SUSTAINABILITY VI

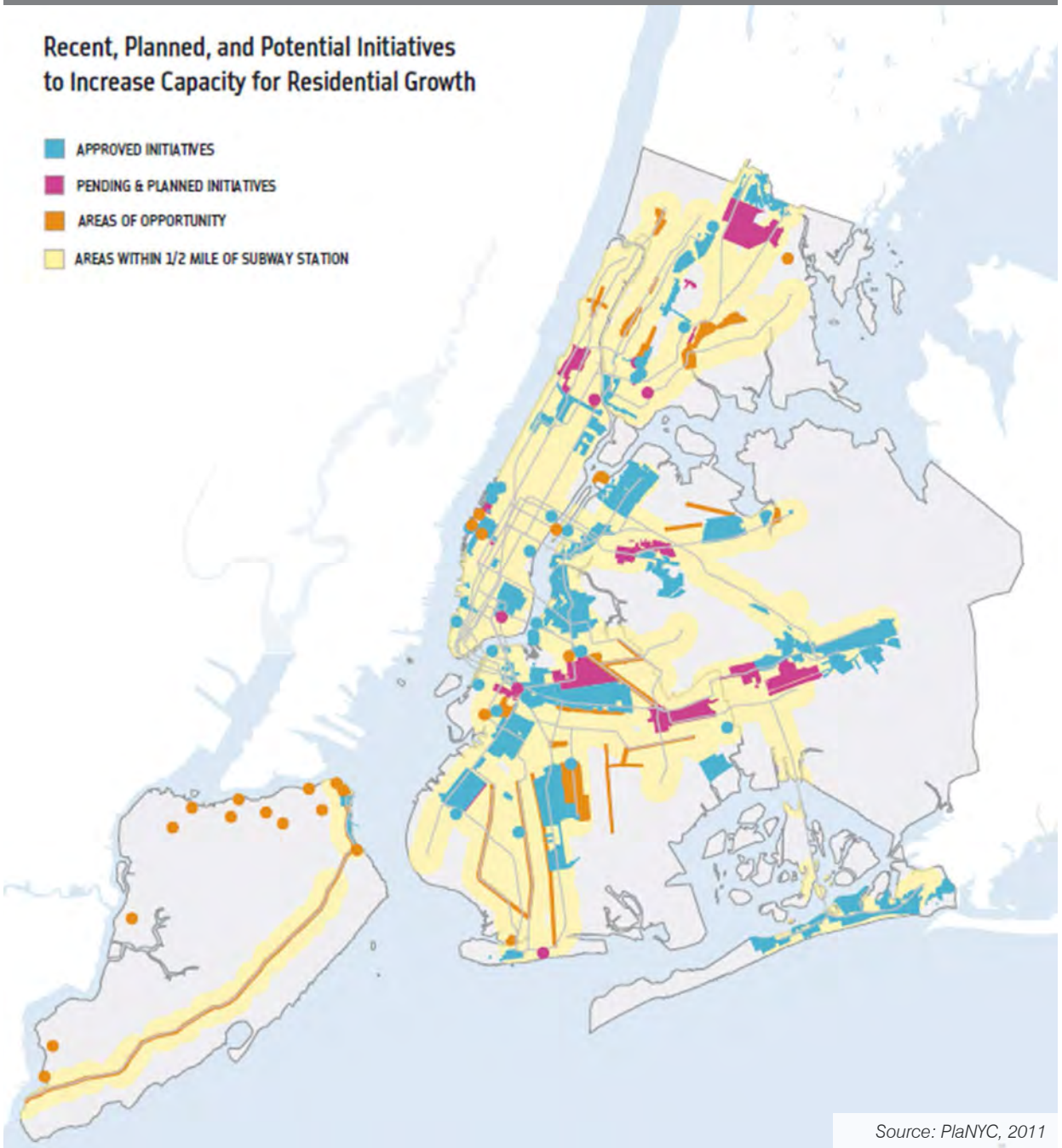
SUSTAINABILITY

Sustainability is a key value for residents and community-based organizations in East New York. The area is home to one of the most active and vibrant networks of community gardens in the City. These gardens serve as an important source of food security for residents, as well as a means of converting vacant land to an active green use while building community ties. Community organizations, such as the Cypress Hills Local Development Corporation have utilized green building practices such as solar collectors in their developments and actively promote green retrofits and energy efficiency measures. The Cypress Hills Community School, which opened in 2010, is a green building featuring an educational greenhouse.

