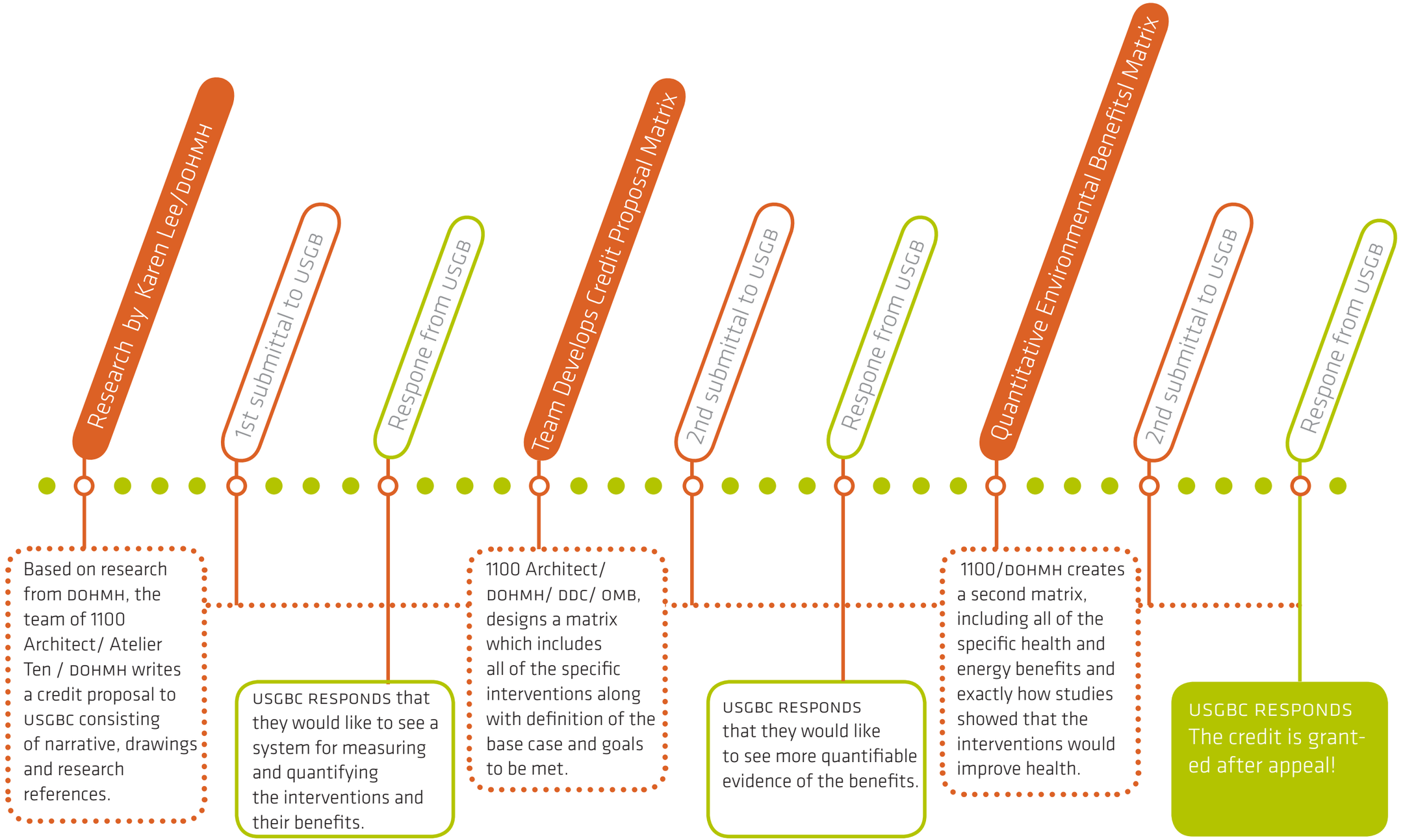
Bid, award, and registration

2014

Completion and move-in


STAIR A
A
In one minute, a 150 lb person burns 10 calories walking the stairs
and only 1.5 calories riding the elevators.

USGBC Submission Process



LEED INNOVATION CREDIT PROPOSAL

GOAL

To encourage design for health through increased physical activities

DESIGN FOR INCREASED STAIR USE:

STAIR DOOR OPERATION

Locking operation
Transparency from corridor by material choice
Transparency from corridor through operational device

STAIR LOCATION

Visibility
Priority of location with respect to elevators
Visibility of location with respect to elevators
Principal path of travel
Proximity of occupants to stairs

CIRCULATION SIGNAGE

Prompts at stairs
Prompts at elevators

STAIR DESIGN AND AESTHETICS

Electrical Lighting
Natural Lighting
Music
Artwork
Finishes
Ventilation
Security
Size

ELEVATOR FUNCTIONALITY

Door Speed
Location
Operation

D+Ce DESIGN + CONSTRUCTION EXCELLENCE

1100: ARCHITECT

STAIR LOCATION

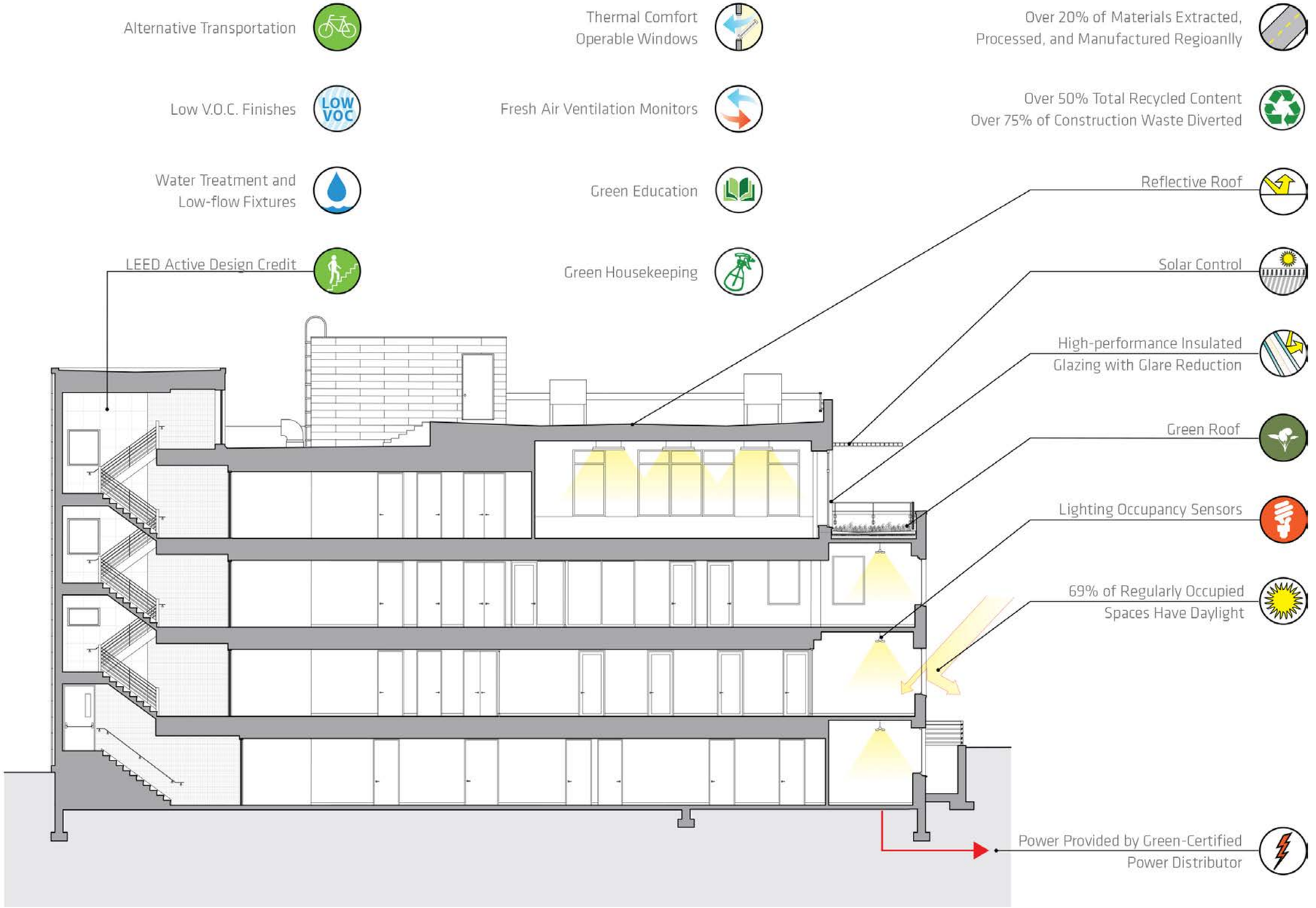
Research has indicated that a favored position for the stairs will increase use. Considerations include proximity to lobby, elevators and shortening travel distances where possible.

1100: ARCHITECT

STAIR DESIGN & AESTHETICS

Ideally the stairway aesthetics will be consistent with the adjacent corridors. Occupants should have a sense that the space is safe. Design elements can be added to draw occupants' attention.

SUSTAINABILITY DIAGRAM



Fit-City:

Promoting Physical Activity Through Design

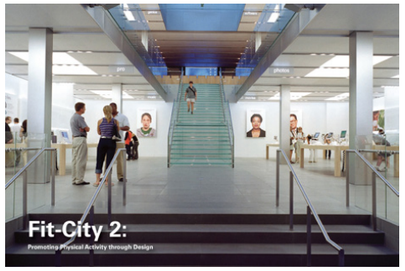
Provided by AIA NY

TEN YEARS OF FITCITY / PART 1

2006

FitCity 1 examines design opportunities for increasing physical activity and offers 12 policy recommendations.

2007



FitCity 2 features Active Design case studies such as the Via Verde affordable housing development in the South Bronx, the result of the New Housing New York competition.

2008

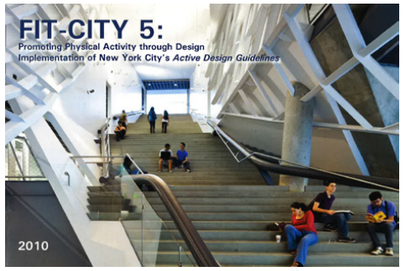
FitCity 3 highlights connections between public health research and design and planning principles.

