

# ACTIVE DESIGN GUIDELINES 2.0

Designing for Health and Equity



# **ADG 2.0 / NYC**

Eric Adams  
Mayor

Michelle Morse, MD, MPH  
Acting Commissioner  
*Department of Health and Mental Hygiene*

Eduardo del Valle  
Acting Commissioner  
*Department of Design and Construction*

Ydanis Rodriguez  
Commissioner  
*Department of Transportation*

Daniel R. Garodnick  
Director  
*Department of City Planning*  
Chair  
*City Planning Commission*

*Ahmed Tigani*  
Acting Commissioner  
*Department of Housing Preservation and Development*

Iris Rodriguez-Rosa  
Commissioner  
*Department of Parks and Recreation*

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GUIDELINES 2.0**

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## Commissioners' Introduction /

Together, the New York City Departments of Health and Mental Hygiene, Design and Construction (DDC), Transportation (DOT), City Planning (DCP), Parks & Recreation, and Housing Preservation and Development (HPD) are pleased to present the *Active Design Guidelines 2.0: Designing for Health and Equity* (ADG 2.0). The guidelines are a vital part of achieving the City's vision of creating a healthier, more equitable and more resilient city.

The original *Active Design Guidelines*, launched in 2010, positioned New York City as a pioneer in the global healthy design movement by examining the crucial link between the built environment and public health. Since then, the collective efforts of our agencies have transformed New York City. We've reclaimed hundreds of miles of streets for people, delivered world-class public buildings that meet the highest sustainability standards, created new and revitalized parks in communities that needed them most, and broken ground on record numbers of high-quality affordable homes. And we have partnered to deliver these critical projects more efficiently and effectively to serve over 8.5 million New Yorkers.

Our work is far from over. Building on over a decade of progress, ADG 2.0 incorporates the latest research and centers the lived experiences of our communities to offer design strategies that tackle today's public health challenges—from the ongoing fight against chronic disease to the pressing need to address the mental health impacts of stress, loneliness and social isolation. ADG 2.0 complements and references the many City initiatives and guidelines that set the bar for what public works can accomplish, including DDC's handbooks and guidelines for architects and urban designers, HPD's *Design Guidelines for New Construction and Preservation*, DOT's *Street Design Manual*, DCP's *Principles of Good Urban Design*, and NYC Parks' *Vital Parks for All: Investing in NYC's Living Infrastructure*.



These guidelines are meant to be a useful and inspiring resource for the architects, planners, developers, policymakers and community leaders who shape New York City. Whether designing a new housing development, reimagining a public plaza or planning for new parks and green space, ADG 2.0 provides a blueprint of actionable strategies to place health, equity, public safety and community at the center of every decision.

This work is a testament to true collaboration between City agencies, the Center for Active Design, academic partners and community-based organizations. We are deeply grateful to every partner who helped shape these guidelines and continues to lead this work on the ground. The result is a shared commitment to embedding health and equity into the very fabric of our city, ensuring all New Yorkers—regardless of their race, income, age or ZIP code—can thrive in environments that support their health, dignity and opportunity.

**Dr. Michelle Morse**

*Acting Commissioner  
Department of Health and  
Mental Hygiene*

**Eduardo del Valle**

*Acting Commissioner  
Department of Design and  
Construction*

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*Commissioner  
Department of Parks &  
Recreation*

## Letter from the Mayor /

To my fellow New Yorkers:

We all deserve to live, work and play in buildings and neighborhoods that support long and healthy lives. The *Active Design Guidelines 2.0* (ADG 2.0) outlines how we can work together to support healthy lives and advance equity through the design of our city's buildings and parks, plazas and open spaces. These guidelines are a key part of our HealthyNYC strategy for improving the health and increasing life expectancy for all New Yorkers. All neighborhoods across the city should have safe parks and public spaces where you can meet friends, places for recreation and areas to enjoy nature. Our buildings and homes should also support our health by encouraging movement and being places where we can get a good night's rest.

In the past two decades we have taken remarkable steps to make our city more livable by investing in parks and public spaces and transforming our streets to support the safety of pedestrians and bicycling. We have also made our streets and neighborhoods cleaner with innovations in sanitation. All these things together support thriving neighborhoods and improvements to quality of life for all New Yorkers and better health outcomes, including better mental health and strong social ties.

But our work is far from over. While we worked hard to improve the lives of New Yorkers, not everyone lives near a safe, clean park where they can hang with friends and family or a tree-lined street to walk or ride their bike on or a beautiful library where they can access valuable services and engage with others. With the release of ADG 2.0, we are committed to elevating the voices of New Yorkers to support

health and create a more equitable city for them. Creating a healthier city requires a collaborative approach and partnership among our city agencies and the community. ADG 2.0 provides a road map for a future where all New Yorkers have the resources to live longer and healthier lives.

**Eric Adams**

Mayor

*City of New York*

## Letter from the Center for Active Design /

In collaboration with the New York City Department of Health and Mental Hygiene (Health Department), the Center for Active Design is thrilled to support the launch of the updated version of the *Active Design Guidelines*. This major milestone marks 15 years since the original *Active Design Guidelines* were launched in 2010. In the years since the original version was published, the *Guidelines* have become a seminal document in urban design and architecture, ushering in a renewed focus on the relationship between the built environment and health outcomes. The Center for Active Design, which grew out of New York City's groundbreaking work on the original *Active Design Guidelines*, has emerged as a globally recognized nonprofit known for its commitment to translating public health evidence into actionable solutions to support practitioners across the built environment and real estate development.

The updated *Active Design Guidelines* represent years of collaboration between the Center for Active Design, the Health Department and countless other NYC agencies, community organizations, design professionals and researchers, all committed to leveraging the spaces where we live, work, socialize and learn to promote health and community engagement. At its inception, the *Guidelines* emphasized the ways architecture, landscape and urban design can promote physical activity for health. Since 2010, there has been an abundance of new research exploring the ways our built environment can influence not just physical health but also mental health, social health, safety and civic life. These updated *Guidelines* are reflective of this growing evidence base, with an emphasis on the ways our diverse communities experience buildings and public spaces.

Working together, we can shape environments that support well-being, equity and connection for generations to come. Let this book be both a guide and an inspiration, an invitation to build a healthier, more vibrant future for all.

**Joanna Frank**

President and CEO

*Center for Active Design*

## Executive Summary /

### Active Design Guidelines 2.0

When New York City's *Active Design Guidelines* were released in 2010, they quickly became recognized as a groundbreaking resource to guide the creation of healthier cities. The original guidelines focused on the **built environment**—or the buildings, streets and neighborhoods where we live, work and play—and the significant impact these spaces have on our daily lives. They drew upon an emerging body of research on how the built environment can affect **public health**, which identifies population-scale solutions to create the conditions that support health, from promoting healthy behaviors to preventing disease.

*Active Design Guidelines 2.0* (ADG 2.0) updates the original publication and provides a more holistic lens on how our buildings, **public spaces** and neighborhoods should be designed to promote physical and **mental health** and social cohesion, safety and **civic life**.

Since the original guidelines were first published, research on the built environment and health has grown exponentially. New evidence points to a variety of ways that the design, maintenance and operation of the built environment can support all aspects of well-being. This growth in the evidence prompted a review and update of the original guidelines using a multipronged approach, which included a rigorous review of the literature in consultation with leaders in the field.

In addition, ADG 2.0 puts **health equity**—a state in which everyone has a fair and just opportunity to attain the highest level of health—at the core of all guidelines and focuses on accessibility, quality and authentic **community** engagement. ADG 2.0 addresses the full project life cycle and recognizes the importance of a collaborative design process that meaningfully works with community members.

ADG 2.0 was developed through a multiyear collaborative process led by the NYC Health Department in collaboration with the Center for Active Design, with funding from the New York Health Foundation. ADG 2.0 is informed by scholarly research, review of City publications and expert input from more than 170 professionals from over 60 agencies and organizations.

## Summary of Content

ADG 2.0 is framed around three core elements for designing healthy cities: community collaboration, neighborhoods and buildings. The guidelines, strategies and concrete tactics that span across these sections can be used to achieve specific goals related to creating a healthier city for all New Yorkers. Throughout the publication, many of the evidence-informed guidelines have been illustrated with case studies titled “Guidelines in Action,” captioned photos and examples of the principles of ADG 2.0 at work.

**Chapter 1: Introduction** serves as an orientation to ADG 2.0, identifying the historical connectivity between health and the built environment and explaining methodology underlying the document. Deeper explorations into the **social determinants of health**, as well as the ways in which racism impacts health through built environment design, stress the importance of equity and inclusion at every stage of building and neighborhood design choices.

**Chapter 2: Community Collaboration** promotes a deeper level of community-driven decision-making and relationship building—and more effective power-sharing with community members. Five guidelines for community collaboration offer insights into how to build trust and power-sharing with communities in which City agencies, architects and designers work.

**Chapter 3: Neighborhoods** offers guidance for optimizing neighborhood **public spaces** to support health and well-being. Twelve guidelines address the maintenance, integration with nature and accessibility and inclusiveness of public spaces, as well as creation of supportive environments for pedestrians, cyclists and **micromobility**. This chapter also provides strategies to mitigate noise and highlights alignment with climate adaptation approaches.

**Chapter 4: Buildings** provides guidance for promoting health in a diverse array of building typologies—from workplaces and schools to civic buildings and cultural facilities—for all building occupants. Eleven guidelines offer examples of how to create a welcoming environment, encourage daily activity, enhance circulation routes, incorporate natural and **inclusive design** elements, mitigate noise and prepare for current and future risks.

## **Call to Action: Who Should Use These Guidelines**

ADG 2.0 is a practical resource aimed at inspiring the transformation of the built environment to advance health equity. It is designed to be used by architects, landscape architects, planners, engineers, designers, developers, policymakers, City agencies, community members, researchers and all practitioners who work to optimize the built environment.

ADG 2.0 is a road map to foster continued leadership among public, private and community-based stakeholders in creating neighborhoods and buildings that support public health, promote economic security and advance environmental justice. The strategies throughout ADG 2.0 are direct and flexible, supporting equity among all New Yorkers, regardless of race, ethnicity, ZIP code, age, gender, ability or socioeconomic status.





### **Brooklyn Bridge Park, Brooklyn**

Through a public-private partnership, the abandoned waterfront was turned into a beautiful public park. The park offers a range of active recreational amenities and nature-based play spaces. Soccer fields and basketball courts were built on former working piers and are used by thousands of local residents every year. *(Designer: Michael Van Valkenburgh Associates)*



### **PS 152 and PS K315 Community Park, Brooklyn**

An underutilized asphalt schoolyard was transformed into a dynamic community park through a participatory design process with the school and wider communities. The playground features a colorful ground mural designed by Timothy Goodman, learning gardens, a basketball court, outdoor classrooms and a turf that encourage physical activity and social gathering. *(Project team: Trust for Public Land, Studio HIP)*

# 1 / Introduction

When New York City’s *Active Design Guidelines* were released in 2010, they quickly became recognized as a groundbreaking resource to guide the creation of healthier cities. The original guidelines focused on the **built environment**—or the buildings, streets and neighborhoods where we live, work and play—and the significant impact these spaces have on our daily lives. They drew upon an emerging body of research on how the built environment can affect **public health**, which identifies population-scale solutions to create the conditions that support health, from promoting healthy behaviors to preventing disease.

**Active design** is a practical, evidence-informed approach to transforming the built environment to support health. The original guidelines had a particular focus on creating more opportunities for daily physical activity—for example, by encouraging stair use, enhancing bike and pedestrian infrastructure and creating new playgrounds, plazas and other spaces for public use. The guidelines also spoke to the importance of breaking down silos and using multidisciplinary collaboration to leverage the work of architects, planners, developers and other built environment practitioners in support of public health outcomes. They were widely acclaimed, referenced by communities around the globe and helped launch a healthy design movement that continues to gain momentum.

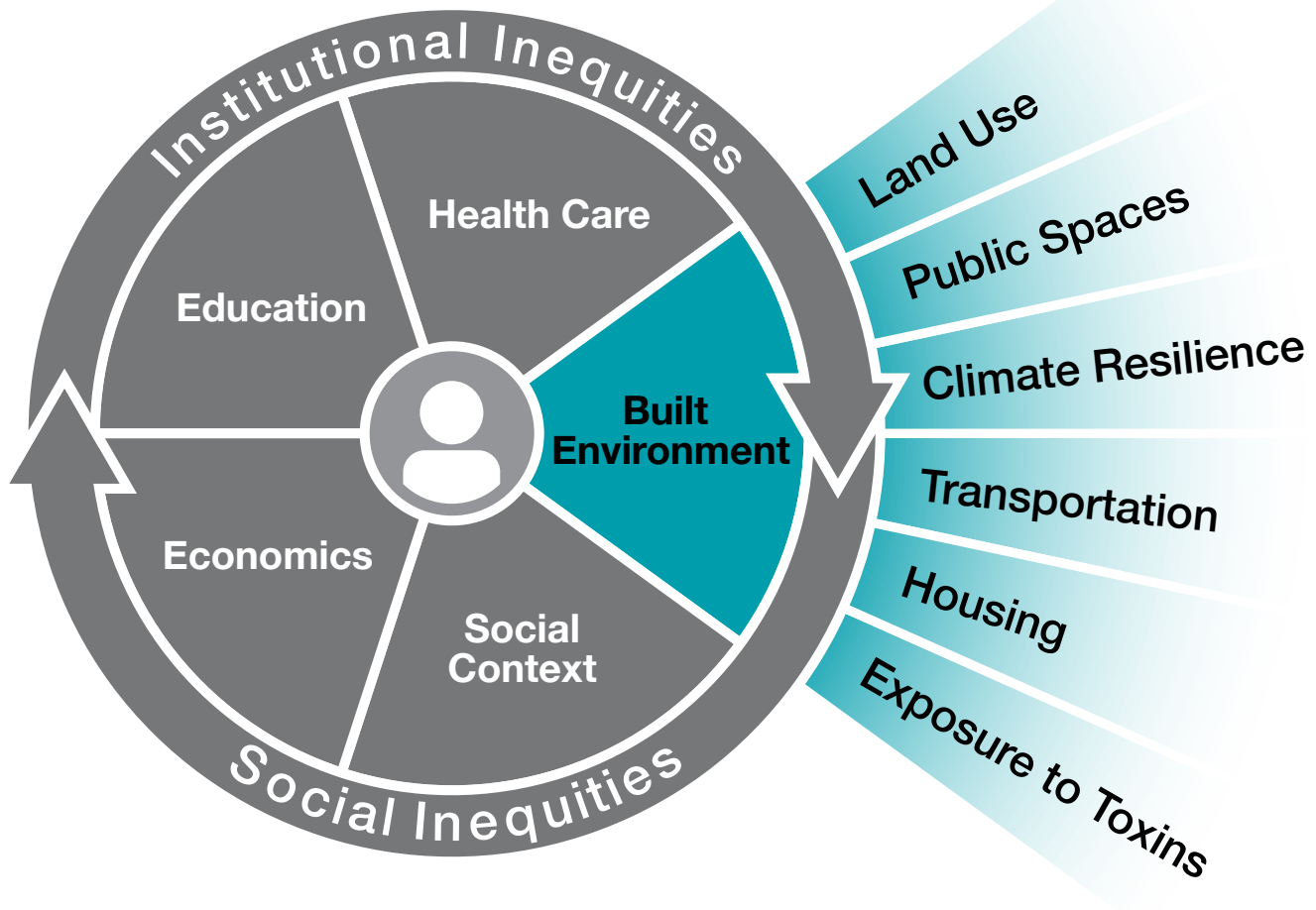
## Introducing ADG 2.0

Since the original guidelines were first published, research on the built environment and health has grown exponentially. New evidence points to a variety of ways that the design, maintenance and operation of the built environment can support all aspects of well-being—including **mental health**, **social connections** and **civic life**. In addition, racism has been declared a public health crisis in New York City, drawing attention to the stark health consequences of racism and the ways persistent, embedded discrimination within the built environment exacerbates health inequities and must be addressed.<sup>1</sup>

Given this rapidly evolving knowledge base, this new edition of the *Active Design Guidelines*, known as ADG 2.0, offers an update to the original publication and introduces a new chapter, [Chapter 2: Community Collaboration](#). This chapter serves as a call to action to ensure all NYC built environment projects can better address community needs and respond to community-defined priorities. The updated guidelines synthesize multiple years of collaborative effort—incorporating evidence from 400+ new academic studies and insights from 170+ practitioners who influence the built environment—to serve as a playbook for creating a healthier and more equitable city.

## Social Determinants of Health

As a key social determinant of health, built environment conditions affect nearly every aspect of our daily lives.



Social determinants of health are directly impacted by social inequities, built around constructs, such as race or gender, as well as structural and institutional inequities. While health care, education, finances and social conditions are all important social determinants of health, ADG 2.0 focuses on strategies that specifically support a healthy and equitable built environment, from reducing toxic exposures to increasing access to vital resources, such as transportation and high-quality outdoor spaces. *(Adapted from U.S. Centers for Disease Control and Prevention)*

## Interconnected Health Outcomes

When public health professionals examine the full landscape of factors that influence the health of communities, they are looking at **social determinants of health**—the conditions in which people are born, live, learn, work, play and age that contribute to health outcomes.<sup>2</sup> The design and condition of neighborhoods and buildings are shaped by policies and decisions made by elected officials and government agencies, designers, developers and community members. The combination of these factors and policies that may favor one group over another can drive inequitable built environment conditions experienced by different populations.

Ten years ago, active design was synonymous with designing to prevent chronic diseases, such as diabetes and heart disease, through the promotion of physical activity. Now, after more than a decade of additional research, it's clear that the built environment influences a wide range of interconnected health outcomes, including mental health. For example, physical activity can have a protective effect against the emergence of depression across age groups.<sup>3</sup> The studies informing ADG 2.0 consider a diverse array of health indicators, including:

- **Physical health:** physical activity, nutrition, chronic diseases, contagious disease transmission, life expectancy
- **Mental health:** anxiety, depression, substance use, self-esteem, cognitive wellness, academic performance
- **Social health:** supportive relationships, social cohesion, sense of belonging, trust in neighbors, sense of agency, valuing diversity
- **Safety:** perceptions of community safety, crash rates, crime rates
- **Civic life:** participation in public life, trust in local government, stewardship, volunteerism

By applying a holistic lens, ADG 2.0 aligns with the World Health Organization’s definition of health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>4</sup>

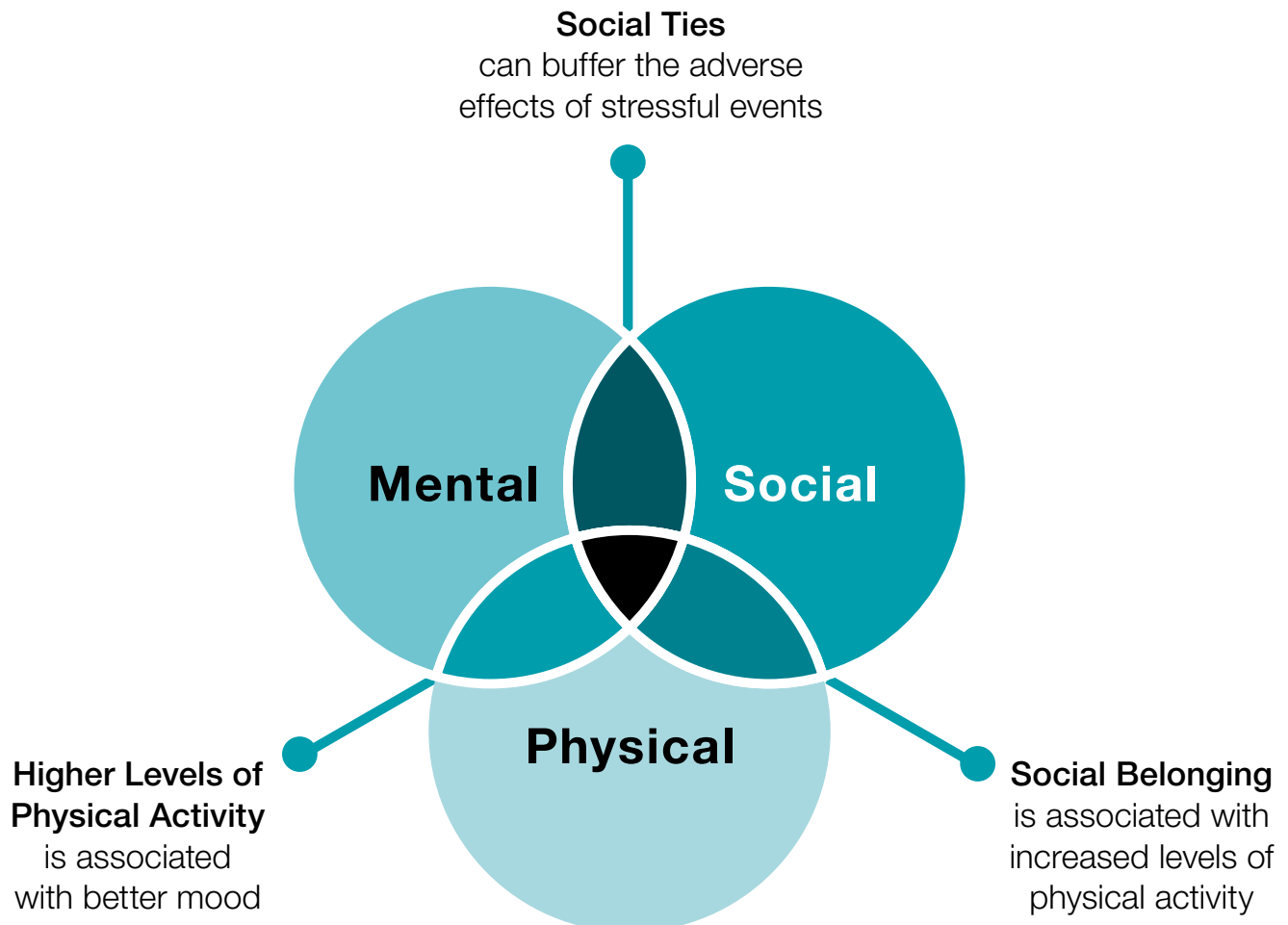
## Health Equity Is Key

ADG 2.0 places a core emphasis on **health equity**, which can be defined as both an outcome and a process. As an outcome, health equity is achieved when a person’s race, ethnicity, gender, disability or socioeconomic status no longer predicts their health status.

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## Interconnected Health Outcomes

An equitable and holistic approach can maximize community impacts.





**Lt. Joseph Petrosino Park, Brooklyn**

A Community Parks Initiative (CPI) site, this park was renovated in 2019 with new play areas, adult fitness equipment, greenery, and more. CPI advances parks equity by investing in community parks located in densely populated, growing neighborhoods with higher-than-average concentrations of poverty. (*NYC: Parks*)



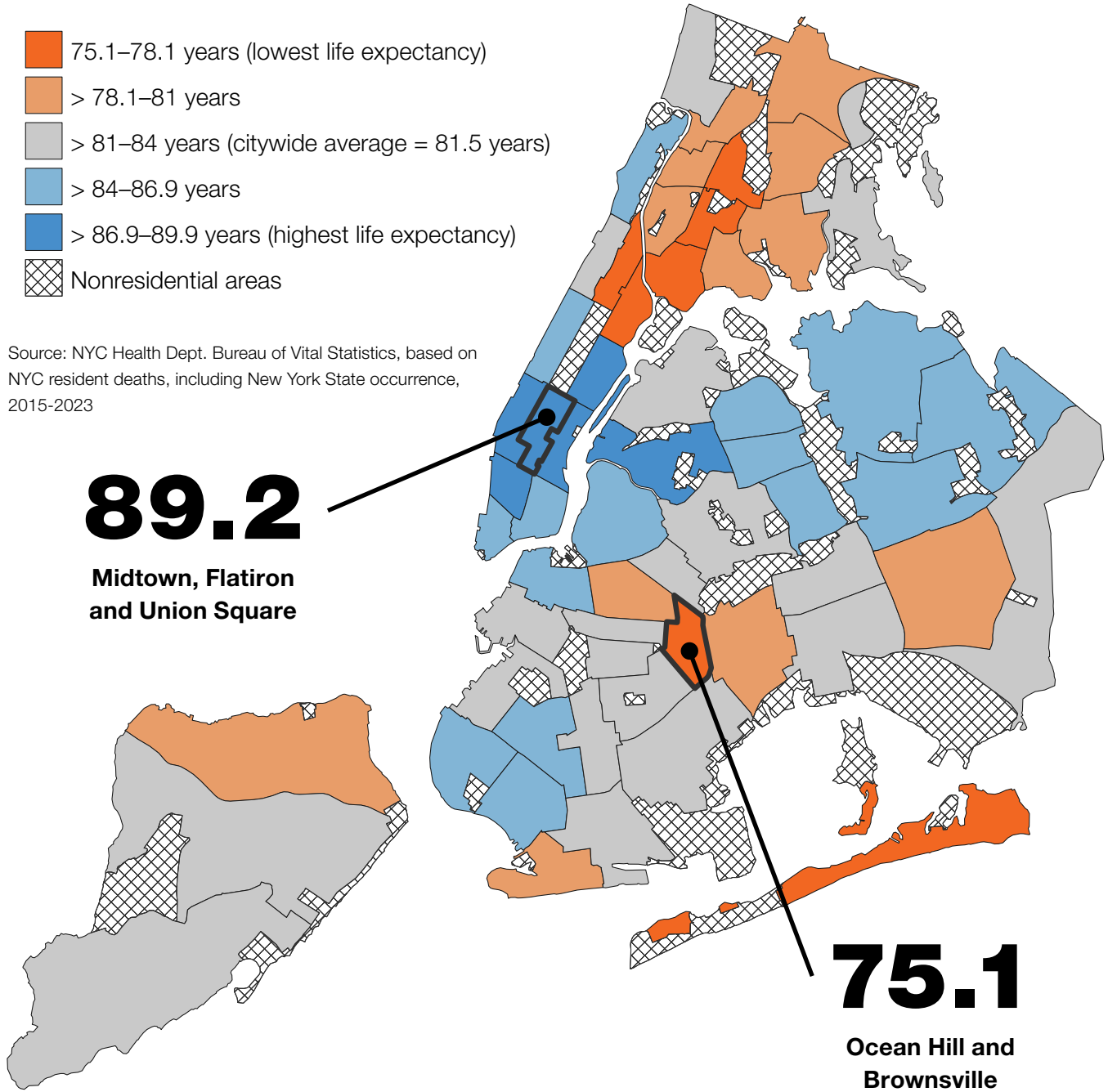
As a process, health equity is achieved when resources and decision-making power are deliberately shifted toward communities who have been harmed by structural inequities embedded in policies and institutions. When implemented equitably and in alignment with the community collaboration principles found in [Chapter 2: Community Collaboration](#), ADG 2.0 has the power to help address **health inequities** and strengthen neighborhoods and communities.

In New York City, like many cities around the United States, neighborhoods are segregated by race and income. Historic and ongoing injustices favoring white and wealthy communities have resulted in worse neighborhood conditions for many Black communities and other communities of color, leading to health inequities. As a result, historically redlined, predominantly Black and Latino neighborhoods in the South Bronx, East and Central Harlem, and North and Central Brooklyn have higher premature death rates (death before age 65) and higher rates of diabetes and hypertension compared with the citywide average.<sup>5</sup>

Public health emergencies and extreme weather events related to climate change further magnify fundamental inequities. In New York City, Black and Latino residents were systematically and disproportionately affected by the COVID-19 pandemic, experiencing the largest drops in life expectancy (5.5 and 6 years, respectively).<sup>6,7</sup> In addition, New Yorkers most vulnerable to the dangers of hot weather and storms are older adults and people with health conditions like heart disease and diabetes — especially those in low-income neighborhoods with predominately Black and Latino residents.<sup>8,9</sup> These same populations are less likely to have access to health-supporting neighborhood resources such as high-quality parks and open spaces.<sup>10</sup> Such inequities reflect **structural racism** embedded in our systems that have unfairly and unjustly led to inequitable health outcomes for people of color for generations. For more information on this legacy of disinvestment and the impacts of climate change on health, see [Page 28](#) and [Page 42](#).

## Life Expectancy Varies by Community District

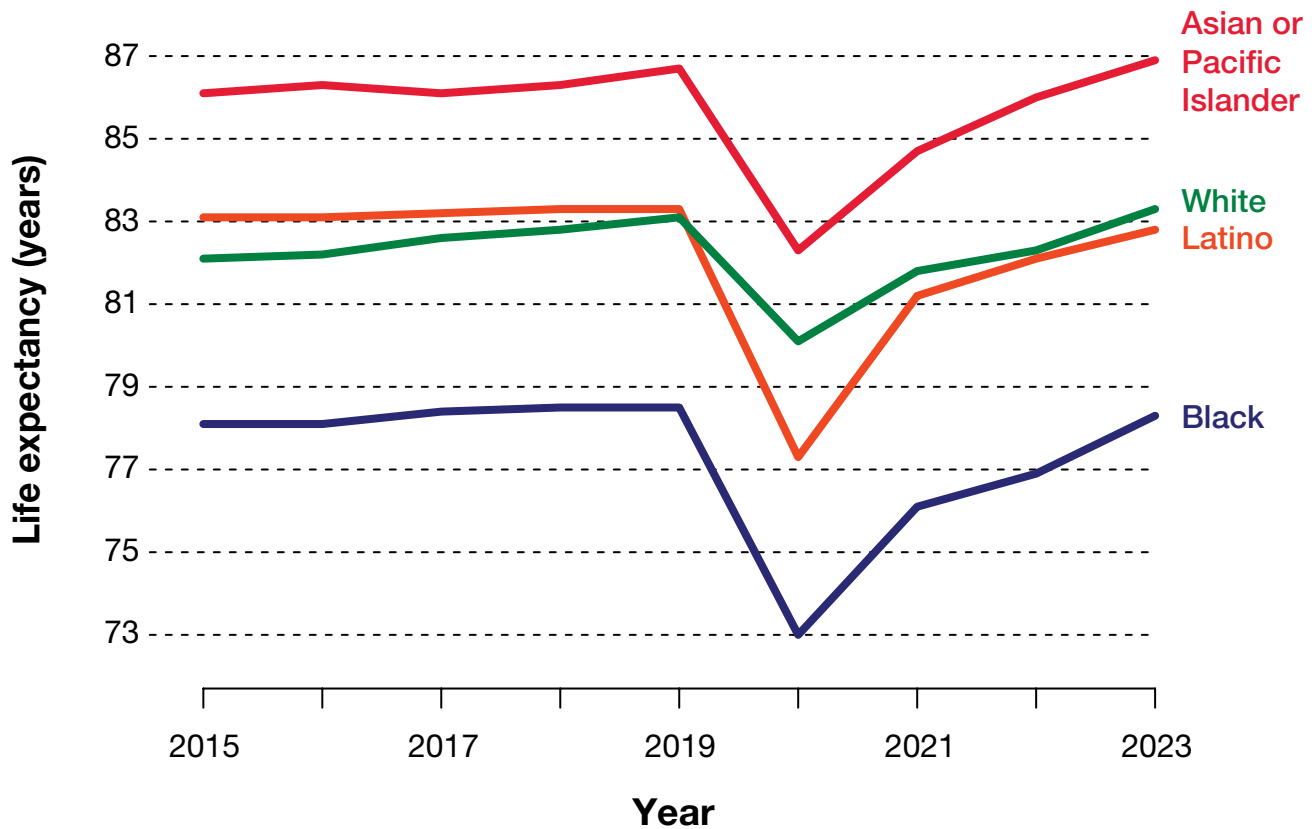
Wealthier communities experience the longest life expectancy among New Yorkers.



For New Yorkers, one’s ZIP code can be a better predictor of health outcomes than one’s genetic code. The legacy of disinvestment and structural racism created inequities in neighborhood resources critical for health and continues to contribute to inequities in life expectancy.

## Inequitable Life Expectancy by Race and Ethnicity

There are significant racial inequities in life expectancy, with Black New Yorkers experiencing the lowest life expectancy of all racial groups.

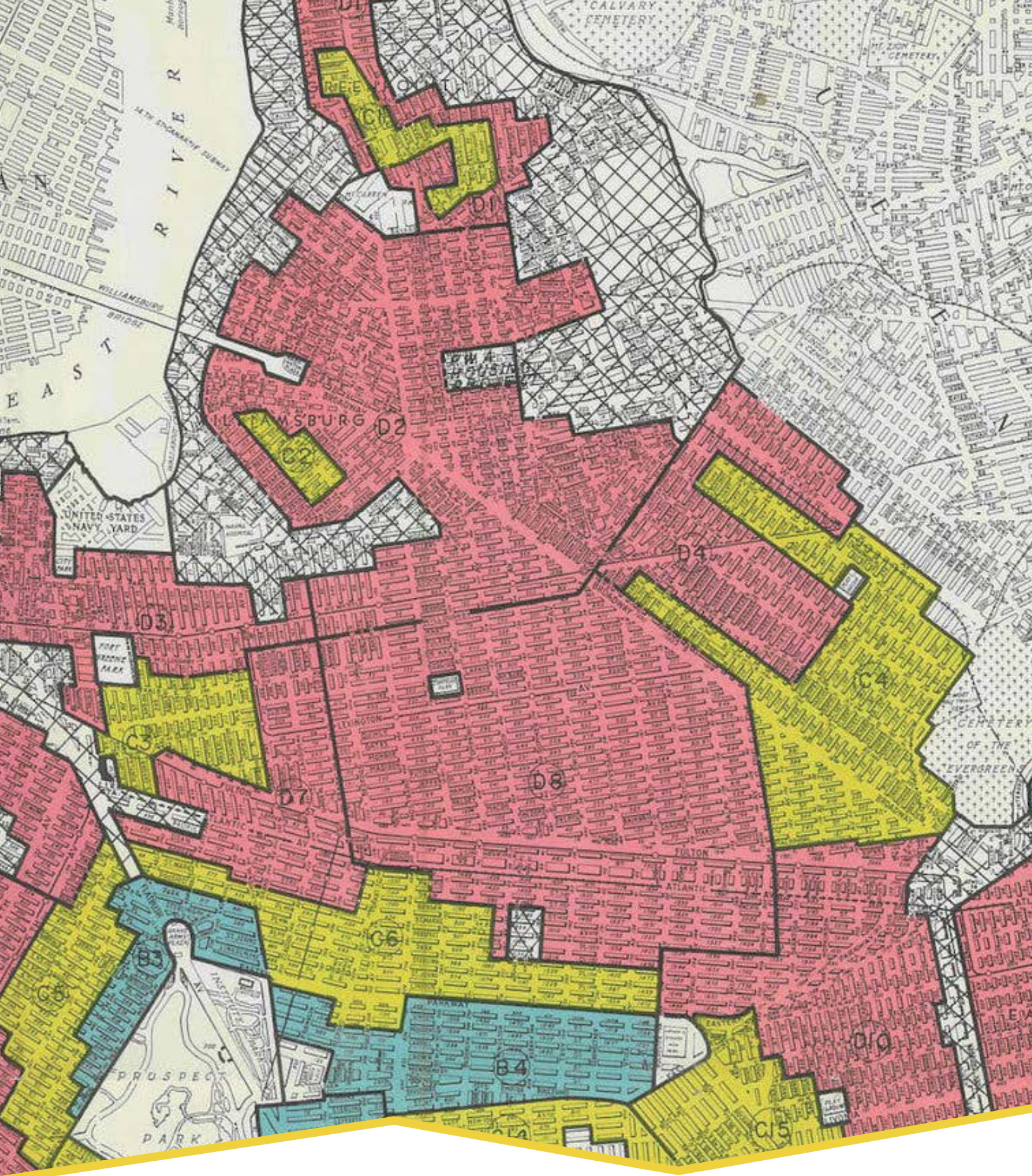


Source: NYC Health Dept. Bureau of Vital Statistics, based on NYC resident deaths, including New York State occurrence, 2015-2023

Significant racial inequities in life expectancy exist in New York City. The city's average life expectancy dropped dramatically from 82.6 years in 2019 to 78 years in 2020, with the largest decreases among Black and Latino New Yorkers, due largely to the COVID-19 pandemic. While life expectancy has since recovered, a significant gap persists, as recent gains have not been felt equally. To improve life expectancy for the whole city, this historical pattern of indifference must be interrupted, which requires a collaborative effort from architects, urban planners, public health experts and policymakers to close the gap and advance health equity.