At the same time, there is room to strengthen the area's connections to open space, reduce energy and resource usage, and provide access to more fresh food in order to create a cleaner, healthier environment for East New York residents. On some neighborhood streets, a lack of street trees creates bleak streetscapes and exacerbates problems such as stormwater run-off and the urban heat island effect. Despite the presence of local community gardens, many residents lack sufficient access to healthy food options as few full-service grocery stores are found in the area. The area is also home to a number of brownfield sites, vacant or underutilized properties which may need environmental remediation to remove pollutants from the soil, but could also serve as an opportunity for transit-oriented development.

Left (photo):
Community gardeners in East New York with their harvest.

POTENTIAL FOR TRANSIT ORIENTED DEVELOPMENT



Source: PlaNYC, 2011

PlaNYC

New York City made a strong commitment to sustainability with the release of PlaNYC in 2007. This plan, along with subsequent updates, serves as the city's strategic plan to reduce greenhouse gas emissions and improve the city's environmental performance in areas such as access to parks, water quality, recycling and composting, and brownfield redevelopment. One of the central goals of this plan was to promote transit-oriented development by creating new housing opportunities within a half-mile of subway stations. Numerous city agencies have developed strategic plans to meet the sustainability objectives set forth in PlaNYC, such as the Department of Environmental Protection's Green Infrastructure Plan. The Departments of Health and City Planning have worked together to establish Active Design Guidelines and the FRESH program which promotes supermarkets in underserved neighborhoods. DCP has recently passed Zone Green which updated the zoning code to allow greater flexibility for the use of green building practices such as solar energy, wall insulation, and green roofs. These initiatives have provided numerous tools for green neighborhood planning across the city; coordinating these existing plans and programs as well as community efforts in East New York can enhance the neighborhood's environmental performance to become a greener, healthier community.

BUILT ENVIRONMENT

Existing buildings and new development have a large effect on a community's environmental performance. Development that is close to transit and local shops and services can decrease the use of cars, and related carbon emissions. Buildings constructed or retrofitted with green building technologies such as increased insulation, solar panels, and water conserving plumbing can reduce energy and water usage.

TRANSIT-ORIENTED DEVELOPMENT

The principle of transit-oriented development, which seeks to promote greater transit usage and reduced auto dependency by aligning development patterns with existing and new transit networks, is at the root of the Sustainable Communities East New York study. Varied retail offerings and a mix of uses are a key part of livable communities, providing destinations within walking distance and reducing the need for vehicle trips outside the neighborhood.

Opportunities:

- Implement land use and transporation recommendations of this study to enable transit-oriented development that capitalizes on the existing transit resources in East New York.
- Support Cypress Hills Local Development Corporation's efforts to plan for mixed-use redevelopment on significant sites close to transit.

BROWNFIELD REDEVELOPMENT

Brownfields are vacant or underutilized properties that often need environmental remediation to address historic pollution before they can be redeveloped. East New York is home to a cluster of brownfields that have the potential for reuse with proper remediation. Conducting necessary environmental clean-up will allow these sites to be redeveloped as more productive uses in conjunction with land use planning for the area. The East New York Community Brownfield Planning District has been designated as a pilot area for coordination between the Office of Environmental Remediation (OER) and DCP. Additionally, Cypress Hills Local Development Corporation, is currently in Phase II of planning for the redevelopment of strategic sites in the area as part of a New York State Brownfield Opportunity Areas (BOA) grant.

Opportunities:

- Continue partnership with OER to identify and promote the remediation of brownfields.
- Support Cypress Hills Local Development Corporation's efforts to promote redevelopment opportunities on brownfield sites as part of its BOA grant.

Above (photo):
New Lots Plaza provides housing in proximity to transit and retail.