2009

FitCity 4 previews New York City's first *Active Design Guidelines,* developed by the NYC Departments of Design and Construction, Health and Mental Hygiene, Transportation, and City Planning.

The US Green Building Council (USGBC) releases a Leadership in Energy and Environmental Design (LEED) pilot credit, "Design for Active Occupants."

2010



FitCity 5 shows implementations of the *Active Design Guidelines* and features the first Commissioners' Roundtable.

Active Design Guidelines wins awards from the US Environmental Protection Agency and the American Institute of Architects New York Chapter.

FitCity is not just a conference. It's a movement.

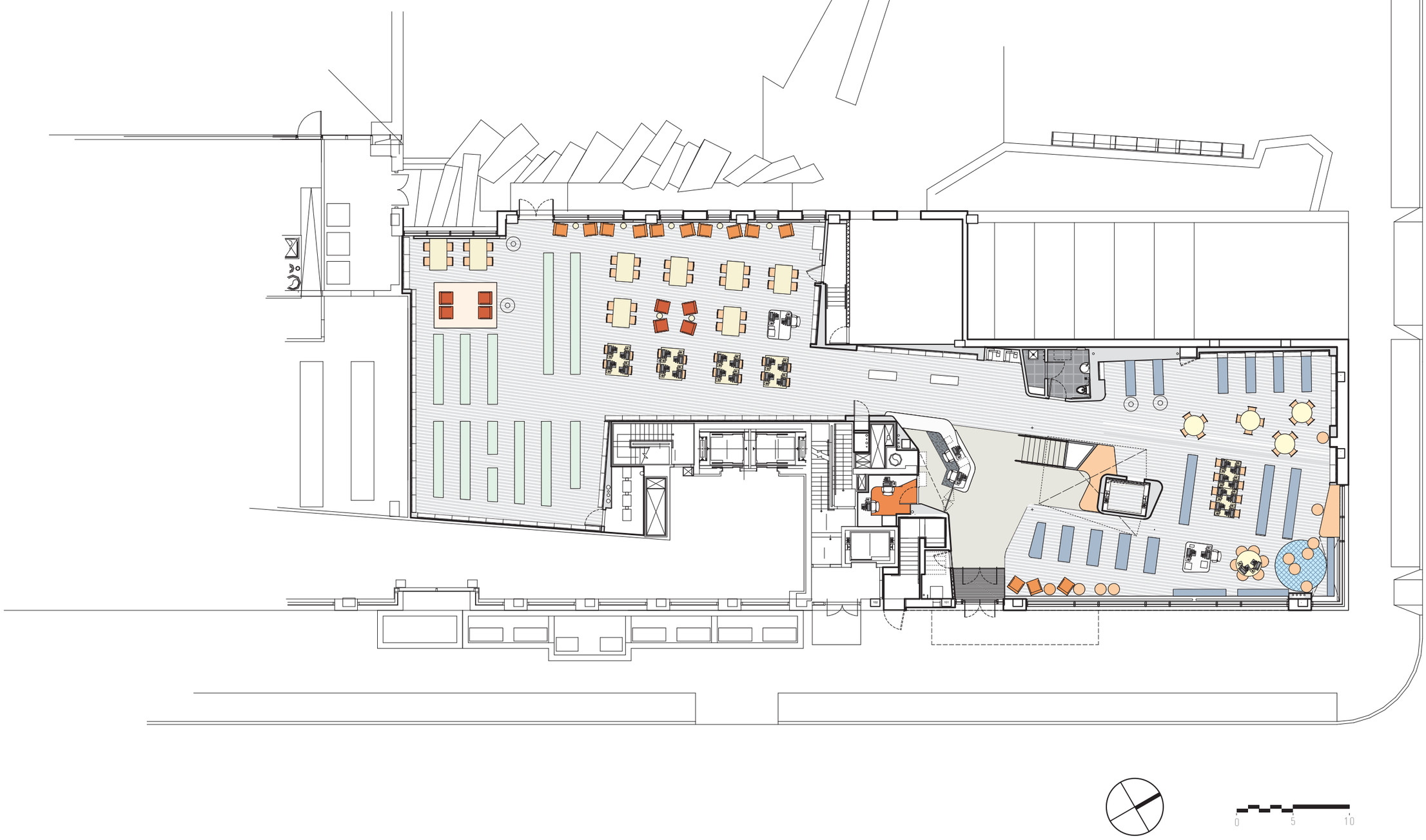
— David Burney, FAIA, Interim Executive Director, the American Institute of Architects New York Chapter and Center for Architecture; Chair, Center for Active Design