# Structural Racism, the Built Environment and Health Inequities

Prioritizing health equity in ADG 2.0 means understanding how structural racism in past planning decisions and policies has shaped inequities in the built environment and how current policies continue to perpetuate them. Design practitioners and advocates need to collaborate with community residents and City agencies to assess the potential consequences of new developments, such as gentrification and displacement, and strive to pair the implementation of active design strategies with policies that ensure stable, accessible and inclusive neighborhoods.



**Above:** Brooklyn historical redlining map, 1938. Lenders graded neighborhoods based on perceived investment risk. Areas in red were deemed highest risk and green least risky.

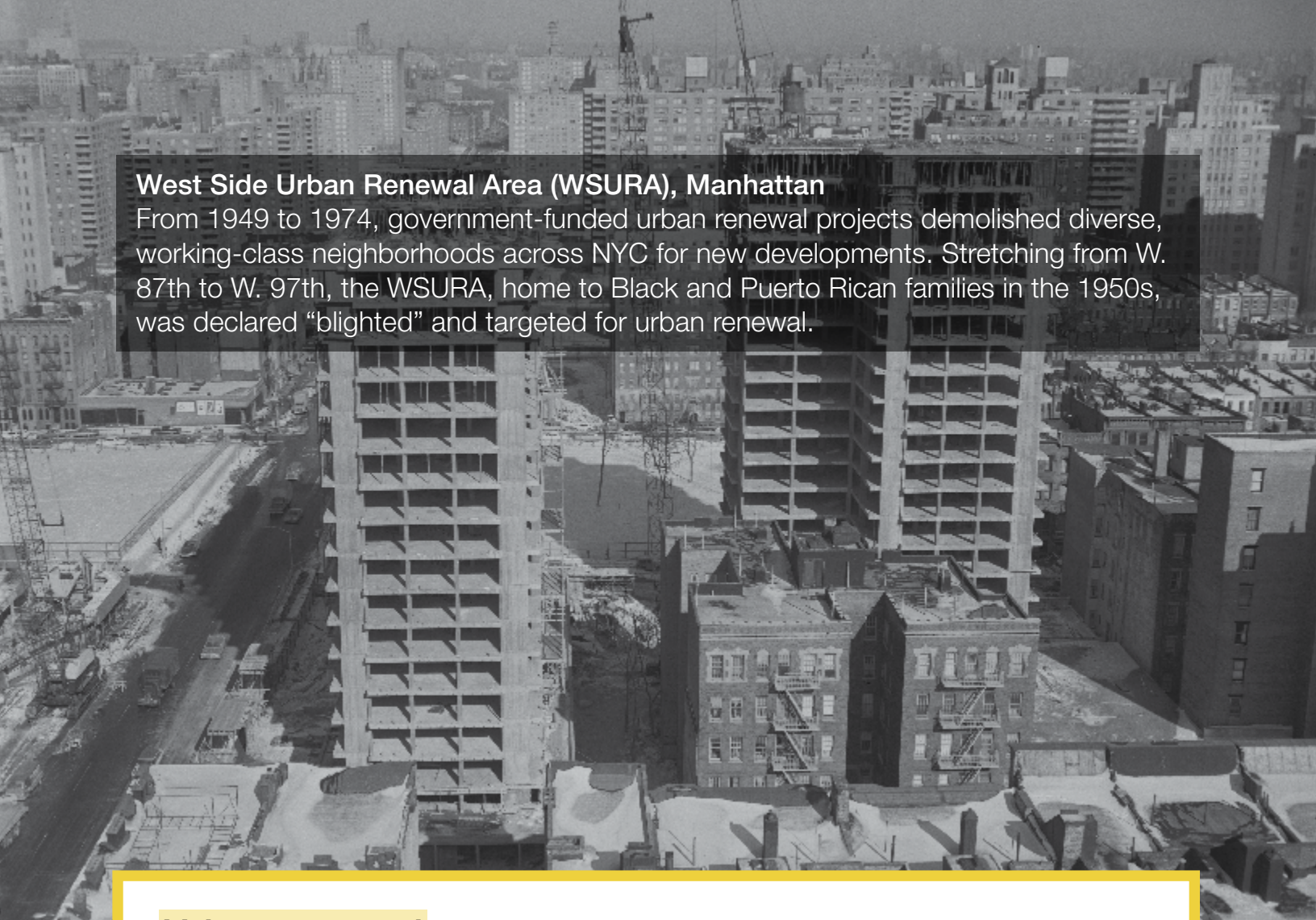
## Inequitable Health Conditions

Systemic racism and historical disinvestment are part of a complex set of structural factors that drive unjust, inequitable and preventable health outcomes. Government policy directly affects investments in the built environment and the extent to which it supports health. Understanding neighborhood history and the effects of previous policy decisions is key to building trust with community members, as discussed in greater detail in [Chapter 2: Community Collaboration](#). Government interventions that prioritized wealthy and white residents in NYC and across the country have contributed directly to segregation and health inequities, harming many people in neighborhoods of color and neighborhoods where people earn low incomes. This is why equity is embedded at the core of ADG 2.0, which aims to undo the harmful legacy of built environment decisions that have disproportionately harmed communities of color. Two far-reaching examples are **redlining** and **urban renewal**.

**Redlining** emerged in the 1930s when the federal government sanctioned real estate agents' use of color-coded neighborhood maps to define mortgage lending risk and refused to insure mortgages in neighborhoods predominantly home to people of color, especially Black people. These neighborhoods were identified as "hazardous" and colored red.<sup>12</sup> This policy encouraged lending in wealthier and whiter neighborhoods, while denying people of color the opportunity to build wealth and contributing to systematic disinvestment in housing in neighborhoods of color. Redlining patterns are still reflected in racial segregation and neighborhood conditions, which are examined throughout ADG 2.0. For example, historically redlined areas have lower levels of tree canopy and high levels of air pollution compared with other neighborhoods.<sup>13</sup> The health impact of redlining is equally persistent and stark across the life course, including inequities in obstetric outcomes and heart health.<sup>14,15</sup>

Learn more:

→ [A Brief History of Redlining](#)



## West Side Urban Renewal Area (WSURA), Manhattan

From 1949 to 1974, government-funded urban renewal projects demolished diverse, working-class neighborhoods across NYC for new developments. Stretching from W. 87th to W. 97th, the WSURA, home to Black and Puerto Rican families in the 1950s, was declared “blighted” and targeted for urban renewal.

**Urban renewal** refers to large-scale, government-funded projects that redeveloped urban neighborhoods to construct ostensibly public-serving infrastructure starting in the mid-20th century. In practice, these projects often demolished diverse, working-class neighborhoods home to Black, Puerto Rican, low-income and immigrant New Yorkers, ignoring resident concerns. Areas declared “blighted” or “slums” were cleared and thousands of homes destroyed. In areas like the South Bronx, 60,000 people were displaced and major highway projects like the Cross Bronx Expressway further divided communities. The Bronx now has the poorest health ranking of all the counties in New York State, with the highest asthma emergency department visit rate per 10,000 residents.<sup>16,17</sup>

Learn more: → [Public Health, the APHA, and Urban Renewal](#)

# Addressing Gentrification and Displacement


Equitable urban design aims to repair harm caused by structural racism and policies like redlining and urban renewal. Investments in active design strategies are often made in a broader economic context characterized by a lack of affordable housing. Some of the health-supporting investments promoted in ADG 2.0 are also associated with increased land values and **gentrification**. To authentically collaborate with communities and ensure that people of color and people who earn low incomes actually see the benefits from implementing the strategies in ADG 2.0, practitioners must attend to these concerns and align their work with broader policies that support more affordable communities, particularly for low-income households.

## Atrium at Sumner, Bedford-Stuyvesant, Brooklyn

The Atrium at Sumner on NYCHA's Sumner Houses campus provides housing for low-income older adults and older adults who have formerly experienced homelessness. Increased access to high-quality affordable housing can combat displacement and mitigate the negative effects of gentrification. *(Architect: Studio Libeskind)*







**Gentrification** generally refers to the arrival of wealthier people in an existing neighborhood where most residents earn lower incomes, and in some cases results in the **displacement** of current residents and businesses.<sup>18</sup> In many instances gentrification is racialized, with white households moving into historically disinvested neighborhoods of color. This influx of new residents is often followed by increased real estate investment and housing costs and demographic change in racial makeup or education level of residents, and may also result in cultural change as the arrival of higher-income residents spurs new investments in businesses and public amenities.<sup>19</sup> Researchers have found mixed effects on health for residents with lower incomes who remain in gentrifying neighborhoods, but several studies show that Black residents are more likely to experience negative effects.<sup>20</sup> While some residents experience improved living conditions and report better health, gentrification has also been linked to higher rent burdens and increases in anxiety and depression.<sup>21</sup> Because of the complexity of gentrification and the consequences often associated with increased investment in historically disinvested neighborhoods, following the guidance included in [Chapter 2: Community Collaboration](#) is vital for mitigating potential negative impacts.

**Displacement** can take many forms. Direct displacement refers to people being forced to move for reasons such as rising housing costs, eviction or uninhabitable living conditions.<sup>22</sup> Exclusionary displacement can result from discriminatory policies, such as bans on tenants with housing vouchers. Long-term residents of gentrifying neighborhoods can also face cultural displacement, a sense of alienation as businesses and services shift to cater to new residents.<sup>23</sup> While challenging to measure, some research has found that people are just as or more likely to be directly displaced from neighborhoods that are not gentrifying.<sup>24</sup> However, displacement can increase the chances of residents moving to low-quality housing and is associated with lower access to health care and poor mental health outcomes.<sup>25,26</sup>






## What Does This Mean for ADG 2.0?

All of this matters for ADG 2.0 because investments in active design strategies have the potential to influence gentrification and trust in government. Research on this topic is mixed; some studies indicate investments in new parks, public spaces or active transportation may be linked to gentrification, while other research shows no relationship at all.<sup>27,28</sup> Critically, however, it is current residents' perception that shapes trust or resistance.<sup>29</sup> Residents' resistance to new projects that are perceived to increase the likelihood of gentrification is often rooted in historical displacement. This can lead to opposition to investments in public space, new developments or other infrastructure in neighborhoods that are intended to support health and equity but may make neighborhoods more attractive to wealthier people and unaffordable for current residents. This dynamic can impede health equity goals, as continued disinvestment and ongoing mistrust may prevent or delay access to neighborhood resources that can support better health outcomes. Given this, it is essential to work closely with communities and build long-lasting trust and develop policies to ensure active designs strategies that are implemented today are accessible to current residents in the future.

Addressing these complex issues is connected to approaching health equity as both a process and an outcome. From a process standpoint, it highlights the need for authentic community collaboration, as described in [Chapter 2: Community Collaboration](#). Achieving equitable outcomes requires that investments in active design strategies are embedded in a multilayered, cross-sector approach that advances housing affordability, quality and stability, along with racially equitable economic development.



**Left:** The Loisaida Open Streets Community Coalition provides programming in public space that promotes social connection and fosters neighborhood pride in the East Village and Lower East Side of Manhattan.

## Health Equity: Implementation Fundamentals

Given the clear interaction between neighborhood conditions and health inequities, a health equity lens should inform all built environment initiatives. Any project seeking to address health equity must be accessible, high-quality and responsive to community needs. These three implementation pillars are echoed throughout ADG 2.0.

- **Inclusive and accessible.** Every New Yorker should have ready access to health-promoting built environment resources that respond to a wide array of daily needs. Proximity is one important way to understand accessibility (“Is there a park close by?”). Efforts to promote more equitable distribution of resources—from recreation spaces to transportation enhancements to healthy, affordable housing—can help address proximity concerns. Another key component of accessibility is affordability. To promote health equity, the resources referenced throughout ADG 2.0 must be attainable for those with lower incomes, with free resources being the most accessible. Additionally, **inclusive design** features, such as generous and accessible pathways, seating and ADA-compliant water fountains, are essential for welcoming people of all ages and abilities (“Can everyone make use of the park, open space, or community building?”).
- **High quality.** The mere presence of resources is not enough—they should be equitable and comparable across neighborhoods. For example, two neighborhoods with similar access to the same number of parks can have very different levels of park use. A green, well-maintained park with lots of amenities will likely attract users and contribute to the vibrancy of the neighborhood, while a poorly maintained park in need of repair may deter use—and even detract from people’s sense of safety and well-being (“Is this park a place people want to be?”). For this reason, a commitment to creating and maintaining high-quality spaces should underpin all built environment initiatives.
- **Responsive to community needs.** Community members are the experts on how built environment conditions impact their day-to-day

experience. Built environment projects can better address local health priorities when residents are actively involved in design, planning and decision-making processes. (“Is this park addressing community priorities?”) ADG 2.0 includes a full chapter on the importance of community collaboration for advancing health equity (see [Chapter 2: Community Collaboration](#)).

## The Evolution of ADG 2.0

ADG 2.0 was developed through a multiyear collaborative process led by the NYC Health Department in collaboration with the Center for Active Design, with funding from the New York Health Foundation. More than 400 scholarly articles were reviewed to inform this publication, many of which are cited throughout. More than 15 City



### **ADG 2.0 Development Workshops**

More than 170 people from over 60 agencies and organizations contributed their expertise in multiple ways, including by engaging in interactive workshops and participating in detailed interviews.

publications were reviewed in the course of this work, ensuring that ADG 2.0's health lens aligns with and reinforces the impact of existing resources, such as the City's *Principles of Good Urban Design*, *Street Design Manual*, *Parks High Performance Landscape Guidelines* and *Climate Resiliency Design Guidelines*, along with many others. These materials are flagged for further reading throughout the publication.

More than 170 people from over 60 agencies and organizations contributed their expertise in multiple ways—engaging in interactive workshops, participating in detailed interviews, submitting project ideas, reviewing draft content and much more. Youth photographers shared their creativity and skills to help capture many ADG 2.0 concepts in action. A full list of contributors can be found in the Appendix under Acknowledgments. This breadth of input embodies ADG 2.0's emphasis on the power of collaboration—and has resulted in a more comprehensive resource that reflects the challenges and possibilities of building a healthier, more just city.

As a result of these collective insights, ADG 2.0 has evolved from the original publication in a number of ways:

- **More Than Physically “Active” —ADG 2.0 embraces all aspects of health and well-being.**

The original ADG focused on physical activity as a core part of health promotion. As discussed above, a decade of additional research confirms that the built environment and natural areas can impact our mental health, social connections, sense of safety and more. The word “active” still applies, but embraces a much broader context of health promotion, health outcomes and project processes—such as actively responding to mental health priorities or actively transferring resources to support community-driven decision-making and leadership.

- **More Than Design—ADG 2.0 addresses the full project life cycle, including ongoing operations, maintenance and activation.**  
The original guidelines predominantly featured newly developed projects. While a new project can be a clean slate for integrating health-promoting strategies, the research behind ADG 2.0 points to key opportunities for enhancing existing assets to address community health needs. For example, well-kept neighborhoods are associated with greater feelings of safety than poorly kept neighborhoods.<sup>11</sup> From low-cost interventions like installing welcoming signage, to programming public spaces, to maintaining plants and trees, to managing construction hazards, ADG 2.0 identifies a wide range of opportunities to prioritize health in existing assets.



### **Abolitionist Place, Brooklyn**

Opened in 2024, Abolitionist Place in Downtown Brooklyn commemorates the abolitionist movement. The park features ample green space, seating, a public art installation and space for community programming, like Street Lab’s pop-up reading room. (NYC: EDC)

- **More Than Scholarly Research—ADG 2.0 recognizes community members as key experts.**

The implementation of on-the-ground solutions isn't "one size fits all," since every project faces unique histories, challenges and opportunities. Local residents offer deep expertise on neighborhood context and health priorities, and their guidance is critical to ensure built environment initiatives work for them. ADG 2.0 introduces a new chapter, [Chapter 2: Community Collaboration](#), which highlights guidelines for achieving more effective, community-driven decision-making. By prioritizing meaningful community collaboration processes, built environment projects can address critical inequities and maximize health benefits.

## **Call to Action**

ADG 2.0 bridges research and practice to provide an inspiring, practical resource for transforming the built environment while protecting and adding to the natural environment to advance health equity. This resource can be used to bring a health equity lens to all built environment projects: new and existing, public and private, and at all scales—from a citywide initiative to a lobby renovation.

As inspiring as the projects featured throughout this publication are, there is still much work ahead. By using ADG 2.0 as a road map and channeling resources to neighborhoods and communities that continue to experience health inequities due to the harms of structural racism, progress can be made toward a future where all New Yorkers enjoy a built environment that promotes physical, mental and social health for everyone.





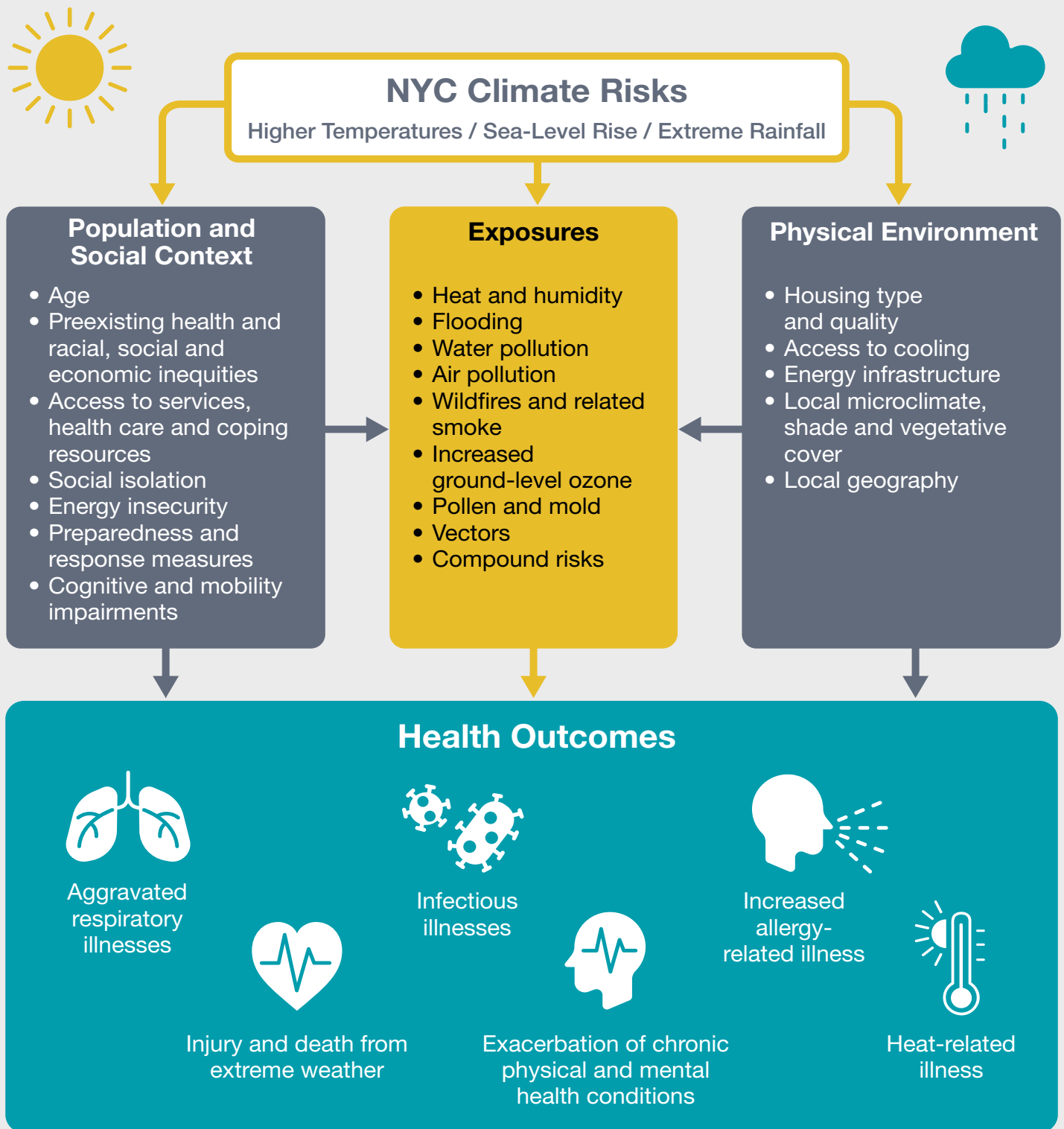
### **East Midtown Greenway, Manhattan**

In 2023, the second phase of the East Midtown Greenway was completed, featuring a new pedestrian walkway, landscaping, a pedestrian bridge and a separated bike lane. Born from community outreach processes, the project supports the city's initiative to fill gaps in the greenway network and improve cycling and pedestrian access to waterfronts and parks. (NYC: EDC, Parks, DOT; NYS: DOT; Designer: Stantec)

# Climate Change, Environmental Justice and Health

Extreme heat, rising temperatures, flooding and air pollution pose serious climate risks to NYC and its residents, disproportionately impacting communities of color and low-income communities.<sup>30</sup> These hazards, which are becoming more frequent and more intense due to climate change, exacerbate existing inequities resulting from structural racism, including historical disinvestment and redlining.<sup>31,32</sup> The design of our city and public resource allocation, including availability of green space, housing conditions, health care access and emergency preparedness capacity, shape New Yorkers' health and **climate resiliency**. ADG 2.0 provides design strategies to promote health and climate resiliency, as well as to mitigate climate change.

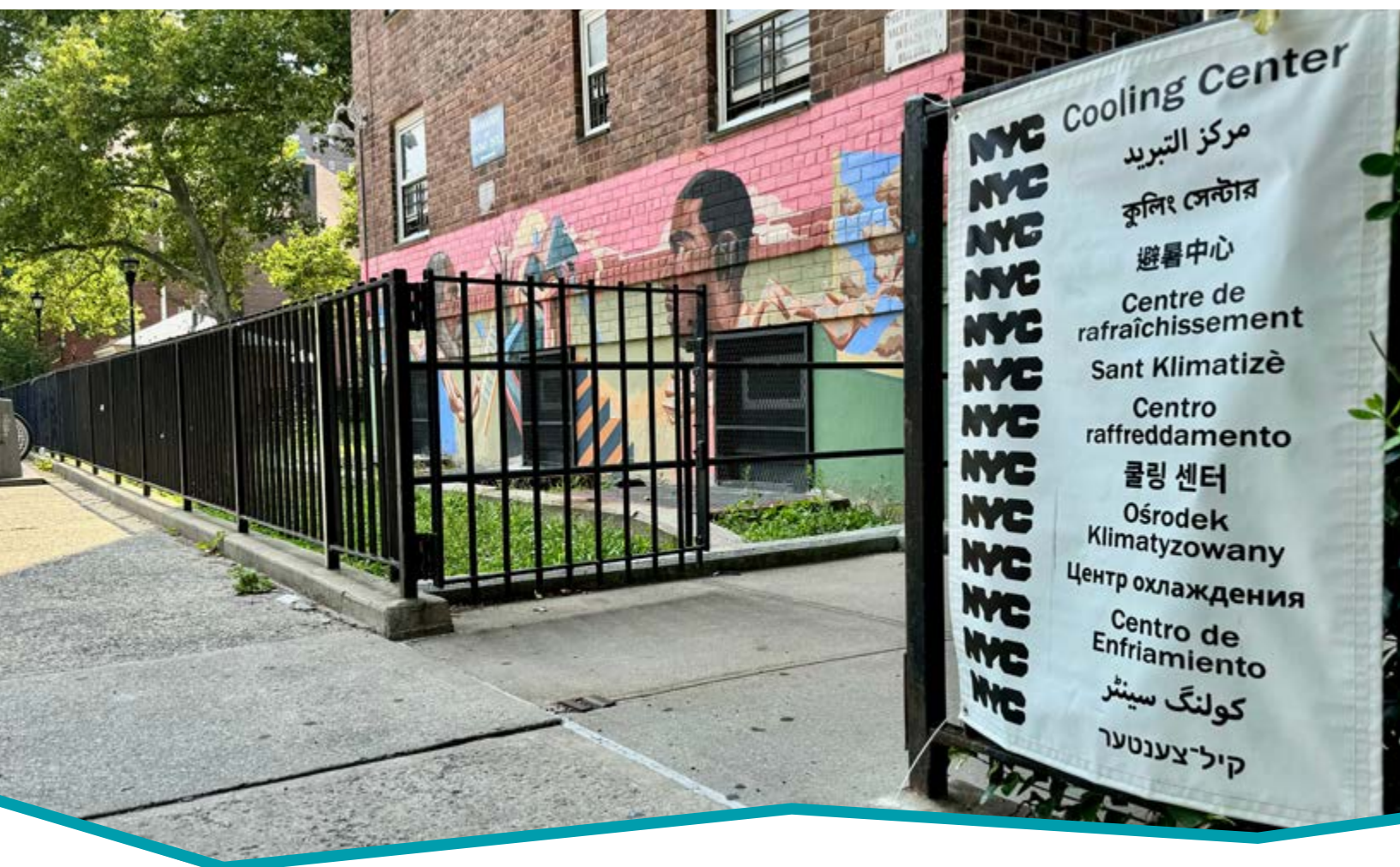
# How Climate Change Affects Your Health



**Above:** An overview of NYC’s climate risks and the environmental factors and population and social contexts that shape how New Yorkers’ health is impacted by climate change. (Adapted from the NYC Panel on Climate Change 4th assessment)

## Climate change and health are interlinked

Legacies of systemic racism, disinvestment and inequality have shaped our built environment. Today, neighborhoods that are home to low-income communities and communities of color face greater environmental burdens and more significant risks linked to adverse health impacts of climate change.<sup>33</sup> Disparities in access to vital resources like housing, green space, sufficient waste management, public space and health care can impact the ability of these communities to withstand climate hazards.<sup>34</sup> In NYC, **Environmental Justice Areas** are the overburdened and under-resourced areas affected by historical and existing social inequities without equal protection and enforcement of environmental laws and regulations.<sup>35</sup> Protecting communities from inequitable environmental and climate hazards is essential to advancing health equity and environmental justice.<sup>36</sup>



**Extreme heat** events and hotter days are occurring more frequently and intensely because of climate change.<sup>37</sup> In NYC—and across the country—heat kills more people annually than all other natural disasters, with the vast majority of these heat-related deaths being exacerbations of chronic conditions, such as heart disease and lung-related or kidney diseases.<sup>38,39</sup> Each summer, more than 500 New Yorkers die prematurely due to hot weather, a number that has steadily increase since 2015.<sup>40</sup> The increases in deaths are mainly due to an increase in **moderately hot days** (82 to 95 degrees Fahrenheit) and hotter summers overall, not just **extreme heat days** (95 degrees or higher).<sup>41,42</sup> It is critical that heat adaptation measures, such as access to residential cooling, are available during the entire warm season.<sup>43</sup> What drives the inequitable impact of heat?

**Inequitable design:** Heat conditions are shaped by the built environment.<sup>44</sup> The lasting legacy of racially discriminatory policies like redlining has created inequities in access to green spaces and tree canopy coverage that can cool neighborhoods.<sup>45</sup> Inequities also persist in housing quality, where some homes are built with heat-retaining materials and inadequate ventilation that inhibit cooling, especially overnight, and increase air-conditioning costs in warmer months.<sup>46,47</sup> As a result, low-income and Black residents are more likely to live in neighborhoods that are more vulnerable to extreme heat.<sup>48</sup>

**Inequitable access to resources:** Low-income communities and communities of color tend to have less access to air-conditioning, safe housing, health care and other resources that shape the adverse, inequitable impacts of heat.<sup>49,50,51</sup>

**Health inequities persist in NYC:**<sup>52</sup> High blood pressure and other heart conditions increase the risk of heat-related illness and death.<sup>53</sup> Among all groups, Black and Latino New Yorkers experience the highest prevalence of high blood pressure.<sup>54</sup> Older adults, socially isolated New Yorkers and those with limited mobility are also more vulnerable to the adverse health impacts of heat.<sup>55</sup>

**Learn more:** → [AdaptNYC](#); [NPCC4: Climate Change and NYC's Health Risk](#)



### **Flooding Event, New York City**

Extreme rain events can cause flooding in low-lying areas that may have poor drainage and insufficient stormwater infrastructure systems. This can cause flooding throughout the city, even in inland neighborhoods.

**Extreme rainfall,** tidal flooding and coastal storm surge are worsening, resulting in more severe flooding events, damaging and destroying homes and putting New Yorkers' lives at risk.<sup>56</sup> What drives the inequitable impact of flooding?

**Inequitable housing conditions:** The city's housing crisis has left many New Yorkers living in older, less resilient housing, such as unregulated basement apartments. Lower-income New Yorkers, residents of color and immigrants are more likely to live in these conditions and thus are more vulnerable to flash flooding.<sup>57,58</sup> Most of the 13 New Yorkers who died during Hurricane Ida, in 2021, died in unregulated basement apartments. They were mostly Asian (71%) and born outside the U.S. (71%).<sup>59</sup>

**Inequitable access to resources:** Low-lying neighborhoods with an abundance of impervious surfaces and poor drainage face increased risk of flooding.<sup>60</sup> Many New Yorkers living in these high-risk areas already struggle financially and may experience health care disruptions due to flooding, often compounded by an inability to evacuate, displacement and worsened living conditions.<sup>61</sup> A NYC Department of City Planning study found that about 49% of renter-occupied floodplain households and 35% of owner-occupied floodplain households were **housing cost-burdened**.<sup>62,63</sup>

**Health inequities:** New Yorkers with heart-related diseases and other chronic conditions are at greater risk of illness and death from storms.<sup>64</sup> Older adults, socially isolated New Yorkers and those with limited mobility are also more vulnerable to the adverse health impacts of storms and flooding.<sup>65</sup>

**Learn more:** → [NYC MOCEJ Climate Threats: Extreme Rainfall](#)

**Air pollution** levels are negatively impacted by climate change. This is especially true for major air pollutants like ground-level ozone, which increases with higher temperatures and longer, sunnier days.<sup>66,67</sup> In NYC, disease and death attributed to degraded air quality, driven by climate change, are projected to increase.<sup>68</sup> Cardiovascular and respiratory illnesses, in particular, are anticipated to increase as air quality declines.<sup>69</sup> What drives the inequitable impact of air pollution?

In cities across the U.S., there's a clear pattern: the worst air quality tends to be in the poorest neighborhoods.<sup>70</sup> But local air quality monitoring shows that NYC is different: the most polluted neighborhoods, in Midtown and Lower Manhattan, are among the wealthiest in the city. However, people living in moderately polluted high-poverty neighborhoods experience more air pollution-related health problems.<sup>71</sup> This disparity is due in part to the higher prevalence of chronic health conditions, lower-quality housing and diminished access to health care experienced in many high-poverty neighborhoods. These realities leave residents less equipped to protect themselves from pollution's harmful effects.<sup>72,73</sup> Environmental justice areas today report the greatest levels of emergency department visits attributed to pollution.<sup>74</sup>

**Inequitable design:** Redlining has also shaped the disproportionate placement of warehouses, waste transfer stations, bus depots and last-mile delivery facilities in low-income communities and communities of color, disproportionately attracting heavy truck traffic and other mobile pollution sources to those neighborhoods.<sup>75</sup> Environmental justice areas have also been denied equitable access to green space, including parks and street trees, which can have a beneficial effect on neighborhood air quality.<sup>76,77</sup>

**Learn more:** → [Environmental Justice NYC \(EJNYC\) Report](#)





**Above:** In Summer 2023, Canadian wildfire smoke drifted across the U.S. and drastically impacted air quality in NYC.



## Multi-solving for health, climate resilience, and climate mitigation with active design

The following are examples of strategies contained in ADG 2.0 that can advance climate and health goals as well support resiliency:

**Promoting pedestrian-friendly environments and safe active transport**, such as walking and biking, can reduce air and climate pollution, increase physical activity and improve physical and mental health.<sup>78,79,80</sup> (See Chapter 3, Guidelines 5, 6, 7)

**Enhancing green space** can foster social connection, increase physical activity, support healthy blood pressure and mental well-being.<sup>81</sup> Trees provide shade, temperature reduction, stormwater management and air filtration.<sup>82,83</sup> (See Chapter 3, Guidelines 3, 9)

**Well-maintained public spaces designed for accessibility and comfort**, by providing shade, offering a diversity of seating options and using low-impact materials that minimize heat absorption, can enhance **thermal comfort** and promote social connection.<sup>84</sup> Public spaces can also be designated for emergency response and recovery. (See Chapter 3, Guidelines 2, 3, 12)

**Expanding healthy building conditions** by providing heat recovery ventilation and air-conditioning, access to fresh air and incorporating natural design elements can help keep indoor spaces cool and support physical and mental health by mitigating heat.<sup>85</sup> (See Chapter 4, Guideline 11)

**Promoting use of clean energy** by shifting to clean and renewable energy sources like solar can lower costs and enhance the resilience of power systems when paired with battery storage, which may also better protect residents who are medically or socially vulnerable.<sup>86,87,88</sup> (See Chapter 4, Guideline 11)

**Implementing flood mitigation strategies**, including using permeable paving materials, incorporating native bioswales and preserving coastal ecosystems supports climate resiliency.<sup>89</sup> (See Chapter 3, Guidelines 1, 4; Chapter 4, Guideline 11.2)

**Community collaboration** should be integrated into design processes to build trust, increase social cohesion and ensure design strategies meet residents' health and climate-related needs. (See Chapter 2, Guidelines 1, 2)

ADG 2.0's strategies support equitable built environment projects to promote health and climate resiliency. Protecting public health under a changing climate requires collaboration across agencies and sectors, such as housing, infrastructure, social services and emergency management. Together, we can move toward an environmentally just, resilient and healthy city for all New Yorkers!