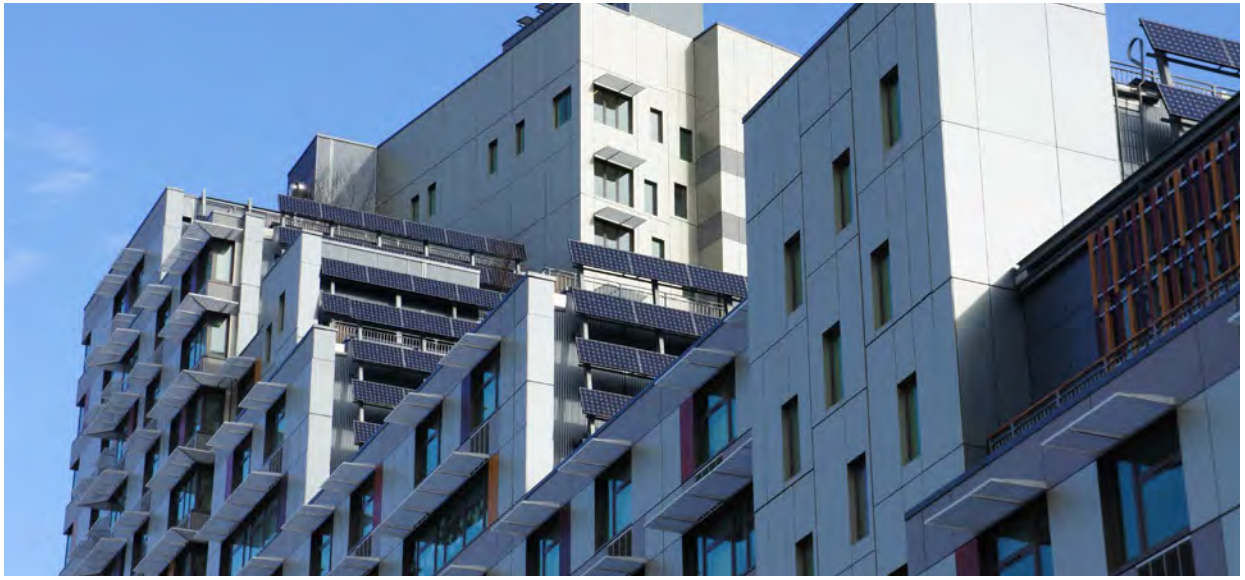
GREEN BUILDING

Green buildings can promote environmental quality in many ways, including conserving energy and water, producing renewable energy, and supporting the urban forest and habitat. The Greener, Greater Buildings Law, established in 2010 updated New York City's building code to require more stringent green building practices including energy audits and benchmarking of larger buildings. New development spurred by land use changes in the study area will comply with recently upgraded energy code requirements, and offer an opportunity to incorporate further green building practices. In addition, Zone Green, a set of changes to the Zoning Resolution recently initiated by DCP, provides greater flexibility for innovative green building practices such as rooftop solar, green roofs, increased insulation, and passive solar shading devices.

East New York falls into the Greenpoint-Gateway Solar Empowerment Zone, one of five such zones citywide in which special benefits are available to support the installation of solar panels for electricity as well as hot water. These zones were designated in areas where solar energy production is most feasible and most important to the electric grid. Greater adoption of solar power will reduce carbon emissions and pollution and reduce costs for residential and commercial building owners and tenants.

Opportunities:

- Continue to promote adoption of solar energy within East New York.
- Promote the incorporation of green building practices into new developments to reduce energy usage as well as operating costs.



Above (photo):
Solar Panels at Via Verde in the Bronx

DUMONT GREEN East New York, Brooklyn

[case study]

Dumont Green provides energy efficient, affordable housing for families in East New York, Brooklyn. Most notably, it features solar panels on the roof capable of producing 80,500 watts of energy, the largest solar system on a multifamily development to date when the project was completed in 2011. This renewable, non-polluting energy source provides 80% of the power needed for common areas such as the lobby, hallways, and laundry room. As well, units feature energy efficient appliances, which reduce energy usage as well as monthly costs for tenants.

All 176 units are affordable to households earning up to 60% of area median income ($51,540 for a family of four), providing much needed housing for low-income families. Thirty six units are designated for formerly homeless individuals, with on-site support services.