Provided by AIA NY

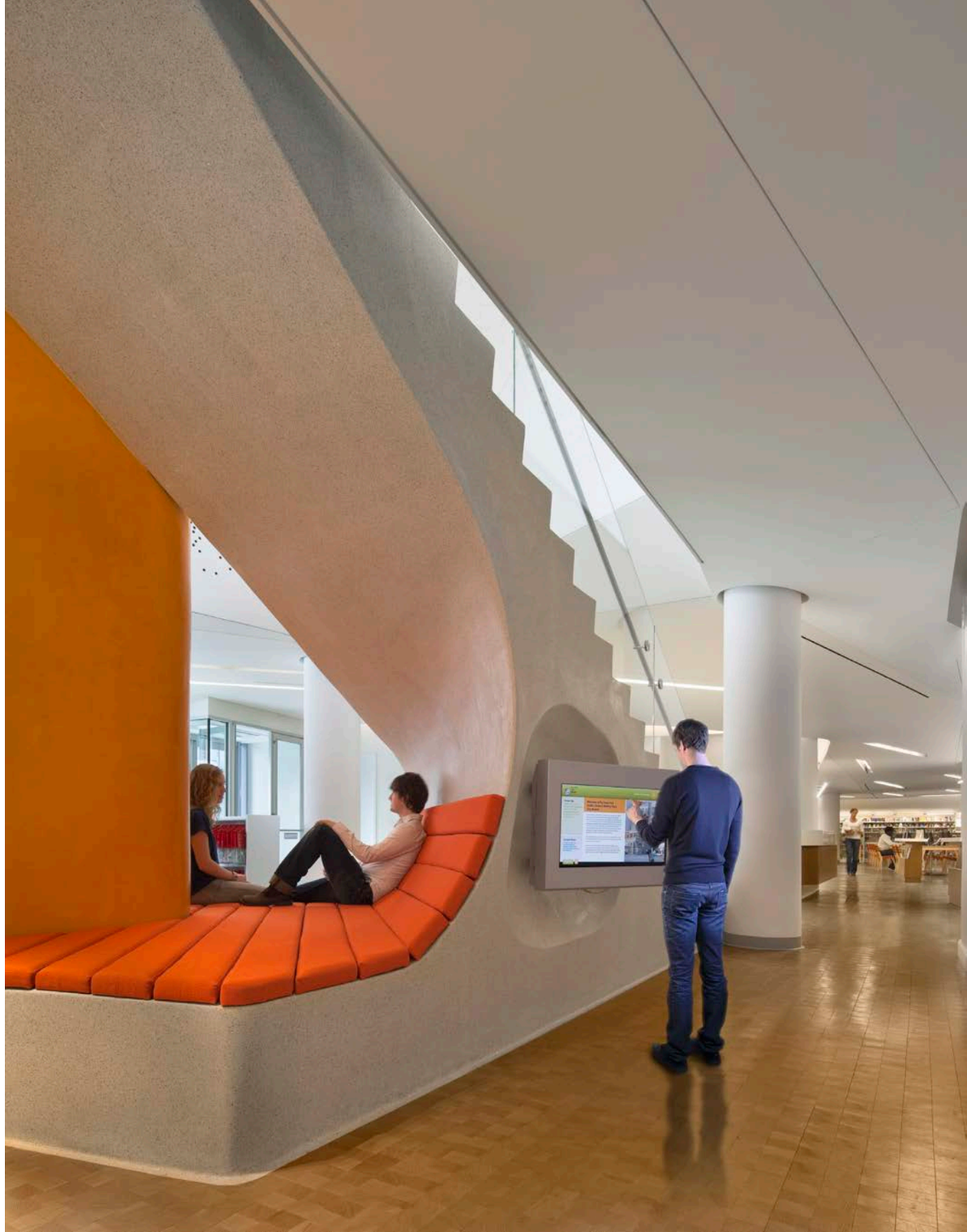
Photo via AIA NY

Photo via AIA NY

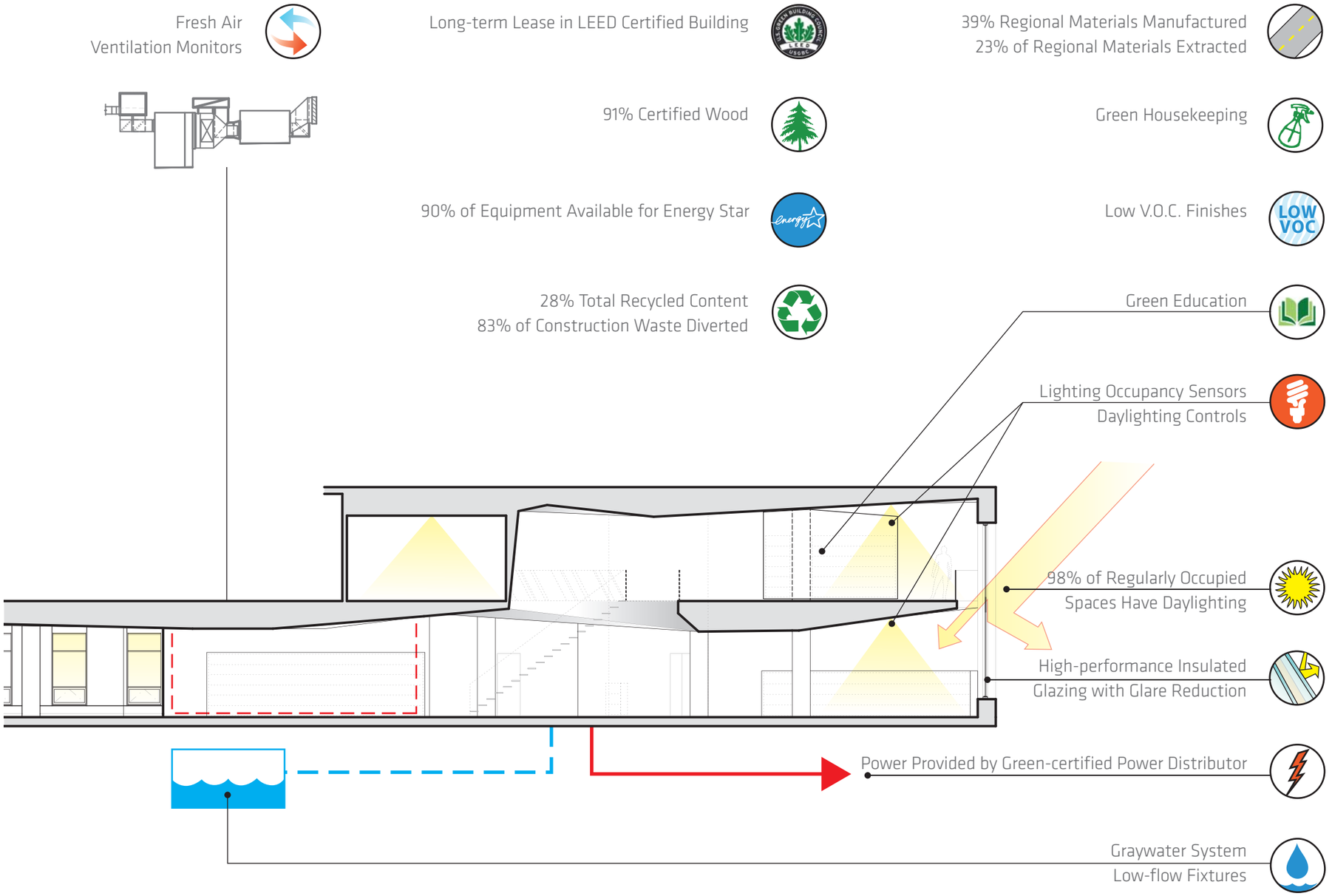
New York Public Library
Battery Park City Branch
New York, NY
2010


0
5
10


Roar!
Now
Roar!
Welcome
¡Bienvenido
Nation
Smithsonian



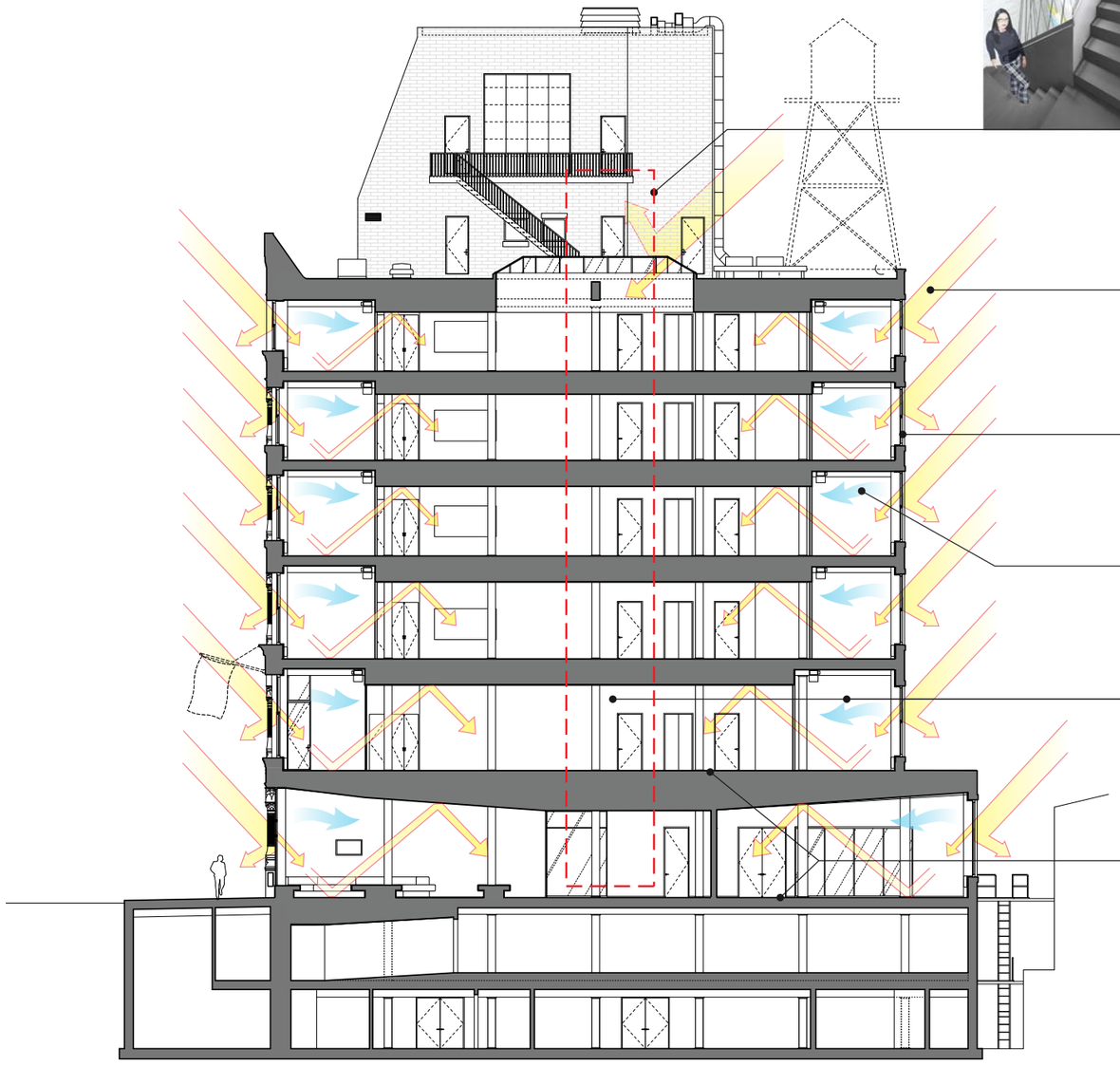
SUSTAINABILITY DIAGRAM




CLOSED


NYU Department of Linguistics,
New York, NY
2011
NYU
10


10
DEPARTMENT OF
LINGUISTICS



Stair Design Encourages
Physical Activity

Regularly Occupied
Spaces Have Daylighting

High-performance Insulated
Glazing with Low-E Coating

Natural Ventilation

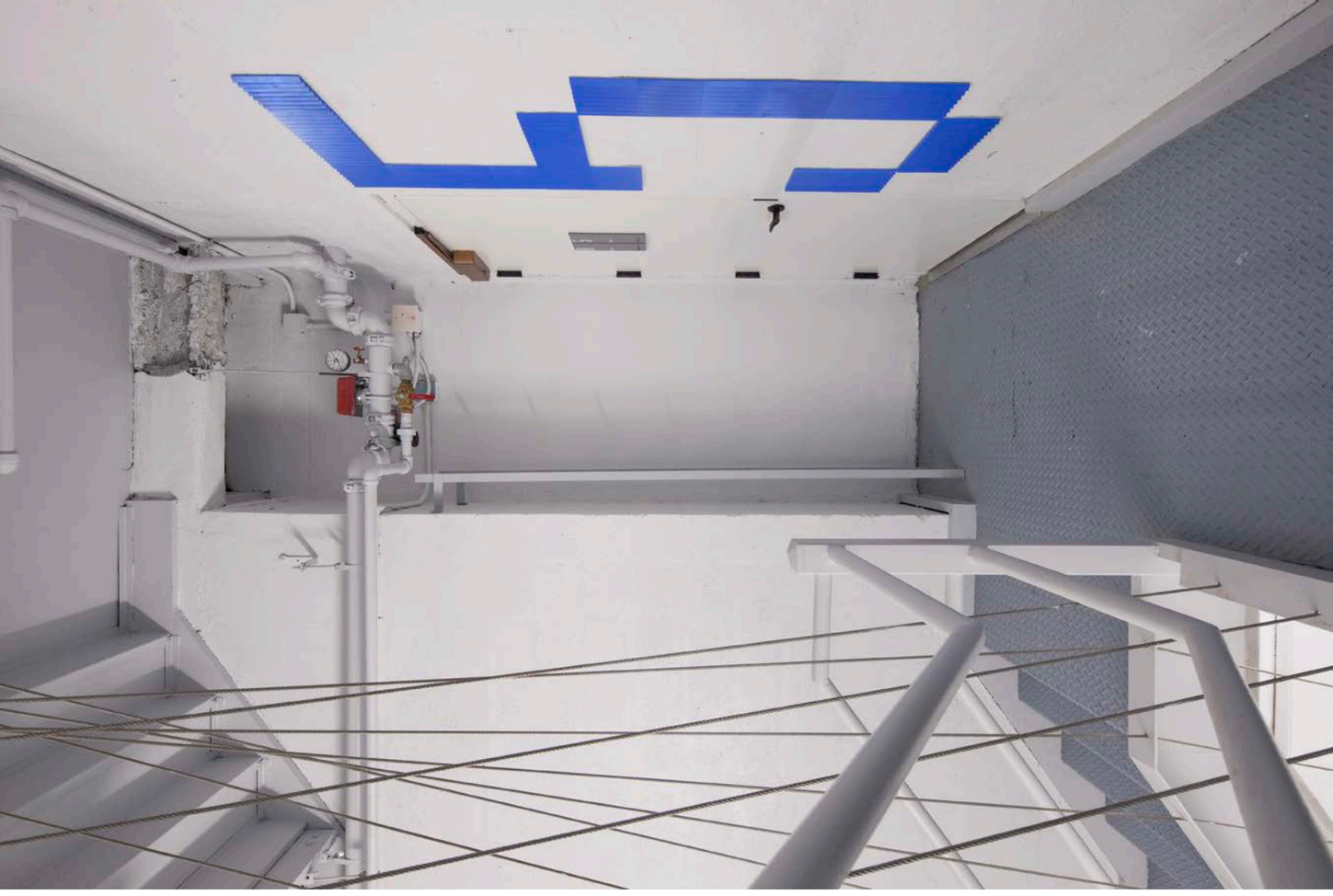
Lighting Occupancy Sensors
Energy Efficient Lights

Recycled Material


C
University IT Services
2
2nd Floor Lounge
Administrator
Department Chair
Chair's Conference Room

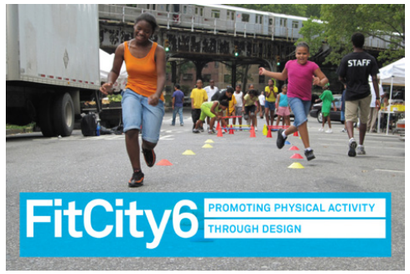

EXIT


1
2
3
4
5



TEN YEARS OF FITCITY / PART 2

2011



FitCity 6 tackles childhood obesity through Active Design.