**Above: East River Park, Manhattan.** To protect New Yorkers from coastal flooding, the East Side Coastal Resiliency Project raises the park by eight feet. (NYC: DDC, Parks, DEP, DOT; Project Team: AKRF-KSE, MNLA, BIG, ONE Architecture and Urbanism)

## Who Should Use ADG 2.0? And How?

ADG 2.0 applies a public health lens to identify evidence-informed guidelines for achieving a healthier, more equitable city. Everyone who influences the built environment can use ADG 2.0. Here are some ideas for where to begin:

### City Agencies, Government Leaders and Policymakers

- **Partner with local public health experts** to leverage health data to set agency and capital budget priorities that address inequities and maximize the impact of public investments. Consider capital projects as well as ongoing operations and maintenance needs.
- **Provide funding and technical resources** to support meaningful collaboration and amplify community leadership across projects.
- **Collaborate across agencies** throughout all project phases to share data, coordinate interventions and maximize the impact of community collaboration efforts.
- **Consult ADG 2.0** to apply a health equity lens when developing or refining policies and plans.
- **Incorporate ADG 2.0 into agency project scoping, design requirements and design solicitations** to ensure consultants are considering and prioritizing health.
- **Develop policies** that make it easier to advance health equity and adopt ADG 2.0 guidelines

### Designers and Developers

- **Use ADG 2.0 to identify guidelines and strategies** most relevant to your project and lay the groundwork for more effective community collaboration. Use these chapters to explore specific tactics and gather inspiration from other projects.

- **Use research findings and inspiring project imagery** to help guide conversations with clients and community members.
- **Think of ADG 2.0 strategies** as a launching point for pursuing health and sustainability certifications, such as Fitwel, WELL, LEED, Enterprise Green Communities, Envision and others.

### Community Organizations

- **Use ADG 2.0 to help guide conversations** regarding neighborhood priorities and identify potential health-supporting interventions.
- **Leverage ADG 2.0 as an advocacy tool** to hold City agencies, community boards, elected officials, designers and developers accountable for their role in advancing community collaboration to support a built environment that promotes health equity.

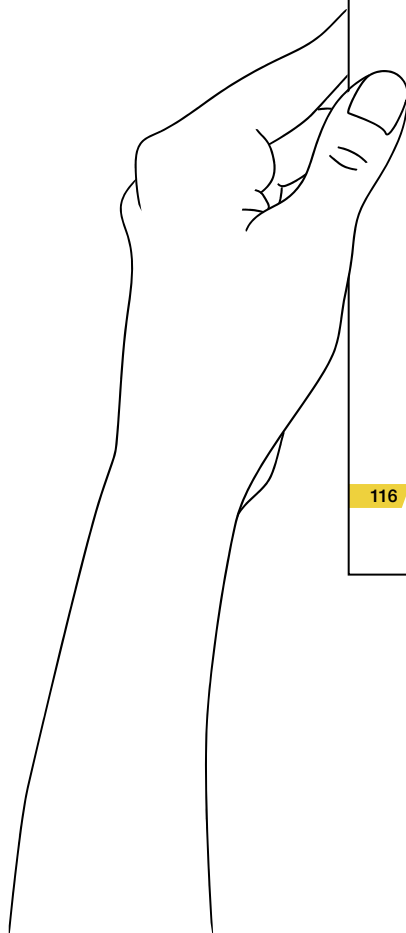
### Researchers, Foundations, and Nonprofits

- **Consult ADG 2.0 to identify opportunities** to fill gaps in the research and expand the evidence in the field to create equitable and healthy spaces.
- **Develop collaborative research and evaluation practices** in partnership with community members and City agencies, in order to assess the impacts of built environment interventions.
- **Educate students** on collaborative implementation and evaluation of built environment initiatives with equity at the core of all projects.

# Orientation to the Guidelines /

**Guideline:** captures a recommended, **evidence informed approach** for using design to enhance physical health, mental health, social cohesion, safety and civic life.

**Strategy:** covers key evidence-informed elements that must be addressed in order to achieve the intended impact of the guideline.



ACTIVE DESIGN GUIDELINES 2.0

## 2 / Prioritize Public Space Maintenance

Maintenance is essential to maximizing the health benefits of all public spaces, including parks, plazas, **Open Streets**, playgrounds, sidewalks and trees. Research indicates that people are more likely to use public spaces that feel safe and well-maintained.<sup>136</sup> Conversely, neighborhood disorder, including unsanctioned graffiti, abandoned buildings, vandalism, noise, crime and substance misuse, is associated with diminished civic trust.<sup>136,137</sup>

Robust maintenance efforts and ongoing collaborative efforts between local community groups and public entities can help foster local stewardship and ownership of public spaces. This section explores opportunities for prioritizing maintenance to make all of NYC's public spaces feel safe, enjoyable and valued by the community.

### 2.1 Design with maintenance in mind

Public space investments should always account for long-term maintenance and operations considerations. Research has shown that well-maintained and attractive public spaces are associated with enhanced perceptions of safety as well as higher levels of physical activity.<sup>138</sup> Collaboration with community partners and maintenance staff can help identify anticipated issues and uncover areas where additional funding and technical support may be needed.

#### Tactics:

- **Use durable materials.** For outdoor furniture and other public space amenities, choose long-lasting materials, such as stainless steel, recycled plastic, aluminum and concrete, which tend to require lower levels of maintenance over time.
- **Choose easier-to-maintain plantings.** Select low-maintenance native plants where possible or plants that are tolerant to local climate

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**Tactics:** offer tangible solutions to implement the strategy.

**Images:** convey example projects from a range of communities, offering inspiring models for strategy implementation.

**Captions:** provide location, further detail for images, and City and key project partners (architects, designers) when applicable.



**Morrison Avenue Plaza, Bronx**

The new plaza in the Soundview neighborhood enhances pedestrian space and safety with seating, lighting and bicycle racks made of durable materials. Porous surfaces provide optimum growing conditions for the plaza's mature trees. (NYC: DDC, DOT, DEP; Designer: SWA Balsley)

and site conditions. Plant areas with fewer species and larger plants placed close together. (See [Neighborhoods Guideline 3: Integrate Nature and Support Biodiversity in Public Spaces.](#))

- **Plan for pest control.** Implement pest control strategies to limit rats, mice, roaches, mosquitoes and other pests that spread disease and detract from quality of life. Ensure infestations can be prevented safely or quickly identified and treated.

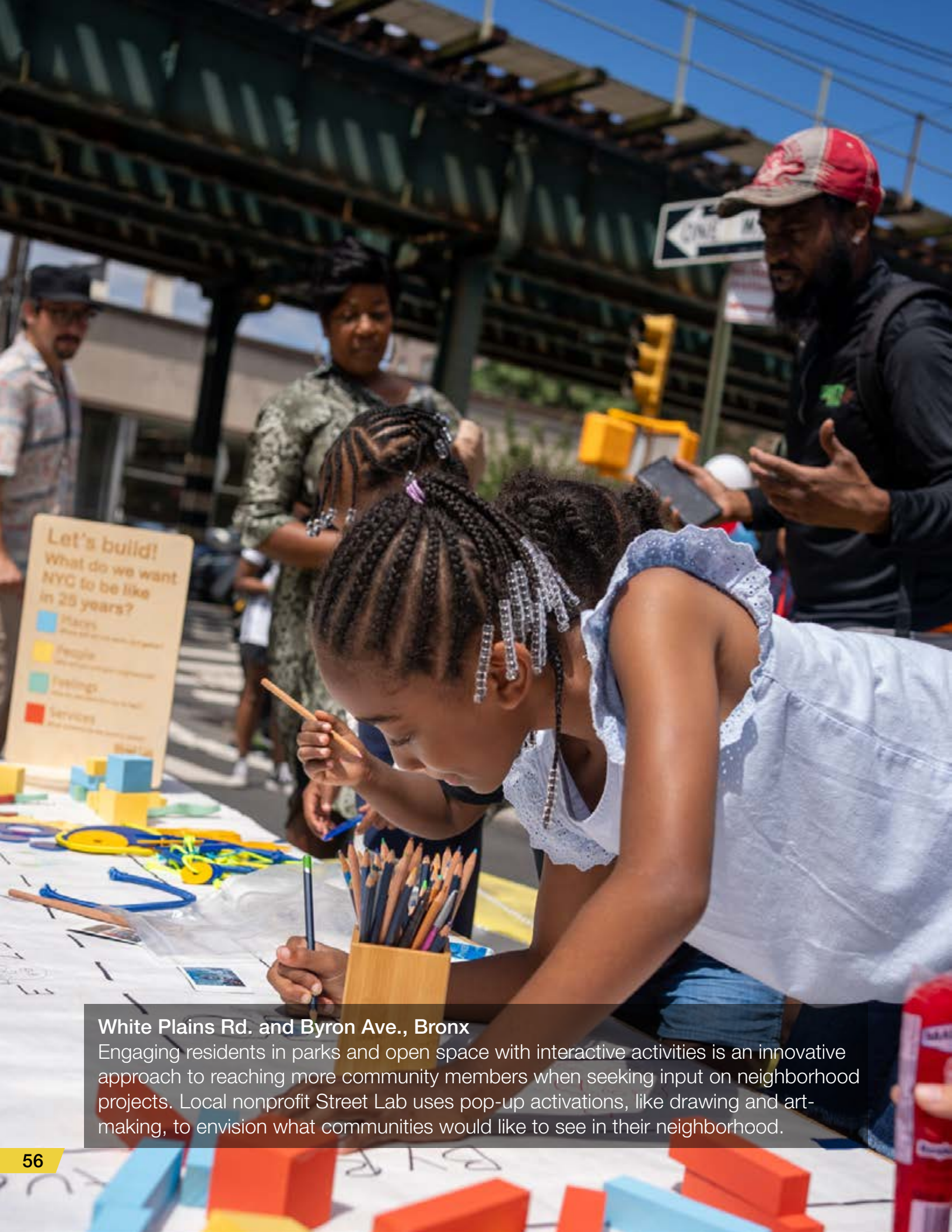


**For further reading:**

- NYC Parks: [Native Species Planting Guide](#)
- NYC DOT: [Street Design Manual – Plant Installation, Period of Establishment and Maintenance](#)
- NYC DOT: [Plant Finder Tool](#)

**Special Features**

- All Guidelines and Strategies are consolidated into a **checklist** that can be found at the end of each chapter.
- All **glossary terms** are bolded as they appear throughout the text and consolidated into a glossary found in the appendix.



**White Plains Rd. and Byron Ave., Bronx**

Engaging residents in parks and open space with interactive activities is an innovative approach to reaching more community members when seeking input on neighborhood projects. Local nonprofit Street Lab uses pop-up activations, like drawing and art-making, to envision what communities would like to see in their neighborhood.



## 2 / Community Collaboration

When it comes to making decisions about the **built environment**, process is paramount. In addition to drawing upon data and research, it is equally important to integrate and value the expertise and **situated knowledge** of **community** members. Investing in and committing to a meaningful and collaborative community engagement process in all projects that impact where people live, work and play offers a pathway to advance racial justice and promote greater **health equity** by prioritizing the needs of local residents and users of buildings and **public spaces**.

Many people involved in the design process will have some experience with community engagement activities, such as taking or administering a survey, participating in or leading a community workshop or attending a community board meeting. While this chapter builds upon a baseline understanding of community engagement practices, it also seeks to disrupt the power imbalances often associated with engagement, in which community members are called upon to engage at the behest of an agency or developer driving a project.

ADG 2.0 promotes a deeper level of community collaboration and relationship building—and more effective power-sharing with community members in the design and decision-making process. The five guidelines in this chapter are drawn from public health evidence and research, expertise from community groups and local and national nonprofit organizations working to advance equity, and recent City initiatives aimed at improving engagement approaches. The guidelines listed below offer insights to deepen collaboration with the communities in which public agencies and private-sector designers and developers operate.

- **Build Trust and Ensure Transparency**
- **Amplify Community Leadership**
- **Compensate for Participation and Remove Barriers**
- **Diversify Engagement Opportunities**
- **Evaluate and Refine Approaches**

## Community Collaboration Matters for Health

Public health research points to multiple benefits related to meaningful, inclusive collaboration in community decision-making. These benefits include better mental health outcomes, stronger social supports and enhanced sense of community.<sup>90,91,92,93</sup>

Conversely, ignoring the needs and opinions of the community in decision-making about their neighborhood may prolong or further the negative impacts of the built environment and lead to mistrust in government.<sup>94</sup> As noted in the Chapter 1 section on [Structural Racism, the Built Environment and Health Inequities](#), power



### PS 86, Brooklyn

A teaching artist with Creative Art Works, an NYC creative youth development organization, engaged PS 86 students in the design of an interactive wall mural. The mural promoted physical activity and active play during indoor recess and PE.

imbalances and embedded discrimination in the built environment have resulted in historic and ongoing health inequities—particularly for people of color and those living in lower-income neighborhoods.

While collaborative decision-making is important for nearly every project, at every scale, it is particularly crucial in neighborhood planning processes to prioritize power-sharing among communities whose interests have been systematically ignored through practices like **redlining**, **urban renewal** and **gentrification**.

## Meaningful Engagement

Community engagement occurs along a spectrum. To better advance health equity, built environment projects should strive for collaboration and shared leadership as a model of engagement as appropriate.



## Community Collaboration Guidelines

This section offers evidence-informed guidelines to advance collaborative built environment decision-making that prioritizes community members. Anyone who influences the design of the built environment has a role to play in promoting better health outcomes—and better projects—by incorporating meaningful community collaboration. These guidelines will be referenced in the upcoming chapters.

By applying the following guidelines, planners, architects, designers and City employees can help processes move from a minimum baseline of informing and consulting to a state where community members' knowledge and expertise is valued and they are able to participate in shared decision-making on key elements of projects that impact their health and well-being.

### How to Use These Guidelines

Public agencies and private-sector designers and developers should use these community collaboration guidelines to tailor engagement approaches and strategize practical ways to advance community collaboration to make projects as impactful as possible. From small building renovations to the design of a public plaza or large residential building, all built environment projects can benefit from engagement with the community and users of the space.

- **Incorporate as many of these guidelines** as possible to inform a particular project or your day-to-day work.
- **Use the reflection questions** provided to help identify opportunities for improvement.
- **Explore additional resources** provided at the end of this chapter, which include step-by-step guides, planning worksheets, detailed exercises and more.
- **Advocate for the use of these guidelines**, whether you are reaching out to decision-makers at your own organization or investing in a built environment project happening in your neighborhood.

# Guidelines

- 1 Build Trust and Ensure Transparency 63**
- 2 Amplify Community Leadership 70**
- 3 Recognize Value and Remove Barriers to Participation 77**
- 4 Diversify Engagement Opportunities 83**
- 5 Evaluate and Refine Approaches 90**

# 1 / Build Trust and Ensure Transparency

A range of organizational thought leaders, from business executives to social justice activists, have echoed the importance of building trust and relationships as essential components of engagement.<sup>95,96</sup> People are more likely to successfully navigate change, come to a shared understanding and work together effectively when trust is established.<sup>97</sup> Fostering meaningful relationships is as important as managing timelines and budgets. Collaboratively setting the pace of built environment projects and refocusing attention toward fostering trust is the foundation of success.

In seeking to build trust, practitioners need to proactively recognize and correct for inherent power imbalances that may impact **stakeholder** representation and ensure decisions are made as transparently as possible.<sup>98</sup> Those involved should engage in a **trauma-informed approach** to learn about the safety considerations, collaboration, peer support and history that are important to community members. Trust-building, shared leadership and peer-to-peer leadership are critical to improving social cohesion and collective community healing. This is particularly important for communities of color who have experienced a history of trauma.<sup>99,100</sup>

## Taking a Trauma-Informed Approach to Active Design

Traumatic events can occur at the individual, community or population level and might include experiences of abuse or neglect, violence, accidents, grief and loss, natural disasters, racism, ableism, poverty and other forms of structural oppression and systemic discrimination. Trauma can have lasting adverse effects on individual and community well-being and increases a person's lifetime risk for chronic health conditions and health-risk behaviors.<sup>101,102,103,104</sup>

In NYC, many individuals and communities have already experienced forms of trauma. Community and environmental design strategies can play an important role in preventing exposure to trauma, minimizing ongoing stressors, promoting resilience and supporting the needs of people experiencing trauma-related health concerns.<sup>105,106,107</sup> Efforts to engage communities in design planning should take a trauma-informed approach by: acknowledging the ways in which individual and community trauma may pose barriers to participation; centering the safety of community members; building trust; promoting empowerment of and authentic collaboration with communities; and recognizing the importance of history, identity and culture.<sup>108,109</sup> These elements are relevant to any built environment project and are woven into the guidelines in this chapter.

### 1.1 Start building trust early and revisit often

Trust building takes time and active commitment. Project timelines should be established with community input and community building goals at the very beginning of the process. Consider whether this is a long-term shared leadership model of collaboration or a narrower, project-specific community process.

*How long will you be working with community partners and what are your expectations for them? Are your expectations fair and realistic?*





### **Southern Boulevard Neighborhood Study, Bronx**

Launched in 2016, this neighborhood study process brought City agencies and the communities along Southern Blvd. together to plan for future investment around housing, jobs, public space and other community resources. Residents vocalized key issues and priorities in planning sessions, ultimately seeking additional City support to build community consensus before moving forward with a formal neighborhood plan.

## 1.2 Learn about the community in advance

If unfamiliar with the neighborhood or site, conduct preliminary research to better understand the history and community context. Use desk research, local news media and preliminary conversations with community members and local organizations, such as those that work with the disability community, to develop a working knowledge of local priorities and challenges.

*Do we understand the landscape of prior planning and development initiatives in this neighborhood? Have previous promises been kept or broken?*



### NYC Housing Preservation and Development (HPD) Outreach Van

NYC HPD's community engagement teams travel across the five boroughs in an outreach van to bring information and services directly to tenants and homeowners. Offerings include getting help filing a housing complaint and preparing to apply for affordable housing.

### 1.3 Communicate across agencies and organizations

Sharing information is important for building trust—and essential for public agencies, which tend to be perceived under the singular umbrella of “City government.” Identify any parallel projects and processes taking place around the same time. Share past learnings and project data to avoid “engagement fatigue”—a state where residents feel overtaxed by being asked to respond to the same types of questions across multiple projects, without seeing meaningful results. Make data publicly available to streamline cross-sector collaboration.

*How can we learn from and coordinate with other engagement efforts happening in this community?*

### 1.4 Welcome stories and willingly acknowledge grievances

Encourage everyone involved in community collaboration efforts to share stories about their daily lives and connect on a deeper level. Use a trauma-informed approach to develop conflict resolution practices and let community members know what the process will be for addressing grievances or conflicts. Ensure that community members feel safe airing any frustrations, including those related to systemic racism, neighborhood tensions or failures of previous projects. Enlist trusted professional facilitators that match the lived experiences of the community as needed, particularly with communities that have experienced trauma.

*Are all project stakeholders able to connect on a personal level and talk openly about what matters most to them? Do we have a sense of local history, demographic shifts, traumas or other issues shaping this community?*

## 1.5 Clarify goals, manage expectations and identify key opportunities for shared decision-making

Collectively identify clear, agreed-upon goals to guide project processes. Articulate specific roles and responsibilities of various groups. Be clear about key milestones in the process and opportunities for shared decision-making, particularly for capital projects that may take years to be fully realized. A formalized community agreement can help hold all stakeholders accountable. (See [Community Engagement Almanac](#) for further reading).

*Do community members have a clear understanding of roles and responsibilities, as well as the project timeline and key decision points?*

## 1.6 Foster transparent, collaborative decision-making

Make decision-making as transparent as possible, for example through public surveys, participatory budgeting or on-site installations that create a visible track record of community input. Be up front about project trade-offs and inherent limitations. Refine project directions based on ongoing community feedback.

*Are we communicating routinely and predictably about decisions being made, and how stakeholder input has been used? To what degree are we reassessing the project approach based on community feedback?*



### NYC DOT Harlem River Greenway Engagement

In spring 2024, NYC DOT conducted in-person and virtual Harlem River Greenway workshops focused on route alternatives. Bronx residents shared feedback on proposed greenway routes during facilitated discussions in both English and Spanish.

**“ Maximizing transparency around decision-making means responding to community members on what parts were incorporated and not. Reporting back is so important for civic trust. People understand that not all ideas are implemented, but they want to hear the process and the whys behind it.”**

— Ted Enoch  
Partnerships for Parks

## 2 / Amplify Community Leadership

Amplifying community leadership means prioritizing community members' perspectives and skills at every stage of decision-making. Research shows that intentionally elevating community voices and expertise in neighborhood development processes may result in key **social health** benefits—including fostering a sense of ownership and belonging, drawing interest from diverse groups of people, increasing feelings of social cohesion and increasing awareness around important social issues.<sup>110,111,112</sup>



### Queensbridge Houses, Queens

In 2019, the artist-in-residence at Queensbridge Houses, Robin Dahlberg, engaged over 150 residents to create “We Are Queensbridge,” a photo exhibition that portrayed a diverse, compassionate and sympathetic community, celebrating its strengths and confronting its challenges.

## 2.1 Identify stakeholder groups

This includes all individuals, communities and organizations that are invested in or affected by the project. Involve all stakeholders in the project from the beginning. Think beyond the “usual suspects” to bring a broad range of perspectives to the table, including those who may have previously encountered barriers in access.

*Who are our project collaborators—from City agencies to neighborhood leaders and users of the space? Whose contributions may have been overlooked or excluded in the past, and are all the more essential to engage now?*

## 2.2 Support community-based leaders and organizations

Ensure local neighborhood leaders and other community members play a key role in spearheading collaborative engagement efforts. Enlist multiple organizations—such as community-based organizations, faith-based institutions and local advocacy groups—to increase outreach among a diverse cross-section of residents.

*Who is helping design and manage this community collaboration process? If we stepped away, how would progress continue?*

## 2.3 Collaboratively develop shared vocabulary

Describe project goals in a way that will resonate with a diverse cross-section of community members. Avoid using acronyms or highly technical language and define key terms. Use inclusive language that invites everyone to the table, regardless of gender, race, age, ability, class or income level and immigration status.

*Whose ideas are shaping how we describe this project? Are community stories and perspectives visible in how we talk about the project?*

## 2.4 Advance community-defined priorities

Ensure community members have the opportunity to articulate their priorities and refine project goals as needed, even if these ideas conflict with preconceived project goals. Create an environment in which community members can generate creative and unexpected solutions.

*Whose priorities are coming first? Are the people who will be most impacted influencing the project vision? Are community members joining the conversation early enough to directly shape project goals?*



### **Community Visioning Workshop, Brownsville, Brooklyn**

The Brownsville Community Justice Center and design studio Hive Public Space facilitated visioning workshops with local teens to reimagine and activate public spaces in their neighborhood through creative engagement activities such as collage making and event implementation in public spaces.



## 2.5 Provide resources and training in response to community needs

Provide access to financial resources and training opportunities when a need is identified to further cultivate community leadership and build deeper understanding around navigating various systems, policies and development processes. Utilizing local expertise and ongoing collaboration around decision-making during each project phase can generate benefits for often-overlooked needs, such as maintenance, stewardship and programming—and help lay the groundwork for the next local project.

*What kind of ongoing financial and technical resources have community groups identified that would be useful for stewarding this project, now and into the future? How are we investing in long-term community capacity and leadership?*

**“Community ownership needs to be embedded into project models. If we’re building relationships, and eventually move on, how do we ensure continuity—including institutional knowledge and maintenance of those relationships?”**

— **Mauricio Garcia**  
Friends of the High Line

# Guidelines in Action

## Brownsville Community Plan, Brooklyn

Starting in 2014, the NYC Department of Housing Preservation and Development (HPD) teamed up with local community members to implement a comprehensive community-informed planning program aimed at promoting health, employment and education outcomes across Brownsville, Brooklyn.

From 2016 to 2017, HPD hosted a series of interactive public workshops to explore how urban development could meet community needs. Nearly 800 residents provided feedback during these workshops or through an online portal, helping inform the development of eight holistic development strategies, including creating safe public spaces, improving housing stability and supporting small businesses and aspiring entrepreneurs.

Through diverse forms of engagement, involved organizations established a neighborhood development plan that fosters local arts and identity, promotes community economic development and improves neighborhood health and safety.

The Brownsville Community Plan strives to ensure local needs and priorities guide neighborhood development now and into the future.

Details at [nyc.gov/brownsville](https://nyc.gov/brownsville).

### Sample Guidelines in Action

The Brownsville Community Plan exemplifies a range of ADG 2.0 Guidelines:

**Collaboration 1:** [Build Trust and Ensure Transparency](#)

**Collaboration 2:** [Amplify Community Leadership](#)



The Brownsville Community Plan serves as an example of community leadership in East Brooklyn.



**“ In Brownsville, there’s a certain dominant narrative about crime, but through our engagement work, other narratives start to rise to the surface. Through design, you can co-create a new narrative about place. When you begin to explore the community lived experience and understand diverse narratives and which ones you want to tap into, that becomes the story of the building.”**

**— Ifeoma Ebo, NYC HPD**



**Broadway and W. 150s, Manhattan**

NYC DOT conducts stakeholder engagement to identify community priorities and safety concerns in their neighborhoods. To expand meaningful outreach and greatly increase participation in project and program development, NYC DOT launched the Street Ambassador Program in 2015.

## 3 / Recognize Value and Remove Barriers to Participation

Recognize the value of community members' time by compensating people for participation and removing barriers to participation. Research indicates that such efforts can increase community participation and deepen the impacts of collaboration efforts.<sup>113</sup>

### 3.1 Budget for collaboration

Allocate resources to support meaningful community engagement activities throughout the various phases of a project, from planning stages through design, construction and beyond.

*What is my strategy and budget for compensating community members who are investing time and effort into this work?*

### 3.2 Tap into local networks

Engagement efforts led by trusted community messengers will have greater impact. Enlist a local anchor organization or recruit a paid local advisory council to spearhead engagement efforts.

*How can we recruit trusted local leaders to guide the projects and shape meaningful engagement efforts that resonate with neighborhood residents?*

### 3.3 Prioritize local hiring

Hire local consultants, contractors, community-based organizations and vendors who are embedded in the neighborhood.

*How can we enlist the expertise of local partners in paid consulting and procurement opportunities related to this project?*

### 3.4 Accommodate different schedules and abilities

Host public events and meetings at a range of times and locations, in-person and virtual, to accommodate different schedules. Establish minimum requirements for events, such as nearby accessible **public transit** and wheelchair accessible restrooms, free child care, simultaneous interpretation and healthy food. Include ways to request accessibility accommodations in the event promotion materials.

*Where are people already convening (such as supermarkets or churches), so I can meet them where they are? How can we make it as easy as possible for everyone to participate?*



#### **Open Street, Brownsville, Brooklyn**

During a 2022 engagement event hosted in Brownsville for the reimagining of a dead-end street into a plaza, Brownsville Community Justice Center and design studio Hive Public Space provided games for children so parents could provide input and share feedback.

### 3.5 Compensate for participation

Compensation and recognition can attract broader participation and keep people coming back. This can come in the form of monetary incentives, such as gift cards or OMNY/transit cards, as well as access to training opportunities and other compensation that is appropriate for the specific community. Compensation of local community-based organizations for their participation in the process should also be considered.

*Can we provide participants compensation as recognition and acknowledgment of their valuable contributions?*

### 3.6 Connect community members to resources

Use community meetings to respond directly to neighborhood needs by connecting residents to social services or City resources, such as mobile health units and housing resources.

*How can we make the most of project events and activities and be responsive to pressing community needs?*

**“ Properly compensate communities. Be aware of how much you ask of people when they commit to engagements and the weird power dynamic of us getting paid while they don’t—the labor aspect is crucial.”**

— Daphne Lundi  
Urban Planner and Climate Consultant

## What Creates Health? Queensbridge, Queens

At Queensbridge Houses, the largest public housing site in the country, *What Creates Health?* is a project that brings together residents and local artists to address violence as a public health issue. This project aims to support community-driven transformation of Queensbridge's spaces into sites that promote self-determination, community health and social change. Partners include the NYC Health Department, community partners Jacob A. Riis Neighborhood Settlement and 696 Build Queensbridge and cultural partner Naturally Occurring Cultural Districts NY (NOCD-NY).

Artist amalia deloney worked with Queensbridge residents to co-facilitate story circles, which use storytelling to shape cultural narratives. BRIC, a media and arts institution, and Educational Video Center collaborated with local youth to learn podcasting and documentary filmmaking that can be applied as cultural strategies to promote violence prevention work.

By centering lived experiences, community expertise and power, the narratives

of unity and belonging that emerged in the storytelling process informed local public art installations in partnership with the Queensbridge NeighborhoodStat (NStat) resident stakeholder team, part of the Mayor's Action Plan.



*What Creates Health?* helped bring together the community.

### Sample Guidelines in Action

*What Creates Health?* exemplifies a range of ADG 2.0 Guidelines:

**Collaboration 2:** Amplify Community Leadership

**Collaboration 4:** Diversify Engagement Opportunities





**“ What came out of the story circle was the idea to bring residents together, which is why the mural celebrates diversity and unity in the community. The only way residents can feel a part of something is if they see themselves in what is created in the community.”**

**— Gwendolyn Wilson, Queensbridge resident and MAP Engagement Coordinator for Jacob A. Riis Neighborhood Settlement**



### **Opening the Edge Project, Lower East Side, Manhattan**

In 2014, a temporary plexiglass art installation was created by Community Engagement Fellow Mollie Serena at the NYCHA Lillian Wald Houses and used as an outreach tactic to engage residents to reimagine a previously fenced-off and inaccessible open space. Through close collaboration between residents and project partners, the space was redesigned to be an accessible area that offers benches, a sloped platform for performances, tables, new lighting and no fence.

## 4 / Diversify Engagement Opportunities

The COVID-19 pandemic forced everyone to rethink traditional public meeting formats, revealing the challenges and benefits of virtual engagement approaches. While digital tools like online forums and social media have been shown to effectively broaden reach and support collaborative processes, such methods may exclude individuals who lack technological savvy or reliable internet access. To maximize community collaboration—and related health benefits like social cohesion—built environment projects should incorporate in-person and digitally accessible platforms or a variety of engagement methods, such as hands-on art-making and participatory grantmaking, that appeal to a range of participants and are best suited to reach community members.<sup>114,115,116,117</sup>

### 4.1 Mix digital and in-person engagement

Use online surveys and virtual workshops to garner input from a diverse cross-section of residents, including those who do not typically attend in-person public meetings. Use methods such as phone calls, mail-in surveys and tabling to reach older adults and others who lack access to digital tools. Collaborate with community stakeholders to shape preferred engagement methods that will work best.

*What mix of engagement methods will help maximize the meaningful participation of all community members or those most impacted?*

## 4.2 Think beyond official public meetings

Rather than asking community members to come to you, find appropriate ways to meet them where they are. Make sure outreach is diversified to include a mix of in-person and digitally accessible approaches. When invited, attend scheduled events and gatherings and offer fun, creative opportunities for community members to share insights and weigh in on key decisions.

*What planned community events and activities offer a natural opportunity to engage with community members?*



### **Cross Bronx Expressway Study, Neighborhood Bike Tour, Bronx**

NYC City Planning, NYC DOT, the NYC Health Department and New York State DOT hosted a bike tour with community residents in the Bronx as part of the Cross Bronx Expressway Study to better understand constraints experienced by pedestrians and bicyclists when intersecting with the highway.

### 4.3 Engage with the arts

Cultural practices are particularly beneficial for seeding social change and neighborhood transformation. Art can also help facilitate conversations around challenging topics or traumatic events. Enlist local artists and local arts and cultural organizations to help design engagement approaches and develop collaborative art with community members, such as murals and performances that speak to local priorities.

*Do community members have the opportunity to express their ideas creatively? What local artists and arts organizations could help guide engagement?*

### 4.4 Support community-led data collection

Community members can play an active role in assessing neighborhood strengths and challenges. Look for tools, such as walking audits and interview guides, to foster more collaborative data collection and analysis.

*How can community members get directly involved with collecting data that will inform this project?*

### 4.5 Be mindful of location

For in-person gatherings, select locations that are comfortable, welcoming and familiar. In addition to meeting basic accessibility requirements, consider other opportunities to help participants feel welcome—such as comfortable seating, natural lighting and all-gender wheelchair accessible restrooms. Be mindful of how you show up in the space and consider how the space might hold importance to community members.

*What local venues offer familiar, accessible and comfortable spaces to convene community members?*



**Climate Strong Communities (CSC) Community Site Walk, Soundview, Bronx**  
CSC, a citywide strategy to engage overburdened neighborhoods in proactive climate programs and projects, hosted a series of public workshops and outdoor site walks to learn about resident priorities.

## 4.6 Promote inclusive communication

Translate key materials and host multilingual meetings where everyone can actively participate. Ensure key concepts are adapted and communicated in a manner that is culturally relevant to the community. Provide sign language interpretation and live translation or closed captioning services to reach as many community members as possible.

*What languages are spoken in this neighborhood? Have we enlisted the necessary translation or interpretation services?*

## 4.7 Avoid overprogramming meetings

While it is important to be mindful of a clear agenda, community meetings can also incorporate time for informal connection and socializing, which can help foster trust and build stronger relationships.