This project was developed through a partnership between NYC Housing Preservation & Development, NYC Housing Development Corporation, Hudson Companies, and Bank of America. NY State Energy Research and Development Authority (NYSERDA) provided funding for investments in energy efficiency and the solar energy system.

GREEN INFRASTRUCTURE

Green infrastructure refers to landscape interventions such as trees, bioswales, green roofs and bluebelts that can provide many of the functions of traditional "grey infrastructure" by helping remove pollutants from the air and water. Green infrastructure also often has added recreational and aesthetic benefits.

STREET TREES

Trees provide shade, which mitigates the urban heat island effect and reduces the amount of energy used for cooling, lowering both cost the cost of cooling and greenhouse gas emissions. The New York City Department of Parks & Recreation estimates that each street tree reduces energy costs by $50 per year. In addition, street trees filter harmful pollutants such as ozone, sulfur dioxide and particulate matter from the air. This is particularly relevant for East New York, where the rate of asthma hospitalization among children and adults is 80 percent higher than the average for New York City . While many factors contribute to asthma, additional street trees could help remove asthma-triggering pollutants from the air. Street trees also retain and filter stormwater, and have been found to increase property values.

East New York has been designated as one of six Trees for Public Health priority neighborhoods by MillionTreesNYC, based on its high asthma rate and low tree canopy coverage as compared to other areas of the city. As part of this designation, the Department of Parks and Recreation developed an urban forestry management plan for the neighborhood which aims to increase the urban tree canopy.

Opportunities:

- Continue to implement the goals of DPR's urban forest management plan for East New York, including establishing a "Friends of the Trees" community-based organization to assist in maintenance of trees.
- Encourage local businesses and schools to act as stewards for street trees along commercial corridors.

Left (photo):
Street trees on Atlantic Avenue provide shade and other benefits.

STORMWATER MANAGEMENT

Green infrastructure can help manage stormwater and is often more cost-effective than traditional "grey infrastructure" – which collects and transports sanitary sewage and stormwater via pipes to treatment plants and outfalls. Many parts of New York City are served by a combined sewer system, where sanitary sewage and stormwater are transported together to plants for treatment before it is discharged into waterways. However, during precipitation events such as rainstorms, the sewer system can become overcharged with stormwater. When the volume of combined sewage exceeds the capacity of treatment plants, a portion of it is discharged directly into waterways. This flow of untreated sewage along with stormwater is known as a combined sewer overflow, or CSO, event. CSO events can have a negative effect on water quality and recreational activity.

Green infrastructure such as bioswales and green roofs retain (absorb) or detain (slow the flow of) stormwater, which reduces the volume of water flowing through the combined sewer system during storms and reduces the risk of an overflow event. These measures also filter pollutants from stormwater naturally, reducing the cost of treatment at plants. Green infrastructure can also provide aesthetic and recreational benefits. The New York City Department of Environmental Protection (DEP) has developed a Green Infrastructure Plan to incorporate green infrastructure as a central strategy to manage the city's stormwater and reduce the number of CSO events.

East New York is part of the Jamaica Bay watershed, and is served by a combined sewer system. Jamaica Bay is a critical natural resource, home to a large and complex marine ecosystem which supports numerous aquatic and bird species. The Jamaica Bay watershed has been designated a priority watershed by DEP, which has initiated a pilot program to introduce green infrastructure elements such as right-of way bioswales.