Active Design Guidelines wins awards from the Robert Wood Johnson Foundation, Sustainable Buildings Industry Council, and the American Institute of Architects.

2012

FitCity 7 expands with FitNation events held in Washington, DC and New Orleans, and a FitWorld event *in London.*

Publication: Active Design Supplement: Promoting Safety, developed by the Johns Hopkins Bloomberg School of Public Health with the NYC Department of Health and Mental Hygiene.

2013

FitCity 8 explores Active Design's interdependence with environmental resilience and access.

The Center for Active Design, a private nonprofit organization, is created to foster continued implementation of Active Design strategies.

Publication: *Active Design: Shaping the Sidewalk Experience,* developed by the NYC Department of City Planning.

2014

FitCity 9 examines the role of Active Design in promoting social equity.

Publication: *Active Design for Affordable Housing,* developed by the NYC Departments of Health and Mental Hygiene, Housing Preservation and Development, and Design and Construction.

Publication: *Active Design Guide for Community Groups,* developed by the NYC Department of Health and Mental Hygiene.

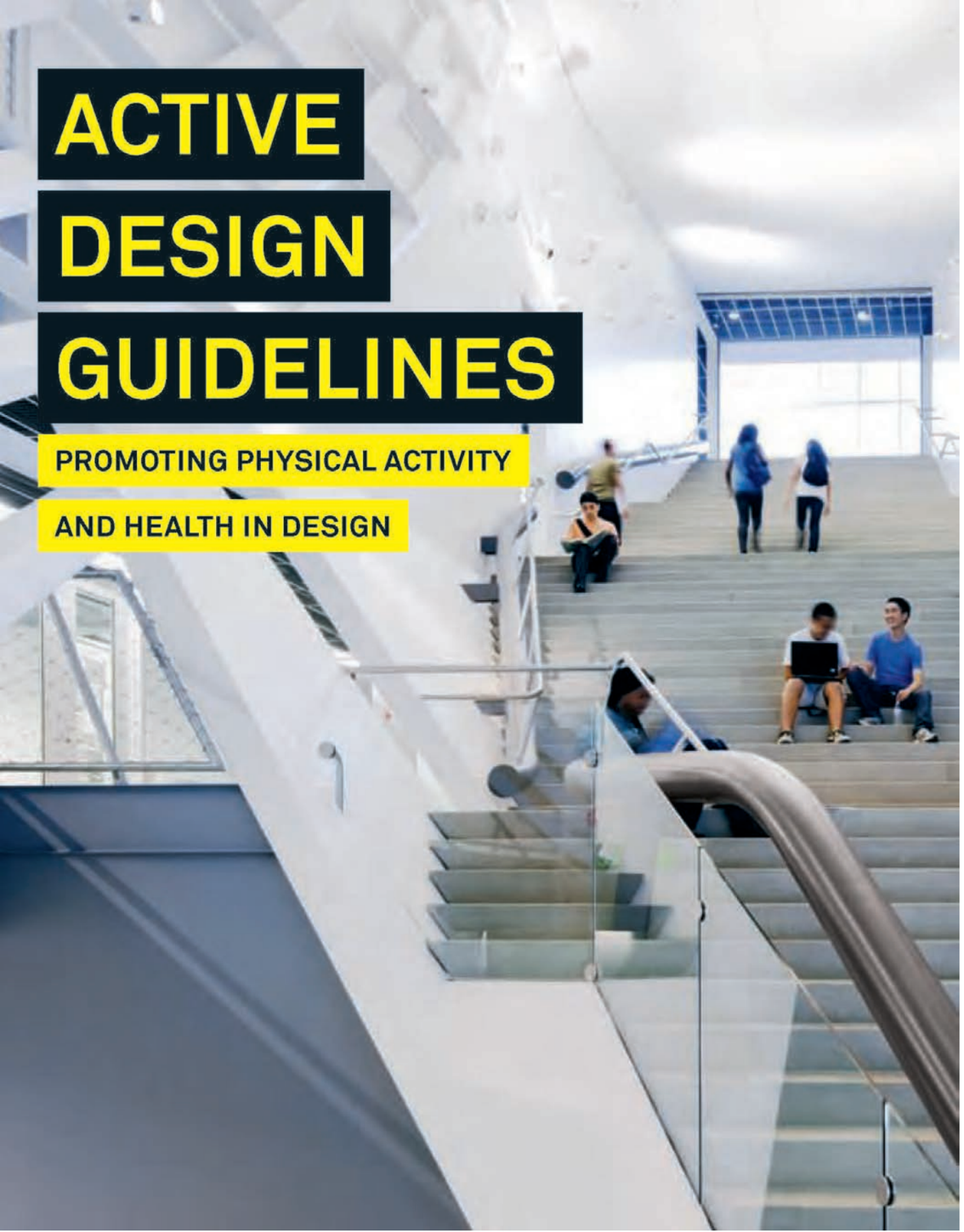
2015

FitCity 10 continues the conversation on the role of Active Design in equitable urban development.

Active Design is integrated into the Enterprise Green Communities Criteria.

Publication: *Active Design Toolkit for Schools,* developed by the Partnership for a Healthier New York City in collaboration with the NYC Departments of Health and Mental Hygiene, Education, and Transportation.

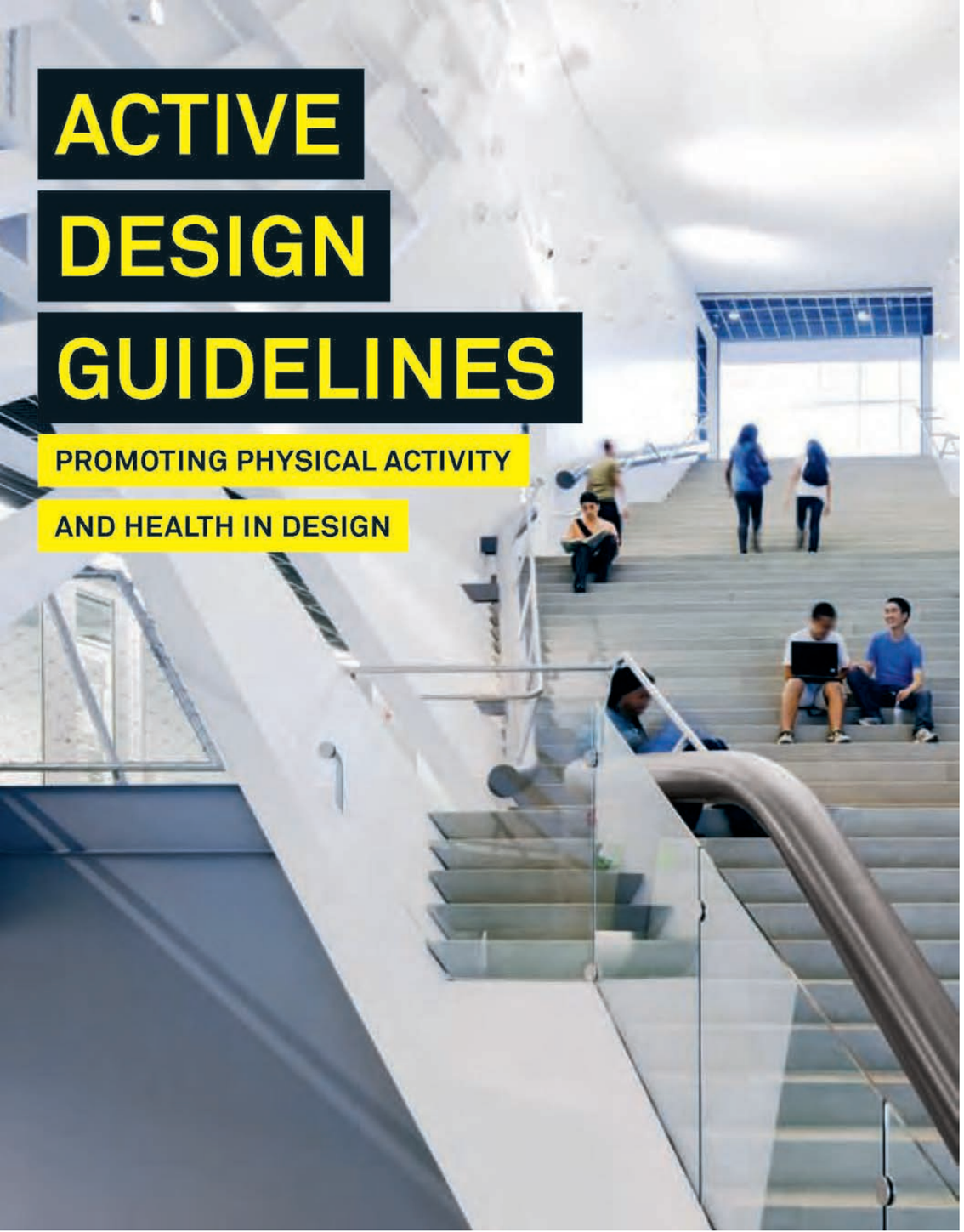
Publication: *Building Healthy Places Toolkit,* a partnership between the Urban Land Institute and the Center for Active Design.