*What are key opportunities to foster informal connections and socializing? (Are there **Open Streets**, community dinners, meet-ups or other ways to build relationships?)*

**“This is a moment for City agencies to get up to speed on multilingual communication channels and tactics, such as social media. Grandma may not be on Zoom, but she might be on Facebook.”**

— Lida Aljabar

Department of Housing Preservation and Development

## High Line Teens, Manhattan

In 2009 the long-abandoned High Line elevated train tracks were transformed into a public walking path and NYC Park, bringing much-needed green space and contributing to the significant redevelopment of Manhattan’s West Side. However, the benefits of this redevelopment excluded many locals, pricing large numbers of residents out of the neighborhood or leaving them feeling that the High Line was simply not for them. These unintended consequences demonstrate the importance of authentic community engagement in development planning and inclusive public space design processes.

To initiate a collaborative relationship with the local community, the High Line launched a youth development program called High Line Teens (HLT). HLT is a paid employment program for local youth ages 15 to 19. Participating teens develop leadership skills while working on civic engagement, arts and culture, and environmental sustainability projects on and off the park. They also build networks with other youth across the city and complete “intensive weeks” where they pursue individual research on topics related to the park.

Through the program, teens gain the tools to become competitive, practical leaders in any career they choose—taking actionable steps to reach their personal goals.



Located on Manhattan’s West Side, HLT involves teens in community building.

### Sample Guidelines in Action

High Line Teens exemplifies a range of ADG 2.0 Guidelines:

**Collaboration 3:** [Recognize Value and Remove Barriers to Participation](#)

**Collaboration 5:** [Evaluate and Refine Approaches](#)





**“ I enjoy learning about the High Line’s background, its impact on the neighborhood and its evolution over time. I like how we all come from different cultures and backgrounds. Unifying, working together and learning new things about each other is an awesome experience.”**

**— Steve Trujillo, High Line Teen**

## 5 / Evaluate and Refine Approaches

Community needs continually evolve and change, and neighborhoods can experience dramatic shifts in local priorities over time. Ongoing evaluation efforts can be used to track collaborative engagement activities and identify areas where further work is needed to ensure activities are responsive to current community needs and concerns.<sup>118,119</sup>

By continuously reflecting on and refining community collaboration efforts, the success of a given project will be supported—and the foundation will be laid for achieving future neighborhood goals.

### 5.1 Establish approach goals

In addition to agreeing on project goals, collaboratively establish a plan to monitor the process of community collaboration itself. For example, work with a diverse cross-section of community members, provide regular updates, create a project website or build awareness about a local issue.

*What are the signs of a successful community collaboration approach? What metrics will we use to monitor progress and track success?*

### 5.2 Assess demographics and broaden participation

Create a survey to gather details on participant demographics and depth of participation. Analyze data regularly to identify which groups are under- or overrepresented and shift approaches as needed to encourage a broader range of community members to participate.

*Who has been involved in this project to date? Which groups are missing from the conversation, and how can we recalibrate our approaches to welcome their input?*



### Where We Live Fair Housing Plan

NYC HPD and NYCHA hosted a series of interactive workshops with hundreds of residents and over 150 community-based organizations to gain their perspective on issues and approaches relating to housing discrimination and neighborhood segregation in order to address and advance fair housing policies in the city.

**“ We need to have our metrics framed as more human-oriented, rather than as spatial metrics, reflective of the goals and values we are pursuing. We need to get away from only counting how many people are there in attendance.”**

**— Cailean Kok**  
Project for Public Spaces

### 5.3 Welcome constructive feedback

Use short questionnaires, one-on-one interviews and strategic discussions with project partners to learn which community engagement activities are most effective and determine whether project goals are being met. Ensure that all stakeholders have the opportunity to provide feedback and that insights and data from evaluation efforts are transparently shared.

*How can we continuously improve collaborative decision-making approaches? Do we have open lines of communication to regularly report on approach goals and welcome constructive feedback?*

### 5.4 Consider the full project life cycle

The most effective community collaboration is not bound to a single project phase or concluded when the project is finished. Even after a project is officially complete, there are abundant opportunities to refine site operations, maintenance, programming and more. Conduct regular surveys and on-site engagement activities with community members to identify areas for improvement.

*How can collaborative efforts continue to shape this project and respond to community needs throughout design, construction and day-to-day operations?*

## Conclusion

Community collaboration should be a top priority for every project. City agencies have a particular responsibility for shaping policies and allocating resources to better support community collaboration. Private-sector designers and developers should apply these guidelines to ensure projects respond to community needs. All practitioners can advocate for better built environment projects—and better collaboration approaches—that effectively embrace the expertise of local residents.



### PS 112 Neurodiverse City Project, East Harlem, Manhattan

At PS 112, design firm Verona Carpenter Architects and the Design Trust for Public Space, in collaboration with the NYC Health Department's Active Design in Schools program, led students and staff in creative visioning sessions about what features they would like to include in reimagined school spaces.

Collaboration is an ongoing and evolving process that can result in tangible health benefits that extend well beyond the scope of a single project. By building new relationships and considering opportunities for shared leadership, everyone who influences the built environment can take collective action to dismantle embedded **inequities** and maximize the health benefits of their work.



#### For further reading:

- TYTHE Design: [Community Engagement Almanac](#)
- NYC Mayor's Office of Criminal Justice: [Safe Places, Active Spaces!](#)
- NYCHA: [Connected Communities Guidebook](#)
- NYC Health: [Community Engagement Framework](#)
- BlackSpace: [Co-Designing Black Neighborhood Heritage Conservation](#)
- NYC DOT: [Street Design Manual – Community Participation](#)

## Chapter 2: Community Collaboration Checklist /

### Chapter 2: Community Collaboration

#### Guideline 1: Build Trust and Ensure Transparency

	<p><b>1.1 Start building trust early and revisit often</b></p>
	<p>How long will you be working with community partners and what are your expectations for them? Are your expectations fair and realistic?</p>
	<p><b>1.2 Learn about the community in advance</b></p>
	<p>Do we understand the landscape of prior planning and development initiatives in this neighborhood? Have previous promises been kept or broken?</p>
	<p><b>1.3 Communicate across agencies and organizations</b></p>
	<p>How can we learn from and coordinate with other engagement efforts happening in this community?</p>
	<p><b>1.4 Welcome stories and willingly acknowledge grievances</b></p>
	<p>Are all project stakeholders able to connect on a personal level and talk openly about what matters most to them? Do we have a sense of local history, demographic shifts, traumas or other issues shaping this community?</p>
	<p><b>1.5 Clarify goals, manage expectations and identify key opportunities for shared decision-making</b></p>
	<p>Do community members have a clear understanding of roles and responsibilities, as well as the project timeline and key decision points?</p>

<b>1.6</b>	<b>Foster transparent, collaborative decision-making</b>
	Are we communicating routinely and predictably about decisions being made, and how stakeholder input has been used? To what degree are we reassessing the project approach based on community feedback?

## Guideline 2: Amplify Community Leadership

<b>2.1</b>	<b>Identify stakeholder groups</b>
	Who are our project collaborators—from City agencies to neighborhood leaders and users of the space? Whose contributions may have been overlooked or excluded in the past, and are all the more essential to engage now?
<b>2.2</b>	<b>Support community-based leaders and organizations</b>
	Who is helping design and manage this community collaboration process? If we stepped away, how would progress continue?
<b>2.3</b>	<b>Collaboratively develop shared vocabulary</b>
	Whose ideas are shaping how we describe this project? Are community stories and perspectives visible in how we talk about the project?
<b>2.4</b>	<b>Advance community-defined priorities</b>
	Whose priorities are coming first? Are the people who will be most impacted influencing the project vision? Are community members joining the conversation early enough to directly shape project goals?
<b>2.5</b>	<b>Provide resources and training in response to community needs</b>
	What kind of ongoing financial and technical resources have community groups identified that would be useful for stewarding this project, now and into the future? How are we investing in long-term community capacity and leadership?

### Guideline 3: Recognize Value and Remove Barriers to Participation

<b>3.1</b>	<b>Budget for collaboration</b>
	What is my strategy and budget for compensating community members who are investing time and effort into this work?
<b>3.2</b>	<b>Tap into local networks</b>
	How can we recruit trusted local leaders to guide the projects and shape meaningful engagement efforts that resonate with neighborhood residents?
<b>3.3</b>	<b>Prioritize local hiring</b>
	How can we enlist the expertise of local partners in paid consulting and procurement opportunities related to this project?
<b>3.4</b>	<b>Accommodate different schedules and abilities</b>
	Where are people already convening (such as supermarkets or churches), so I can meet them where they are? How can we make it as easy as possible for everyone to participate?
<b>3.5</b>	<b>Compensate for participation</b>
	Can we provide participants compensation as recognition and acknowledgment of their valuable contributions?
<b>3.6</b>	<b>Connect community members to resources</b>
	How can we make the most of project events and activities and be responsive to pressing community needs?

### Guideline 4: Diversify Engagement Opportunities

<b>4.1</b>	<b>Mix digital and in-person engagement</b>
	What mix of engagement methods will help maximize the meaningful participation of all community members or those most impacted?



<b>4.2</b>	<b>Think beyond official public meetings</b>
	What planned community events and activities offer a natural opportunity to engage with community members?
<b>4.3</b>	<b>Engage with the arts</b>
	Do community members have the opportunity to express their ideas creatively? What local artists and arts organizations could help guide engagement?
<b>4.4</b>	<b>Support community-led data collection</b>
	How can community members get directly involved with collecting data that will inform this project?
<b>4.5</b>	<b>Be mindful of location</b>
	What local venues offer familiar, accessible and comfortable spaces to convene community members?
<b>4.6</b>	<b>Promote inclusive communication</b>
	What languages are spoken in this neighborhood? Have we enlisted the necessary accessibility, translation or interpretation services?
<b>4.7</b>	<b>Avoid overprogramming meetings</b>
	What are key opportunities to foster informal connections and socializing? (Are there Open Streets, community dinners, meet-ups or other ways to build relationships?)

### Guideline 5: Evaluate and Refine Approaches

<b>5.1</b>	<b>Establish approach goals</b>
	What are the signs of a successful community collaboration approach? What metrics will we use to monitor progress and track success?

	<b>5.2 Assess demographics and broaden participation</b>
	Who has been involved in this project to date? Which groups are missing from the conversation, and how can we recalibrate our approaches to welcome their input?
	<b>5.3 Welcome constructive feedback</b>
	How can we continuously improve collaborative decision-making approaches? Do we have open lines of communication to regularly report on approach goals and welcome constructive feedback?
	<b>5.4 Consider the full project life cycle</b>
	How can collaborative efforts continue to shape this project and respond to community needs throughout design, construction and day-to-day operations?



# Guidelines in Action

## Mayor's Action Plan for Neighborhood Safety (MAP)

### Overview

The Mayor's Action Plan for Neighborhood Safety (MAP) is a collaborative, comprehensive approach to reduce violence and increase safety by addressing the underlying factors driving crime. Led by the Mayor's Office of Criminal Justice (MOCJ), this neighborhood-based initiative works with residents living across more than 15 NYCHA developments, where many residents experience negative health outcomes and risks to safety as a result

of poor environmental conditions. Tailored goals at each site range from improving public space, to creating community programming, to increasing access to affordable, healthy food.

MAP initiatives across the city create more vibrant, well-maintained public spaces that help build trust and strengthen community pride.



**Above:** Residents of Patterson Houses celebrate the opening of a new garden designed to promote healing. **Top Right:** Bright kiosks installed in underutilized space, developed by the Stapleton resident stakeholder team and the Center for Justice Innovation's Neighborhood Safety Initiatives, support local programming that helps connect residents through play and resource sharing.



**“ Let’s get this trust ball rolling! We bring different partners that the community needs to our Resource Hub because our main priorities are youth, justice and space. I’m proud that we have over 100 partners already. The kiosks brought more attention to the community. We used yellow for friendship on the outside and inside is a chalkboard.”**

— **Krystal**, Stapleton resident of 11 years

### Sample Guidelines in Action

The Mayor’s Action Plan exemplifies a range of ADG 2.0 Guidelines:

**Collaboration 1:** Build Trust and Ensure Transparency

**Collaboration 2:** Amplify Community Leadership

**Collaboration 5:** Evaluate and Refine Approaches

**Neighborhoods 1:** Maximize Access to Essential Neighborhood Assets

**Neighborhoods 10:** Foster Community Gathering in Public Spaces



MAP projects spanned across 15 NYCHA developments across all five boroughs.



**“ There’s a great sense of community right here in Brownsville Houses. In an area where I’m used to seeing it very dark, now with our B-Lit theme and neighborhood lighting projects, everything is well lit. I can look out my window at nighttime, and it’s almost like daylight outside, and that’s a beautiful thing.”**

— **Thunny**, Brownsville resident of 5 years

### Approach

MAP leaders assembled Neighborhood-Stat (NStat) teams—15 residents, an on-the-ground MAP Engagement Coordinator and community partners at each site. NStat successfully equips residents with organizing and design skills that they then use to plan, implement and activate community spaces. Trusted organizations, such as the Center for

Justice Innovation, Riis Settlement House and Los Sures, provide technical guidance and on-the-ground support.

By leveraging the collective expertise of NYCHA residents, government agencies and community-based partners, MAP has developed a range of built environment interventions to address the unique priorities in each community.

## Outcomes

MAP has provided training on design and problem-solving to more than 225 residents who have successfully planned and implemented more than 42 tangible projects—from creating and maintaining community gardens, to hosting nighttime silent dance parties, to transforming a previously underused basketball court into a vibrant recreation space—that improve public safety

by addressing core issues including health and well-being, safety and justice, public space, youth development and economic stability.<sup>120</sup> These collaborative efforts have had positive impacts on neighborhood safety, likely contributing to a 15.5% drop in violent crime in MAP developments, compared with a 4.6% drop in non-MAP developments over the same time period.<sup>121</sup>



**Left:** B-Lit, a 2019 event in Brownsville, organized through the Center for Justice Innovation’s Neighborhood Safety Initiatives (NSI). NSI worked with the Brownsville NStat resident team to transform an outdoor space into a dance floor that welcomed residents of all ages. **Above:** Young residents add the finishing touches to a new mural to activate an underused handball court at Boulevard Houses.



### **34th Ave. Open Streets, Queens**

Along 34th Ave., a 26-block-long Open Street provides space for public programming and community gathering. NYC DOT and the Horticultural Society of New York provide maintenance and barricade services, while the 34th Ave. Open Streets Coalition hosts events like cycling safety education, workout classes and gardening activities.



# 3 / Neighborhoods

**High-quality** and attractive spaces within neighborhoods have been shown to encourage physical activity and reduce health inequities.<sup>122,123</sup> **Public spaces** can be defined as any area that is open and accessible to members of the public—comprising a diverse cross-section of streets and sidewalks, parks and playgrounds, plazas, community gardens, schoolyards, beaches and more.

A growing body of evidence points to multiple ways that the design and operation of public spaces can support community health. For example, green, natural areas and tree-lined streets can offer leafy places of respite in a bustling city and have been shown to boost **mental health**.<sup>124,125</sup> Maintenance and public programming contribute to more welcoming, vibrant public spaces and can increase use, enhance perceptions of safety and foster social cohesion.<sup>126,127</sup> As NYC confronts growing risks related to **climate change**, enhancements to the public realm that include more nature and more open space can help mitigate health and safety hazards related to rising temperatures and more frequent flooding.<sup>128,129</sup>

Access to green, well-maintained, vibrant public spaces is fundamental to supporting the health of all New Yorkers—yet deep **inequities** persist across the city. Reparative efforts are essential for supporting neighborhoods that have been harmed by patterns of discrimination and disinvestment. Community collaboration is necessary to ensure that public space enhancements effectively respond to the priorities and preferences of surrounding residents.

This chapter presents 12 **evidence-informed** guidelines for optimizing existing neighborhood assets and for designing new or reconstructed public spaces to support health and well-being. While specific implementation approaches will vary widely depending on project size and unique neighborhood context, measures to enhance neighborhood health can be implemented across all public spaces.



### **103rd St. Community Garden, Manhattan**

SCAPE, New York Restoration Project, and East Harlem community members collaborated to renovate an empty lot into a garden and community space with vegetable plots, refurbished basketball courts, a picnic area, a playground and shade structures.

# Guidelines

- 1 Maximize Access to Essential Neighborhood Assets 109**
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# 1 / Maximize Access to Essential Neighborhood Assets

A neighborhood's **land use mix** refers to the diversity of public and private spaces in a neighborhood, which may include residential, commercial, manufacturing, public open space and other uses, such as education and health services. Many of these land uses represent highly desirable assets that reinforce physical, mental and social well-being—such as outdoor recreation spaces, cultural facilities and neighborhood-scale retail that accommodates daily needs. Other land uses may be less desirable and generate negative health consequences, such as pollution-generating industries and infrastructure.

This section outlines key opportunities to balance neighborhood assets in order to advance healthier, more equitable NYC neighborhoods. In any neighborhood, community collaboration is essential to addressing unique concerns and ensuring that the neighborhood supports local health priorities.

## 1.1 Promote equitable distribution of community resources

Research indicates that land use mix, access to public transit, diversity of destination types, and residential density are all linked to walking for transport, which contributes to improved health.<sup>130,131</sup>

Neighborhood planning and development initiatives should balance the distribution of health-promoting community resources to respond to unique local needs. Public spaces and neighborhood infrastructure can also play an important role in helping all New Yorkers prepare for and respond quickly and effectively to emergencies.



### Far Rockaway Library and Streetscape, Queens

The new Far Rockaway Library serves as a vibrant community hub, featuring colorful exterior glazing and a generous corner entrance that activates the streetscape. A new public plaza replaces the former slip lane, offering a valuable public amenity, improved pedestrian crossings and an inviting gathering space. *(NYC: DDC, Queens Public Library [Library], DOT, DEP [Streetscape]; Project Team: Snøhetta [Library], W Architecture & Landscape Architecture [Streetscape])*

**Tactics:**

- **Expand access to civic and cultural assets.** Incorporate a variety of accessible permanent and temporary facilities to accommodate community needs, ranging from new schools and community centers to pop-up markets and performance spaces.
- **Increase and enhance access to spaces for outdoor recreation.** Provide additional parks, playgrounds, plazas and **Open Streets** to ensure that all New Yorkers live within a half mile of a public open space. Include design considerations for women and girls and people with disabilities.
- **Increase affordable healthy food retail options.** Introduce additional full-service grocery stores, farmers markets, produce vendors and other food retail opportunities to meet neighborhood needs. (See [Neighborhoods Guideline 11: Cultivate Community with Food.](#))
- **Expand access to health care and social services.** Ensure neighborhoods have access to essential health care facilities including primary care, mental health care and social services. Explore opportunities to co-locate services, such as health clinics and pharmacies, to better meet community needs.

**Policy Highlight**

NYC Parks' [Walk to a Park Initiative](#) focuses on increasing access to parks and public spaces by forming partnerships, improving current open spaces, and acquiring private properties. As of December 2024, 84% of New Yorkers live within walking distance to a park, with a citywide goal of 85% by 2030.



### **W. 120th Open Street, Manhattan**

The Open Street on W. 120th St., managed by local organization Marcus Meets Malcolm, hosts wellness and other events to encourage outdoor recreation and socializing among Harlem neighbors.

- **Create space for mobile services.** Provide accessible mobile services to address urgent neighborhood needs while awaiting longer-term development. For example, provide mobile health care, produce markets or library services in highly trafficked areas.
- **Provide designated neighborhood spaces for emergency response and recovery.** Ensure every neighborhood has access to a network of public buildings and other spaces that can support communities in response to crisis. Consider libraries, senior centers, schools and hospitals as cooling sites, places to seek information and for other services. Sites should be prioritized for ongoing resiliency upgrades with additional considerations for people with disabilities.



## 1.2 Ensure “fair-share” distribution of less desirable uses

The New York City Charter outlines “**fair share**” criteria to guide the development, relocation and closure of public facilities in consultation with community-based organizations. Despite this provision, the City has disproportionately located **locally unwanted land uses (LULUs)** such as waste transfer facilities in neighborhoods with a high proportion of people earning lower incomes and people of color.<sup>132</sup> These unwanted uses have health consequences, and in order to advance health equity, they must be more equitably allocated across the city.



### Hunts Point Library, Bronx

The revitalized library branch was designed to equally serve all members of the diverse local community and is fully accessible to people who use wheelchairs. The renovation also allows the space to operate as an NYC Cooling Center to offer relief from extreme temperatures and serve as a safe place for people during a heat wave. (NYC: NYPL; Architect: Mitchell Giurgola)

**Tactics:**

- **Mitigate the negative impacts of existing LULUs.** Modify design and operations to address concerns, such as noise, traffic and pollution.
- **Keep additional LULUs out of neighborhoods where they are overconcentrated.** Refrain from introducing additional locally unwanted land uses in neighborhoods that have been overburdened by such developments. Relocate existing LULUs away from overburdened neighborhoods.
- **Incorporate more LULUs in neighborhoods that have proportionally fewer compared to other neighborhoods of similar size.** Rebalance the distribution of LULUs to ensure all neighborhoods have their fair share.
- **Integrate locally desired land uses.** Design multiuse facilities that pair unwanted land uses with assets that mitigate negative impacts and respond to unique neighborhood needs, such as parks and retail or civic and cultural amenities.

### **1.3 Leverage underused spaces as new community assets**

Improvements to abandoned and underused, partially vacant sites are associated with a range of positive outcomes. For example, research indicates that the greening of vacant lots may increase perceptions of safety and reduce violent crime.<sup>133,134</sup> Community-driven efforts to enhance and repurpose vacant sites can convert a potential safety hazard into a source of community connection and neighborhood pride.

**Tactics:**

- **Remediate site contamination.** Prior to envisioning public uses, clean up contaminated sites and water bodies to address pollution and ensure public safety.

- **Transform underused transportation and industrial sites.** Envision opportunities to turn large-scale infrastructure, particularly those dedicated for private vehicle storage, into linear **greenways** and parks, which can help knit neighborhoods together and mitigate negative environmental impacts.
- **Green and maintain vacant lots.** Transform vacant lots into temporary or permanent green space or community gardens. Promote community stewardship and ownership of these spaces.



### **Golconda Skate Park, Brooklyn**

Built under the Brooklyn-Queens Expressway in 2016, this skate park transformed an underutilized space into a place created with and for the skating community, facilitating opportunities for physical activity and connection. (*NYC: Parks*)

## 2 / Prioritize Public Space Maintenance

Maintenance is essential to maximizing the health benefits of all public spaces, including parks, plazas, **Open Streets**, playgrounds, sidewalks and trees. Research indicates that people are more likely to use public spaces that feel safe and well-maintained.<sup>135</sup> Conversely, neighborhood disorder, including unsanctioned graffiti, abandoned buildings, vandalism, noise, crime and substance misuse, is associated with diminished civic trust.<sup>136,137</sup>

Robust maintenance efforts and ongoing collaborative efforts between local community groups and public entities can help foster local stewardship and ownership of public spaces. This section explores opportunities for prioritizing maintenance to make all of NYC's public spaces feel safe, enjoyable and valued by the community.

### 2.1 Design with maintenance in mind

Public space investments should always account for long-term maintenance and operations considerations. Research has shown that well-maintained and attractive public spaces are associated with enhanced perceptions of safety as well as higher levels of physical activity.<sup>138</sup> Collaboration with community partners and maintenance staff can help identify anticipated issues and uncover areas where additional funding and technical support may be needed.

#### Tactics:

- **Use durable materials.** For outdoor furniture and other public space amenities, choose long-lasting materials, such as stainless steel, recycled plastic, aluminum and concrete, which tend to require lower levels of maintenance over time.
- **Choose easier-to-maintain plantings.** Select low-maintenance native plants where possible or plants that are tolerant to local climate



### **Morrison Avenue Plaza, Bronx**

The new plaza in the Soundview neighborhood enhances pedestrian space and safety with seating, lighting and bicycle racks made of durable materials. Porous surfaces provide optimum growing conditions for the plaza's mature trees. (NYC: DDC, DOT, DEP; Designer: SWA Balsley)

and site conditions. Plant areas with fewer species and larger plants placed close together. (See [Neighborhoods Guideline 3: Integrate Nature and Support Biodiversity in Public Spaces](#).)

- **Plan for pest control.** Implement pest control strategies to limit rats, mice, roaches, mosquitoes and other pests that spread disease and detract from quality of life. Ensure infestations can be prevented safely or quickly identified and treated.



### **For further reading:**

- NYC Parks: [Native Species Planting Guide](#)
- NYC DOT: [Street Design Manual – Plant Installation, Period of Establishment and Maintenance](#)
- NYC DOT: [Plant Finder Tool](#)

## 2.2 Optimize waste management

Each day, New Yorkers throw away about 12,000 tons of waste for curbside collection.<sup>139</sup> Despite efficiencies in collection, this abundance of refuse has the potential to negatively impact sidewalks and public spaces. Signs of disorder, such as litter, trash or graffiti, have been shown to negatively impact public space usage, with one study finding that park upkeep was positively associated with park-based physical activity among women and girls.<sup>140,141</sup>

### Tactics:

- **Enhance waste receptacles.** Provide the appropriate number of closed top trash bins to mitigate litter in public space and reduce the presence of rats and other pests. Increase availability of recycling and compost receptacles to help keep streets and public spaces clean, while diverting waste away from landfills.
- **Increase frequency of waste pickup.** Monitor trash and recycling receptacles and adjust pickup schedules as needed to avoid overflow.
- **Prompt responsible waste disposal.** Integrate signage in public spaces to encourage responsible waste disposal. Provide dog waste bags where needed.

## 2.3 Advance responsive maintenance partnerships

Public space maintenance needs should be promptly addressed by relevant City agencies and effectively supported by well-resourced, community-driven stewardship efforts. Partnering with local organizations that are dedicated to maintaining and programming public spaces in their neighborhood may also help encourage use.<sup>142,143</sup>

### Tactics:

- **Ensure public space amenities are in a state of good repair.** Identify and quickly respond to safety concerns, such as tripping hazards, potholes, broken playground equipment or broken streetlights.
- **Cultivate maintenance and stewardship capacity citywide.** Provide resources and training, prioritizing neighborhoods that have

limited capacity, lower incomes, and a history of disinvestment. Garner insights and expertise from business improvement districts (BIDs) and park advocacy groups. Leverage youth and workforce development opportunities to enhance public spaces.

- **Support neighborhood clean-up campaigns.** Support community-based volunteer efforts to clean and beautify public spaces, such as the NYC Parks Stewardship program. Provide resources and equipment like gloves, trash grabbers, shovels and trash bags.
- **Promote the use of public reporting systems.** Promote the use of systems such as NYC311 and NYC Tree Map to better respond to maintenance needs and other problems reported by community residents.



### **Berry St. at N. 5th St., Brooklyn**

Staff from the Horticultural Society of New York are contracted through NYC DOT's Public Space Equity Program to maintain dozens of public spaces citywide, providing a full range of maintenance, operations and horticultural care in these spaces.

## 3 / Integrate Nature and Support Biodiversity in Public Spaces

A breadth of research points to promising opportunities to enhance **public health** by increasing access to nature at all scales—ranging from street trees, to a lush city park or urban forest, to miles of public waterways, to protecting existing natural elements and areas. The lack of urban greenery may impact **physical health** and mortality risk via degraded air quality and decreased physical activity.<sup>144</sup> In terms of mental health, studies have shown that spending time in nature is associated with cognitive improvements, mental well-being, lower levels of depression and anxiety and lower risk of suicide.<sup>145,146,147,148</sup> Furthermore, green public spaces have been shown to provide more appealing spaces for recreation, socializing and relaxation.<sup>149,150</sup> Expanding access to nature can also increase exposure to species diversity, or the variety of animals and plants in the local habitat. Research suggests that species diversity may have a positive impact on psychological well-being.<sup>151</sup>

This section explores opportunities to increase tree canopy and vegetation and support **biodiversity** citywide in order to support human health and garner a range of ecological benefits to help mitigate the impacts of climate change.





**Pollinator Port Project, Gates Plaza, Brooklyn**

In partnership with Rutgers University and NYC DOT, the Horticultural Society of New York has designed and installed bee habitats in public plazas and Open Streets throughout NYC. Installing special habitats and planting native flowers in public spaces bridges gaps between green spaces and promotes native bee populations.

### 3.1 Green the public realm

Greening the city's sidewalks, streetscapes, plazas, parks and other open spaces is an important tool for addressing multiple neighborhood health priorities. One study found higher levels of neighborhood greenery to be associated with reductions in chronic conditions like diabetes and hypertension among older adults—with the strongest impacts emerging in lower- and middle-income neighborhoods.<sup>152</sup> Higher levels of neighborhood green space have also been associated with lowered symptoms for depression, anxiety and stress.<sup>153,154,155</sup> In addition to public spaces, incentivizing the greening of private properties and roofs can contribute to significant local temperature reductions.<sup>156</sup> (See [Buildings Guideline 7: Incorporate Natural Design Elements](#).)

#### Tactics:

- **Plan for trees and plantings.** Increase quantity and quality of spaces for trees and nature in the public realm. Strategically locate below-ground infrastructure for tree rooting and prioritize space for trees in the sidewalk furnishing zone.
- **Preserve large and mature trees and plant additional trees to create tree canopy.** Incorporate more trees throughout the public realm to provide shade, mitigate heat in public spaces and reduce stormwater runoff. Large and mature trees provide more shade and add to the tree canopy faster.
- **Install planters.** Consider the use of planters, where permitted and adequate maintenance resources exist, as an important greening alternative, especially along sidewalks that cannot accommodate tree pits.
- **Create green medians, curbs and parking areas.** Integrate greenery into medians, curb extensions and parking areas to enhance the pedestrian environment. Green ground cover helps with cooling and mitigation of the urban heat island effect.
- **Incorporate stormwater management strategies.** Install rain gardens and bioswales, which are planted channels that capture and

filter stormwater to green streetscapes, while also supporting biodiversity. Tree beds, gardens and permeable paving materials can also capture stormwater and support infiltration.

- **Choose trees and shrubs to create year-round visual interest.** Plant low-maintenance, non-invasive plant species appropriate for the local climate. Consider plants that may provide habitats for local wildlife.
- **Plan for maintenance and upkeep.** Poorly maintained greenery, including street trees, may detract from community pride and civic trust. To maximize the health benefits of greenery, coordinate funding and plan for routine maintenance.



### **71st Ave. Plaza, Queens**

At the 71st Ave. Plaza in Ridgewood, stormwater runoff is captured in planted bioretention areas that include native and adaptive plant species. The plaza enhances pedestrian safety and offers flexible space for neighborhood events. (NYC: DDC, DOT; Designer: MNLA)

### 3.2 Create restorative natural areas

From healthy blood pressure to enhanced mental well-being, an abundance of health benefits are associated with visits to green spaces.<sup>157,158</sup> Shared urban green spaces can also lead to increased social interaction and stronger social ties.<sup>159</sup> Given the reparative effects of connecting with nature, it is essential to prioritize the creation of lush, **restorative** green spaces citywide—and particularly in neighborhoods that lack access to green space or that face **health inequities**.

#### Tactics:

- **Create well-shaded and lush areas.** Enhance public spaces with restorative, leafy areas with trees that offer ample shade and seating areas that can accommodate mobility devices to provide respite from city life.



#### Inwood Hill Nature Center, Manhattan

Reimagined after Superstorm Sandy to improve the building's educational programming capacity and accessibility, the Center enables New Yorkers to continue learning about Manhattan's indigenous ancestry and natural landscape. (NYC: Parks)

- **Enhance water elements.** Restore and enhance natural water features, such as lakes, ponds and streams. Clean, uncontaminated water features offer soothing sounds and visual cues to support mental restoration and can cool the surrounding air, while also attracting birds, fish and other wildlife.
- **Create habitats for wildlife.** Incorporate pollinating plants and species to maximize biodiversity. Create interconnected networks of green space to support wildlife travel and migration while also benefiting human health.
- **Facilitate nature access and education.** Create accessible spaces that support nature-based recreation like fishing, hiking and nature walks. Improve nature trails and provide educational signage and inclusive programming to build awareness about local ecosystems, such as NYC Parks Urban Ranger programs.



**For further reading:**

- [NYC Urban Forest Plan](#)

### **3.3 Promote community and school gardening**

Community gardens create opportunities for direct, hands-on connections with natural environments and may uniquely benefit social cohesion. For example, research indicates that gardening can increase vegetable intake, teach children where food comes from, increase physical activity levels, foster social interaction and alleviate mental health symptoms related to stress, depression and anxiety.<sup>160,161,162,163</sup> Community and school gardens have also been shown to support intergenerational and intercultural connections. (See [Neighborhoods Guideline 11: Cultivate Community with Food.](#))

**Tactics:**

- **Make space for gardening.** Collaborate with community members to incorporate gardening opportunities into parks and public spaces and at public buildings, such as schools and libraries. Allow for sufficient sunlight and safe soil conditions and provide on-site water connections.
- **Design for gardeners of all ages and abilities.** Increase garden accessibility with features such as movable seating, wheelchair garden paths, accessible seating, raised beds at varying heights and adaptable gardening tools.
- **Support community gardeners.** Provide education and technical assistance to maximize the success of community gardens. Host garden-based events to broaden awareness about local gardening opportunities.

**Van Cortlandt Park, Bronx**

Children and parents gather around an NYC Parks Urban Park Ranger as part of a nature exploration program. The program helps participants build a connection with nature and learn about the natural world.

### 3.4 Expand access to and protect NYC waterways

Emerging research suggests that participating in activities around “blue spaces” like oceans, rivers and lakes may lead to positive mental, emotional and **social health** benefits, as well as increased physical activity levels.<sup>164,165</sup> Enhancing access to nature in New York City means embracing its significant blue space resources — which include waterways, wetlands, beaches and waterfront parklands.

#### Tactics:

- **Expand public access to the waterfront.** Provide new parks and **greenways** that connect people directly to waterfronts. Incorporate connective pedestrian, bicycle and transit infrastructure to enhance easy and safe access for community members of all abilities.
- **Enhance water quality to promote in-water recreation.** Accelerate waterway clean-up efforts and expand stormwater management initiatives to support safer boating, wading, fishing and swimming.
- **Install signage for wayfinding, safety and education.** Provide accessible maps and information to make waterfronts safer and easier to navigate for visitors of all abilities. Use educational signage to build awareness about the local ecology and water safety.
- **Enhance the ferry system.** Maximize ferry access and affordability to serve more residents. Seamlessly connect ferry service with other modes of transit through integrated fare systems and **wayfinding** supports.
- **Preserve coastal ecosystems.** Protect and enhance coastal wetlands and dunes to minimize coastal erosion and reduce flood risks related to hurricane and storm surges.