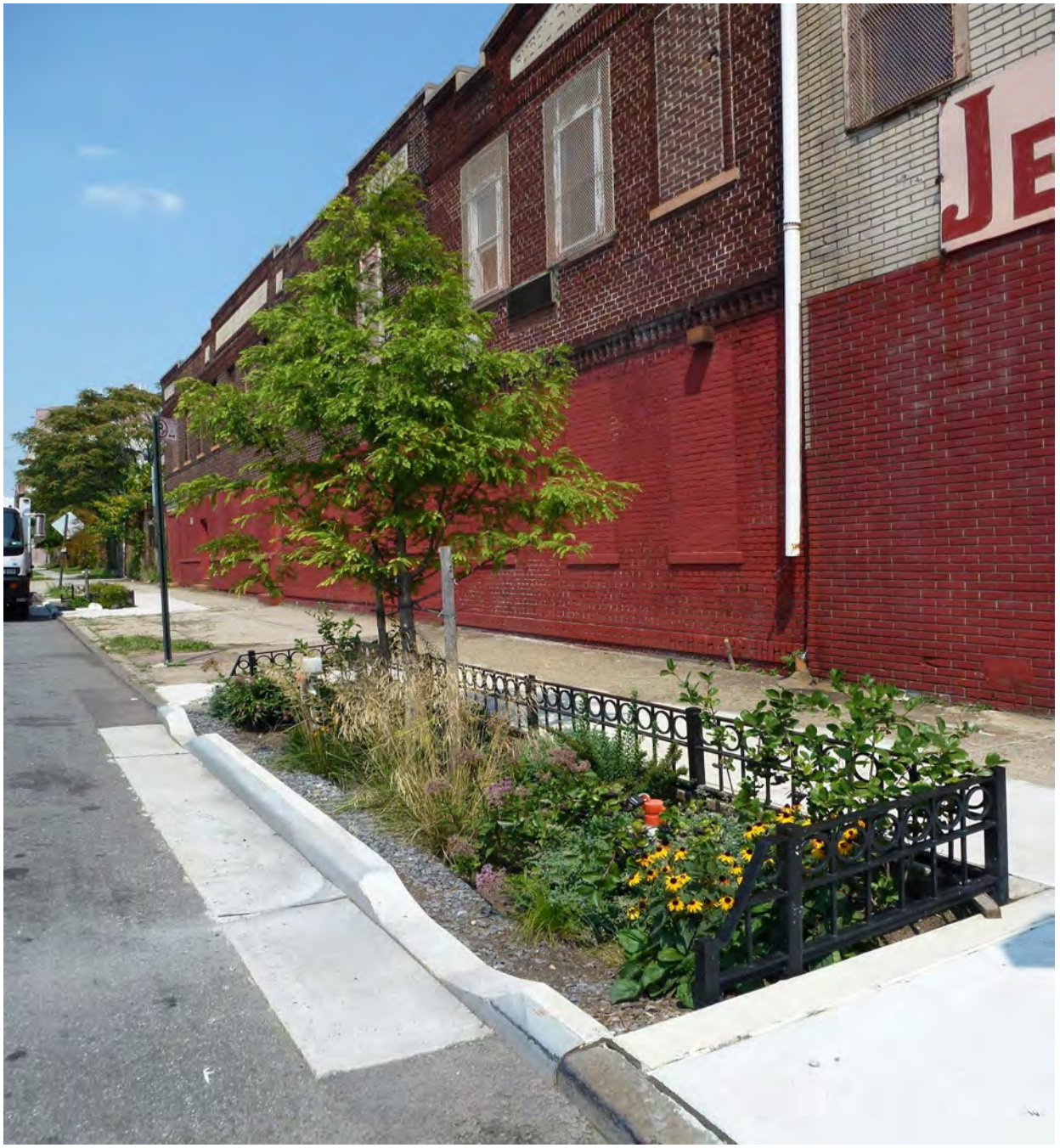
Below (photo):
This blue and green roof constructed on the offices of Osborne Association, a non-profit in the South Bronx, and partly funded through a DEP Green Infrastructure Grant, will treat 100,000 gallons of stormwater annually, thereby improving water quality in the East River.
Image: © NYC Department of Environmental Protection

Opportunities:

- Continue to implement green infrastructure measures such as enhanced tree pits and bioswales where feasible within public rights-of- way and other available public property such as parks and schoolyards.

- Local community organizations may apply for a DEP Green Infrastructure grant for a large-scale project such as a green roof, which can serve as a demonstration site for the neighborhood. Encourage wider adoption of green infrastructure practices such as green roofs, bioswales and rain gardens on residential properties and community facilities.

- Green infrastructure practices in the industrial area can mitigate potential pollution sources and the large expanses of impervious surface found there. The Department of City Planning's Open Industrial Uses Study is identifying best practices for stormwater management and pollution prevention that can be incorporated into new and existing open industrial facilities. In addition, the large, flat roofs of warehouses are often suitable for green or blue roofs, and parking lots can be retrofitted with bioswales or pervious pavement.