Urban Design: Creating an Active City

- Develop and maintain mixed land use in city neighborhoods;
- Improve access to transit and transit facilities;
- Improve access to plazas, parks, open spaces, and recreational facilities, and design these spaces to maximize their active use where appropriate;
- Improve access to full-service grocery stores and fresh produce;
- Design accessible, pedestrian-friendly streets with high connectivity, traffic calming features, landscaping, lighting, benches, and water fountains;
- Facilitate bicycling for recreation and transportation by developing continuous bicycle networks and incorporating infrastructure like safe indoor and outdoor bicycle parking.

Provided by The Center for Active Design



Building Design: Creating Opportunities for Daily Physical Activity

- Increase stair use among the able-bodied by providing a conveniently located stair for everyday use, posting motivational signage to encourage stair use, and designing visible, appealing and comfortable stairs;

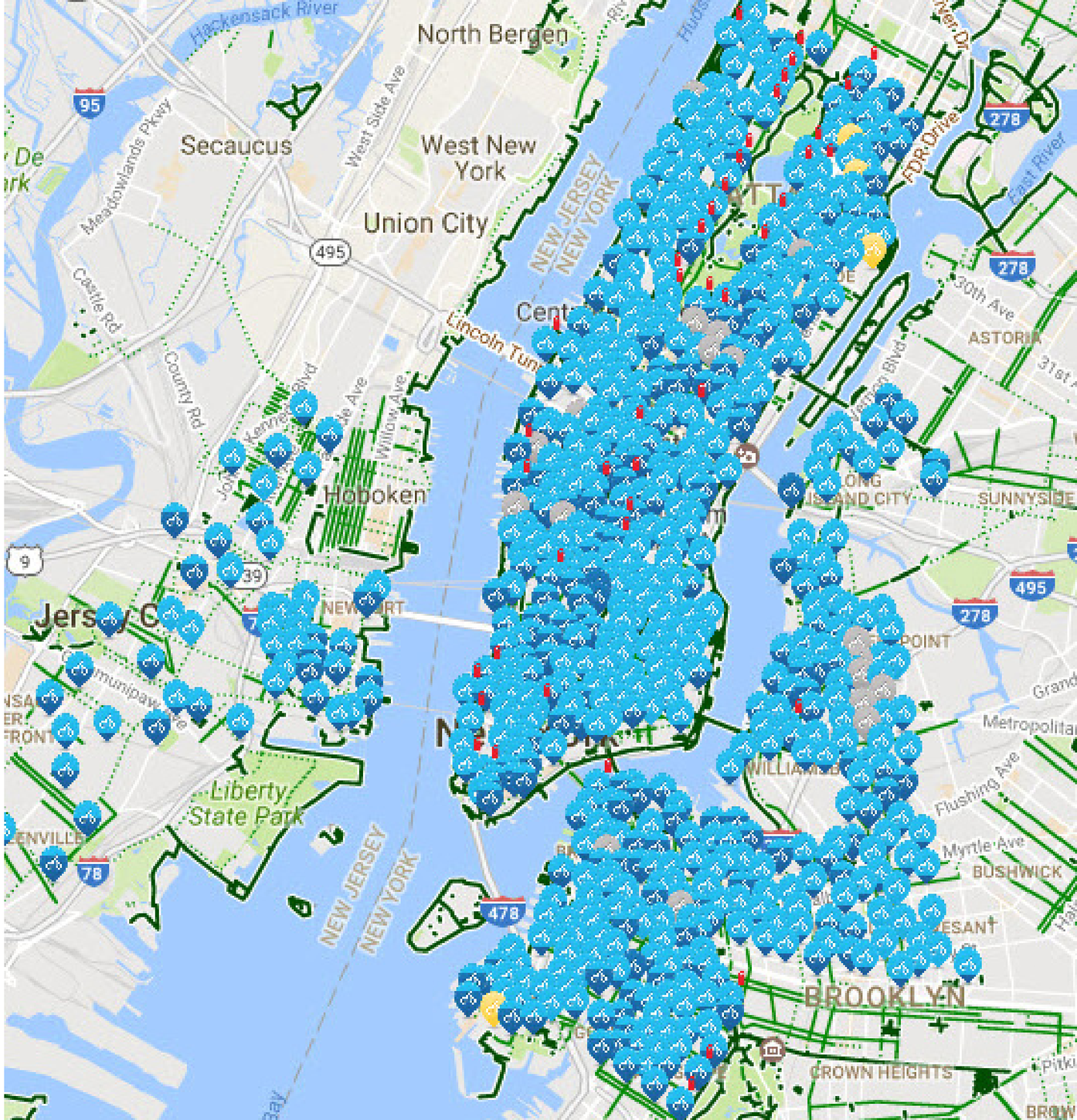
- Locate building functions to encourage brief bouts of walking to shared spaces such as mail and lunch rooms, provide appealing, supportive walking routes within buildings;

- Provide facilities that support exercise such as centrally visible physical activity spaces, showers, locker rooms, secure bicycle storage, and drinking fountains;

- Design building exteriors and massing that contribute to a pedestrian-friendly urban environment and that include maximum variety and transparency, multiple entries, stoops, and canopies.

Provided by The Center for Active Design

Photo and map via Citi Bike NYC



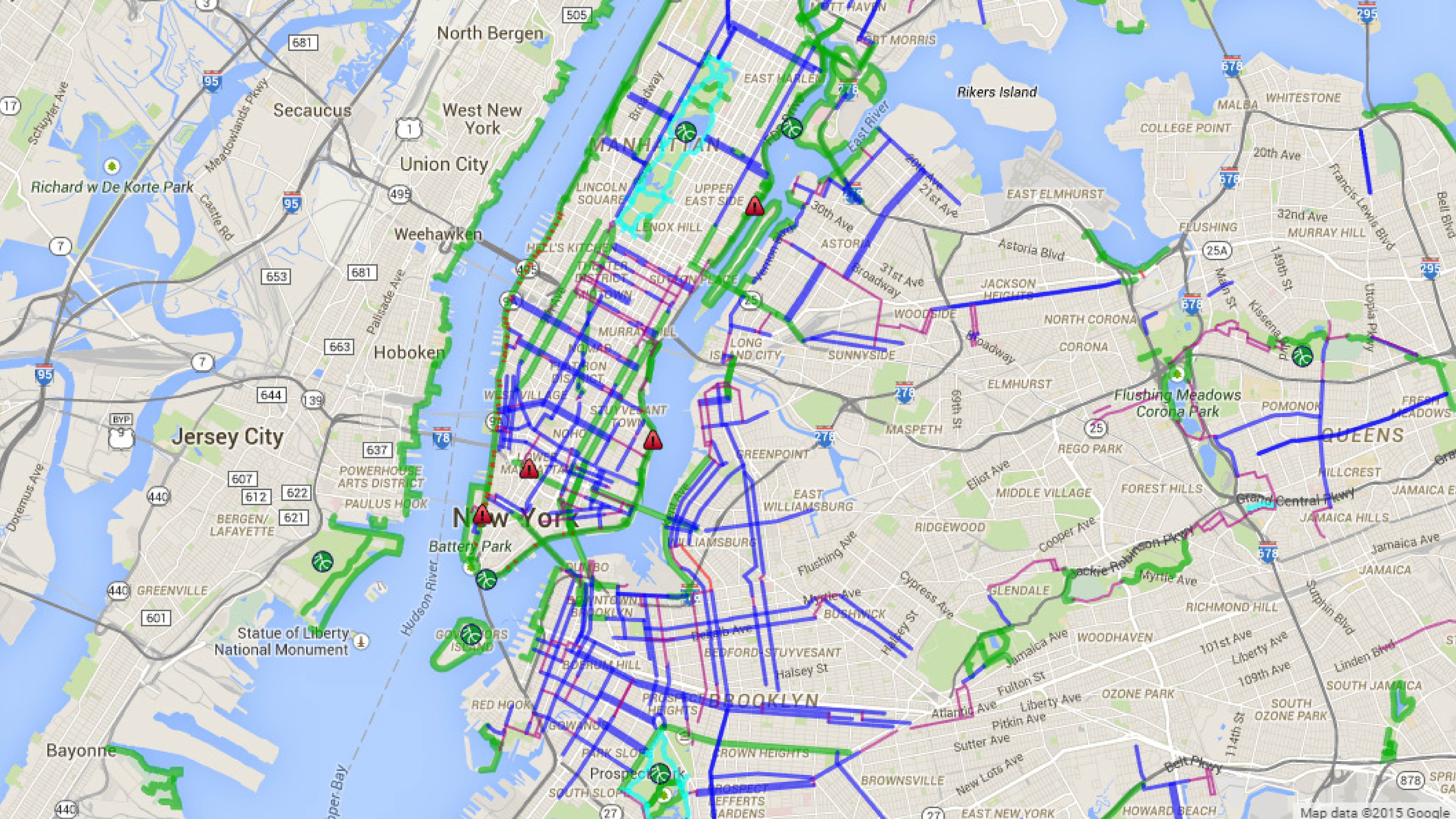
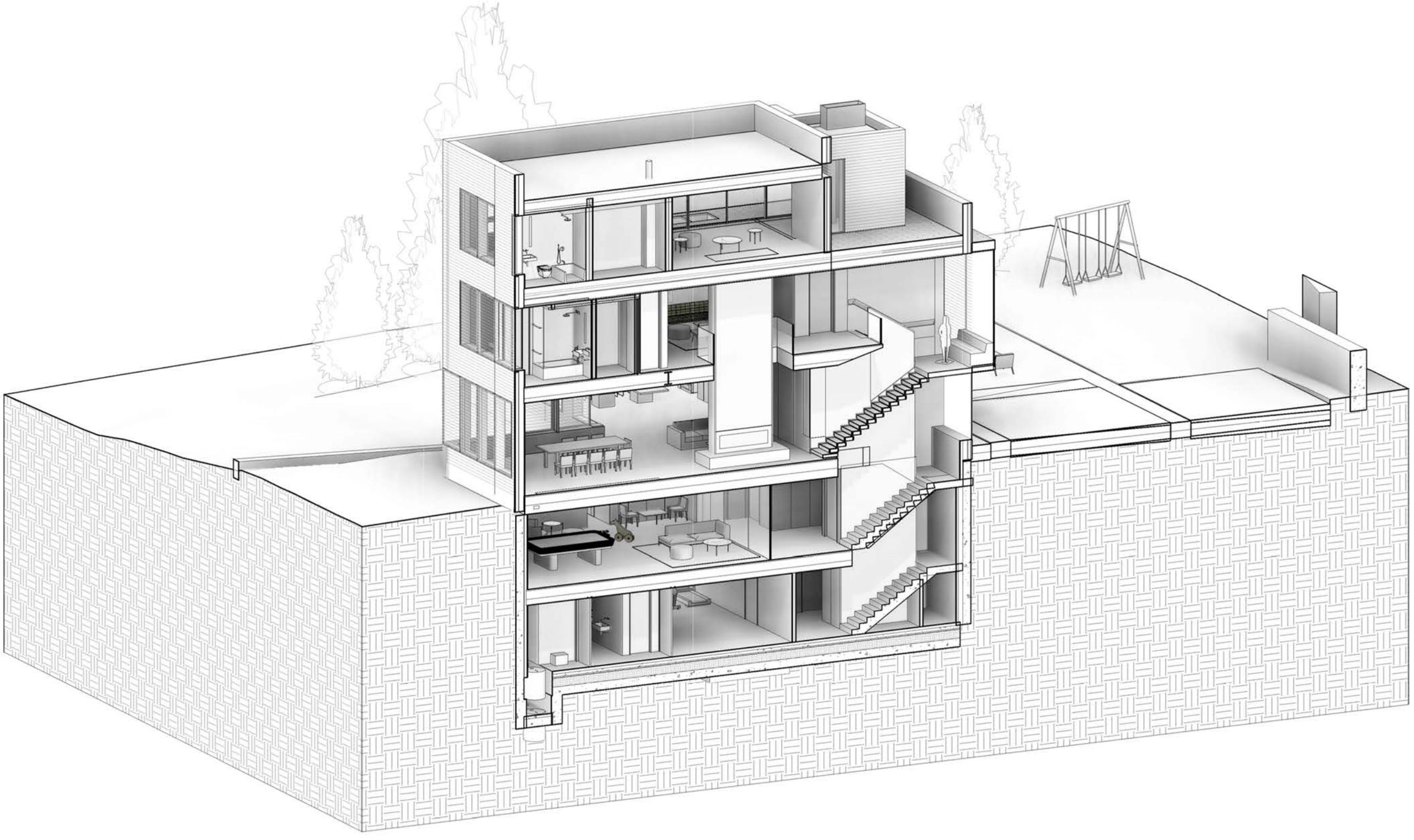