#### For further reading:

- [NYC Comprehensive Waterfront Plan](#)
- NYC Parks: [Wetlands Management Framework for New York City](#)
- NYC DOT: [Street Design Manual: Sustainability and Resiliency](#)



### **Morningside Park 123rd St. Playground, Manhattan**

NYC Parks designs its capital projects to go beyond accessibility requirements when possible and introduce inclusive play elements. This playground's reconstruction included ramped play structures, inclusive swings, an accessible basketball court and spaces next to seating for visitors with mobility devices.



## 4 / Design Public Spaces for Accessibility and Comfort

Public spaces should be designed to accommodate a wide range of needs with respect to ability, age, culture, gender, income and more. Designing with a variety of users in mind can help to make street-scapes and other public spaces more functional and user-friendly for everyone.

For projects at any scale—from a sidewalk or parklet to a neighborhood plaza or large city park—attention to **universal accessibility** and user **comfort** can help all New Yorkers make the most of the shared public realm. This section explores key opportunities to create more **inclusive** public spaces that attract a diversity of users, in order to support more equitable health impacts citywide.

### 4.1 Maximize user comfort

Infrastructure and design elements that support accessibility and comfort can also be used to strategically address neighborhood health priorities and encourage people to make the most of NYC’s public spaces. For example, seating in public space for older adults has been shown to support greater mobility and serve as a key place for social interaction.<sup>166</sup> In addition, public restrooms can promote sanitary and more supportive environments for families and older adults.<sup>167</sup> Shading and heat-reflective paving materials can make public spaces feel cooler and more comfortable during warmer days.

#### Tactics:

- **Maximize accessibility for all ages and abilities.** Adhere to **universal** and **inclusive design** principles to support equitable, intuitive use of public spaces for all users. For example, include universally accessible paths of travel with pavement slopes and tactile elements that allow for easier use by those with mobility devices.

- **Expand and diversify public seating options.** Incorporate a variety and sufficient quantity of seating options to provide more places to rest and socialize.
  - **Provide movable, cafe-style seating** that allows users to shape public spaces according to their needs.
  - **Install stationary benches** that offer predictable places to rest with shade and views in mind.
  - **Integrate shared seating** such as picnic tables to encourage social interaction.
  - **Provide companion seating** options adjacent to spaces that accommodate people using walkers or wheelchairs to allow for socializing.
- **Design public spaces for year-round use.** Plant new trees and install shade structures and water features to support cooling during warmer weather. Design public spaces to maximize sunlight and reduce wind exposure during colder weather.
- **Use reflective, low-impact materials.** Choose materials that minimize heat absorption, such as lighter-colored pavements and heat-reflective coating and planting.
- **Provide water, restrooms and hand hygiene facilities.** Provide accessible drinking fountains and bottle filling stations to support hydration. Incorporate well-maintained accessible, single-use family restrooms and lactation areas and universal, gender-inclusive bathrooms. Expand access to hand sanitizing stations to mitigate risk of contagious disease spread.

## 4.2 Design welcoming public spaces

Design cues in public spaces can help foster a sense of welcome and increase use. In New York City, efforts are underway to make parks more accessible and welcoming to all users by improving sight lines and visibility, adding greenery, trees and furnishings and improving other amenities to parks. **Inclusive design** is critical to enabling park utilization by a variety of community members.<sup>168</sup>

**Tactics:**

- **Design for clear and intuitive circulation and welcoming entrances.** Entrances should be designed with good sight lines and with wide and clear pathways into parks and plazas with pedestrian-scale lighting.
- **Remove, lower or minimize visual barriers.** Parks and plazas with clear sight lines to and from the street, nearby businesses and adjacent buildings offer higher levels of visibility, which can increase perceptions of safety for all users.
- **Install welcoming, accessible and informative signage.** Provide multilingual welcome signs to invite users into public spaces such as



**Bogardus Plaza, Manhattan**

The new plaza integrates the garden and street into a unified space, with planted areas buffering the central gathering area from nearby traffic while providing clear sight lines. Seating options encourage social interaction, and a passage with wayfinding amenities provides a direct connection to the subway. (NYC: DDC, DOT; Designer: MNLA)

parks and plazas. Install information boards, public space rules and navigational signage to maximize safe and enjoyable use of neighborhood amenities.

- **Design to welcome everyone and remove hostile architectural elements that restrict use of public space.** Eliminate design features that deliberately deter extended use of a public space. Include comfortable seating with back- and armrests for those who need support to sit or stand. Avoid hard linear seat walls and slabs of stone and concrete.



### **Yolanda García Park, Bronx**

Opened in 2019, the new public park includes a shade structure and open area where community members can gather for fitness classes and other activities that invite connection and physical activity. Secure lighting and accessible public restrooms contribute to the park's welcoming nature. *(NYC: Parks; Designer: Stantec)*

### 4.3 Prioritize neighborhood-specific public safety needs

Perceptions of safety can influence people's feelings of comfort and use of public space. At the same time, public spaces provide an important venue for responding to pressing public health and safety priorities. For example, public space lighting enhancements have been shown to enhance perceptions of safety and may be associated with reductions in crime.<sup>169,170</sup> In addition, physical barriers restricting access to high structures have been shown to be effective at preventing suicide by jumping.<sup>171,172,173</sup> Other public resources, such as strategically placed public health vending machines, are another strategy to increase 24-hour, low-barrier access to emergency lifesaving supplies, such as **naloxone**. When located in neighborhoods disproportionately impacted by the overdose crisis, these machines are shown to prevent overdose death, reduce the risk of infectious disease and reach people who are not connected to services.<sup>174</sup> Community collaboration and integration of these elements during the design process is essential to ensuring that public safety interventions are responsive to unique neighborhood needs and to provide welcoming and supportive environments.

#### Tactics:

- **Illuminate public spaces.** Provide consistent pedestrian-scale lighting along sidewalks, plazas and other public spaces to enhance visibility and sense of safety at night. Avoid floodlighting and other forms of light pollution that may disrupt sleep.
- **Address areas with a high concentration of safety concerns.** Collaborate with community members to address safety priorities through public space design and programming. For example, install emergency call boxes or improve lighting. Provide youth programming, mobile trauma units or security patrols in response to neighborhood needs.
- **Implement suicide prevention strategies.** Install suicide prevention barriers, such as fences or netting on bridges, tall accessible

structures and other precipices in public spaces that may serve as likely places for suicide attempts by jumping. Provide information and signage for emergency services.

- **Provide low-barrier access to naloxone and health and wellness supplies.** Collaborate with community-based organizations to expand low-barrier, emergency access to naloxone and health and wellness supplies. Fund and expand the installation of public health vending machines in neighborhoods disproportionately impacted by overdose deaths. Place machines in high-traffic public spaces, near public transit.
- **Mitigate risks related to drug use.** Provide receptacles for syringe disposal. Provide signage with emergency hotline and social service information.



### **Zion Triangle Plaza Lighting Installation, Brownsville, Brooklyn**

The new lighting installation in the plaza along Pitkin Ave. responded to community-identified needs and encourages use in the evening. Public spaces can feel safer and more vibrant at night with additional lighting, programming and adequate maintenance. *(NYC: DOT; Project Team: Pitkin Avenue BID, Studio Cooke John Architecture and Design, Metalform Studio LLC)*

## 5 / Create and Maintain a Pedestrian-Friendly Environment

A **pedestrian-friendly** environment features a comprehensive network of safe, comfortable sidewalks, crossings and walking paths to serve the needs of all community members—including people using canes or wheelchairs, caregivers pushing strollers and workers making deliveries. Research shows that pedestrian-friendly environments are associated with a range of health benefits, including supporting daily physical activity and promoting social interactions and social cohesion—all of which are positively associated with improved mental health outcomes.<sup>175,176</sup> This section highlights key opportunities for creating universally accessible and appealing pedestrian environments as a cornerstone for a healthy, well-connected neighborhood.

### 5.1 Integrate traffic-calming elements

**Traffic-calming** measures use physical design features to slow vehicle speeds and enhance the safety of all users of the road. Measures, such as signals or highly visible ground markings, have been shown to reduce pedestrian crashes and increase levels of **active transportation**.<sup>177,178</sup> People who live in more pedestrian-friendly neighborhoods with slower vehicular speeds also report lower rates of depression, especially among older adults.<sup>179</sup> A range of safer street design elements can help slow traffic and inspire people to choose more active transportation options, such as walking, biking and public transit.



### Tillary St., Brooklyn

A busy intersection at the terminus of the Brooklyn Bridge was reconstructed to calm vehicular traffic and create clear dedicated pedestrian and bicycle crossings. A wide planted median reduces crossing distances. (NYC: DDC, DOT; Designer: MNLA)

#### Tactics:

- **Incorporate design elements that slow vehicular speeds.** Tailor design interventions to unique neighborhood needs in order to slow cars and protect pedestrians. For example, narrow vehicular travel lanes, widen sidewalks, plant street trees, add bicycle or transit lanes and incorporate speed bumps.
- **Enhance pedestrian visibility and navigation at street crossings.** Support pedestrian safety at intersections with features such as curb extensions, median refuge islands and well-marked or raised crosswalks with pedestrian signals. Install textured pedestrian ramps and crossing signals that are both audible and visible in order to promote safety for all users.
- **Prioritize interventions based on need.** Use crash data and community-defined priorities to target safety interventions where they are needed most. Expand safety initiatives to protect students walking to school, enhance the safety of older adults and improve transit access.



## 5.2 Create supportive sidewalks and pathways

Studies point to a range of sidewalk amenities that can address multiple aspects of well-being. For example, well-lit sidewalks are associated with enhanced feelings of safety, while streetscapes that incorporate public art have been found to increase walking.<sup>180,181</sup> By prioritizing pedestrian comfort, sidewalks and pedestrian pathways can provide space for daily physical activity, social interaction and other aspects of community health.

### Tactics:

- **Provide consistent, pedestrian-scale lighting.** Support pedestrian safety and comfort at night with lighting designed to maximize visibility and minimize glare and shadows.
- **Enhance user comfort with street trees, seating and shade.** Introduce a range of sidewalk amenities that respond to unique community-defined priorities in order to make sidewalks more welcoming for all users.



### Grand Concourse, Bronx

The upgraded corridor features improved pedestrian access, bicycle lanes, planted medians, upgraded street lighting and other traffic calming elements, creating a pedestrian-friendly environment. (NYC: DDC, DOT, DEP; Project Team: AKRF, MNLA)

- **Expand sidewalk widths and remove obstacles from sidewalk walk lanes to create a clear path for walking.** Extend sidewalks to alleviate pedestrian congestion and place streetscape amenities like bicycle parking, seating, street trees and greenery in a furnishing zone. Reprogram curb lane space to allocate more room for pedestrians through implementing “**Super Sidewalks,**” a NYC DOT sidewalk expansion effort using color surface and other treatments.
- **Ensure sidewalks are designed and maintained for year-round use.** Repair any cracks, as well as uneven or sloping pavement, which can reduce accessibility and lead to injury. Ensure regular sidewalk upkeep throughout the year, particularly during inclement weather.



### Anatomy of a Sidewalk

NYC DOT’s Pedestrian Mobility Plan (see [Further Reading](#)) is a framework to identify pedestrian needs and provide design guidelines, including suggested widths for sidewalk areas.



### **Jewel Ave. and 164th St., Queens**

Following safety concerns raised by the PS 200 school community and local residents, improvements along Jewel Ave. were implemented, including expanding an existing median, adding street trees and installing a bike lane along the school to improve pedestrian safety. (NYC: DOT)

## **5.3 Plan for pedestrian connectivity**

When planning **circulation pathways** for future development and redevelopment, it is important to put pedestrian needs first. Well-maintained, pedestrian-focused environments are associated with improved roadway safety, perceptions of safety from crime and increased physical activity levels.<sup>182,183,184,185</sup> In addition, high levels of street connectivity can lead to increased levels of walking for transportation.<sup>186,187</sup>

**Tactics:**

- **Minimize mid-block vehicular curb cuts.** Consolidate driveways and delivery access areas to minimize points of conflict between vehicles and pedestrians.
- **Keep block sizes relatively small.** Increase pedestrian connectivity and accessibility options for wheelchair users with smaller blocks and by incorporating mid-block crosswalks.
- **Maintain dedicated, protected pedestrian paths through larger sites.** In addition to comfortable sidewalks, provide dedicated pathways as needed to help pedestrians safely navigate spaces such as parking lots and commercial and industrial sites.
- **Install at-grade pedestrian improvements, avoiding the need for overpasses or underpasses.** Prioritize pedestrian safety and convenience at street level using a range of tactics discussed above, including wider sidewalks and raised crosswalks.

**For further reading:**

- NYC DOT: [Street Design Manual](#)
- [NYC Vision Zero](#)
- NYC DOT: [Pedestrian Mobility Plan](#)

## 6 / Create and Maintain a Cyclist- and Micromobility-Friendly Environment

A **cyclist-friendly** and **micromobility-friendly** environment provides a comprehensive **bicycle network** and associated infrastructure, such as bike lanes, convenient and secure bike parking, electric bike (e-bike) battery charging and bicycle wayfinding signage, to make cycling and the use of e-bikes and e-scooters as safe and appealing as possible for all users. When it comes to safety, physical barriers between cyclists and other road users may reduce risk of collisions.<sup>188</sup> Enhanced perceptions of safety can also support increased rates of bicycling. For example, wide cycle tracks that accommodate side-by-side riding may increase the likelihood of biking in low-income neighborhoods.<sup>189</sup> Expansive bicycle infrastructure, including safe e-bike battery charging, is especially important for supporting the delivery



### Hudson St., Manhattan

Renovations on Hudson St. included protected bike lanes with lushly planted areas and bike racks to improve the safety and comfort of all street users. (NYC: DOT, EDC; Designer: MNLA)

workers who travel via bike daily as part of their jobs. Cycling offers a key opportunity for regular physical activity, which supports physical and mental health.<sup>190</sup>

Additionally, efforts to foster growth in cycling can help lead to fewer car trips, better air quality and a healthier city overall. This section spotlights strategies aimed at advancing a cyclist- and micromobility-friendly New York City.

## 6.1 Expand the bicycle network

Expanded bicycle networks have been shown to increase cycling levels, attracting new cyclists and improved perceptions of safety and comfort among cyclists and users of micromobility devices.<sup>191,192,193,194,195</sup>

Creating a comprehensive, interconnected bicycle network across the city can support safe, continuous travel for a range of users—including commuters, delivery workers and recreational cyclists of all ages.



### Tillary St., Brooklyn

A heavily used intersection at the terminus of the Brooklyn Bridge, Tillary St. was reconstructed with separate bicycle lanes and widened sidewalks protected by planted areas to create a safer and more welcoming entrance into Brooklyn. (NYC: DOT, DDC; Designer: MNLA)

**Tactics:**

- **Expand access to bike paths and bike lanes.** Extend bicycle networks in response to community-defined priorities, such as increasing safe access to parks and transit stations. Tailor infrastructure to accommodate bikes and micromobility users as appropriate for local contexts and road conditions.
  - **Incorporate protected bike paths** that separate cyclists and users of scooters and other devices from moving vehicles to offer the greatest safety benefits. Consider adding trees as a buffer.
  - Where protected bike lanes are not possible, **incorporate striped bike lanes and painted buffers** to enhance the visibility of cyclists.
  - On low-traffic streets, **encourage bikes and cars to share the road** via shared lane markings and signage.
  - **Widen bike lanes to accommodate both cyclists and micromobility users** in areas with heavy use and high prevalence of e-bikes.
  - **Expand NYC's greenways**, which are continuous, multi-use corridors for human-powered or electric-assist transportation and recreation, defined and named by the City.
- **Minimize potential conflicts between cyclists, micromobility users, vehicles and pedestrians.** At busy intersections, maximize the visibility of cyclists and other users with clear road markings and priority traffic signals for bikes, micromobility users and pedestrians. In retail corridors and other areas with particularly high parking turnover, incorporate wider buffers to reduce crash hazards from opening car doors.
- **Prioritize ongoing maintenance of bike lanes and paths.** Regularly monitor and maintain pavement conditions to reduce safety risks to cyclists.

## **6.2 Increase parking and other rider resources for cycling and micromobility**

Access to sheltered, secure and convenient bike parking has been shown to affect people's likelihood of bicycling.<sup>196</sup> The expansion of bike parking and other supportive infrastructure can give cyclists the ability to securely park where needed and seamlessly shift between modes of transportation, including walking and transit use.

**Tactics:**

- **Provide bike parking at popular neighborhood destinations.** Increase bike parking at transit stations, retail corridors, parks and open spaces and civic resources, such as libraries and community centers.
- **Integrate supportive bike infrastructure within transit facilities.** Support multimodal connections for cyclists with tailored amenities, such as bike rails for wheeling bikes up and down stairs, safe e-bike charging stations and bike racks on ferries, buses and trains.
- **Provide wayfinding and signage oriented to cyclists.** Locate community maps and neighborhood information in conjunction with bike parking facilities. Install signage along routes to help connect cyclists to other nearby bike lanes and paths. Convey through signage that e-bikes and e-scooters are welcome in bike lanes, while no micromobility devices are allowed on sidewalks.
- **Expand bike repair stations.** Introduce free bike repair stations and pop-up repair events to entice more riders to travel via bike.

**6.3 Expand access to bike and e-scooter share**

Bike-share systems have made their mark on cities across the globe, and NYC is no exception. Research indicates that access to bike-share programs can increase the likelihood that people will choose biking over more sedentary transportation modes.<sup>197,198,199</sup> Building on the success and lessons learned through the implementation of Citi Bike, NYC can expand access to bike sharing as an efficient, healthy and affordable transportation option for all New Yorkers. These learnings may guide implementation of other shared-use vehicles, such as scooters and e-bikes.

**Tactics:**

- **Leverage bike and e-scooter share technology to expand safe riding practices.** Use docking stations and bike and e-scooter share apps to communicate important safety information — for example, by prompting helmet use or offering tips for new riders.

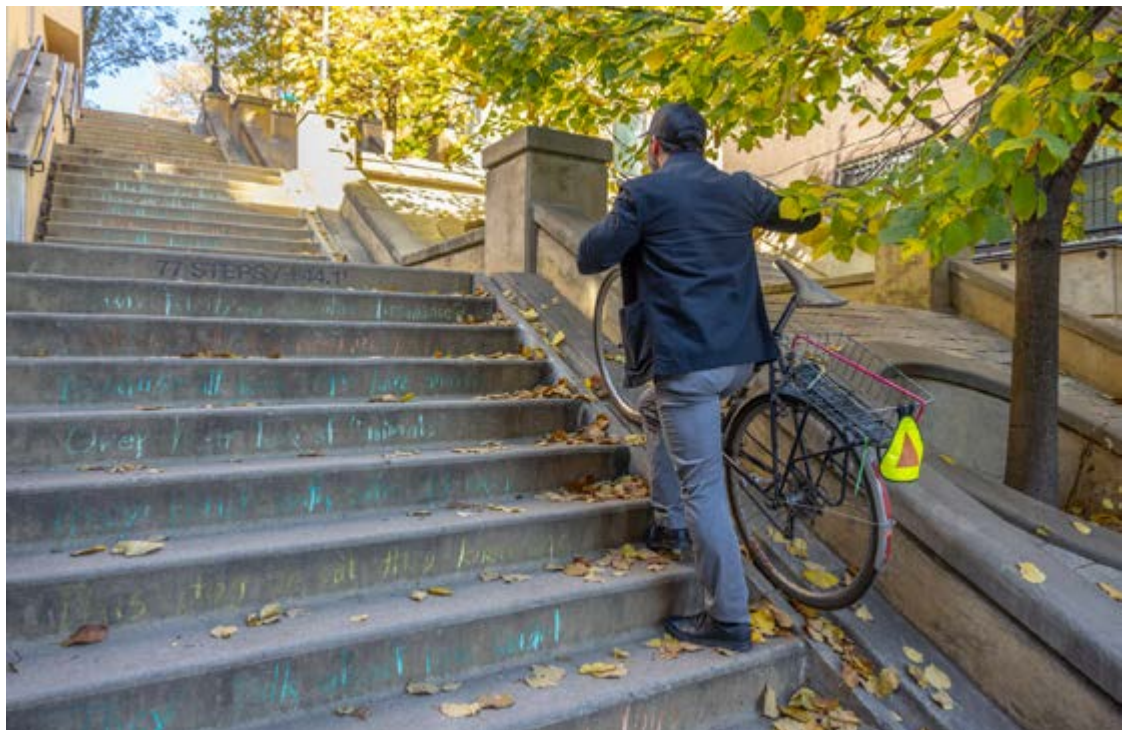


- **Adapt bike-share and e-scooter expansion to meet community needs.** Neighborhoods with fewer transit stops and more residents who earn lower incomes may particularly benefit from expansion of bike or e-scooter sharing and affordable pricing. Collaborate with communities to identify priorities around dock station siting and pricing discounts.
- **Regularly service the bike and e-scooter share fleet.** Regularly check and repair shared bikes and scooters to ensure rider safety and build user confidence.



**For further reading:**

- Bedford Stuyvesant Restoration Corporation: [Better Bike Share Partnership – Cementing an Equity Framework for Micromobility](#)
- NYC DOT: [Street Design Manual – Designing for Micromobility](#)



**W. 215th Step Street, Inwood, Manhattan**

The reconstructed step street enhances pedestrian connections to the subway and local businesses. Wider steps with new handrails and lighting enhance safety, and additional trees provide shade. A new bicycle rail allows cyclists to easily walk bikes up the stairs. (NYC: DDC, DOT; Project Team: WXY, AECOM)



### **High Line Moynihan Train Hall Connector, Manhattan**

Opened in 2023, the elevated walkway provides direct access between the Moynihan Train Hall, nearby west side shops and the High Line. The new route is surrounded by lush greenery and public art and allows pedestrians to walk above the busy streets below. *(NYC: Parks; Project Team: Friends of the High Line, SOM, Field Operations)*

## 7 / Strengthen Public Transit

Reliable **public transit** is associated with a wide range of public health benefits. Research shows that access to transit is linked to increased walking.<sup>200</sup> Transit may also promote **social connection** and lower rates of depressive symptoms in older adults.<sup>201</sup> Increased transit use can also contribute to improved air quality by reducing reliance on personal vehicles and decreasing associated exhaust pollution.<sup>202</sup>

A robust, safe and inclusive transit system helps New Yorkers of all ages and incomes access their daily needs without a car. This section spotlights opportunities to bolster transit as a crucial component of public health infrastructure.

### 7.1 Connect communities through public transit

Transit provides an essential resource connecting residents and visitors to the city’s abundant resources—including employment, education, recreation and cultural facilities. Research points to the importance of assessing transit service at the both the regional and neighborhood levels in order to maximize connectivity for all residents and expand access to commuters of all income levels.<sup>203</sup>

#### Tactics:

- **Expand the city’s comprehensive transit network.** Continue to expand and integrate train, bus and ferry service using community collaboration to tailor opportunities to neighborhood needs.
- **Design new developments and redevelopment projects to maximize transit access.** Cluster neighborhood resources around transit stops, such as housing, retail and parks.
- **Designate “transit priority” streets and “busways.”** Introduce more streets that restrict car use to move more people safely and reliably via transit.

- **Expand access to alternative public transportation options.** Increase paratransit options to better support residents with disabilities. Provide public shuttles to serve neighborhoods that currently lack transit access. Extend shuttle operation into off-peak hours to help workers commute safely and efficiently.

## 7.2 Enhance the comfort, convenience and safety of transit stops to support multimodal transit

Research indicates that amenities supporting the comfort and safety of transit riders are associated with increased transit use. For example, design elements, such as benches, bus shelters and real-time arrival information, may reduce perceived wait times and bolster transit use.<sup>204,205</sup> Clear signage around ticketing machines and ease of use may also contribute to a more positive transit experience.<sup>206</sup> Installing platform screen doors or barriers can also enhance safety by reducing risk of unintentional falls and preventing rail suicides.<sup>207</sup>

### Tactics:

- **Implement universal accessibility measures at all transit stops.** Promote widespread accessibility with clean and well-maintained features, such as elevators, ramps and audible and visible transit updates.
- **Provide features to increase rider comfort and safety.** Respond to community priorities to increase perceptions of safety and elevate comfort. For example, provide sheltered and shaded seating areas to enhance **thermal comfort**, leaning bars and additional lighting.
- **Design transit to accommodate multimodal travel.** Provide clear signage and amenities at transit stations and on transit vehicles, such as designated areas for bikes and scooters and secure parking to support a multimodal city.
- **Enhance access to real-time transit information.** Install countdown clocks at transit stations and promote free applications for mobile devices that offer reliable, real-time transit data.
- **Provide clear wayfinding at transit stops and stations.** Use maps and directional signage to facilitate navigation for transit users and create welcoming gateways to the local neighborhood.



### 2nd Ave. and 86th St., Manhattan

Comfort- and safety-minded transit amenities are associated with increased transit use. At this bus station, countdown clocks provide real-time transit information and covered bus shelters provide protected seating for riders. (NYC: DOT)

- **Install buffers and barriers to enhance rider safety.** Position sidewalk buffers to keep waiting riders safely out of the bus lane. Integrate protective screening devices on train platforms to help prevent accidental falls and rail suicides.



#### For further reading:

- NYC DOT: [Better Buses](#)

## 7.3 Limit parking to incentivize transit and active transportation

Urban environments often cater to cars through an oversupply of surface parking, which can lead to more car use and inhibit the potential for creating more active, vibrant neighborhoods where people interact along streets and in public spaces. Research indicates that restricting access to parking, combined with incentives to promote alternate travel methods, may cut down on driving and support greater use of transit systems.<sup>208,209</sup>

**Tactics:**

- **Adapt and repurpose parking to respond to community priorities.** Convert surface parking to address community-defined needs. For example, create new plazas, green spaces or pop-up markets.
- **Avoid over-supplying parking for new developments and re-developments.** Refrain from exceeding minimum parking requirements, or provide spaces well below parking maximums, in order to incentivize public transit and active transportation.
- **Minimize the negative impacts of surface parking.** Enhance surface parking lots with trees, landscaping and well-marked pedestrian pathways to support pedestrian comfort and safety and to reduce stormwater runoff. Provide shared lots and parking garages to reduce the amount of space devoted to parking.
- **Designate priority parking for people with disabilities, van-pooling and carpooling.** Establish priority parking areas to enhance accessible mobility options for those relying on vehicular travel.

**Red Hook, Brooklyn**

NYC DOT works with community partners citywide, such as the Red Hook Initiative, through Street Seats to transform curb lanes into vibrant public spaces with plantings and additional seating for resting, eating and socializing.

## 8 / Leverage Streets as Public Spaces

NYC's streets comprise more than a quarter of the city's total land area and play an essential role in shaping day-to-day experiences and sense of well-being. Vibrant street life has long been an essential component of New York City, supporting social interaction and neighborhood identity. Studies indicate that well-maintained, attractive streetscapes are associated with improved perceptions of safety (regarding both crime and traffic), as well as increased levels of walking and physical activity.<sup>210,211</sup>

Over the last two decades, NYC has received global recognition for efforts to reimagine streets as public spaces. Plazas and **Open Streets** can enhance the public realm to build community and support the health of all city residents. The experience of the COVID-19 pandemic has shed further light on the important role of streetscapes in providing safe, readily accessible public spaces for spending time outdoors while social distancing.

This section explores opportunities to create open streets and plazas that respond to neighborhood needs. Inclusive community collaboration is vital to maximizing the health benefits of these spaces.

### 8.1 Expand Open Streets initiatives

Open Streets are temporarily closed to traffic to allow for a diversity of uses including exercise, social gathering, children's play and neighborhood festivities. Research points to key health benefits connected to play streets or temporary street closures, including increased physical activity, opportunities for social connection and enhanced sense of community.<sup>212,213</sup> Community collaboration efforts can help maximize these health benefits by ensuring programming and operations are community-led and respond to neighborhood-driven priorities.

**Tactics:**

- **Increase Open Streets citywide.** Create a connected, protected Open Streets network. Prioritize expansion of Open Streets in neighborhoods that lack access to open spaces and provide necessary resources and capacity to support operational needs.
- **Activate Open Streets.** Through community collaboration, leverage well-maintained Open Streets as a venue for recreation, cultural events, community markets, collective action, outdoor dining and other local priorities.



**Audubon Open Street, Manhattan**

The Audubon Open Street offers a public gathering space where Washington Heights neighbors can come together to enjoy community events. Movable furniture and ground murals provide a welcoming and comfortable atmosphere.



- **Program Open Streets for children’s use.** Designate and permit Open Streets that support children’s outdoor activity and learning. Locate Open Streets near schools that lack access to places for outdoor play or parks and playgrounds.
- **Develop adaptable design features to support Open Streets.** Incorporate spaces for temporary art installations by local artists, enhanced barriers to prevent car access, street furniture and more.



**For further reading:**

- NYC DOT: [Open Streets Program](#)
- NYC Design: [Designing New York: Streetscapes for Wellness](#)

## 8.2 Expand and enhance public plazas

Access to well-maintained public spaces, including **public plazas**, is associated with an increased sense of community among neighborhood residents.<sup>214</sup> Successful plazas benefit from strong community partnerships and collaborative efforts to support ongoing maintenance and activation.

**Tactics:**

- **Strategically advance the creation of new plazas.** To maximize health impacts, prioritize neighborhoods that lack access to open space. Provide financial resources and technical assistance to community-based organizations who will support project success.
- **Optimize plaza location to attract visitors.** Create natural neighborhood gathering spaces by locating new plazas along retail corridors, along popular pedestrian streets and adjacent to transit stops.
- **Integrate supportive features to create welcoming, inclusive plazas.** Create a comfortable gathering space for residents of all ages and abilities with features such as trees well-placed for shade, other planting, pedestrian-scale lighting, shade structures, art, drinking fountains, seasonal cooling features and different types of seating. (See [Neighborhoods Guideline 4: Design for Public Spaces for Accessibility and Comfort](#).)

**Policy Highlight:** NYC Parks' Vital Parks for All initiative aims to equitably strengthen public health and the environment through the City's parks system. The public-facing [Vital Parks Explorer](#) tool analyzes park access, amenities and conditions to identify gaps in resources across NYC, empowering New Yorkers with data to advocate for their local parks.



### **Astoria Park, Queens**

An Anchor Parks initiative, Astoria Park underwent major capital improvements to maintain historic architecture while bringing the public space to life for physical activity and socializing. A reconstructed track and field with surrounding seats, plantings and a fitness area are paired with an expanded playground featuring an interactive spray shower. *(NYC: Parks; Designer: Nancy Owens Studio)*

## 9 / Enhance Parks and Recreation Spaces

Parks, playgrounds and other recreation spaces, such as beaches, have long been recognized as essential resources for physical activity and community connection. Today, research points to a breadth of additional health implications related to parks and play spaces that are green, welcoming and well maintained, including enhanced mental health outcomes.<sup>215</sup>

At the height of the COVID-19 pandemic, NYC's park spaces revealed their role as essential public health infrastructure—offering access to green space, supporting physical activity and providing space for safer social interactions.



### **Prospect Playground, Bronx**

A Community Parks Initiative site, this playground underwent a complete renovation and reimagining in 2022, providing access to improved recreational space in the Bronx. The park includes basketball courts and a playground with spray showers. *(NYC: Parks)*



### **Yolanda García Park, Bronx**

The 2019 transformation of a vacant lot into a beautiful public park included an adult fitness area surrounded by plantings, where Melrose community members can be physically active and socialize. Different fitness equipment pieces accommodate a variety of physical abilities and options for physical activity. (*NYC: Parks; Designer: Stantec*)

This section highlights opportunities to promote inclusive access to well-maintained parks and recreation spaces citywide.

## **9.1 Increase access to neighborhood park space and natural areas**

Proximity to parks and green spaces has been shown to impact mental health.<sup>216</sup> Research indicates that living near park space is associated with better mental health outcomes including lower rates of stress and depression.<sup>217,218,219</sup>

**Tactics:**

- **Prioritize investments in neighborhoods that lack park access.** Strategically invest in open spaces and community collaboration efforts in neighborhoods that have experienced historical disinvestment and have residents with lower incomes. Create new parks, playgrounds and recreation spaces and improve existing spaces.
- **Ensure new large-scale developments effectively contribute to parks and recreation needs.** Provide space on-site that is accessible to the public and responds to neighborhood needs and priorities. Contribute to the enhancement of nearby parks and play spaces.
- **Open schoolyards to the public during non-school hours.** Enhance schoolyards and broaden access hours to provide places to play for all community members.



**Astoria Heights Playground, Queens**

A Community Parks Initiative site, this playground provides enhanced active recreation for Astoria children and families. Design features like the spray shower were informed by feedback from the nearby I.S.10 school and the local community in 2018. (*NYC: Parks*)

- **Enhance park connections for pedestrians, cyclists and transit riders.** Improve pedestrian environments and introduce nearby open streets to further promote park access. Connect to bicycle networks and provide bike parking and bike-share facilities on-site. Plan expanded transit routes to prioritize park access.

## 9.2 Promote multigenerational activity

The design of playgrounds and park features can respond to the preferences of diverse ages, genders and cultures. Research shows that access to recreation facilities can support increased physical activity rates across a range of age groups including adolescents, adults and



### **Blake Hobbs Play-Za, East Harlem, Manhattan**

This active urban space, formerly an underutilized asphalt play lot, serves neighbors, DREAM Charter School students and adjacent NYCHA senior housing residents. SCAPE, DREAM and the community partnered to envision a multigenerational space that is both a playground and plaza—a “Play-Za.” (Designer: SCAPE)

older adults.<sup>220,221</sup> By accommodating different types of recreation, the city's open spaces can support activities that serve multiple ages, encourage **multigenerational use**, increase physical activity levels and promote social interaction (See [Neighborhoods Guideline 3: Integrate Nature and Support Biodiversity in Public Spaces.](#))<sup>222,223,224</sup>

### Tactics:

- **Include ground markings to enable a variety of sports and activities.** Incorporate game markings and court boundaries to inspire increased physical activity.
- **Create accessible playgrounds that accommodate a wide range of abilities.** Provide adaptable play equipment, tactile materials and movable elements that spark imaginative and collaborative play.
- **Incorporate play and exercise equipment for users of all ages.** Install accessible and adaptable fitness equipment to accommodate a variety of physical abilities.
- **Integrate natural features and terrain in children's outdoor play areas.** Increase access to nature to support children's physical, mental and social well-being. Incorporate plantings, shade, natural play materials, hills and varied elevations and water features.
- **Create outdoor recreation spaces tailored to teens and young adults.** Provide open spaces that cater to youth, such as skate parks, athletic courts and performance areas. Use teen-led design and programming initiatives to cultivate new public space leaders.
- **Feature restorative areas surrounded by planting.** Provide respite from the bustle of the city with quieter, restorative areas that feature natural elements that offer a buffer from noise and activity, mitigate heat and improve thermal comfort.