Right (photo):
A bioswale in the East New York IBZ helps filter stormwater.

WASTE MANAGEMENT

Reducing the amount of waste destined for landfills by recycling and composting is an important way to conserve resources. PlaNYC has set a goal to divert 75 percent of New York City's solid waste from landfills by increasing rates of recycling and composting. The current waste capture rate (the portion of recyclable materials which are actually recycled) in Brooklyn Community District 5 (encompassing East New York) is 28 percent, as compared to the Brooklyn-wide rate of 41 percent. This demonstrates that there are significant gains to be made in increasing the recycling rate in East New York. In addition, the Department of Sanitation (DSNY) has recently piloted new programs in limited areas to collect organic waste (food scraps) for recycling.

Opportunities:

- Education campaigns at schools, churches and other community centers can encourage recycling.
- Local schools, institutions and multi-family buildings can enroll in the organic waste collection pilot program, and community gardens can become sites for compost collection. Following the results of DSNY's pilot, expansion of the residential organics collection program to East New York can be explored.
- Special events such as Grow NYC's Stop n' Shop can promote material reuse and provide needed household goods for residents.

Right (photo):
Building compost bins at Padre Plaza in the Bronx, NYC Compost Project, funded and managed by NYC Dept of Sanitation, Bureau of Waste Prevention, Reuse and Recycling
Image: © NYC Recycles, Department of Sanitation

HEALTHY COMMUNITIES

Many of the same qualities that support a clean environment also support a healthy community. Neighborhoods with access to parks and open space experience environmental benefits as well as opportunities for physical activity for residents. Gardens that produce wholesome fresh food can support the quality of the environment as well as balanced choices and personal nutrition.

PARKS & OPEN SPACE

East New York is close to neighborhood parks, with most of the study area falling within a quarter-mile, or roughly a five-minute walk, of a local park, and the entire study area falling within a half-mile (10-minute walk) from a park. Area parks include: Callahan-Kelly Playground, Grace Playground, Sperandeo Brothers Playground and City Line Park. These parks consist largely of paved playgrounds, ball fields and sports facilities, offering various options for active recreation. However, these parks provide few natural areas or options for passive recreation such as walking.

The study area is also a half mile from Highland Park and about one and a half miles from Gateway National Recreation Area, regional parks that offer an array of recreational opportunities and natural areas. Recent improvements to pathways around the reservoir will expand recreational opportunities at Highland Park. Future parkland to be opened at the former Pennsylvania and Fountain Avenue landfills as part of the Gateway National Recreation

Area will provide additional open space and bring the communities of East New York closer to recreational opportunities.

Opportunities:

- Proposed streetscape and pedestrian improvements within the study area would improve area residents' access to Highland Park and other significant open space resources.

- With its location just above and adjacent to the Broadway Junction station, Callahan-Kelly Playground has the potential to serve as a central community gathering spot. However, the park is elevated above street level and the station exit, and access to the park is not inviting. Access could be improved with a redesign of the park entrance. See Broadway Junction subarea chapter for detailed recommendations.

- Additional programming at neighborhood parks could promote greater use among diverse demographic groups such as seniors.

- Implement greenways, wayfinding signs and streetscape improvements along key access points to improve access to regional parks including Highland Park and the Jamaica Bay unit of Gateway National Recreation Area.

- The updated General Management Plan for Gateway National Recreation Area seeks to make this natural area more accessible to surrounding communities with additional access points and recreational opportunities.

Right (photo):
Grace Playground on Pitkin Avenue provides recreational space.

[case study]

VANDERBILT AVENUE
Brooklyn

Image: © NYC Department of Transportation

Vanderbilt Avenue is a major connector between northern Brooklyn and Grand Army Plaza—the primary entrance to Prospect Park, the Brooklyn Museum, the Brooklyn Library and other attractions. It has also seen many bicycle fatalities and other serious injuries. In 2008, the NYC Department of Transportation developed a plan to 1) improve the bike corridor along Vanderbilt as part of PlaNYC's greener transportation network proposal, 2) improve pedestrian comfort and safety, 3) calm traffic for all users and 4) improve the streetscape.