North Bergen
Secaucus
West New York
Union City
Richard w De Korte Park
Weehawken
Hoboken
Jersey City
POWERHOUSE ARTS DISTRICT
PAULUS HOOK
BERGEN/ LAFAYETTE
GREENVILLE
Statue of Liberty National Monument
Bayonne
Hudson River
MANHATTAN
LINCOLN SQUARE
UPPER EAST SIDE
LENOX HILL
HELL'S KITCHEN
MURRAY HILL
WEST VILLAGE
STUYVESANT TOWN
NOHO
New York
Battery Park
EAST HARLEM
PORT MORRIS
Rikers Island
WHITESTONE
MALBA
COLLEGE POINT
20th Ave
EAST ELMHURST
FLUSHING
32nd Ave
MURRAY HILL
Francis Lewis Blvd
Astoria Blvd
ASTORIA
30th Ave
21st Ave
31st Ave
Broadway
JACKSON HEIGHTS
WOODSIDE
NORTH CORONA
CORONA
LONG ISLAND CITY
SUNNYSIDE
ELMHURST
Flushing Meadows Corona Park
POMONOK
QUEENS
GREENPOINT
MASPETH
REGO PARK
HILLCREST
EAST WILLIAMSBURG
MIDDLE VILLAGE
FOREST HILLS
Grand Central Pkwy
JAMAICA HILLS
WILLIAMSBURG
RIDGEWOOD
Cooper Ave
Jackie Robinson Pkwy
Jamaica Ave
JAMAICA
DUMBO
Flushing Ave
Cypress Ave
Myrtle Ave
GLENDALE
RICHMOND HILL
BUSHWICK
BEDFORD-STUYVESANT
Halsey St
WOODHAVEN
101st Ave
Liberty Ave
109th Ave
Linden Blvd
SOUTH JAMAICA
BOERUM HILL
RED HOOK
BROOKLYN
Atlantic Ave
Fulton St
OZONE PARK
SOUTH OZONE PARK
CROWN HEIGHTS
Pitkin Ave
Sutter Ave
New Lots Ave
114th St
Belt Pkwy
BROWNSVILLE
Prospect Park
SOUTH SLOPE
PROSPECT LEFFERTS GARDENS
EAST NEW YORK
HOWARD BEACH
Sutphin Blvd
Utopia Pkwy
Kissena Blvd
Main St
149th St
Map data ©2015 Google