### For further reading:

- NYC Health: [Active Design Playbook for Early Childhood Settings](#)

# 10 / Foster Community Gathering in Public Spaces

As places where all community members come together, public spaces are important venues for fostering relationships among neighbors and supporting neighborhood safety.<sup>225,226</sup> In order to maximize the potential health benefits of public spaces—which range from reducing social isolation to increasing physical activity and enhancing perceptions of safety—improvements must be community-led and tailored to the unique neighborhood context.<sup>227,228,229,230</sup> Where needed, connection to additional resources and technical assistance can help foster ongoing public space management and activation. This section outlines key strategies to inclusively activate and optimize public spaces.

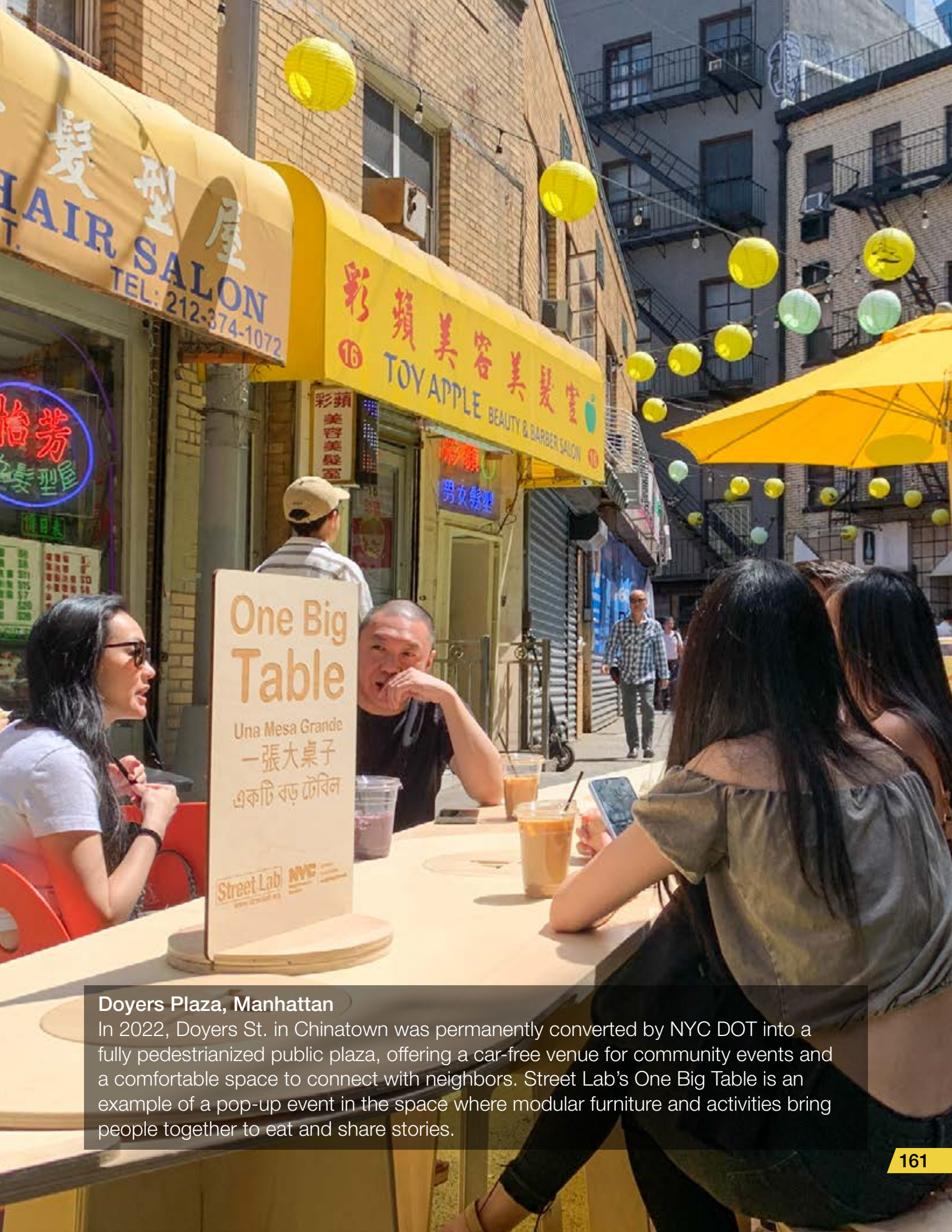
## 10.1 Support neighborhood-led programming and events

Welcoming, flexible public spaces can offer ideal venues for events and public programs. Research indicates that access to community-led events can improve the vitality of public spaces and foster social connections among neighbors.<sup>231,232</sup>

### Tactics:

- **Design flexible public spaces to accommodate diverse programming and events.** Incorporate movable and adaptable furniture, planters and art to allow public spaces to be converted for a range of uses. Provide on-site storage, electricity, water connections and other amenities to support programming and events.
- **Remove barriers to community-driven programming.** Provide technical assistance to local community groups to assist in permitting. Support groups in identifying grantmaking opportunities to provide the necessary resources to host programs and events to help expand public space activation citywide.





### Doyers Plaza, Manhattan

In 2022, Doyers St. in Chinatown was permanently converted by NYC DOT into a fully pedestrianized public plaza, offering a car-free venue for community events and a comfortable space to connect with neighbors. Street Lab's One Big Table is an example of a pop-up event in the space where modular furniture and activities bring people together to eat and share stories.

- **Implement temporary pop-up gatherings.** Address community-driven priorities with temporary interventions such as pop-up parks, cool streets and mobile libraries. Use pilot projects to test design and programming options and elicit community feedback to inform longer-term public space goals.

## 10.2 Celebrate community identity

Public spaces can help showcase unique neighborhood characteristics and enhance the visibility of local heritage, arts and entrepreneurship. For example, studies indicate that collaborative public art initiatives may be a way to enhance friendships and sense of self, elevate resident voices in neighborhood planning and decision-making and foster a sense of inclusion.<sup>233,234,235</sup>

### Tactics:

- **Feature local artists in public spaces.** Spotlight local neighborhood talent through initiatives, such as murals, rotating art installations and public performance series.



### Marcus Garvey Park, Manhattan

Through NYC Parks' Art in the Parks program, "Sankofa" by Jerome Haferd was installed at Marcus Garvey Park as a pavilion for gathering, inspired by African, Afro-Caribbean and Indigenous craft traditions.

- **Incorporate community-driven, collaborative art.** Promote active participation in public art initiatives, which can be a particularly important catalyst for individual and collective healing.
- **Showcase local entrepreneurs.** Use neighborhood public spaces to host outdoor markets and kiosks designed to incubate and sustain local businesses.
- **Host neighborhood walking tours.** Enlist and fund the leadership of longtime community members and organizations to help build awareness and pride around local history and culture.

### 10.3 Respond to unique neighborhood priorities

Public spaces offer an opportunity to address specific neighborhood challenges and priorities through creative, community-led interventions. Including residents in neighborhood planning and decision-making processes can foster a sense of ownership and



**Turnout NYC–Queensboro Dance Festival, Travers Park, Queens**  
Led by the Design Trust and SITU, with support from the Mellon Foundation, #TurnoutNYC supported NYC-based cultural organizations to expand equitable access to community-led programming such as the Queensboro Dance Festival, which brought rich multicultural performances, yoga classes and art workshops.

create a sense of belonging.<sup>236,237</sup> While neighborhood priorities will vary widely, a few examples are noted in the tactics below.

### Tactics:

- **Promote youth leadership through public space initiatives.** To cultivate future leaders, ensure young people have the opportunity to guide public space improvements—for example, by leading community clean-up and beautification efforts, spearheading outdoor youth-oriented programming and events, or gathering data and community input on public space needs.
- **Design and activate spaces for nighttime use.** Keep public spaces vibrant after dark with nighttime programming and events. Comply with noise codes and provide additional lighting, maintenance and security as needed.
- **Provide access to Wi-Fi.** Expand internet access for all New Yorkers by offering free Wi-Fi in public spaces.



#### **Mother Gaston Blvd. Pops Mural, Brownsville, Brooklyn**

“Made in Brownsville” engaged local youth to create a mural for a retail market pop-up in a vacant lot. The art and lighting created a welcoming space that supported nighttime activities in the underutilized space.

# 11 / Cultivate Community with Food

Food is an integral part of daily life, and access to healthy food is a mainstay for well-being. A healthy diet is one that emphasizes whole, minimally processed foods such as fruits, vegetables, legumes and whole grains, and is lower in red and processed meats, sugary foods and drinks and refined grains.<sup>238</sup>

**Food systems** are highly complex in nature, and neighborhood-scale interventions may have limited impacts on broad systemic concerns related to food affordability and hunger. At the same time, there is growing recognition of food as an important pathway to address



## Union Square Green Market, Manhattan

City programs can support community members' access to fresh, healthy food. New Yorkers participating in the Supplemental Nutrition Assistance Program (SNAP) can access Health Bucks, coupons redeemable for fruits and vegetables, at NYC farmers markets.

neighborhood health inequities and celebrate local identity. Food also brings communities together, and local and cultural food options may help instill and strengthen a sense of **community identity**.<sup>239,240</sup>

This section explores opportunities to address neighborhood food priorities through **built environment** interventions.

## 11.1 Expand healthy food retail options

In NYC, the ratio of bodegas to supermarkets is often higher in lower-income neighborhoods, indicating an environment with potentially limited healthy food options. These small neighborhood convenience stores tend to have less healthy food options as compared with supermarkets.<sup>241</sup> While not a solution to all food access barriers, providing healthy food retail options tailored to community needs is one step towards addressing living conditions in neighborhoods that support health and health equity.

### Tactics:

- **Promote grocery store access.** In large-scale developments, incorporate retail spaces that can accommodate grocery stores. The NYC FRESH program offers zoning and financial incentives for providing full-service grocery stores in underserved neighborhoods.
- **Expand farmers markets.** Collaboratively identify preferred locations for new farmers markets. Through NYC Health's website, community members can find local farmers markets.
- **Support smaller-scale healthy food retail.** Provide resources and technical assistance to encourage bodegas and corner stores to carry fresh produce and market healthier food choices. Support food co-ops and produce vendors in filling gaps in healthy food access.



### For further reading:

- NYC Health: [Shop Healthy NYC! How to Adopt a Shop](#)
- [NYC Food Retail Expansion to Support Health \(FRESH\)](#)
- NYC Health: [Health Bucks and Farmers Market Location](#)



### **Hell's Kitchen Farm Project, Hell's Kitchen, Manhattan**

Urban agriculture in NYC often includes the utilization of creative spaces like rooftops for gardening and farming. The Hell's Kitchen Farm Project grows fresh produce on the roof of the Metro Baptist Church and Rauschenbusch Metro Ministries, distributes to local food pantries, and offers a community-supported agriculture program.

## **11.2 Grow fresh food locally**

Gardening and farming can support multiple aspects of health for all ages and backgrounds. Studies show that community-based gardening, when paired with relevant health promotion programming, can increase vegetable intake.<sup>242,243</sup> Gardening and farming allow for hands-on connections with nature, which offers associated mental and social health benefits.<sup>244</sup> In addition, mobile produce markets and community-supported agriculture can support local farmers and improve access to fresh produce for low-income communities.<sup>245,246</sup>

**Tactics:**

- **Promote gardening.** Support school gardening as an opportunity for educational programming on nutrition and food ecosystems. Maximize access to community gardens through initiatives such as the NYC Parks GreenThumb urban gardening program. Share resources and educational materials to increase awareness of how to integrate gardening opportunities into spaces like residential developments and community centers.
- **Support urban farms.** Collaboratively identify and allocate space for urban farming. Tailor farming initiatives in response to key neighborhood priorities such as education and workforce training.
- **Facilitate distribution of local food.** Integrate food processing and distribution facilities that support local growers and meet the needs of the surrounding community. Prioritize fresh food distribution to neighborhoods that need it most, for example through farm stands, mobile markets and fresh food boxes.

**11.3 Celebrate community identity with food**

In addition to providing sustenance, food can be an important source of social connection and community pride. Research indicates that food can inspire people to come together and may enhance feelings of community solidarity.<sup>247</sup> Food can be key to activating a public space, celebrating cultural identities and supporting neighbors in times of hardship.

**Tactics:**

- **Install infrastructure to support local food vendors.** Provide food kiosks in public spaces and create shared outdoor seating areas.
- **Reflect local cultures and preferences.** Feature food options representative of neighborhood cultural and dietary preferences.
- **Host food-related events.** Use markets and food festivals to bring neighbors together, connect diverse cultures and support local entrepreneurs.
- **Make space for community-driven food initiatives.** Provide spaces to support food donation and distribution, such as food pantries.



## 12 / Mitigate Noise Levels in Public Spaces

**Noise pollution** is one of the most pervasive quality-of-life concerns raised by NYC residents. Survey data suggests that about 20% of New Yorkers are frequently disturbed by noise at home.<sup>248</sup> Nearly one in six 311 calls are related to noise complaints.<sup>249</sup>

Noise is also a critical public health concern. Exposure to excess noise can exacerbate stress levels, disrupt sleep and impair cognitive function.<sup>250</sup> Over the longer term, persistent noise exposure is associated with heart disease.<sup>251</sup> Given these concerns, reducing noise levels is fundamental to maximizing the health benefits of NYC's public spaces.



### Brooklyn Bridge Park, Brooklyn

The transformation of an abandoned waterfront into a public landscape with active recreational space included a massive sound-deflecting landform that shelters the site from adjacent highway noise. (*Designer: Michael Van Valkenburgh Associates*)

## 12.1 Buffer noise through site design and materials

Research indicates that noisy transportation infrastructure, such as airports, high-traffic roads, elevated trains and railways may be a risk factor for cardiovascular disease.<sup>252</sup> These features can also detract from the enjoyment of streets and public spaces. Certain design features can help reflect, absorb or mask excessive noise impacting NYC's public spaces. While no single approach can fully mitigate noise in a dense urban environment, a combination of interventions may help reduce unwanted noise.

### Tactics:

- **Use landforms to redirect and absorb noise.** Incorporate natural landforms and earthen berms to help mitigate noise from nearby transportation infrastructure.
- **Install plants to absorb excess noise.** Plant a buffer of dense, durable greenery to help absorb unwanted sounds. Evergreens are ideal for year-round noise mitigation.
- **Install water features to mask unwanted noise.** Use water fountains and waterfall features with surface textures and sound mitigation in mind to provide soothing, restorative sounds that can help mask intrusive noises.
- **Install low-noise pavements to reduce roadway sounds.** Use finer-grained, porous pavements to reduce traffic noise.
- **Enhance transit infrastructure to mitigate noise.** Employ transportation technologies that reduce noise emitted from trains, buses and other vehicles.

## 12.2 Reduce common nighttime noise hazards

Nighttime noise exposure that disrupts sleep has been shown to contribute to high blood pressure and depression.<sup>253,254</sup> NYC's Department of Environmental Protection (DEP) provides guidance on managing common noise sources around the clock, ranging from construction, to vehicular noise, to music from bars and restaurants.



### **Columbus Circle, Manhattan**

The traffic circle was redesigned into a refuge where people can meet and relax. Fountains arc toward the circle's central monument, with cascading water and jets masking the noise of surrounding traffic to create a more serene environment. (NYC: DDC, DOT; Designer: OLIN)

#### **Tactics:**

- **Minimize construction noise, particularly at night.** Ensure all NYC construction sites adopt and implement a noise mitigation plan and obtain express authorization before conducting after-hours work.
- **Restrict access for heavy vehicles in residential areas.** Limit heavy-truck traffic in dense residential areas to reduce noise levels and enhance the safety of pedestrians and cyclists, while also mitigating air pollution.
- **Support anti-idling enforcement.** Report illegal truck idling through NYC DEP's Idling Complaint System.



#### **For further reading:**

- NYC DEP: [A Guide to New York City's Noise Code](#)

## Chapter 3: Neighborhoods Checklist /

### Chapter 3: Neighborhoods

#### Guideline 1: Maximize Access to Essential Neighborhood Assets

<b>1.1</b>	Promote equitable distribution of community resources
<b>1.2</b>	Ensure “fair-share” distribution of less desirable uses
<b>1.3</b>	Leverage underused spaces as new community assets

#### Guideline 2: Prioritize Public Space Maintenance

<b>2.1</b>	Design with maintenance in mind
<b>2.2</b>	Optimize waste management
<b>2.3</b>	Advance responsive maintenance partnerships

#### Guideline 3: Integrate Nature and Support Biodiversity in Public Spaces

<b>3.1</b>	Green the public realm
<b>3.2</b>	Create restorative natural areas
<b>3.3</b>	Promote community and school gardening
<b>3.4</b>	Expand access to and protect NYC waterways

#### Guideline 4: Design Public Spaces for Accessibility and Comfort

<b>4.1</b>	Maximize user comfort
<b>4.2</b>	Design welcoming public spaces
<b>4.3</b>	Prioritize neighborhood-specific public safety needs

**Guideline 5: Create and Maintain a Pedestrian-Friendly Environment**

<b>5.1</b>	Integrate traffic-calming elements
<b>5.2</b>	Create supportive sidewalks and pathways
<b>5.3</b>	Plan for pedestrian connectivity

**Guideline 6: Create and Maintain a Cyclist- and Micromobility-Friendly Environment**

<b>6.1</b>	Expand the bicycle network
<b>6.2</b>	Increase parking and other rider resources for cycling and micromobility
<b>6.3</b>	Expand access to bike and e-scooter share

**Guideline 7: Strengthen Public Transit**

<b>7.1</b>	Connect communities through public transit
<b>7.2</b>	Enhance the comfort, convenience and safety of transit stops to support multimodal transit
<b>7.3</b>	Limit parking to incentivize transit and active transportation

**Guideline 8: Leverage Streets as Public Spaces**

<b>8.1</b>	Expand Open Streets initiatives
<b>8.2</b>	Expand and enhance public plazas

**Guideline 9: Enhance Parks and Recreation Spaces**

<b>9.1</b>	Increase access to neighborhood park space and natural areas
<b>9.2</b>	Promote multigenerational activity

**Guideline 10: Foster Community Gathering in Public Spaces**

<b>10.1</b>	Support neighborhood-led programming and events
<b>10.2</b>	Celebrate community identity
<b>10.3</b>	Respond to unique neighborhood priorities

**Guideline 11: Cultivate Community with Food**

<b>11.1</b>	Expand healthy food retail options
<b>11.2</b>	Grow fresh food locally
<b>11.3</b>	Celebrate community identity with food

**Guideline 12: Mitigate Noise Levels in Public Spaces**

<b>12.1</b>	Buffer noise through site design and materials
<b>12.2</b>	Reduce common nighttime noise hazards



# Guidelines in Action

## Bronx Night Market

### Overview

The Bronx Night Market is an open-air festival based in Fordham Plaza that brings together Bronx-based artists, vendors and residents on the last Saturday of each month. It also hosts seasonal pop-up events in partnership with organizations like the New York Botanical Garden, SummerStage, New York Road Runners and more. The plaza sits at the center of a major transit hub, at the crossroads of 12 bus lines, a subway stop and a regional train station. In 2015 it received a major upgrade as

part of the City's Vision Zero plan, with improved wayfinding, lighting and traffic circulation to improve pedestrian safety.

With a mission of enhancing and supporting the food scene in the Bronx community and fostering local entrepreneurship, the Bronx Night Market also supports holistic community health goals by fostering social cohesion, trust and community pride. This nighttime activation of public space helps to increase a sense of vibrancy and safety in the neighborhood.



**Above:** The Bronx Night Market brings global cuisines from more than 20 different countries to the Bronx community. **Right:** Over time, the Bronx Night Market has incorporated local up-and-coming artists into market activities. Now, there is a catalog of Bronx Night Market-affiliated artists, singers, DJs and photographers.





**“ When I did the market for the first time it was mind-blowing because I sold out in four hours. Even though we didn’t have anything to sell, people were still coming over and talking to us, it was an amazing experience.”**

— **Lytia Wright**, owner of Chictreatz and Bronx Night Market vendor

### Sample Guidelines in Action

The Bronx Night Market exemplifies a range of ADG 2.0 Guidelines:

**Collaboration 2:** Amplify Community Leadership

**Neighborhoods 4:** Design Public Spaces for Accessibility and Comfort

**Neighborhoods 8:** Leverage Streets as Public Space

**Neighborhoods 11:** Cultivate Community with Food



The Bronx Night Market is a hub for community and culture in the Central Bronx.



**“ You don’t feel any disconnect between the market, the vendors and the community. When you join the market, you are joining the Bronx family, and people will come out to support you. As a vendor, the goal is to promote your business and to make money, but you also end up making a connection with the community and that alone is bigger than selling anything because I am in their space.”**

**— Angela Arias, owner of Ariance Jewelry and Bronx Night Market vendor**



From volunteers to headliners, most of the people behind the scenes at the Bronx Night Market are from the Bronx community. The team is truly invested in the growth of its vendors.

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### Approach

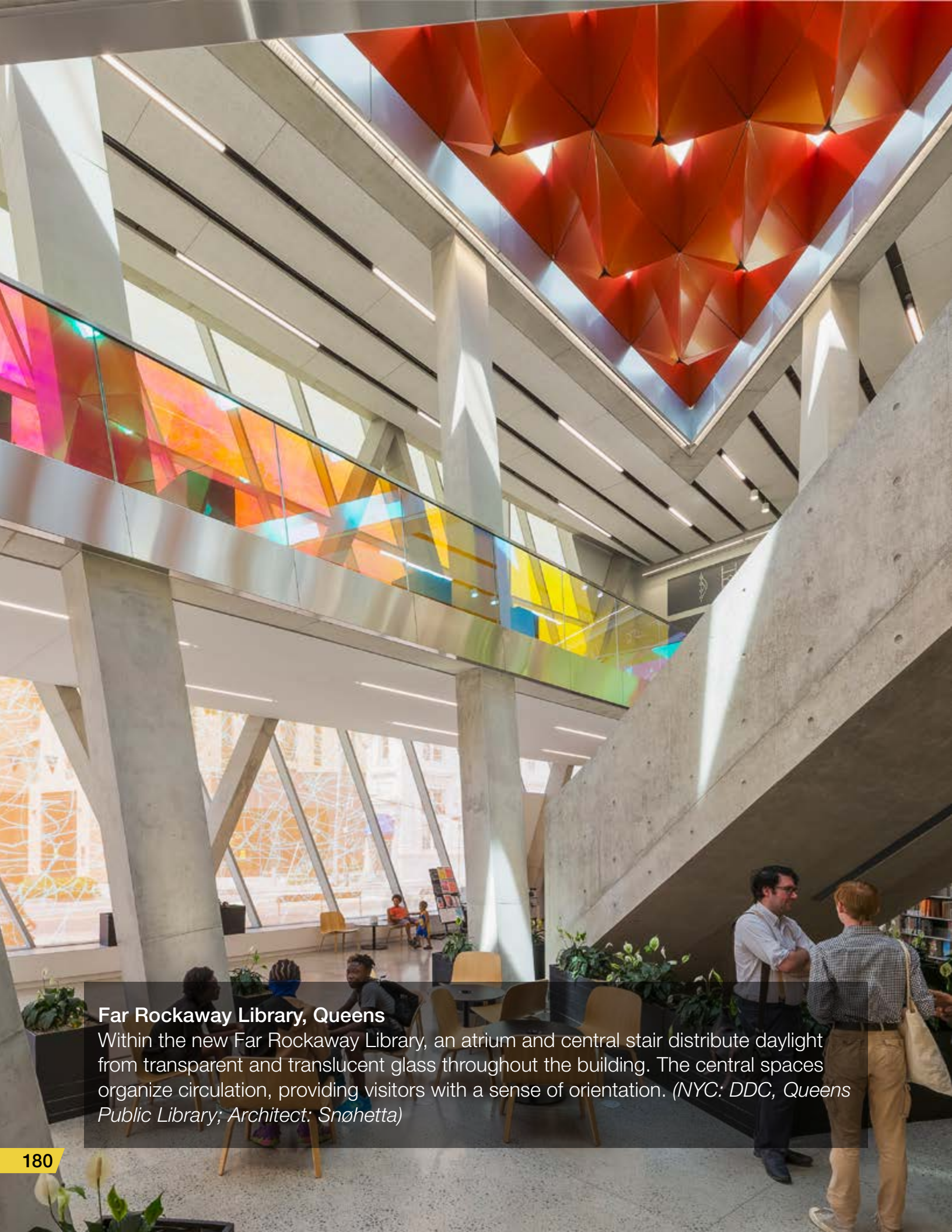
The Bronx Night Market relies on passionate staff and volunteers who want to see vendors succeed and fully support them—whether they are assisting to secure and decorate tents on market days, promoting vendors on social media or helping them prepare for investor meetings. These collaborative efforts to host weekly gatherings have transformed an everyday space into a source of community pride and joy.

### Outcomes

Today, the market regularly attracts thousands of visitors and hosts a rotating lineup of more than 50 vendors, half of whom are Bronx-based. The market has spotlighted over 100 local artists and helped over a dozen vendors launch or expand their businesses. It has become a crucial outlet for activating public space and bringing community members together, while serving as a start-up ecosystem for local small businesses.

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**Left:** The Bronx Night Market brings global cuisines from more than 20 different countries to the Bronx community.



**Far Rockaway Library, Queens**

Within the new Far Rockaway Library, an atrium and central stair distribute daylight from transparent and translucent glass throughout the building. The central spaces organize circulation, providing visitors with a sense of orientation. (NYC: DDC, Queens Public Library; Architect: Snøhetta)

# 4 / Buildings

The National Human Activity Pattern survey finds that U.S. residents report spending an average of nearly 90% of their time indoors. Hence, building design and operations are critical opportunities to improve health.<sup>255</sup> Buildings offer an important avenue for addressing health considerations among a diverse array of building occupants. ADG 2.0 defines occupants as the people who spend any length of time in a building—whether residents, employees, students, patients, facilities staff or temporary visitors. Buildings should also be designed to complement the local neighborhood conditions and support walkability, safety and the comfort of pedestrians.

The evidence base around healthy buildings continues to grow, providing clear direction for addressing physical, mental and social well-being. For example, access to healthy, **high-quality** housing can be a pivotal measure for improving the health of all New Yorkers and is connected with multiple benefits including reduced exposure to dangerous contaminants, lower asthma rates, reduced transmission of contagious diseases and improved **mental health**.<sup>256,257</sup>

Workplaces and schools are spaces where people spend long periods of time and may be particularly important places to introduce health-promoting strategies, such as common areas that can serve as places of respite and promote mental health. Many other building typologies—health care, retail, civic buildings, cultural facilities—can prioritize health and well-being to create more welcoming, equitable and inclusive spaces through design that helps foster community pride.

This chapter outlines 11 **evidence-informed** guidelines for optimizing buildings to support health and well-being. While specific implementation approaches will vary widely depending on building size and typology, measures to improve occupant health can be implemented across all buildings.



### **Sendero Verde, Manhattan**

Opened in 2024 in East Harlem, Sendero Verde is the largest fully affordable Passive House building in the world. This mixed-used building features ground-floor community facilities, retail, community gardens and a publicly accessible courtyard to help connect the space to its surroundings. Sustainable features like triple-glazed windows and mechanically ventilated spaces contribute to its use of substantially less energy than a similar building normally would. *(Project Team: Handel Architects, L+M Development Partners, Acacia Network)*

# Guidelines

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# 1 / Integrate Buildings into the Surrounding Neighborhood Context

A building that is well designed and managed can contribute to the health of the surrounding neighborhood. This section highlights key design and operations strategies that architects, planners, developers and City agencies can use to support community health across a project life cycle—whether designing a new building, managing an existing asset or planning for a major renovation.



## **Glen Oaks Library, Queens**

Located between a residential neighborhood and a commercial area, the Glen Oaks Library offers a neighborhood-scaled outdoor space that invites visitors to gather, while absorbing stormwater through planting and pervious surfaces. (NYC: DDC, Queens Public Library; Project Team: Marble Fairbanks, SCAPE)

## 1.1 Provide enhancements and visual interest at the pedestrian scale

Every building can contribute to a **pedestrian-friendly** neighborhood that is safe and comfortable to navigate for people of all ages and abilities. Inviting sidewalks and supportive and appealing building exteriors can support a range of positive health outcomes, including physical activity. Active transport can also contribute to mental wellbeing.<sup>258,259,260</sup>

### Tactics:

- **Provide variety and detail of building exteriors.** Consider elements of visual interest, such as distinctive facade details, particularly on lower floors. Canopies and awnings offer the added benefits of shade and protection from inclement weather. Stoops and front porches can support social interaction and a more vibrant street life.



### WHIN Music Community Charter School, Manhattan

The musical motif is reflected in WHIN's facade, as metal siding nods to the notes of a conductor's score. The building's transparent lobby invites students and the wider community in, providing a full display of the music theater, the heart of the school. (Architect: GLUCK+)



### **116th Police Precinct, Queens**

The precinct, which includes a fully glazed community room for public programming, opens onto a new public plaza that bridges between a residential neighborhood and an elevated transit station. (NYC: DDC, NYPD; Architect: Dattner)

- **Maximize ground-floor transparency.** Promote a high level of visibility into and out of buildings at the ground level to support greater community connection and sense of safety and contribute to a more appealing streetscape. Transparency can also support better lighting from interior spaces along the sidewalks and streets during the evenings.
- **Enhance building entrances.** Ensure entrances are clearly visible, accessible, welcoming and seamlessly connected with sidewalks and pedestrian pathways. Provide exterior lighting to enhance visibility and promote a sense of safety. Install features to meet user needs, such as benches, street trees, bike racks and more.
- **Preserve and plant trees and other vegetation.** Plant trees along sidewalks and entrances and include planters and other vegetation along building exterior to enhance pedestrian experience, increase views of nature and mitigate heat. (See [Buildings Guideline 7: Incorporate Natural Design Elements](#).)

## 1.2 Connect with the surrounding neighborhood

Building and site design should reinforce existing neighborhood assets and intentionally respond to neighborhood priorities. When aligned with and responsive to effective community collaboration efforts, diverse building or destination types have been shown to contribute to a sense of community.<sup>261</sup>

### Tactics:

- **Design building massing to support nearby open space.** Minimize shadows, windy conditions, noise disturbances and other detrimental impacts on adjacent parks and plazas.



### Elmhurst Library, Queens

The library's surrounding public entry plaza, learning garden and community park bring library activities outdoors. The welcoming exterior, featuring benches and trees along the pathways, helps foster strong connections to the surrounding neighborhood. (NYC: DDC, Queens Public Library; Architect: Marpillero Pollak Architects)

- **Incorporate public gathering space on-site.** Provide publicly accessible gathering spaces such as a pedestrian plaza, courtyard or interior atrium. (See [Neighborhoods Guideline 4: Design Public Spaces for Accessibility and Comfort](#).)
- **Provide amenities that respond to neighborhood needs.** Address community priorities, for example by providing space for retail, health care, cultural facilities, drinking fountains, community rooms, restrooms and more.
- **Create opportunities for ongoing neighborhood engagement.** Use exhibits, arts and other programming to welcome neighbors to the site and support community connections.

### 1.3 Mitigate the impacts of renovation and construction

Building renovation and construction activities contribute to dust and **noise pollution** that can be disruptive to the surrounding neighborhood and negatively impact health.<sup>262,263,264</sup> Efforts should go beyond minimum code requirements and local ordinances to mitigate these disruptions, supporting the health of residents and positive relationships between the site and the surrounding neighborhood.

#### Tactics:

- **Manage dust production.** Reduce pollution created by construction to improve ambient air quality and reduce associated health risks to nearby residents.
- **Reduce noise disturbances.** Use sound-dampening strategies and schedule noisy work during less disruptive hours, depending on context and surroundings, to minimize the negative impacts of noise on neighbors.
- **Improve site navigability and enhance scaffolding.** Design temporary pathways to support comfortable mobility for people of all ages and abilities. Attend to safety concerns by installing lighting and mirrors that enhance visibility.

- **Get creative.** Through community collaboration efforts, leverage temporary construction elements like scaffolding or fencing as a canvas for featuring local arts, history and culture.



**For further reading:**

- NYC Design: [Designing New York: Quality Affordable Housing](#)
- NYC DEP: [Noise Code](#)
- NYC Buildings: [Tenant Protection Plan](#)



**Reify, Staten Island Courthouse, Staten Island**

DDC Public Artist in Residence Melanie Crean transformed the construction site at the Staten Island Courthouse with her installation “Reify.” Images on fencing and hanging banners reflect people building connections across multiple divides, informed by Crean’s interviews with local youth interested in justice. (NYC: DDC, DCLA)

## 2 / Create a Welcoming and Supportive Environment

In any building, indoor and outdoor common spaces can be designed to intentionally foster a sense of inclusivity and promote community connection. Such considerations are particularly important for buildings that offer public-facing services, such as libraries, health care facilities, community centers and more.

This section spotlights design and operations considerations to make a building as inviting and restorative as possible in order to contribute to occupants' sense of community and their well-being.<sup>265,266</sup>



### **Chelsea District Health Center, Manhattan**

The renovated health center provides a calm and inviting space with curved wood ceilings, an approachable front desk and large windows offering views of the surrounding park. (NYC: DDC, Health Department; Architect: Stephen Yablou Architecture)

## 2.1 Integrate accessible signage and wayfinding

Visible and tactile, user-friendly signage and **wayfinding** can support greater visitor satisfaction and navigability to improve the user experience.<sup>267,268</sup> Participatory design processes that involve building users can help ensure the signage is more useful and clear.<sup>269</sup>

### Tactics:

- **Integrate wayfinding in frequently trafficked areas.** Support navigation by installing wayfinding features at building entrances, lobbies, stairs and other strategic areas.
- **Use positive, welcoming messaging.** Design signs that encourage use of available resources and create a sense of welcome. Use positive messaging to focus on what is possible, rather than emphasizing rules about what not to do.
- **Maximize accessibility for all users.** Ensure wayfinding and informational signage is both tactile and widely legible. Use **accessible images** and icons, and integrate relevant languages and audio assistive technologies to meet the needs of all occupants.
- **Connect to community resources.** Provide information about community assets and public resources that can support building occupants—such as a map to the nearest park, a schedule of garbage and recycling collection, a crisis hotline number and more.