The plan included dedicated bicycle lanes, new signs and markings, construction of landscaped islands, raised medians and new plantings on medians and sidewalks. As a result, cyclists no longer ride in the "door zone" and Vanderbilt Avenue, a vibrant commercial corridor, is better suited to sustain and support these businesses as a green and walkable avenue.

ACTIVE TRANSPORTATION

Active transportation – biking and walking – has public health as well as environmental benefits. Active transportation is human powered – thus it reduces energy consumption and associated carbon emissions. It also provides physical activity which can improve physical and mental well-being.

Improved streetscape conditions in East New York as recommended throughout this report will enhance neighborhood walkability by making streets safer and more attractive. DOT has recently implemented new bike lanes in the neighborhood, providing another transportation option for residents. Making walking and bicycling safer will encourage more residents to use these modes of transportation, particularly younger and older community members.

Opportunities:

- Implement streetscape improvements described in earlier chapters to increase pedestrian safety, particularly along Atlantic Avenue and other key corridors.
- Continue to strengthen neighborhood bike network. DOT has recently added bike lanes and routes within the neighborhood, including on Pitkin Avenue. Continue to add additional facilities for bikers along these routes and expand the network to include additional streets.
- Biking classes, demonstrations and group rides can make biking a safer and more attractive transportation choice for local residents.
- Extending the Brooklyn-Queens Greenway to Jamaica Bay would connect East New York to additional recreational opportunities and natural areas.

HEALTHY FOOD ACCESS

The consumption of fresh fruits and vegetables has been shown to lower risk for chronic health issues like obesity and diabetes. However, in some neighborhoods, there are few places to purchase fresh produce. East New York has one of the lowest levels of grocery store area per person (.2 square feet) of any high-needs neighborhood studied by the Department of City Planning. This is lower than both the citywide average of 1.5 square feet/person, and the average of .8 square feet/person for other high-needs neighborhoods. The lack of full-service grocery stores limits access to fresh foods and forces residents to shop outside the neighborhood. The same study found that based on population and retail demand, there is potential to support 84,000 additional square feet of grocery store retail space in East New York (i.e. more than four 20,000 sq foot stores). East New York has been designated as part of the FRESH incentive zone, meaning that qualified grocery stores that wish to open in the area can seek zoning and tax incentives. Additional grocery stores would have a positive impact not only on public health, but would also generate economic growth and jobs.

East New York is also home to one of highest concentrations of community gardens in the city. Gardens are an important local food source and community asset. However, some residents report that gardens are dwindling as community members who have maintained the gardens age.

Opportunities:

- Continue to market FRESH incentives within East New York to increase the number of full-service grocery stores selling fresh produce in the neighborhood.
- Identify opportunities to establish a farmers market at an available, accessible location.
- Continue to promote the enrollment of local stores in the Department of Health's Healthy Bodega program, which encourages bodega owners to stock health items like produce and low fat milk.
- School-based programs such as the greenhouse at Cypress Hills School can help educate the next generation of urban gardeners.

Left (photo):
NYC Department of Transportation provides safe biking classes for kids.
Image: © NYC Department of Transportation

[case study]

FRESH MARKET, Morrisania, Bronx

The FRESH program seeks to promote the development of full-service grocery stores in currently underserved neighborhoods around the city. To receive FRESH Food Store certification, store owners must guarantes that the store will devote a minimum of 30% of total floor area to fresh foods (dairy, meat, frozen foods, produce), including a minimum of 500 square feet for fresh produce.

This Associated market on Third Avenue in the Bronx was built using FRESH financial and zoning incentives. The financial incentives, in the form of tax exemptions, allowed the market operator to enter a market which otherwise may not have been financially feasible. Zoning incentives allowed the market to develop at a size larger than is typically allowed in the manufacturing zoning district in which it is located, and reduced the amount of required parking. The grocery store was built on the ground level of Las Casas, a 227 unit affordable housing development. The store provides access to fresh food for residents of the development as well as the surrounding Morrisania neighborhood.