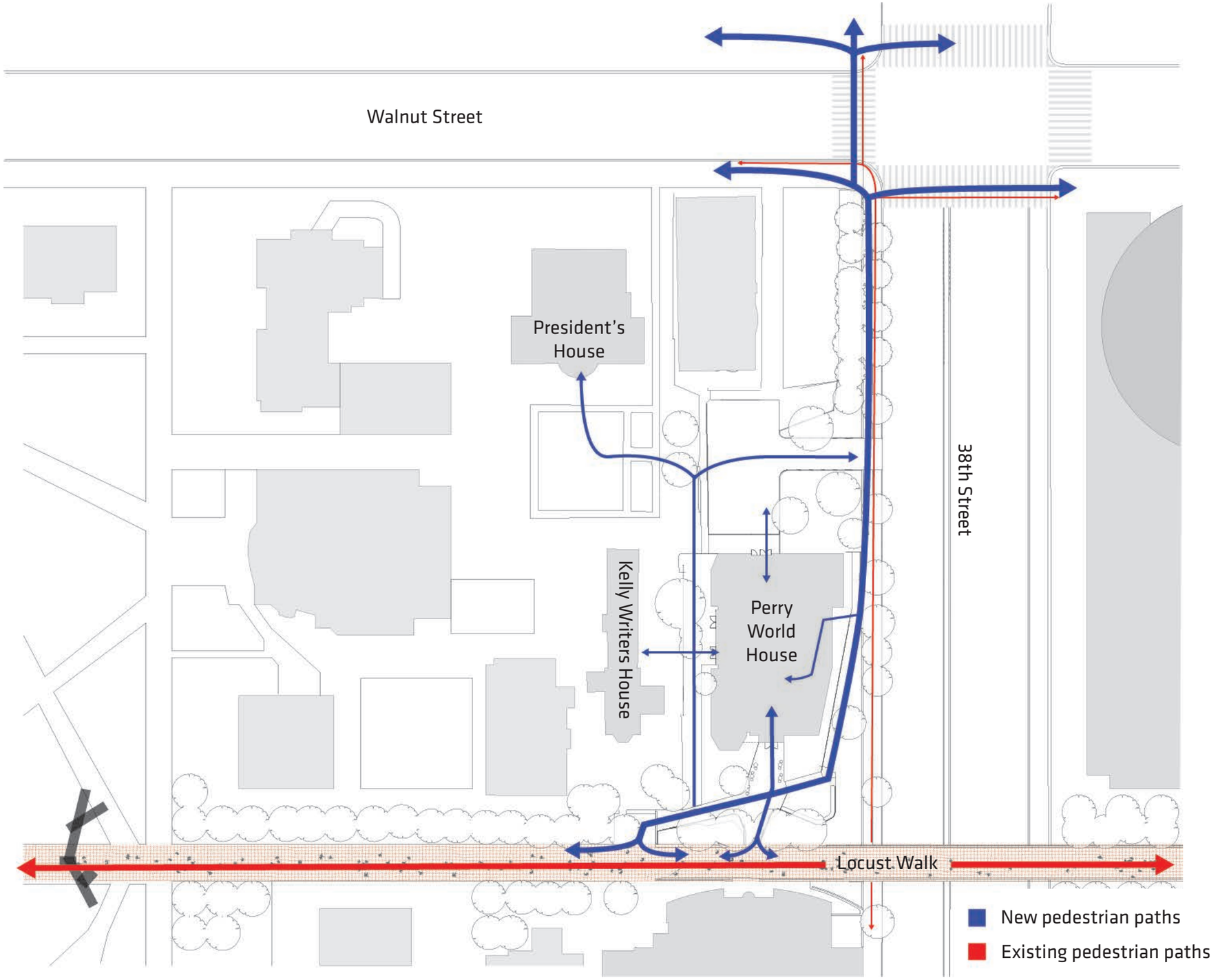
Photo via Urban Impact Lab

Photo via Abaca USA

House in Wellesley, Massachusetts

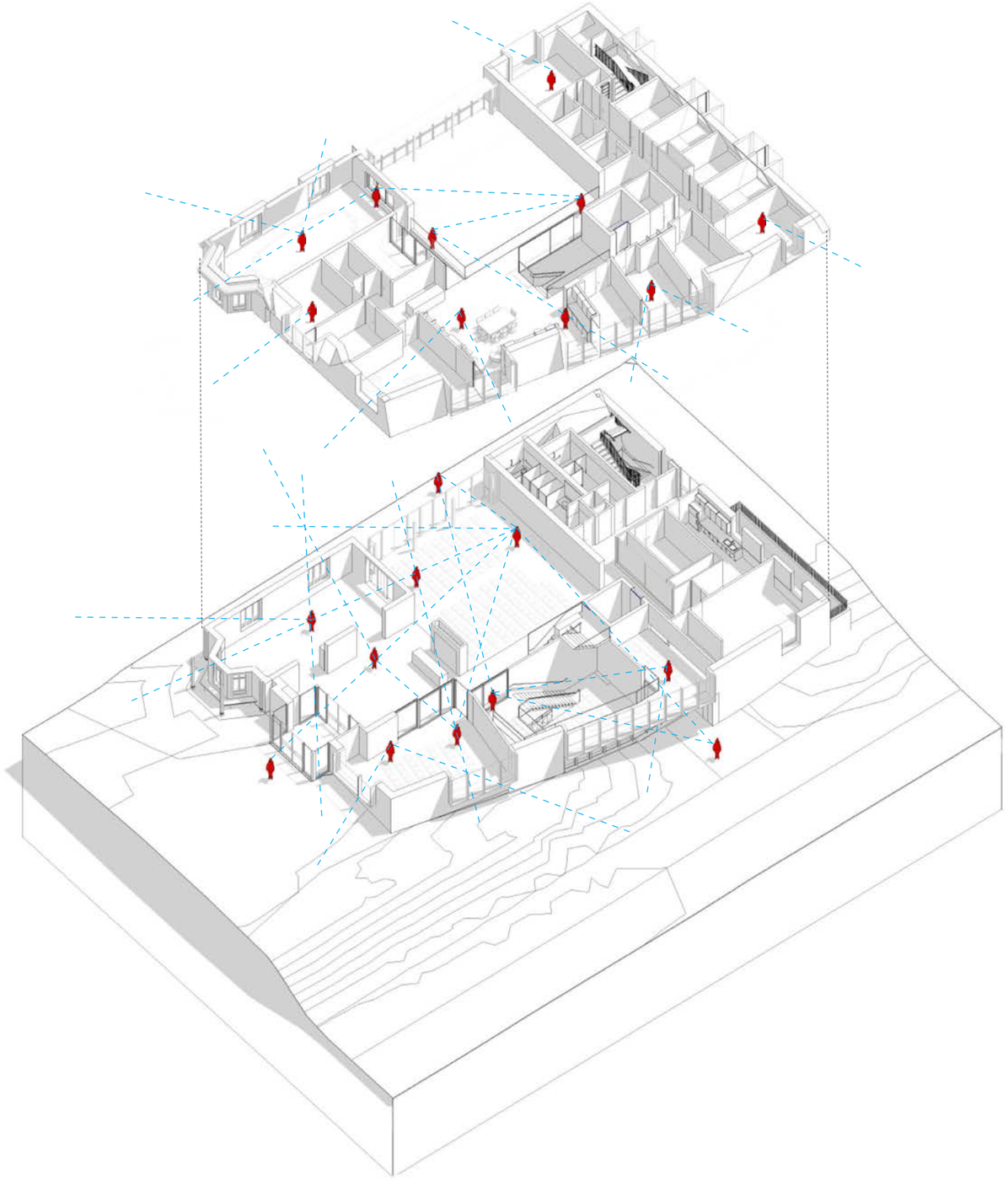


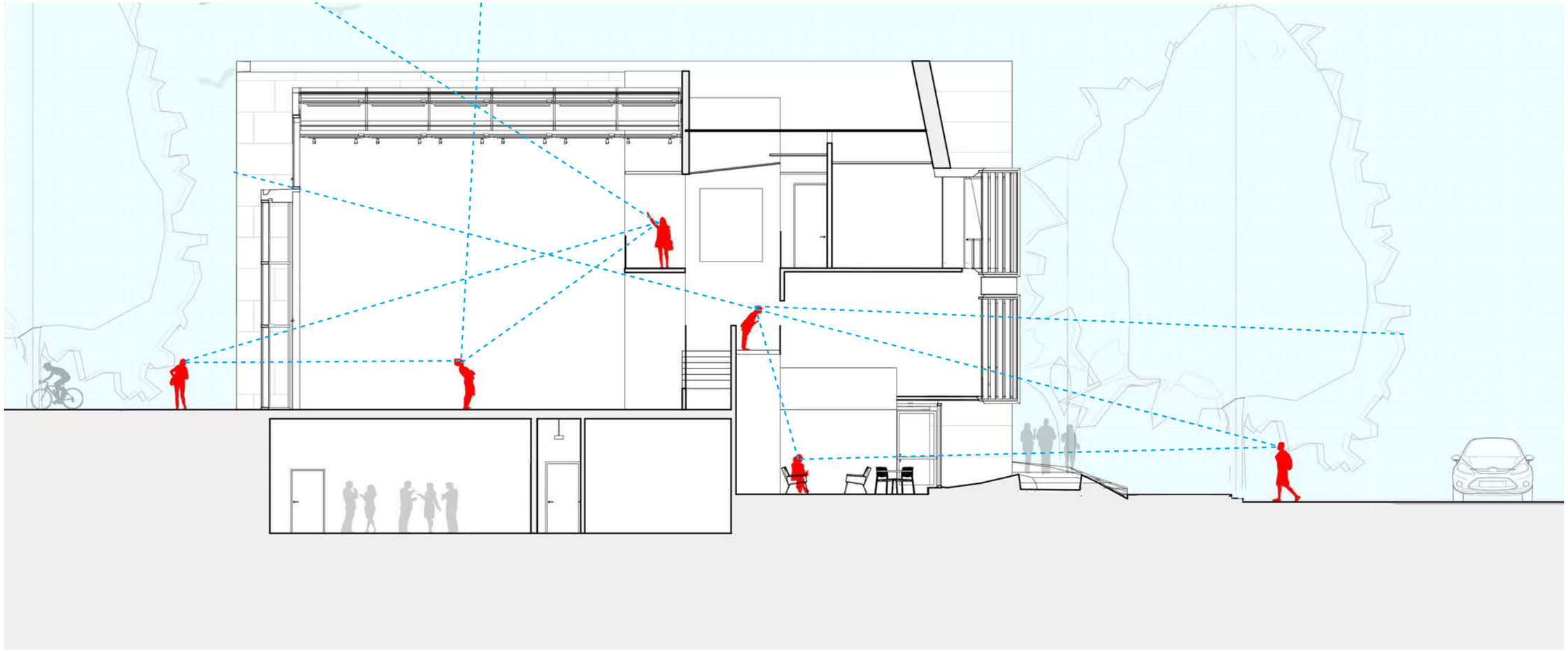
Perry World House
University of Pennsylvania
Philadelphia, Pennsylvania
2016


Walnut Street
President's House
Kelly Writers House
Perry World House
38th Street
Locust Walk
New pedestrian paths
Existing pedestrian paths


PERRY WORLD HOUSE


PERRY
WORLD
HOUSE






AIA New York
Center for Architecture
Two Wheel
Transit:
NYC Bike Share

Photo via AIA NY

Aging in Place Guide for Building Owners and Aging in Place Toolkit Launch

INTRODUCTORY REMARKS
Richard Buery, Deputy Mayor for Strategic Policy Initiatives

Margaret Chin, New York City Council Member

Donna Corrado, Commissioner Of The New York City Department For The Aging

PANELISTS
Karen Kubey, Urbanist Specializing in Housing and Health

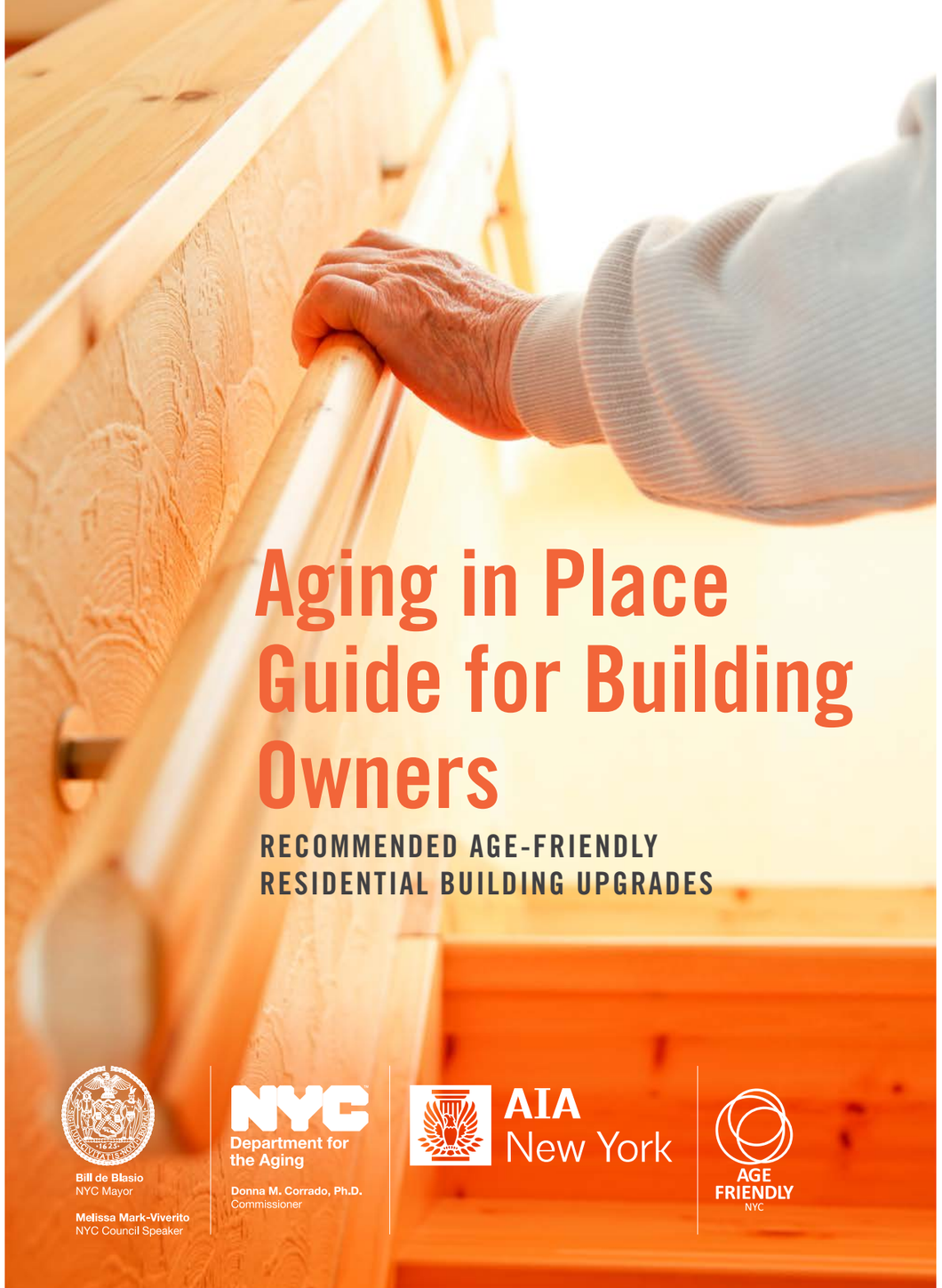
Krista Egger, Director Of Initiatives, Enterprise Community Partners

Chris Widelo, Associate State Director For Advocacy, NYC Office

MODERATOR
Christine Hunter, AIA, LEED AP BD+C, Principal, Magnusson Architecture And Planning, PC

ORGANIZED BY
AIANY Design for Aging Committee

Photo via AIA NY



Provided by The Center for Active Design

Building Entry and Exterior Areas

All residents should be able to move comfortably and safely from outdoors to their apartments.