## 2.2 Meet daily needs and enhance accessibility

People designing and managing buildings, especially those that are open to the public, have a responsibility to provide access to vital facilities, such as public restrooms, lactation rooms and water fountains. Facilities like this are essential for meeting occupants' daily needs to support health.

### Tactics:

- **Provide wheelchair accessible, gender-inclusive restrooms.** Design restrooms that maximize accessibility for all occupants,



including gender-inclusive options and family restrooms with baby changing facilities.

- **Accommodate breastfeeding.** Integrate inclusive lactation rooms or stations to accommodate breastfeeding people. Use a reservation system to allow for privacy and ensure spaces accommodate people with disabilities and those who use mobility devices.
- **Provide access to drinking fountains and bottle fillers.** Locate drinking fountains and bottle fillers near restrooms and in shared common spaces to increase hydration opportunities. Include lower fountains with enough clearance underneath for wheelchairs.



### **Turner Construction Headquarters, Manhattan**

The Turner Construction offices include a lactation room with comfortable lighting and seating and proper amenities to accommodate breastfeeding people and their daily needs. *(Architect: Gensler)*

## 2.3 Respond to occupant needs and preferences

Use surveys and other tools to collect information about occupant satisfaction with building design and operations. For example, conducting post-occupancy surveys can help provide a better understanding as to how buildings are being used by occupants and identify opportunities for future design and operation of buildings. Creating surveys with building management or others who are familiar with building operations can ensure the input gathered is useful for future building design.<sup>270</sup> (See [Community Collaboration Guideline 5: Evaluate and Refine Approaches.](#))



### Hamilton Grange Library, Manhattan

NYPL's first full-floor dedicated teen space at Harlem's Hamilton Grange branch is open, social and mixed-use. The placement of a cylindrical media room beside quiet space for reading and studying offers a range of environments to reflect teens' diversity of preferences. (NYC: NYPL; Architect: Rice+Lipka)



### **International School for Liberal Arts, Bronx**

The NYC Health Department's Mental Health by Design initiative engaged 15 schools to create spaces to support student mental health. This project converted a storage room into a mindfulness center to better promote the students' social-emotional development.

### **Tactics:**

- **Seek regular feedback from occupants.** Gather targeted feedback from occupants, for example through a quarterly town hall or a bi-annual survey to guide building design and operational upgrades.
- **Program common spaces to reflect user preferences.** Engage occupants in identifying activities and programs to maximize use of common spaces for all ages and abilities.
- **Create opportunities for ongoing communication.** Create a system for receiving comments or accommodation requests, for example through a central email or comment box. Share building updates via an information board or periodic newsletters from building management. Regularly report how occupant feedback is making a difference on-site.

## 2.4 Plan for and practice regular maintenance

Building maintenance practices, such as pest management or removing mold and dampness, can reduce exposure to environmental allergens that lead to asthma or other respiratory conditions.<sup>271,272</sup>

Buildings should be designed with awareness of available maintenance protocols and input from maintenance personnel.

### Tactics:

- **Use durable materials and details.** Choose long-lasting materials that are resistant to degradation, require lower levels of maintenance and are easily replaced.
- **Design space for waste collection.** Design waste collection areas for easy cleaning and materials sorting. Provide well-marked, rodent resistant containers to separate trash, recycling and special waste needs such as paints, light bulbs and batteries
- **Implement integrated pest management (IPM) programs.** IPM programs reduce harmful exposure to both pests and pesticides. Use comprehensive tactics to identify, monitor and prevent pests. Set action thresholds for undertaking further interventions as needed.
- **Schedule regular inspections and complete timely repairs.** Routinely evaluate the building environment and remediate potential issues. Respond to occupant concerns and quickly restore any nonfunctioning services, especially those providing accessible access, to increase confidence in building facilities and optimize building use.
- **Test and treat water quality regularly.** Facilities managers should monitor water quality by establishing control measures, such as visual inspections, checking disinfectant levels and temperatures and testing for harmful contaminants. These steps will help determine whether filtration, disinfection or softeners are needed or if pipes and fixtures need to be replaced.



### For further reading:

- NYC Health: [Integrated Pest Management Toolkit](#)
- SF Environment Dept.: [Pest Prevention by Design Guidelines](#)

### 3/ Enhance Vertical Circulation Routes

**Vertical circulation routes** allow occupants to travel between floors, whether using stairs, elevators, escalators, vertical platform lifts or ramps. For those who are able to take the stairs, stair climbing offers a convenient opportunity to increase short bouts of daily physical activity.<sup>273,274</sup> Design can play an important role in making stair use and other vertical circulation options as appealing as possible—and can support **social connections** in buildings by facilitating interactions between residents, co-workers and acquaintances.



#### **The New School University Center, Manhattan**

The double stairways throughout the University Center contribute to the building's identity as a dynamic campus hub. The broader, open "communicating stairs" promote socialization among students, while also directly leading to "sky quads," interactive spaces adjacent to stairways that serve as social spaces. (*Architect: SOM*)

### 3.1 Maximize stair visibility

Buildings with centrally-located, accessible and appealing stairs are associated with increased stair use, as compared with buildings with a centrally located elevator and less conveniently located stairs.<sup>275</sup> Increasing stair visibility with open or transparent stair doors has also been shown to encourage more stair use.<sup>276</sup>



#### **Elmhurst Library, Queens**

Elmhurst Library features an open staircase with abundant daylight and expansive views of the surrounding garden and neighborhood. (NYC: DDC, Queens Public Library; Architect: Marpillero Pollak Architects)

**Tactics:**

- **Designate stairs for everyday use.** Provide at least one stair that is open to all building occupants and connects the lobby to each occupied floor.
- **Place a stair near the main entrance.** Locate stairs near building entrances with preferred visibility for occupants prior to encountering elevators or escalators.
- **Make stairs visible from principal paths of travel.** Design stairs to directly connect to principal paths of travel such as lobbies and main hallways. Where stairs are not immediately visible, integrate signage or wayfinding to support stair access and use.
- **Increase visibility into stairs.** Use magnetic hold-open devices and glazing at stair doors and enclosures to maximize stair visibility.



**Flatiron Institute, Manhattan**

A glass-enclosed staircase brings in natural light as users navigate to research floors and common areas, while colorful tiled walls aid in establishing identity and wayfinding. (Architect: Perkins Eastman)



**Snug Harbor Cultural Center Music Hall, Staten Island**

Commissioned through the NYC Percent for Art program, the 2019 addition and renovation features a mural by Tatiana Arocha along an interconnecting staircase.

Titled “The Hawk and the Heron,” the mural depicts an imagined forest, representing the abundance of life that has always been present there, enlivening the path of travel.

*(NYC: DDC, DCLA; Architect: Studio Joseph)*



## 3.2 Create appealing stair environments

A variety of strategies can contribute to more pleasant, safe and inviting stair experiences. Research indicates that a range of stair enhancements including signage, painted walls, art and music are associated with higher levels of stair use.<sup>277,278,279,280</sup>

### Tactics:

- **Integrate unique architectural stair features.** Stairs that stand out can encourage greater use. Incorporate a grand staircase, appealing landings or other unique design elements to entice occupants to choose the stairs.
- **Provide well-lit stair environments.** Use lighting to make stairs more appealing and enhance perceptions of safety. Integrate natural lighting where possible and ensure artificial lighting levels are on par with other corridors and common areas.
- **Design stairs that appeal to the senses.** Explore opportunities to integrate views of nature, community artwork, music, natural ventilation or bright and inviting colors that enhance the appeal of stairs.
- **Install signage.** Locate signs at key decision points, such as stair entrances and elevator banks, in order to prompt stair use.

### 3.3 Facilitate safe, accessible vertical travel

Vertical circulation routes must accommodate the needs of all building occupants and respond to a wide array of ages and abilities. For example, stairs with high-contrast tread edge highlighters, handrails or longer tread length can help reduce the risk of falls, especially among older adults and people with blindness and low vision.<sup>281,282</sup>

#### Tactics:

- **Design stairs for safety and comfort.** To reduce the risk of falls and injury, incorporate design elements that increase stair safety, such as slip-resistant stair treads, glazing in stairwell doors, continuous handrails and emergency call boxes.
- **Slow elevator doors.** To promote accessibility, ensure elevator doors are timed to accommodate occupants moving at slower speeds.
- **Incorporate ramps.** Provide ramps to support accessible vertical circulation as an alternative to stair use. Ramps should be visually accessible and located near stairs and other main paths of travel.



#### For further reading:

- CDC: [Stairwell Motivational Signs](#)

#### Policy Highlight

NYC Local Law 17 of 2014 allows the use of magnetic hold-open devices at stairwell doors that automatically close during emergencies. This helps increase stair visibility and encourage day-to-day use, while allowing for safe egress in an emergency.



**Chelsea District Health Center, Manhattan**

The renovated health center features a glass-enclosed stairway that fills the space with daylight and offers expansive views of the surrounding park. (NYC: DDC, Health Department; Architect: Stephen Yablon Architecture)

## 4 / Enhance Horizontal Circulation Routes

**Horizontal circulation routes** are the paths occupants travel on a single floor, which can promote more daily movement and present opportunities for social interaction. For example, in an office setting, the strategic placement of shared equipment and other common areas can encourage brief bouts of walking and movement throughout the day.<sup>283</sup> Corridors and hallways in any building can be punctuated with accessible seating areas that offer places to socialize or take a break.

This section highlights health-promoting opportunities for creating universally accessible and appealing horizontal circulation routes.

### 4.1 Maximize accessibility for all occupants

Providing signage and seating options along walking routes can encourage movement and physical activity breaks throughout the day.<sup>284,285,286</sup>

#### Tactics:

- **Connect key services and common spaces through accessible circulation paths.** Provide accessible, easily navigable pathways and corridors that enhance connectivity within buildings.
- **Clear obstacles along paths of travel.** Remove obstacles and protruding objects, such as trash cans, boxes or significant inclines, in order to maximize ease of movement for all occupants.
- **Provide supportive infrastructure along walking paths.** Integrate supportive infrastructure, such as seating, drinking fountains and water bottle fillers, and wayfinding features to enhance the **comfort** and utility of interior spaces.
- **Integrate automated doors.** Automated access systems with sensors or buttons benefit all occupants—from those using mobility devices to people pushing strollers or delivering packages.



### **Weeksville Heritage Center, Brooklyn**

The Center, which preserves the site one of America's first free Black communities, offers a central glass-lined circulation space with richly textured, patterned materials and views onto the surrounding grounds, creating a welcoming atmosphere for socialization. *(NYC: DDC, DCLA; Architect: Caples Jefferson Architects)*

## **4.2 Provide an appealing environment along paths of travel**

Elements that support occupant comfort and enhance building aesthetics, such as window views, artwork, signage, seating or indoor plants, have been shown to encourage physical activity by making walking along indoor paths more appealing.<sup>287,288,289</sup>

### **Tactics:**

- **Design multisensory circulation routes.** Incorporate elements that appeal to the senses, such as interesting architectural finishes, calming sounds, artwork or indoor plants, which can increase daily walking and support restoration and stress relief.

- **Provide daylighting and views of nature.** Increase access to daylight and views of nature along travel routes to create a more **restorative** walking experience and enhance a sense of connection to the surrounding environment.
- **Create informal spaces for social interaction.** Provide spaces to connect with friends and co-workers along paths of travel. Include seating or other supportive elements.
- **Promote mobility routes, including walking paths, within and around the building.** Provide details about the location and lengths of nearby routes to increase community connections and encourage movement throughout the day.
- **Provide distance markers along walking routes.** Install distance markers along walking routes to help motivate occupants to achieve daily walking goals.



### **Sephardic Community Center, Brooklyn**

The Sephardic Community Center in Brooklyn features large windows, informal spaces to socialize or work, open stairways and walking routes with artwork that celebrates the rich history and culture of the surrounding community. (*Architect: BKSK Architects*)

## 5 / Provide Facilities to Encourage Daily Activity

Increasing daily movement is vital to reducing rates of chronic conditions such as obesity, diabetes and cardiovascular disease.<sup>290</sup> Yet daily activity is not just about **physical health**—it also has a substantial impact on mental health and social well-being. Physical activity offers an effective way to counteract daily stressors and has been shown to mitigate symptoms of major depressive disorder, panic disorder and anxiety.<sup>291</sup> Access to facilities that support physical activity has also been associated with reduced feelings of social isolation.<sup>292</sup>

### 5.1 Provide on-site fitness facilities

Locating fitness facilities, especially free or low-cost facilities, within offices and residential settings can support the integration of movement into daily life and may increase occupants' physical activity levels.<sup>293</sup>

#### Tactics:

- **Provide flexible spaces for physical activity.** Integrate indoor and outdoor facilities to address a wide range of occupant preferences, from scheduled fitness classes to equipment for independent cardio and strength training.
- **Provide accessible fitness equipment.** Diversify equipment options to accommodate a variety of physical abilities and create more inclusive fitness environments.
- **Ensure fitness facilities are visible and easy to access.** Position fitness facilities in easily accessible and well-traveled areas to encourage greater use.
- **Integrate daylight and views of nature.** Use daylight and views to create a more inviting and restorative fitness environment.

## 5.2 Encourage use of fitness facilities

Appealing and comfortable fitness facilities with regular programming are associated with positive user satisfaction.<sup>294</sup> When paired with worksite wellness programming, such facilities can promote greater motivation, sleep improvements and reduced feelings of fatigue and social isolation.<sup>295</sup>

### Tactics:

- **Incorporate drinking fountains and bottle fillers within fitness facilities.** Install accessible drinking water options to facilitate hydration and support longer use of fitness facilities.
- **Provide accessible shower and locker room facilities.** Install showers and locker rooms to support active commuting as well as midday workouts.
- **Promote physical activity opportunities.** Use information boards or electronic updates to increase awareness of health-promoting facilities and services, both on-site and in the surrounding neighborhood.
- **Tailor physical activity programs to occupant preferences and needs.** Gather regular input from occupants to ensure fitness programming is meeting their needs.

## 5.3 Provide bicycle infrastructure on-site

Research indicates that a combination of bicycle parking and other facilities, such as a shower and locker rooms, have been associated with higher levels of commuting by bike to work or school.<sup>296</sup>

### Tactics:

- **Provide short-term, accessible bicycle parking near building entrances.** Install secure bike racks to encourage cycling among visitors and reduce bicycle theft.
- **Provide secure and convenient indoor bicycle storage.** Offer long-term bicycle storage options for regular occupants where bikes can remain safe and secure for a day or more.





### **The Monarch, Jamaica, Queens**

This mixed-use affordable housing building, completed in 2024, offers amenities to residents that promote opportunities for physical activity, including a fitness center, a yoga studio and indoor basketball and pickleball courts. *(Project Team: Studio V Architecture, BRP Companies)*

- **Connect buildings to surrounding bicycle networks.** Install visible, easy-to-navigate bike lanes that connect directly to the broader bicycle network.

## 5.4 Design outdoor areas that encourage physical activity

Research indicates that access to spaces like gardens and outdoor gyms can encourage recreational physical activity.<sup>297,298</sup> Gardening in particular can offer immediate and long-term benefits related to physical activity levels, social interaction and mental health symptoms.<sup>299</sup>



### **Bedford Green House, Bronx**

Completed in 2024, the building features an aquaponic rooftop greenhouse and terrace with horticultural therapy and urban farming programs. The development was envisioned as a mixed-income community with biophilia-inspired amenities that promote socialization and healthy living. (*Architect: ESKW/Architects*)

**Tactics:**

- **Maximize the use of courtyards and rooftops.** Incorporate accessible gardening opportunities and greenery or install outdoor fitness and sports equipment.
- **Support multigenerational activities.** Choose accessible, raised gardening beds and fitness equipment designed for people of all ages and abilities to support active, intergenerational play and learning.
- **Provide outdoor walking paths.** Create appealing walking paths that are safely separated from parking areas and car traffic.



**Brooklyn Children's Museum, Brooklyn**

Like an elevated courtyard, the museum's rooftop terrace provides ample space to engage in physical activity, such as interactive dance and other planned programs. A translucent open-air canopy covers the central part of the terrace. (NYC: DDC, DCLA; Project Team: Museum: Rafael Viñoly, Canopy: Toshiko Mori Architect)

## 6 / Ensure Common Areas Meet a Range of Occupant Needs

A building's common areas can support occupant health in a variety of ways. For example, outdoor spaces or quiet rooms can create a place of respite to support mental health; community rooms and kitchens can offer space for socializing; and bathrooms and lactation rooms meet basic human needs to create a more comfortable and inclusive environment. Designing welcoming, adaptable shared facilities can help maximize these health-promoting qualities. This section highlights strategies aimed at promoting inclusive spaces to support a wide range of occupant health needs.

### 6.1 Create restorative spaces

Restorative spaces allow for quiet reflection to support stress relief and can help individuals enjoy solitude when needed. Restorative spaces that incorporate biophilic design, which weaves nature into the **built environment**, have been associated with reductions in stress in the workplace.<sup>300,301,302</sup> (See [Buildings Guideline 7: Incorporate Natural Design Elements](#); [Community Collaboration Guideline 5: Evaluate and Refine Approaches](#).)

#### Tactics:

- **Allocate space to accommodate quiet, solitary reflection.** Create restorative rooms and outdoor spaces that offer an escape from daily stressors. Use a reservation system to allow for privacy.
- **Incorporate daylight and nature.** Integrate daylighting, greenery, water features or views of nature to enhance the mental health benefits of interior restorative spaces.
- **Provide access to comfortable outdoor spaces.** Equip outdoor restorative spaces with walking paths, greenery, water elements and outdoor furniture to enhance comfort and encourage use.

## 6.2 Create environments that encourage social interaction

The physical arrangement of shared facilities in office spaces can impact how occupants interact with the space as well as each other.<sup>303</sup> Common areas with a variety of seating options have been shown to encourage social connection among users of the space.<sup>304</sup>

### Tactics:

- **Design flexible spaces with adaptable furniture.** Incorporate movable furniture to meet the needs of a variety of users and accommodate diverse programming and events.
- **Integrate artwork.** Artwork that reflects **community identity** instills a sense of pride and can also serve as a conversation starter to encourage interaction.



### Glen Oaks Library, Queens

A light-filled new building replaced an existing structure and welcomes the community into reading and community rooms. Exterior gardens provide a range of environments for social interaction and respite. (NYC: DDC, Queens Public Library; Project Team: Marble Fairbanks, SCAPE)

- **Provide activities and games.** Stock common areas with games, puzzles and activities to foster collaboration and interaction.
- **Provide communal kitchens and dining spaces.** Food can bring people together and help strengthen social bonds. Provide communal kitchens and dining spaces to convene occupants around food.



**Kew Gardens Hills Library, Queens**

At the Kew Gardens Hills Library, bright, open rooms line the perimeter of the building, where movable furniture invites community gathering and public programming. (NYC: DDC, Queens Public Library; Architect: WORKac)

## 6.3 Encourage Healthier Food and Beverage Choices

From cafeterias to vending machines, food environments in buildings can be designed to support healthy food and beverage choices. Studies indicate that nutritional labeling or signage that identifies healthier choices can increase sales of healthier food options.<sup>305,306</sup> Making healthy snack options more available and affordable may also encourage increased sales of healthier foods.<sup>307,308,309</sup>

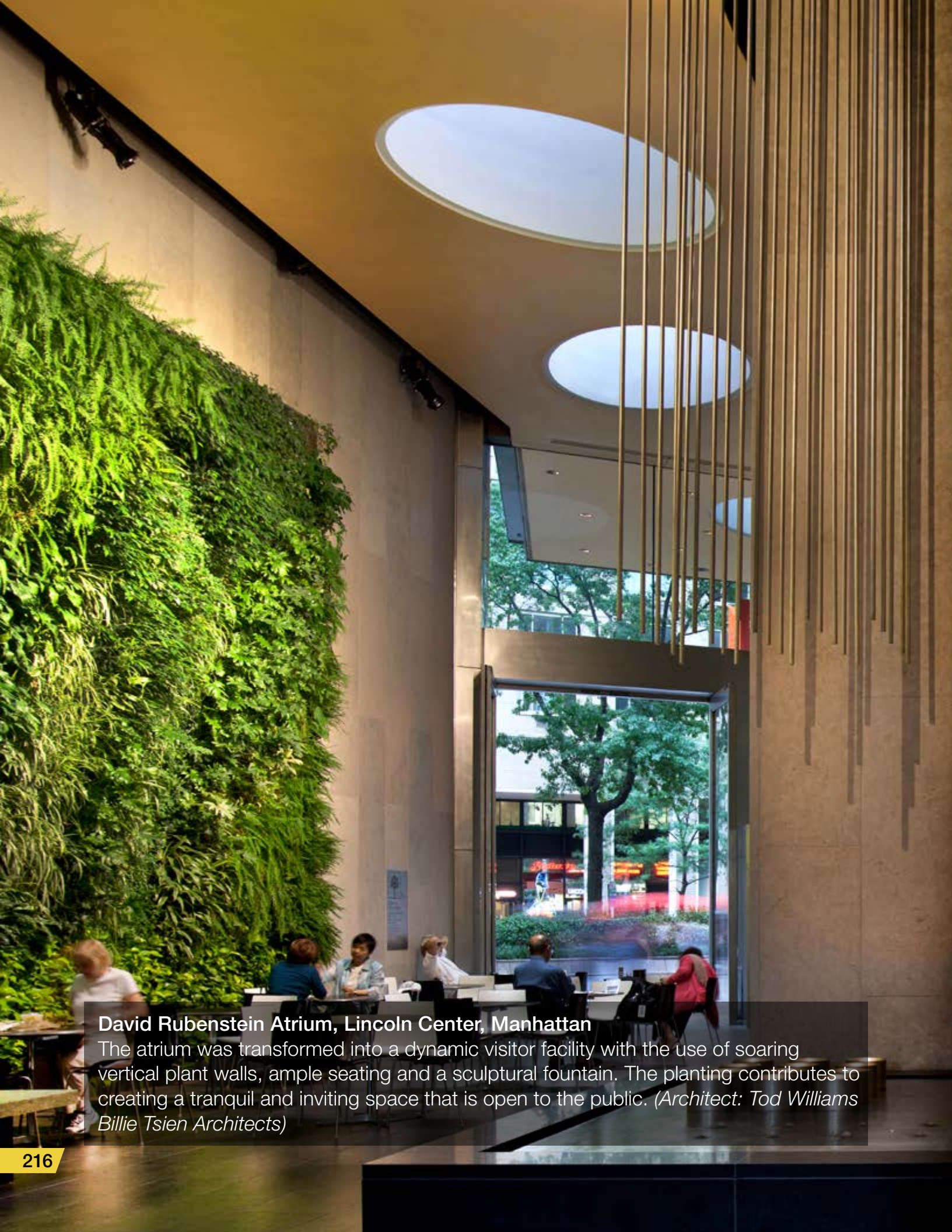
### Tactics:

- **Provide space and support for farmers markets or produce stands.** Bring fresh produce to building occupants and the surrounding community by accommodating farmers markets, Green Carts or other fresh food distribution opportunities on-site. (See [Neighborhoods Guideline 11: Cultivate Community with Food](#).)
- **Promote healthier food options with “choice architecture.”** “Choice architecture” refers to design considerations and incentives that nudge consumers toward healthier choices. Use food placement, labeling and educational signage to promote healthier food choices.
- **Diversify healthier food options and offer healthy beverages on-site.** Engage occupants to ensure on-site food retail aligns with a range of cultural preferences and dietary needs. Provide access to drinking fountains and bottle fillers.



### For Further Reading

- [NYC Food Standards](#)
- [NYC Green Carts](#)



**David Rubenstein Atrium, Lincoln Center, Manhattan**

The atrium was transformed into a dynamic visitor facility with the use of soaring vertical plant walls, ample seating and a sculptural fountain. The planting contributes to creating a tranquil and inviting space that is open to the public. (Architect: *Tod Williams Billie Tsien Architects*)



## 7 / Incorporate Natural Design Elements

In recent decades a body of scientific evidence has emerged around **biophilia**, the theory that humans need connection to nature in order to thrive. Research indicates that access to nature is associated with a range of positive mental health outcomes, including, but not limited to, stress reduction, increased physical activity and increased concentration.<sup>310,311,312</sup> Biophilic design brings elements of the natural world into interior spaces through elements like views of nature, natural materials, greenery, water features and exposure to fresh air and



### **Stapleton Library, Staten Island**

This renovation and addition to a 1907 Carnegie Library provides an accessible, daylit space constructed of glue-laminated timber. The exposed wood structure adds a sense of warmth and scale. *(NYC: DDC, NYPL; Architect: Andrew Berman Architect)*



### **Northeast Bronx YMCA, Bronx**

The YMCA preserved mature trees on its previously wooded site to create a serene natural environment for recreation in a neighborhood where parks and playgrounds are more scarce. The facility's three active pavilions are connected by a glass corridor that offers beautiful views of the nature outside. *(Architect: Marvel)*

natural light. Even images of nature and nature-inspired design motifs may support relaxation and recovery after exposure to stress.<sup>313,314,315</sup>

This section highlights opportunities to integrate nature in and around buildings to promote health. Such interventions may be particularly impactful in neighborhoods that lack access to green open spaces.

## 7.1 Enhance exterior views of nature

Views of nature are connected to improved mental health, such as reductions in stress, across a variety of settings.<sup>316,317,318,319</sup> For example, viewing nature has been shown to decrease pain in hospitalized patients by eliciting positive emotions and providing distraction from pain. Patients with views of nature tend to have shorter post-surgery stays and fewer minor complications.<sup>320</sup> Such lessons from clinical health care settings can be readily adapted to reduce stress in a range of building environments including homes, workplaces, classrooms, waiting rooms and more.

### Tactics:

- **Integrate green roofs.** Green roofs can offer views of nature for building occupants as well as the surrounding community. Provide direct access to green roofs to maximize health benefits. (See [Buildings Strategy 6.1: Create restorative spaces.](#))
- **Enhance landscaping.** Surround buildings with greenery and natural elements. Orient windows toward exterior greenery to maximize views of nature.
- **Introduce native plants that support local fauna.** Choose low-maintenance plants, native when possible, to attract birds and other pollinators.
- **Promote the health and sustainability benefits of nature.** Use informational signage and programming to build awareness about natural elements and encourage use of natural areas.

## 7.2 Weave nature into interior spaces

Bringing natural elements indoors can have a significant impact on mental health and well-being. For example, natural elements in workplaces are associated with enhanced collaboration, improved morale and mitigation of stress and may lead to reductions in absenteeism and increased concentration.<sup>321,322,323,324</sup> In cases where live plants are not feasible, natural imagery has been shown to be effective in reducing stress and negative psychological feelings.<sup>325</sup>



### Etsy Corporate Office, Brooklyn

The Etsy headquarters in DUMBO were created with the goal of bringing the outdoors in. The design brings nature indoors through green walls and planter boxes and uses natural materials throughout the office. (*Architect: Gensler*)

**Tactics:**

- **Incorporate natural materials and nature-evoking forms.** Infuse interior spaces with natural materials, such as wood flooring, paneling and furniture. Integrate colors and patterns that reference the natural world.
- **Connect occupants to the outdoors through terraces, balconies and operable windows.** Incorporate features that maximize occupants' access to daylight and fresh air.
- **Incorporate water features.** Use water features, such as fountains, to create calming sounds and contribute to a more restorative environment.
- **Install green walls and interior plantings.** Incorporate indoor plants and green walls to increase occupants' exposure to nature.



**East Elmhurst Library, Queens**

The library renovation provides a new glazed facade and skylit circulation space with planting that allows it to feel like an indoor courtyard. Natural wood and a green color palette reinforce the connection to nature. (NYC: DDC, Queens Public Library; Architect: Garrison Architects)

## 8 / Create Supportive Lighting Environments

Lighting plays a unique role in building design — promoting visibility, supporting daily tasks and influencing a sense of safety and comfort.<sup>326,327,328</sup> Natural daylight helps regulate circadian rhythms to promote higher quality sleep. Poor sleep quality or sleep deprivation has been associated with hormone imbalances, heart disease, obesity and depression.<sup>329,330,331</sup> Additional lighting options should be context-specific, tailored to occupant needs and aligned with natural daytime lighting hours. For example, adjustable lighting in workplaces may help minimize eye strain and improve mood, while more uniform lighting that minimizes shadows can help prevent falls among older adults.<sup>332,333,334</sup>

### 8.1 Integrate natural light

In addition to decreasing energy use, incorporating daylight into buildings has been shown to positively impact mood and reduce feelings of depression.<sup>335</sup> Research indicates that exposure to daylight in an office setting may result in longer sleep duration, better sleep quality, increased physical activity and better perceived quality of life.<sup>336</sup> In addition, the presence of daylight in schools may enhance academic performance in elementary school students.<sup>337</sup>

#### Tactics:

- **Maximize daylighting with windows, skylights and atriums.**  
Orient windows toward open spaces and integrate skylights and atriums to create appealing, well-lit building interiors.
- **Prioritize daylighting for common areas and travel routes.**  
Increase access to natural light for all occupants by prioritizing daylighting for commonly used shared spaces.



**Atrium at Sumner, Bedford-Stuyvesant, Brooklyn**

Completed in 2024, the Atrium at Sumner on NYCHA's Sumner Houses campus features a dynamic, geometric form with a skylight above a centralized green courtyard that provides natural light and a welcoming environment for socializing and relaxing. Green and energy-efficient features, including the integration of Passive House standards, result in 60% to 70% less energy consumption than the average NYC apartment building. *(Architect: Studio Libeskind)*

- **Remove interior barriers that block daylight.** Maximize daylight for all occupants by moving or adapting barriers that block light. For example, integrate translucent walls or screens as an alternative to opaque office walls and cubicles.
- **Use shading devices where needed.** Design large windows with automated shading systems to maximize bright, diffuse natural light, minimize glare and promote thermal comfort. For smaller windows, provide adjustable shades, blinds, shutters or curtains that allow occupants to adjust daylighting to their preferences.

## 8.2 Calibrate lighting to context

A wide variety of lighting options can be used to respond to unique occupant preferences and needs, as different types of lighting can have different health impacts for different individuals. For example, poor lighting has been linked to eyestrain, headaches and migraines among older adults.<sup>338</sup> In addition, adjustable task lighting in workplace settings has been shown to promote improved posture while reducing eye fatigue and discomfort.<sup>339</sup>

### Tactics:

- **Optimize lighting quality.** Reduce flicker to nondetectable levels and ensure context-appropriate brightness levels and color rendering.
- **Provide task lighting.** Install task lighting that can be independently adjusted or angled at individual stations. Task lighting can enhance user autonomy, reduce glare and support people with blindness or low vision.





### **Rescue Company 2, Brooklyn**

The new Brownsville facility serves as a hands-on training tool for FDNY's specialized rescue workers. A central skylit void allows daylight to penetrate three stories down to the apparatus floor. (NYC: DDC, FDNY; Architect: Studio Gang)

## 9 / Mitigate Noise

Noise pollution has long been a concern for New York City residents, with complaints ranging from high traffic volumes to loud construction activity. Survey data suggest that about 20% of New Yorkers are frequently disturbed by noise at home.<sup>340</sup> Excessive noise not only disrupts daily activities but is associated with negative psychological and physiological outcomes and can disproportionately impact certain populations, such as older adults.<sup>341,342,343</sup> Long-term exposure to environmental noise can lead to a range of adverse health conditions including heart disease and depressive symptoms.<sup>344,345,346</sup> Although some occupants report adjusting to environmental noise, research indicates that the cardiovascular system continues to experience fight-or-flight responses to noise, which can disrupt sleep.<sup>347</sup>

In a dense urban environment like New York City, it is vital to mitigate noise to support health, especially within residential spaces and schools.

### 9.1 Shield interior spaces of buildings from traffic and other exterior noise sources

Within residential settings, traffic, neighbors and emergency sirens are the most commonly reported sources of disruptive noise.<sup>348</sup> In addition to physiological impacts, studies suggest that long-term exposure to residential noise can be linked with impaired cognitive development as well as increased risk of depressive symptoms, particularly in middle-aged and older adults or populations earning lower wages.<sup>349</sup> There is evidence that the connection between road traffic noise and depressive symptoms may be stronger among people earning lower incomes and with lower education levels, who tend to experience greater exposure to traffic noise compared with people with higher levels of education.<sup>350</sup>



### **New Settlement Community Center, Bronx**

Located adjacent to an elevated subway line, the community center features an aluminum window-wall system and an acoustic isolation design that prevents vibration and mitigates noise from the rushing trains, creating a quiet and comfortable environment. (*Project Team: ESKW/Architects, Dattner Architects*)

#### **Tactics:**

- **Seal windows and doors.** Protect occupants from surrounding noise disturbances by sealing gaps in windows and doors with caulk or installing soundproof frames.
- **Use soundproofing materials on external walls, windows and doors.** A range of interventions can help block exterior disturbances. Integrate extra layers of drywall with acoustical caulk, use mass-loaded vinyl or install triple-glazed windows.
- **Incorporate plantings to buffer unwanted noise.** Integrate outdoor green spaces and dense foliage into site design to buffer environmental noise and contribute soothing natural noises, especially in warmer seasons.

- **Orient bedrooms, classrooms, workstations and other quiet spaces away from noise sources.** Face quiet interiors away from busy streets and loud transit infrastructure and far from noisy HVAC equipment.

## 9.2 Mitigate unwanted interior noise

Unwanted noise can also come from within buildings. Interior noise sources are essential to address given the negative physical and mental health impacts of noise exposure, ranging from poor sleep to increased stress and anxiety.<sup>351</sup> Evidence points to a number of opportunities, such as using sound-absorbing materials, to adapt buildings to reduce interior sound propagation and noise intensity levels.<sup>352</sup>

### Tactics:

- **Soundproof interior walls.** Install sound and vibration-absorbing materials, such as cellulose, foam and fiberglass thermal insulation, particularly between units in residential environments.
- **Seal interior-facing doors.** Mitigate noise from hallways by installing door sweeps to seal interior-facing doors.
- **Add acoustic materials to floors and ceiling.** Install acoustic panels, baffles or foam to muffle sound between floors.
- **Mitigate HVAC noise.** Reduce airborne noise from mechanical systems with features, such as HVAC silencers and duct wraps. Adjust air velocity and use isolators to minimize vibrations.
- **Intentionally locate noise-generating spaces away from quiet spaces.** In office and work environments, separate rooms used for different uses such as phone calls, conference rooms, virtual meetings and collaborative activities from spaces used for solitary work or concentration.



