

BUILT ENVIRONMENT






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The District's population is approximately 700,000 people—an 11 percent increase since 2013, when the Sustainable DC plan was first developed. All District residents need healthy, safe, and affordable places to live, work, and play, even as the District continues to be one of the most expensive cities in the country. Simultaneously, climate change continues to be an increasingly serious threat with 75 percent of emissions in the District coming from buildings, the District's buildings—both new and existing—must become more energy efficient to reduce the amount of greenhouse gas emissions they are contributing to the atmosphere. The District Government must ensure that the built environment—meaning the city's human-made components like housing, utility lines, stores, and roadways—is sustainable, equitable, and resilient to the harmful effects of the changing climate.

The District Government has already made strides in shifting the built environment toward greater sustainability. Clean Energy DC, the city's energy and climate action plan, includes a section dedicated to reducing energy use in buildings and increasing renewable energy generation, and the city has strengthened green building requirements through the original Sustainable DC plan and the Green Building Act. Green buildings are sustainable because they meet the needs of their inhabitants while consuming fewer resources and protecting human health. They are also resilient, because they maintain their critical functions even in the face of disturbances like extreme weather.

However, sustainability is not sustainable without inclusivity, and there is more work to be done to be sure that the city's growth benefits all residents. While the District is experiencing rapid development and growth, there is tension between this growth and the real need for adequate affordable housing. The District Government has launched a number of programs and has made significant citywide investments in creating and preserving affordable housing. For example, the Inclusionary Zoning affordable housing program develops mixed-income communities by requiring new residential development to include affordable units. These developments support households of diverse incomes and boost the number of consumers for neighborhood businesses. More generally, increasing density throughout the city will help accommodate incoming residents and provide housing-insecure residents with homes—without displacing existing residents.



Sustainable DC 2.0's actions on the built environment have real benefits for Washington, DC at all levels:

INDIVIDUAL

Sustainable DC 2.0 aims to grow the city equitably, meaning that the actions aim to help residents find opportunities to reduce their utility bills and increase access to affordable housing. The plan also identifies ways to integrate the workforce into job opportunities in the built environment.

NEIGHBORHOOD

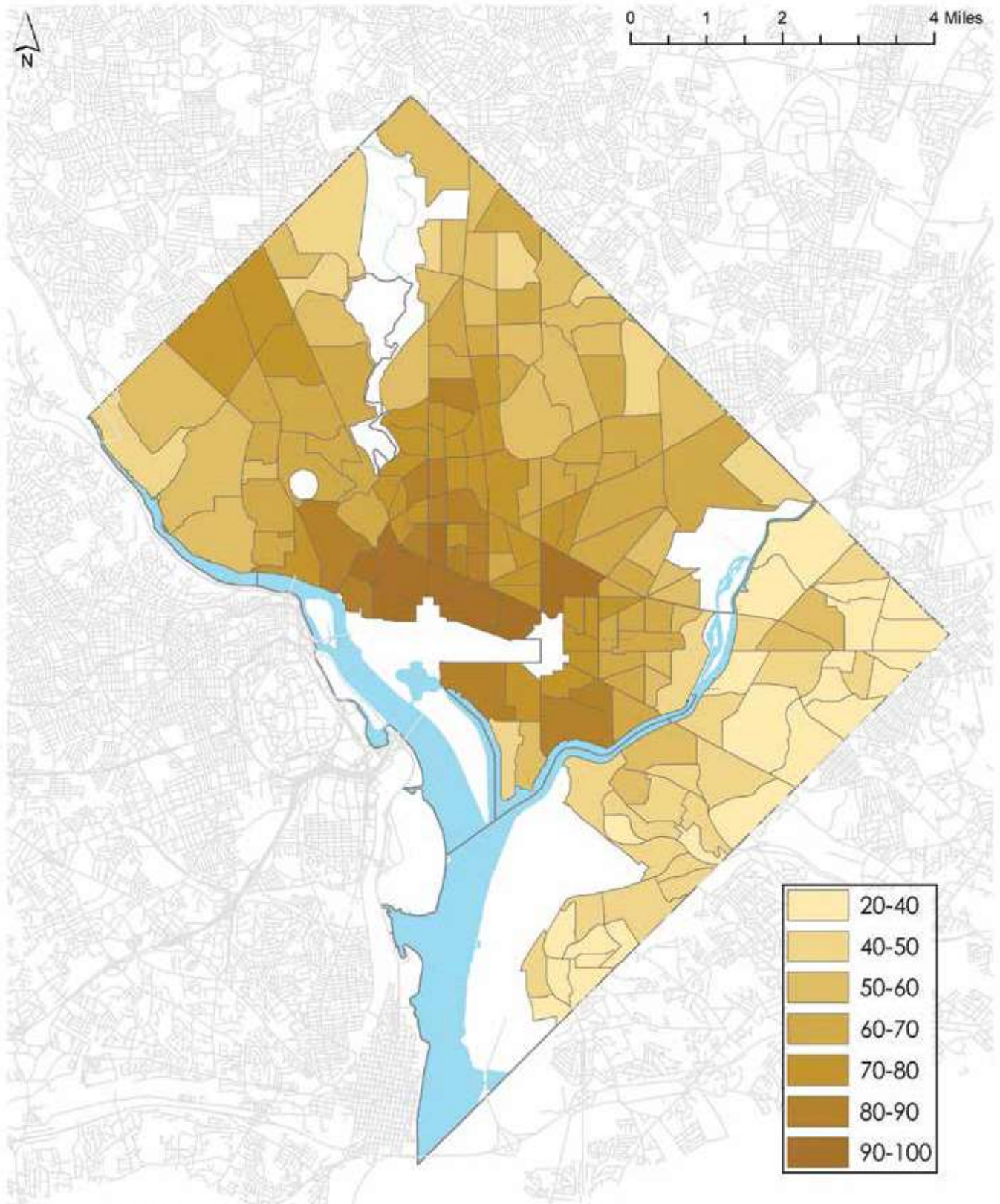
Sustainable DC 2.0 strives to build and strengthen neighborhoods based on each area's existing characteristics. Neighborhoods with high-capacity transit options would benefit from increased density, so more residents have access to public transit. Neighborhoods with fewer services like grocery stores would benefit from stronger commercial corridors. Neighborhoods across the city will be able to take advantage of sustainability programs.