SITE AREAS

SLIP-RESISTANT

Install slip-resistant walking surfaces outside and inside

› Avoid slippery or uneven materials

› Check walkways for loose pavers and keep paths clear of debris

SIDEWALK

Maintain the sidewalk adjacent to the building

› New York City property owners are responsible for installing, repairing, and maintaining sidewalks adjoining their property

MARKED WALKWAYS

Mark safe-walking areas with contrasting textures and colors

› Use color and/or texture to identify potential trip hazards such as sidewalk and ramp edges

PARKING

Provide well-lit parking with a pedestrian path to the building entry

› Provide accessible parking spaces close to the entry

PLANTS

Include plants to promote residents' well-being

LIGHTING

ADEQUATE LIGHTING

Provide and maintain adequate lighting at signs, stairs, pathways, doors, and vestibules

Eliminate dark spots, even on public sidewalk

› Locate light fixtures to avoid dark spots and shadows

› Pay special attention to the transition from sidewalk to entry, where falls often occur

Provided by The Center for Active Design

Social space providing a mixture of moveable chairs with arms and backs, benches, and tables in bright colors with ample

Interior Common Areas

Well-designed common areas can encourage socializing and reduce feelings of isolation. The recommendations below are for the most typical apartment building common areas. Where space allows, rec rooms, gyms, community gardening areas, communal kitchens, and other common rooms can also promote active use and recreation.

Encouraging and enabling tenants to become acquainted with one another and develop an intra-residential community is likely to increase safety and security, and can help improve building maintenance.

LOBBY

Install **SLIP-RESISTANT** surfaces

COLORS

Add contrasting colors at material and level changes

› Signal level changes to help prevent falls

HANDRAILS

Add handrails along circulation routes

› See *Throughout the Building*

FLOORS

Avoid slippery floors in wet weather

› Install a non-slip entrance floor mat

› Provide umbrella bags

Provide a **SHELF** or other surface at the front door and mailroom or mailboxes for bags and packages

Provide a **RAMP** or platform lift at level changes

EMERGENCY ITEMS

Stock lobby storage closet with accessible and emergency items

› Items stored may include mobility device, portable stair climber, evacuation chair, dedicated power outlet, emergency phone charging station, and small lockers for tenants' devices and valuables

Provided by The Center for Active Design

Apartments

Apartment renovations can help improve quality of life, especially for residents who are not fully mobile, and can prevent falls in the bathroom and other areas.

LIVING AREAS AND THROUGHOUT THE APARTMENT

Install **SLIP-RESISTANT** surfaces

Provide **NO-STEP THRESHOLDS**
› Use no-step or compressible rubber thresholds to reduce tripping hazards
› Thresholds should be no more than 1/2” tall with 1:2 max bevel edges
› Providing a threshold in a contrasting color improves visibility and can reduce falls

CLEAR PATHS
Provide clear, wide paths of travel
› Keep hallways and pathways clear of furniture and protruding objects
› Avoid throw rugs and clutter

GRAB BARS
Add grab bars or handrails along circulation routes
› See *Throughout the Building*

COLORS
Add contrasting colors at material and level changes
› Avoid strong patterns and shiny surfaces

RAMP
Provide a ramp or platform lift at level changes

DOORS
Install doors to swing into rooms
› Bathroom doors are an exception and should swing out

Provide a **SHELF** or other surface at the front door for bags and packages

When replacing **WINDOWS**, consider awning-type units, which are easiest to operate

Provide more **ELECTRICAL OUTLETS** than required by code, at 18” to 24” above the floor

Install **SMOKE AND CARBON MONOXIDE DETECTORS** and test regularly, as required by NYC law

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BUILDING HEALTHY PLACES

TOOLKIT

STRATEGIES FOR **ENHANCING HEALTH** IN THE **BUILT ENVIRONMENT**

Urban Land Institute
Building Healthy Places Initiative

APPLYING THE RECOMMENDATIONS

Evidence-Based Recommendations

1. Incorporate a mix of land uses
2. Design well-connected street networks at the human scale
3. Provide sidewalks and enticing, pedestrian-oriented streetscapes
4. Provide infrastructure to support biking
5. Design visible, enticing stairs to encourage everyday use
6. Install stair prompts and signage
7. Provide high-quality spaces for multigenerational play and recreation
8. Build play spaces for children
9. Accommodate a grocery store
10. Host a farmers market
11. Promote healthy food retail
12. Support on-site gardening and farming
13. Enhance access to drinking water
14. Ban smoking
15. Use materials and products that support healthy indoor air quality
16. Facilitate proper ventilation and airflow
17. Maximize indoor lighting quality
18. Minimize noise pollution
19. Increase access to nature
20. Facilitate social engagement
21. Adopt pet-friendly policies

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3 PROVIDE SIDEWALKS AND ENTICING, PEDESTRIAN-ORIENTED STREETSCAPES

EVIDENCE-BASED STRATEGIES

- **Build sidewalks in all new communities to encourage walking and to help keep pedestrians safe.**[23]
- **Include well-marked crosswalks, special pavers, and curb extensions to visually highlight pedestrians and slow traffic.**[24]
- **Light streets, trails, and public spaces to minimize dark and unsafe areas.**[25,26]

TOP: Sidewalks connect homes in the Mueller neighborhood in Austin, Texas. *(Thomas McConnell Photography)* **ABOVE:** In New York City, a variety of strategies—including signs, curb extensions, medians, and special markings—are used to keep pedestrians safe when crossing the street. *(New York City Department of Transportation)*

5 DESIGN VISIBLE, ENTICING STAIRS TO ENCOURAGE EVERYDAY USE

EVIDENCE-BASED STRATEGIES

- **Provide open stairs that are unobstructed by turns or other obstacles.**[32]
- **Place stairs within 25 feet of an entrance and before any elevators.**[32,33]
- **Use aesthetic treatments such as vivid colors, artwork, and music.**[34,35]
- **Treat stairs with the same finishing standards as other public corridors in the building.**[36]

TOP: The Gates Foundation headquarters in Seattle, Washington, features bright, open stairs. *(Rachel MacCleery)*
RIGHT: At the Arbor House development in the Bronx, New York, the main entrance was relocated to make stairs more prominent and visible. *(Blue Sea Development Company)*

8 BUILD PLAY SPACES FOR CHILDREN

EVIDENCE-BASED STRATEGIES

- **Preserve or create natural terrain to support play.**[48] **For example, plant trees, grasses, and other greenery; make a hill to climb or cycle around; and add boulders, tree stumps, or sand.**
- **Incorporate simple interventions such as colorful ground markings to inspire more active play among children.**[49]
- **Think beyond classic swings and slides; install playground equipment that includes movable parts, imaginative playscapes, and opportunities for children of all abilities.**[48,50]

TOP: An empty parking lot was transformed into an appealing playground in New York City. *(Joan Keener/The Trust for Public Land)* **RIGHT:** Colorful ground markings inspire play for children in Houston, Texas. *(Community Design Resource Center, University of Houston)*

19 INCREASE ACCESS TO NATURE

EVIDENCE-BASED STRATEGIES

- **Maximize access to natural areas.[48] Preserve and restore natural areas within and around your project.**
- **Plant trees,[49] which support air quality, provide shade, and increase outdoor comfort. Include trees in parks and plazas and along sidewalks.**
- **Provide views of nature[48] through strategic placement of windows, indoor plants, or pictures of nature.[50]**

Singapore's Interlace project includes water features, courtyards, green spaces, and shade as a response to the limited amount of open space in the city. *(CapitaLand Singapore/ Woh Hup [Private] Limited)*

PROJECT

Park 20|20

HAARLEMMERMEER, NETHERLANDS

PARK 20|20, a 28-acre office park in Haarlemmermeer, Netherlands, is designed with the health of the building occupants in mind. The project, developed by Delta Development Group and designed by William McDonough + Partners, features specially selected plants that are used to filter internal air through green walls that store carbon dioxide and produce fresh oxygen. Dust is minimized through a ductless floor system and through moss that acts as a natural filter.

Natural light is abundant throughout the office space, minimizing the need for much artificial light. LED lighting—the closest lighting to sunlight—was used to the extent possible, and an automated sun-shading system regulates the interior lighting based on sun and cloud cover. Each office space contains a window that can be opened for fresh air, and buildings are horseshoe shaped with large atriums that allow natural light from two sides. Natural views are provided through 22 acres of open space, which includes a central park that is visible from surrounding streets.

20 FACILITATE SOCIAL ENGAGEMENT

EVIDENCE-BASED STRATEGIES

- **Create community gathering spaces—plazas, parks, dog runs, roof decks, and barbecue areas—to encourage social interaction and enhance opportunities for physical activity.**[58–60] **Open these gathering spaces to the public to strengthen community ties.**
- **Design on-site spaces to accommodate classes and programs that promote healthy activities, such as fitness, cooking, nutrition, and gardening.**[61]

TOP: Break rooms with kitchens and outdoor meeting areas with power outlets and wi-fi are provided for the tenants at Champion Station in San Jose, California. *(David Wakely)* **ABOVE:** At Rancho Sahuarita in Sahuarita, Arizona, residents can select from more than 50 classes per week, including karate, yoga, ballet, and tennis. *(Rancho Sahuarita)*

FACILITATE SOCIAL ENGAGEMENT

FACILITATE SOCIAL ENGAGEMENT

Special thanks to:
AIA Miami
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