**East Flatbush Library, Brooklyn**

This renovation of a 1980s structure introduces daylight throughout the central reading room through a redesigned facade and six large, north-facing skylights. Perforated gypsum board dampens sound throughout the open space. (NYC: DDC, Brooklyn Public Library; Architect: LEVENBETTS)



### **NYC Landmarks Preservation Commission, Manhattan**

The renovation of the LPC offices in the historic 1894 Home Life Building features a bright, welcoming reception area. Low-VOC materials were employed throughout the space to promote healthy indoor air quality for staff and visitors. (NYC: DDC, DCAS; Architect: MBB Architects)

# 10 / Promote High-Quality Indoor Air

**Indoor air quality (IAQ)** refers to the quality of air in and around buildings, particularly as it relates to the health and comfort of occupants.<sup>353</sup> Many factors affecting IAQ can contribute to health risks, including chemical solvents from cleaning, release of toxic contaminants from carpets and furniture, moisture from plumbing leaks, poor ventilation, cooking, dust and particles from construction, tobacco smoke, other building materials and pests. Poor indoor air quality is linked to health outcomes such as asthma, respiratory infections and eye irritation.<sup>354</sup> It is also connected to communicable diseases, such as the common cold, influenza and tuberculosis.

## 10.1 Design spaces for optimal indoor air quality

Proper ventilation and filtration can improve indoor air quality by increasing air flow, reducing moisture and reducing levels of contaminants. Improved IAQ can reduce allergens and may be associated with improved self-reported physical and mental health outcomes.<sup>355,356</sup>

### Tactics:

- **Enhance ventilation and filtration systems.** Properly install HVAC systems so they operate as intended and use high levels of filtration. Ensure areas that are more likely to have contaminated air, such as kitchens and bathrooms, vent to the outside of the building.
- **Support increased air circulation.** Incorporate operable windows and ceiling fans as energy-efficient tactics to increase air circulation, dilute contaminants and mitigate risk of communicable disease transmission.
- **Select low-VOC products and materials.** Choose building materials and furnishings that do not emit volatile organic compounds (VOCs).
- **Control interior moisture and mold.** Choose moisture-tolerant materials, such as stainless steel, copper, china and porcelain tile in areas likely to get wet. Set up systems to control condensation and divert water buildup.

## 10.2 Operate and maintain spaces for optimal indoor air quality

Proper maintenance and management of indoor environments can reduce occupant exposure to harmful indoor air pollutants, such as secondhand smoke, or allergens and support overall occupant comfort.<sup>357,358</sup>

### Tactics:

- **Maintain ventilation and filtration systems.** Conduct regular inspections of HVAC systems. Replace filters, clean evaporators and condensers and empty drain pans to ensure proper functioning. Ensure windows, doors, flooring, walls and plumbing remain properly sealed and fitted, with no gaps.
- **Undertake regular and sustainable cleaning practices.** Regularly disinfect high-touch surfaces using safe products in order to mitigate the risk of contagious disease transmission. Vacuum regularly to minimize accumulation of dust and other irritants.
- **Manage IAQ during construction and renovation.** Use a multi-pronged approach to protect occupant health during renovations. For example, install ventilation and entryway systems, protect occupied spaces from outdoor fumes and avoid enclosing wet materials.

## 10.3 Create a smoke- and vape-free environment

Secondhand smoke and vaping aerosol are major contributors to poor indoor air quality and expose occupants to harmful chemicals.<sup>359,360</sup> Creating a smoke-free environment can promote health, improve indoor air quality and reduce cardiovascular disease rates.<sup>361,362</sup>



### Tactics:

- **Establish and implement a smoke- and vape-free policy.** Adopt a policy to prohibit smoking and vaping in all indoor and outdoor spaces on-site. A comprehensive policy prohibits all smoking or vaping of any substance, including tobacco, nicotine or cannabis.
- **Post smoke- and vape-free signage.** Install signs at entrances and outdoor areas to increase awareness of, and compliance with, the building's smoke- and vape-free policy.



### For Further Reading:

- ASHRAE: [Indoor Air Quality Guide](#)
- EPA: [Indoor AirPlus Program](#)
- EPA: [Clean Air in Buildings Challenge](#)
- NYC HPD: [Design Guidelines for New Construction](#)
- NYC Health: [Smoke-Free Housing](#)

# 11 / Prepare for Current and Future Risks

From managing the intensifying effects of **climate change** to integrating lessons from the COVID-19 pandemic, risk preparedness is essential to creating a safer city for all New Yorkers. This section highlights how buildings can be designed and operated to better protect occupants from current and future risks.

## 11.1 Address rising temperatures

**Extreme heat** is associated with a variety of illnesses and symptoms including heat stroke, heat exhaustion and dehydration.<sup>363</sup> Lack of access to air-conditioning, cost of air-conditioning and lack of awareness around heat illness are factors that contribute to heat-related deaths, particularly among older adults and residents earning lower incomes.<sup>364 365 366</sup> On hot days, cities can be significantly hotter than the surrounding region, and neighborhoods that lack greenery may be particularly vulnerable to the “urban heat island” effect.<sup>367</sup>

As temperatures rise, building designers and managers can undertake measures to reduce the risk of heat-related illness and death among building occupants, while also conserving energy and contributing toward citywide efforts to mitigate the impacts of climate change.

### Tactics:

- **Increase access to air-conditioning.** In New York City, most heat-related deaths occur after exposure to heat in homes without air conditioners. Share information about nearby cooling centers, and health and safety precautions to use during extreme heat events.
- **Install central air-conditioning or provide window units.** Equipment should be energy-efficient and all-electric, particularly air-source or ground-source heat pumps.

- **Install reflective “cool roofs.”** While black asphalt roofs absorb heat, reflective rooftops can reduce internal building temperatures and save energy.
- **Install green roofs and plantings.** In addition to reducing heat island effect, green roofs provide many co-benefits, including absorbing stormwater, increasing habitat and providing views of nature.
- **Implement energy-saving practices.** Identify energy-saving opportunities. For example, maximize daylight as a primary lighting source and use LED and motion-sensitive lighting fixtures. Tighten the building envelope and optimize insulation. Install heat recovery ventilation (HRV) systems or energy recovery ventilation (ERV) systems in windows and doors.
- **Use renewable energy.** Choose renewable energy sources such as solar, wind, biomass, geothermal and hydroelectric power.



### **Kew Gardens Hills Library, Queens**

At the library, a sculpted green roof acts as a visual extension of a backyard garden. Visible from the street, the roof adds greenery to the neighborhood while absorbing stormwater and mitigating the urban heat island effect. (NYC: DDC, Queens Public Library; Architect: WORKac)

## 11.2 Manage flood risks

As climate change accelerates, more NYC buildings will be vulnerable to flooding. In addition to damaging infrastructure and property, floods threaten people's health and well-being and can result in injuries, illness and death.<sup>368</sup> As flooding events become more frequent, there is increasing urgency to retrofit buildings to mitigate harmful flood impacts.



### **Ocean Breeze Track-and-Field Athletic Complex, Staten Island**

This public state-of-the-art indoor track-and-field facility offers recreational and athletic amenities and programs to Staten Islanders. The waterfront building was designed to withstand flooding by elevating its base and raising mechanical equipment. (NYC: DDC, Parks; Architect: Sage & Coombe Architects)

**Tactics:**

- **Leverage landscaping.** Install vegetation and rain gardens on roofs and in open spaces to better manage stormwater and reduce rainwater runoff from impervious surfaces.
- **Reassess use of lower floors.** Adjust the structure and use of basements and lower floors to minimize health and property risks related to flooding.
- **Implement floodproofing measures.** “Wet floodproofing” allows floodwaters to flow through certain areas of a building to minimize structural damage. Elevate mechanical equipment and select mold-resistant materials so these areas can dry out after flooding. “Dry floodproofing” involves fully sealing buildings and infrastructure to prevent floodwaters from entering.

### 11.3 Establish emergency preparedness protocols

When **emergency preparedness** protocols and processes are in place, building staff, occupants and emergency responders can react to crisis situations more effectively. Communication is key for creating awareness of protocols and fostering greater trust among occupants.

**Tactics:**

- **Develop and implement an emergency response plan.** Identify possible crisis scenarios and establish a building response plan that outlines actions to be taken in each emergency to ensure safe and efficient response.
- **Establish a dynamic communications system.** Employ a variety of methods in buildings to facilitate emergency communication with occupants, such as physical message boards, mobile phone notification or audio messaging systems.
- **Develop a building closure and reentry plan.** Implement a protocol to guide the closure of a building for any extended period of time and ensure safe reopening. Test all building systems prior to occupant reentry.

- **Create flexible and adaptable spaces for use in emergencies.** Identify opportunities to support occupants and the surrounding community in emergency situations. For example, identify and adapt indoor and outdoor common spaces for emergency shelter or supply distribution.

## 11.4 Reduce injury risk and harm

Buildings can be designed to prevent injuries and improve response times in the event of an emergency. For example, installing physical barriers at high locations has been shown to be effective at preventing suicide by jumping.<sup>369 370 371</sup> Additionally, having naloxone readily available in communal spaces increases the likelihood of someone responding to an opioid overdose and reduces the risk of overdose death.<sup>372</sup> Anyone can easily administer naloxone to reverse opioid overdose symptoms long enough for emergency medical services to arrive.

### Tactics:

- **Prevent falls from tall buildings and structures.** Install window guards in residential buildings. For building exteriors as well as interior atriums, other barriers such as fencing or netting can reduce risk of injury and deter suicide attempts.
- **Prevent home falls among older adults.** Almost half of older adult's falls happen in the home. Fix tripping hazards, consider slip-resistant flooring and improve lighting to reduce risks.
- **Provide access to automated external defibrillators (AED).** Ensure that all building occupants have ready access to an AED to improve response time for cardiac events.
- **Provide access to communal naloxone.** Co-locate communal naloxone with first aid kits or AEDs. Provide overdose prevention training to building occupants to increase the likelihood of someone responding to an opioid overdose to prevent death.

- **Implement a multisensory emergency notification system.** Install a system to broadcast emergency notifications to occupants, such as alarms with visual cues to ensure emergency messaging reaches those with hearing impairments.



**For further reading:**

- [NYC CoolRoofs](#)
- NYCEM: [Ready New York](#)
- NYC Health: [Communal Naloxone and Training Resources](#)
- NYC Health: [Preventing Falls in Older Adults](#)
- NYC Aging: [Aging in Place Guide for Building Owners](#)



**NYC Health Department – Gotham Center, Queens**

The co-location of communal naloxone with AEDs, as seen at the NYC Health Department offices. Providing additional lifesaving tools like naloxone alongside AEDs and first aid kits can increase the likelihood of response to an opioid overdose and reduce the risk of overdose death.

## Chapter 4: Buildings Checklist /

### Chapter 4: Buildings

#### Guideline 1: Integrate Buildings into the Surrounding Neighborhood Context

<b>1.1</b>	Provide enhancements and visual interest at pedestrian scale
<b>1.2</b>	Connect with the surrounding neighborhood
<b>1.3</b>	Mitigate the impacts of renovation and construction

#### Guideline 2: Create a Welcoming and Supportive Environment

<b>2.1</b>	Integrate accessible signage and wayfinding
<b>2.2</b>	Meet daily needs and enhance accessibility
<b>2.3</b>	Respond to occupant needs and preferences
<b>2.4</b>	Plan for and practice regular maintenance

#### Guideline 3: Enhance Vertical Circulation Routes

<b>3.1</b>	Maximize stair visibility
<b>3.2</b>	Create appealing stair environments
<b>3.3</b>	Facilitate safe, accessible vertical travel

#### Guideline 4: Enhance Horizontal Circulation Routes

<b>4.1</b>	Maximize accessibility for all occupants
<b>4.2</b>	Provide an appealing environment along paths of travel



**Guideline 5: Provide Facilities to Encourage Daily Activity**

<b>5.1</b>	Provide on-site fitness facilities
<b>5.2</b>	Encourage use of fitness facilities
<b>5.3</b>	Provide bicycle infrastructure on-site
<b>5.4</b>	Design outdoor areas that encourage physical activity

**Guideline 6: Ensure Common Areas Meet a Range of Occupant Needs**

<b>6.1</b>	Create restorative spaces
<b>6.2</b>	Create environments that encourage social interaction
<b>6.3</b>	Encourage healthier food and beverage choices

**Guideline 7: Incorporate Natural Design Elements**

<b>7.1</b>	Enhance exterior views of nature
<b>7.2</b>	Weave nature into interior spaces

**Guideline 8: Create Supportive Lighting Environments**

<b>8.1</b>	Integrate natural light
<b>8.2</b>	Calibrate lighting to context

**Guideline 9: Mitigate Noise**

<b>9.1</b>	Shield interior spaces of buildings from traffic and other exterior noise sources
<b>9.2</b>	Mitigate unwanted interior noise

**Guideline 10: Promote High-Quality Indoor Air**

<b>10.1</b>	Design spaces for optimal indoor air quality
<b>10.2</b>	Operate and maintain spaces for optimal indoor air quality
<b>10.3</b>	Create a smoke- and vape-free environment

**Guideline 11: Prepare for Current and Future Risks**

<b>11.1</b>	Address rising temperatures
<b>11.2</b>	Manage flood risks
<b>11.3</b>	Establish emergency preparedness protocols
<b>11.4</b>	Reduce injury risk and harm



## The Greenpoint Library and Environmental Education Center

### Overview

The Greenpoint Library and Environmental Education Center serves a dual purpose as a public library and a hub for community-based environmental leadership. Backed by a \$5 million grant from the Greenpoint Community Environmental Fund and with the support of multiple community-based organizations, this Brooklyn Public Library (BPL) branch was rebuilt and opened in 2020 to respond to unique neighborhood priorities—including ecological needs

resulting from the Greenpoint Exxon-Mobil oil spill, one of the largest in U.S. history.

The library is a center for community connection and activism. Exceeding LEED Gold standards, the building itself serves as a learning tool with a variety of features that promote human and environmental health, including interactive gardens surrounding reading areas, native plants, solar panels and rainwater harvesting systems.

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**Bottom and right:** The sustainable and community-oriented design elements also extend to the outdoor areas. The plaza is an engaging civic space that features a bioswale, with rocks that mimic glacial outcroppings and contain rainwater runoff.





“ The outdoor spaces show the community that civic architecture can embrace the natural world and being outside. We don’t have to build public spaces that are fortress-like, we can acknowledge our urban environment along with the natural environment.”

— Acacia Thompson, Environmental Justice Coordinator, Greenpoint Library

### Guidelines in Action

The Greenpoint Library exemplifies a range of ADG 2.0 Guidelines:

**Collaboration 1:** Build Trust and Ensure Transparency

**Collaboration 2:** Amplify Community Leadership

**Buildings 6:** Ensure Common Areas Meet a Range of Occupant Needs

**Buildings 7:** Incorporate Natural Design Elements



The Greenpoint Library serves as a hub for community learning and activism.

### Approach

Brooklyn Public Library's design team held a series of community meetings to develop a shared vision for the project and established a Community Advisory Group to provide ongoing project input and oversight. Advisory Group members represented a range of community-based organizations, such as the Newtown Creek Alliance, Town Square

and the North Brooklyn Boat Club. The group met quarterly over the course of the design and construction process to offer feedback to project architect Marble Fairbanks, discuss progress updates and engage in honest conversations about tradeoffs. For example, challenges arising from COVID-19 required transparent communication regarding shifts in the project timeline.



**“ The library seemed really intent on following through on the best iteration of the vision of a community-engaged environmental center. Despite budget and construction complications they found really resourceful and ingenious ways of delivering on the vision.”**

— **Dewey Thompson**, Member of Community Advisory Committee, Founder and President of North Brooklyn Boat Club



## Outcomes

The new library is a popular community gathering place. It features flexible indoor and outdoor spaces for community programming, including a dedicated space for teens and community meeting rooms for local organizations to use. It is the very first BPL branch to staff a full-time Environmental Justice Coordinator, and the library offers environmental education programming for patrons of all ages. In this way, the library serves as a hub to support and sustain the neighborhoods' long track record of environmental activism.

**Left and above:** There are two green roofs that include a demonstration garden for schools and community groups, a pollinator garden and a reading garden with space for events. **Small photo:** The library brings the outdoors inside. There are four large areas of curtain walls for natural light, and the library's meeting rooms feature wood walls containing different species of trees native to the Greenpoint neighborhood.





# Appendix

## ADG 2.0 Research Foundation

Over the last decade, research on the relationship between the **built environment** and health has vastly expanded. This development prompted a review and update of the original guidelines using a multi-pronged approach, which included a rigorous review of the literature and a landscape analysis in consultation with leaders in the field.

### 1 Reviewed new research related to strategies outlined in original Active Design Guidelines

#### Examined new research related to ADG 1.0.

- Reviewed research published since 2010 for evidence supporting or refuting the guidelines outlined in ADG from a range of academic disciplines, including **public health**, sociology, urban planning and social work. The vast majority of ADG strategies were supported by new research. ADG strategies that were no longer supported by the research have been updated accordingly.
- Omitted the Strength of Evidence designation scale included in the original ADGs, as all the strategies in ADG 2.0 are evidence-informed.

“**Evidence-informed**” refers to the process of using the best available evidence to inform practice. The evidence-informed guidelines outlined in ADG 2.0 are supported by a variety of sources, ranging from case studies to systematic reviews.

### 2 Expanded the scope of research

Expanded the research scope to examine the impact of the built environment on health equity and mental, physical and social health.

**Reviewed a variety of publications, including peer-reviewed articles and seminal publications.**

- Reviewed and vetted new research related to the promotion of physical and **mental health** and social cohesion.
- Expanded the research to include studies examining health outcomes and **inequities** in diverse populations. Identified topic areas with limited research and highlighted opportunities for further study.

**Reviewed toolkits and guidelines related to active design.**

- Examined relevant toolkits and documents published by NYC agencies to ensure that ADG 2.0 aligns with and builds upon existing work.
- Scanned national and international toolkits and guidelines to ensure that ADG 2.0 is informed by global practices and research.

### **3 Consulted with experts**

**Convened an NYC interagency committee.**

- Engaged NYC government agency experts and stakeholders to review key findings and recommendations for **active design** strategies relevant to City agency work.

**Convened an academic advisory committee.**

- Engaged academic experts in the active design field to inform the development of the guidelines.

**Conducted topic-specific engagement workshops.**

- Involved experts from the public and private sectors, nonprofit and academic institutions to capture a multidisciplinary perspective on operationalizing ADG 2.0. Participants included public health professionals, architects, designers and urban planners.

## ADG 2.0 Research Limitations

While **active design** research has expanded, gaps remain in many areas of study. Due to the limitations outlined below, some of the strategies are supported by research that, while narrow in scope, suggests potential for a positive impact in a broader population or context.

### 1 Strength of Studies

#### Study Type

- The majority of **built environment** research studies are cross-sectional in design, evaluating the relationship between different variables at one time point. These studies can identify an association between the variables examined, but they cannot conclude a causal relationship.

#### Study Sample

- Some of the studies cited in this document examine a small number of participants or sub-populations (for example, youth or older adults) and may not be generalizable to all populations.

### 2 Gaps in the Literature

#### Gaps in Research Remain

- Some topic areas, such as stairwells and green spaces, are widely researched while other topics, such as building interiors, are not. In addition, more robust studies are needed on mental health and social cohesion outcomes and pedestrian-friendly environments.

## 3 Inequities in Research Funding and Design

### Inequities in What Studies Get Funded

- Health inequities research and scientists of color are underfunded, contributing to a lack of diversity in perspectives and interpretations of research.<sup>373</sup>

### Inequities in Populations Studied

- Not all communities are represented equally in **public health** and social research, and communities of color are less likely to be included in studies on environment-related diseases such as cancer, lung disease and asthma.<sup>374</sup>

## Glossary /

**Ableism:** A system of assigning value to peoples' bodies and minds based on societally constructed ideas of normalcy, productivity, desirability, intelligence, excellence and fitness that are deeply rooted in eugenics, anti-blackness, misogyny, colonialism, imperialism and capitalism.

**Accessible images:** Visual elements that are designed and presented in a way that allows everyone — including people with disabilities — to perceive, understand and interact with the information they convey.

**Active design:** An applied, evidence-informed approach to leverage the expertise of architects, planners, developers, community members, designers, public health professionals and other stakeholders to improve physical, mental and social health outcomes through the design of the built environment.

**Active transportation:** Modes of transport that use human energy and effort (such as walking, cycling, tricycling, blading, scootering) to get from one place to another. Taking public transit is also considered active transportation because it typically includes walking or biking to and from destinations.

**Bicycle lanes:** Portions of the roadway designated for bicyclists. They are usually demarcated by different colored striping or signage. Bike lanes often lie between the car lanes and the sidewalks.

**Bicycle network:** The interconnected roads and bikeable paths within a designated city or neighborhood. A good bicycle network provides a safe and comfortable experience for cyclists of all ages and abilities.

**Biodiversity:** The full spectrum of living things, encompassing the genetic differences within populations, the different species of plants and animals and the mosaic of ecosystems that stretch across landscapes.

**Biophilia:** The idea that humans have an innate tendency to seek connections with nature.

**Biophilic design:** An architectural approach used to connect people with nature through incorporating natural elements into the design of buildings and landscapes. Biophilic design is based on the idea that humans have an innate connection to nature, called biophilia.

**Built environment:** The human-made structures that we live, work and play in, ranging from buildings and infrastructure to parks and green spaces.

**Circulation pathways:** The routes or pathways that people take within a building or space. These paths are essential for movement and navigation, ensuring that occupants can safely and efficiently access different areas.

**Civic engagement:** Individual or collective action that seeks to enhance the well-being of individuals, families and communities.

**Civic life:** A life in which people have trust and appreciation for one another, participate in public life, have stewardship of the public realm and maintain informed local voting.

**Climate change:** A change in the state of the climate attributed to human activity that alters the composition of the global atmosphere in addition to natural climate variability.

**Climate resiliency:** The ability to anticipate, prepare for and respond to challenges related to climate change—including more frequent and intense heat, heavy rainfall and chronic flooding.

**Comfort:** A transient and dynamic state characterized by ease from pain and emotional and physical distress, and an emerging sense of positivity and safety.

**Community:** A group of people with diverse characteristics that share commonalities, such as geography or social, political or economic experiences.

**Community identity:** The collective identity and sense of belonging that is based on a community's distinguishing features, such as ethnicity, language, religion or social norms.

**Cyclist-friendly:** An environment that provides a comprehensive bicycle network and associated infrastructure, such as bike lanes, bike parking and signage for bikers, to make cycling as safe and appealing as possible.

**Disparities:** A disparity reflects the difference between groups, not an outcome that is only experienced by one group.

**Displacement:** When people are forced to move due to physical, economic or political conditions in their housing or neighborhood.

**Emergency preparedness:** The actions and measures taken before an emergency to improve the effectiveness, efficiency, timeliness and accountability of emergency responses to save lives and provide protection to individuals and communities.

**Environmental justice areas:** The overburdened and under-resourced areas affected by historical and existing social inequities without equal protection and enforcement of environmental laws and regulations.

**Evidence-informed approach:** Process of using the best available evidence to inform practice.

**Extreme heat:** Temperatures that hover 10 degrees Fahrenheit or more above the average high temperature, last for prolonged periods of time and are accompanied by high humidity.

**Extreme heat days:** At least two consecutive days with a maximum heat index (HI) of 95 degrees Fahrenheit or higher or any day with a maximum HI of 100 degrees or higher.

**Fair-share distribution:** Provisions require the City to make a concerted effort to ensure that communities are both getting their fair share of amenities like parks and libraries and doing their fair share to confront citywide problems like homelessness. This aims to address social equity and justice

by ensuring that essential resources, services and opportunities are distributed fairly among all members of a community.

**Food systems:** Complex networks that include all the inputs and outputs associated with agricultural and food production and consumption.

**Gentrification:** Generally refers to the arrival of wealthier people in an existing neighborhood where most residents earn lower incomes, and in some cases results in the displacement of current residents and businesses.

**Greenway:** Continuous, multi-use corridors for human-powered or electric-assist transportation and recreation, defined and named by the City.

**Health equity:** As an outcome, health equity is achieved when a person's race, ethnicity, gender or other aspect of identity no longer predicts their health status. As a process, health equity is achieved when resources and decision-making power are deliberately shifted toward communities who have been harmed by structural inequities embedded in policies and institutions.

**Health inequities:** Differences in health outcomes and the opportunities groups have to achieve optimal health that are rooted in social and structural injustices that are avoidable and unfair.

**High-quality:** In architecture and design, an expression of excellence of aesthetics and utility and a measure of the structure or space to meet certain needs and criteria.

**Horizontal circulation routes:** Paths occupants travel on a single floor, which can promote more daily movement and present opportunities for social interaction.

**Housing cost-burdened:** NYC Department of City Planning defines a cost-burdened household as one that spends more than 35% of income on housing costs (Source: [NYC's Floodplain by the Numbers](#)).

**Inclusive design:** A design approach that recognizes diversity and creates multiple solutions or options to accommodate different user needs. There is a close connection with Universal Design,

in that these design approaches both aim to create inclusive and equitable solutions for users.

**Indoor air quality:** Quality of air in and around buildings, particularly as it relates to the health and comfort of occupants.

**Inequities:** In a city or geography, the unequal distribution of and access to resources, opportunities and certain rights.

**Land use mix:** The diversity of public and private spaces in a neighborhood, which may include residential, commercial, manufacturing, public open space and other uses such as education and health services.

**Locally unwanted land uses (LULUs):** Facilities that bring environmental burdens to communities such as waste transfer stations and power plants.

**Mental health:** A state of well-being in which an individual realizes their own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to their community.

**Micromobility:** A range of small, lightweight vehicles, driven by users personally (including bicycles, e-bikes, electric scooters, electric skateboards, shared bicycle fleets and electric pedal-assisted bicycles).

**Moderately hot days:** Days with a maximum temperature reaching between 82 and 95 degrees Fahrenheit.

**Multigenerational use:** A space that is designed to encourage use, interaction, learning and safety across multiple generations and also facilitates connections between users of different ages.

**Naloxone:** A medicine that rapidly reverses an opioid overdose.

**Noise pollution:** Unwanted or disturbing sound that either interferes with normal activities, such as sleeping or conversation, or disrupts or diminishes one's quality of life.

**Open Streets:** Streets transformed into public spaces that facilitate greater pedestrian and bike

mobility, support schools, promote economic development and provide new ways to build community through programming and street design elements.

**Pedestrian-friendly:** An environment that features a comprehensive network of safe, comfortable sidewalks and walking paths to serve the needs of all community members.

**Physical health:** A state of well-being achieved when all body parts are able to function properly, taking into account the absence of disease as well as fitness level.

**Public health:** Population-scale solutions to create the conditions that support health, from promoting healthy behaviors to preventing disease.

**Public plaza:** An area designated for pedestrian circulation, use and enjoyment, including but not limited to property mapped as public place or property within the bed of a roadway, and which may contain amenities such as tables, seating, trees, plants, lighting, bike racks or public art.

**Public spaces:** Publicly owned spaces either outside (such as streets and public parks) or inside (such as a public library or public community facility).

**Public transit:** Transportation options, such as buses, light rail and subways, that are available to the general public and may require a fare.

**Racism:** A system of power and oppression that assigns value and opportunities based on race and ethnicity. It unfairly disadvantages people of color while unfairly advantaging white people. Racism occurs on different levels, including structural, interpersonal, institutional and internalized racism.

**Redlining:** Emerged in the 1930s when federal government agencies sanctioned real estate agents' use of color-coded neighborhood maps to define mortgage lending risk and refused to insure mortgages in neighborhoods predominantly home to people of color, especially Black people.

**Restorative spaces:** Places that allow for quiet reflection to support stress relief and can help individuals enjoy solitude when needed.



**Situated knowledge:** Knowledge that is embedded in, and thus affected by, the concrete historical, cultural, linguistic and value context of the knowing person.

**Social connections:** The relationships, networks or links that people have with other people or groups, such as with neighbors, family, friends or social groups.

**Social determinants of health:** The conditions in the environments where people are born, live, learn, work, play, worship and age that affect a wide range of health, functioning and quality-of-life outcomes and risks.

**Social health:** The aspect of overall well-being that stems from connection and community, including one's ability to interact and form meaningful relationships with others.

**Stakeholder:** All individuals, communities and organizations that are invested in or affected by a project.

**Structural racism:** Racial bias across institutions, including government agencies and society. Discriminatory policies and practices are types of structural racism. Structural racism affects many parts of our lives, including where we live, learn, work and play.

**Super Sidewalk:** A NYC DOT sidewalk expansion effort using color surface treatments and flexible delineators to define widened pedestrian areas along the curb.

**Thermal comfort:** A measure of a person's satisfaction with their temperature, including how hot or cold they feel. Thermal comfort is not just limited to air temperature; it also takes into account other environmental factors as well as personal factors like metabolic rate, clothing worn, age and more.

**Traffic-calming elements:** Measures that use physical design features to slow vehicle speeds and enhance the safety of all users of the road.

**Trauma-informed approach:** Processes that acknowledge the ways in which individual and community trauma may pose barriers to

participation, centering the safety of community members, building trust, promoting empowerment of and authentic collaboration with communities, and recognizing the importance of history, identity and culture.

**Universal design:** The design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.

**Urban renewal:** Large-scale, government-funded projects that redeveloped urban neighborhoods to construct ostensibly public-serving infrastructure starting in the mid-20th century.

**Vertical circulation routes:** Routes that allow occupants to travel between floors, whether using stairs, elevators, escalators or ramps.

**Wayfinding:** Signs to help orientation in a city, a neighborhood building or a campus and navigate from place to place.

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## Chapter 1: Introduction

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### Appendix

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 Department of Housing, Preservation and Development  
 Department of Parks & Recreation

The *Active Design Guidelines 2.0* resulted from a collaborative, multidisciplinary effort among City agencies, New York's health, planning, design and architecture communities, and academic institutions.

### **Agency Leadership**

Michelle Morse, MD, MPH  
 Acting Commissioner  
*Department of Health and Mental Hygiene*

Eduardo del Valle  
 Acting Commissioner  
*Department of Design and Construction*

Ydanis Rodriguez  
 Commissioner  
*Department of Transportation*

Daniel R. Garodnick  
 Director, *Department of City Planning*  
 Chair, *City Planning Commission*

Ahmed Tigani  
 Acting Commissioner  
*Department of Housing Preservation and Development*

Iris Rodriguez-Rosa  
 Commissioner  
*Department of Parks & Recreation*

Zahirah McNatt, DrPh, MHSA  
 Chief Equity Officer, Deputy Commissioner  
*Center for Health Equity and Community Wellness*  
*Department of Health and Mental Hygiene*

### **Active Design Guidelines 2.0 Team**

#### **Department of Health and Mental Hygiene**

Kim Kessler, Assistant Commissioner,  
*Bureau of Chronic Disease Prevention*

Josh Langham, Director, *Active Design*,  
*Bureau of Chronic Disease Prevention*

Teddy Swenson, Senior Manager, *Active Design*,  
*Bureau of Chronic Disease Prevention*

Vera Oziransky, Head of Policy and Planning,  
*Active Design*, *Bureau of Chronic Disease Prevention*

Rivka Batlan, Program Coordinator, *Active Design*,  
*Bureau of Chronic Disease Prevention*

#### **Department of Design and Construction**

Margaret Castillo, FAIA, Chief Architect,  
*Office of Chief Architect*

Becky Yurek, Chief Strategy Officer

#### **Department of Transportation**

Emily Weidenhof, Assistant Commissioner of  
 Public Realm, *Division of Transportation Planning and Management*

Neil Gagliardi, Director of Urban Design, *Office of Cityscape and Franchises*, *Division of Legal Affairs*

Keri Issac, Senior Advisor, *Cycling and Micromobility Unit*, *Office of Livable Streets*, *Division of Transportation Planning and Management*

#### **Department of City Planning**

Erick Gregory, Chief Urban Designer and Director,  
*Urban Design Office*

Sagi Golan, Deputy Director, *Urban Design Office*

Elizabeth Hamby, Director of Civic Engagement,  
*Community Planning and Engagement*

#### **Department of Housing Preservation and Development**

Rona Reodica, Assistant Commissioner, *Division of Building and Land Development Services*

Brian Baldor, RA, Executive Director, *New Construction Design Review*, *Division of Building and Land Development Services*

Mahan Shirazi, Deputy Director of Design Strategy,  
*Division of Building and Land Development Services*

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### **Department of Parks & Recreation**

Nancy Prince, Former Chief,  
*Landscape Architecture*

Benjamin Osborne, Assistant Commissioner,  
*Forestry and Horticulture*

Siobhan Mitchell, Deputy Chief of Staff,  
*Capital Division*

### **Center for Active Design**

Joanna Frank, President and CEO

Sara Karerat, Managing Director

Grace Dickinson, Director, *Applied Research*

Suzanne Nienaber, Former Partnerships Director

### **Other Contributors**

#### **Mayor's Office of Climate and Environmental Justice**

Julia Eiferman, Senior Policy Advisor

#### **Mayor's Office of Operations**

Joseph Lormel, Associate Director

#### **Public Design Commission**

Sreoshi Banerjea, Executive Director

Jenna Miller, Director, *Urban Design and Policy*

#### **Mayor's Office of People with Disabilities**

James Irvin, RA, Senior Director of Physical Accessibility

#### **Department of Health and Mental Hygiene**

Kate Van Oss, MD, Former Director, *Active Design, Bureau of Chronic Disease Prevention*

Kelly Cheung, Former Program Coordinator, *Active Design, Bureau of Chronic Disease Prevention*

#### **Graphic Design**

Ton van Uden, *VU Design*

#### **Editors**

Rebecca Jacobs and Susan Gail Johnson

#### **Academic Advisory Committee**

Andrew Rundle, DrPH, FNYAM, Professor of Epidemiology, *Mailman School of Public Health, Columbia University*

Mindy Fullilove, MD, Professor Emeritus of Urban Policy and Health, *The New School*

Sarah Williams Goldhagen, PhD, Author, Architecture Critic

Terry Huang, PhD, Distinguished Professor and Director, *Center for Systems and Community Design, Graduate School of Public Health and Health Policy, City University of New York*

Elizabeth Garland, MD, MS, Professor and Division Chief of Preventive Medicine and Community Health, *Department of Environmental Medicine, Icahn School of Medicine at Mount Sinai*

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