DISTRICT

Actions in the Built Environment section of Sustainable DC 2.0 make buildings healthier and more energy- and water-efficient through data collection, regulation, and incentives. While some actions target only the largest buildings with the biggest environmental footprint, others apply to all buildings, recognizing that it will take a citywide effort to reach the District's sustainability goals.

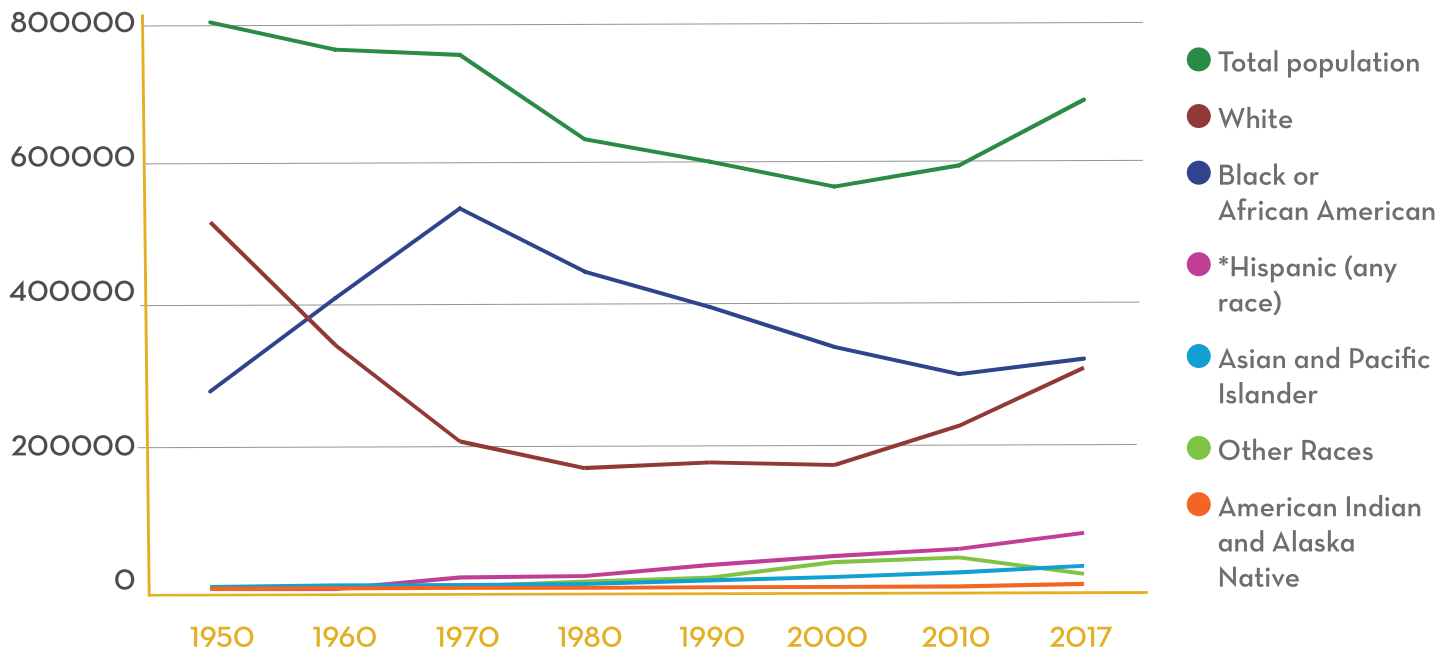
WALKABILITY

Lower scores indicate that it is more difficult to get around without a car, while higher scores indicate areas that are easier to live car-free (DC Policy Center, 2017)



Data Source: DC Policy Center & DC GIS

DC Population by Race (1950–Present)^{ix}



Since **2013**, there has been an **11%** increase in DC's population.



2012

Home price:

\$345,000

Rent:

\$2,357



2018

Home price:

\$575,800

Rent:

\$2,600^x



DC was named the first LEED Platinum City in the world in **2017**.^{xi}



LEED

There are

975 LEED

certified projects in DC.^{xii}



GOAL 1

Sustainably and equitably accommodate future population growth within the District.



TARGET 1

By 2032, accommodate the District's projected population growth while maintaining quality and affordability for those who need it most.

BE1.1

Create and preserve energy and water efficient affordable housing (including low-income and workforce housing) that accommodates different family sizes.

The District currently has a shortage of low-income housing and workforce housing. The District Government will continue to prioritize the creation and preservation of affordable housing through programs such as the Housing Production Trust Fund and the Inclusionary Zoning Affordable Housing Program, particularly housing options with multiple bedrooms for larger families. Because energy efficiency and solar energy can save households more than 50 percent on their utility bills, the District policies and programs will prioritize energy and water efficiency and solar energy.

TIMEFRAME

Ongoing term

LEAD

DMPED

PARTNERS

DCHA, DCHFA, DHCD, DOEE, OP

BE1.2

Expand brownfield redevelopment incentives.

Brownfields are previously developed properties that may have pollutants contaminating the site, making redevelopment of the land challenging. These sites are an opportunity for new housing, clean energy, parks, or retail. While the District Government already has a Voluntary Cleanup Program to support brownfield redevelopment, it will expand the program's incentives to promote the greatest use of these brownfields.

TIMEFRAME

Medium term

LEAD

DOEE

PARTNERS

DHCD, DMPED



GOAL 2

Strengthen existing neighborhoods to be vibrant and walkable while maintaining their historic character.



TARGET 2

By 2032, provide essential services within a quarter-mile walk, and a variety of services and amenities within a half-mile walk of all residents.



TARGET 2 BASELINE

73

(Walk Score)

BE2.1

Enhance programs to support businesses to open and operate in neighborhood commercial corridors, focusing on vacant and underused spaces.

The District Government will make it easier for local businesses to find space in neighborhood commercial corridors, including in vacant and underused existing buildings, through actions such as streamlining the permanent and temporary permitting processes, providing tax incentives, and creating low-interest financing opportunities. Such programs will help new businesses—including essential services like grocery stores—thrive, particularly in areas that do not have as much commercial development as desired by residents.

TIMEFRAME

Short term

LEAD

DCRA

PARTNERS

DHCD, DMPED,
DSLBD, EOM, OP

BE2.2

Encourage the development of affordable live-work units.

The District Government will encourage the development of affordable live-work units—spaces that combine a workspace with living quarters. Living closer to work reduces traffic congestion, increases the number of people on public transit, and increases the number of residents who can simply walk to their work. Brookland Artspace Lofts is an example of affordable live-work housing in the District that allows artists to live and work in one space.

TIMEFRAME

Medium term

LEAD

DHCD

PARTNERS

DMPED, OP



BE2.3

Locate affordable, high-density housing close to commercial zones and high capacity transit.

Increasing the number of residents living near public transportation, schools, and other amenities can reduce congestion and support high-quality neighborhoods. The ability to live near transit is even more important for people with lower incomes who can thereby avoid the cost of owning a car. The District Government will strengthen initiatives to fund affordable housing near transit and other programs to increase the amount of transit-accessible affordable housing. New housing should be affordable for District residents and provide residents of all incomes with easy access to high quality transit and other amenities. The District Government will promote policies and incentives to maintain the affordability of housing as transit service is expanded to new areas.

TIMEFRAME
Long term

LEAD
DHCD

PARTNERS
DCHFA, DMPED, OP

BE2.4

Expand the Great Streets program to five streets east of the Anacostia River to strengthen walkable, accessible, and vibrant commercial corridors.

Walkable, vibrant commercial corridors that are accessible to people of all abilities can provide a reliable base of customers, help neighborhoods retain their unique character, and allow residents access to retail and services without needing a car. The District Government will expand the Office of the Deputy Mayor for Planning and Economic Development's (DMPED) Great Streets, to five corridors east of the Anacostia River to support walkable, vibrant commercial corridors.

TIMEFRAME
Long term

LEAD
DHCD, DMPED,
DSLBD

PARTNERS
DDOT, OP



GOAL 3

Improve the performance of existing buildings by reducing energy and water use, advancing health, and increasing livability.



TARGET 3

By 2032, audit 100% of existing commercial and multi-family buildings and implement improvements to achieve energy reduction goals.



TARGET 3 BASELINE

0%

BE3.1

Rehabilitate public housing to be energy and water efficient, equipped to meet net-zero energy standards, and to provide a healthy environment for occupants.

Since 2013, the DC Housing Authority (DCHA) has retrofitted much of the District's public housing to improve energy and water efficiency, as well as to improve the quality of the indoor environment, which supports the health of the over 7,000 families who reside in public housing. Indoor environmental quality is important because chemicals, poor ventilation, and other issues can contribute to asthma and other respiratory diseases. DCHA will ensure all existing public housing is energy-and water-efficient in addition to providing a healthy indoor environment for residents. All newly-built public housing can meet net-zero energy standards—meaning housing is built to consume the same amount of energy onsite as they generate or offset from renewable energy annually.

TIMEFRAME

Long term

LEAD

DCHA

PARTNER

DMPED, DOE

BE3.2

Develop a green building workforce by training built environment professionals and building operations staff in the latest green skills.

Making sure that all buildings in the District run as efficiently as possible is a fast, low-cost way to reduce carbon emissions. However, Efficient, green buildings require a skilled workforce trained in building operations and energy management, including renovating buildings to be more sustainable and operating existing buildings as efficiently as possible. The District Government will work with partners to train this vital workforce and share best practices, in both reducing the amount of energy used in existing buildings and in maximizing new smart building technology, such as energy monitoring and automatic response systems.

TIMEFRAME

Short term

LEAD

DOES

PARTNERS

DCPS, DGS, DOE

BE3.3

Build public-private partnerships to expand best practices for building operations and maintenance.

The District Government will support the formation of public-private partnerships to promote best practices, trainings, and tools for building operations and maintenance throughout the District's commercial and public buildings, including schools and libraries. For example, the District Government has already created a curriculum in partnership with the University of the District of Columbia to train public and private building engineers. This curriculum could be expanded to reach a wider audience of building operators and include other topics like healthy building operations and bird-friendly buildings.

TIMEFRAME

Short term

LEAD

DGS

PARTNERS

DCPS, DOEE, OP3, UDC

BE3.4

Retrofit and maintain all buildings owned by the District Government to reduce energy use by 50% and maximize the installation of renewable energy technology.

In order to save money and to make progress towards the District's goal to reduce greenhouse gas emissions, the District Government will ensure that energy use is as efficient as possible, and supplemented by renewable energy generated onsite. In alignment with the Clean Energy DC plan, and the Clean Energy DC Omnibus Act of 2018, the District Government will continue to retrofit all public buildings to reduce energy consumption, and will continue to identify opportunities to install onsite renewable energy technology. A successful example of this is the Emery Coalition for the Homeless building.

TIMEFRAME

Long term

LEAD

DGS

PARTNER

DOEE

BE3.5

Complete energy assessments of all District homes and buildings.

Auditing all of the buildings in the District to understand their energy performance and identify strategies to save energy is no small undertaking, but smart meter technology now allows energy assessors to audit more buildings virtually by analyzing data remotely. In alignment with the Clean Energy DC plan, the District Government will develop a program to audit more buildings virtually to get the data necessary to help building owners make smart improvements, and target the District's incentive programs to help lower energy bills.

TIMEFRAME

Medium term

LEAD

DOEE





GOAL 4

Ensure the highest standards of building performance and operation for all new construction, including net-zero energy use, while advancing health and overall livability.



TARGET 4

By 2032, meet net-zero energy use standards with 100% of new construction projects and develop policies or regulation to improve the sustainability, livability, and resilience of new development.



TARGET 4 BASELINE

0%

BE4.1

Require higher levels of energy efficiency, renewable energy requirements, net zero standards for new construction, and broader sustainability metrics for public projects.

The District Government will ensure that public projects funded and controlled by the District remain at the forefront of best practices in new construction across all categories of sustainability, from energy and water efficiency, to renewable energy requirements, to sustainable sites and indoor environmental quality that supports human health such as biophilic design. The District Government will require all new construction and major renovations of its buildings to meet net-zero energy standards. This means that these buildings will only consume as much energy as they can generate onsite (e.g., through the use of solar panels), or offset by the purchase of renewable energy elsewhere.

TIMEFRAME

Long term

LEAD

DOEE

PARTNERS

DCPS, DCRA, DGS, OCA

BE4.2

Provide incentives for new building projects to achieve netzero energy.

Building a new net-zero energy building can cost more upfront, but will save money over time. Aligning with the Clean Energy DC plan, the District Government will incentivize net zero building by offering a coordinated set of incentives (such as accelerated permitting), regulatory improvements, recognition awards, and transparency of energy efficient data to help move the real estate market towards new net zero construction.

TIMEFRAME

Medium term

LEAD

DOEE, DCRA,
OTR

PARTNERS

DMPED, EOM

BE4.3

Incorporate sustainability best practices into neighborhood planning.

Environmentally-friendly, livable neighborhoods are more than just energy- and water-efficient: they are pedestrian-friendly, healthy places to live, with green spaces, amenities, mixed-use building options that house people across the income spectrum, while also seeking to reduce driving times. In addition, they aim to minimize the negative impact that the built environment can have on wildlife and human health. The District Government will take a holistic approach to neighborhood planning, including incorporating best practices that address walkability, wildlife, equity, and health—such as LEED for Neighborhood Development, STAR Community Rating System, and Living Community Challenge while guiding new neighborhood growth in the District.

TIMEFRAME

Ongoing

LEAD

OP

PARTNERS

DMPED, DOEE

BE4.5

By 2026, update the building energy codes to require that all new buildings achieve net-zero energy use or better.

Reaching the District's commitment to eliminate carbon emissions by 2050 will require all new buildings to achieve net-zero energy in the near term, as the buildings built today will exist well into the future. As called for in the Clean Energy DC plan, the District's building energy codes, which are updated every three years, will be updated by 2026 to require that all new buildings achieve net-zero energy use or better. The District will be a partner to help the private sector reach these benchmarks.

TIMEFRAME

Medium term

LEAD

DCRA

PARTNER

DOEE

BE4.4

Continuously adopt the latest green construction codes

The International Green Construction Code (IgCC) is an international standard for the most innovative practices in green building, including better indoor environments, lower impact on natural resources, better neighborhood connections, and increased walkability. The IgCC is typically updated every three years. As the IgCC is updated, the District Government will quickly integrate the most recent version of the IgCC in the city's construction codes. By consistently integrating the most recent IgCC, the District will remain at the forefront of green building best practices.

TIMEFRAME

Ongoing

LEAD

DCRA

PARTNERS

DCPS, DGS, DOEE, EOM

