# APPENDIX D: CASE STUDY SUMMARIES

## CASE STUDIES IN BROOKLYN, NEW YORK

### INTRODUCTION

Brooklyn, New York City's most populous borough, has emerged from Manhattan's shadow to become celebrated for unique real estate developments, changing demographics and increasing job opportunities. Over the past century, the area's piers and ports have been reinvented in response to shifting industry and workforce demands. The result is a borough rich in trendsetting culture, innovation and arts.

Brooklyn's economy was built on manufacturing during WWI and II. After the war, it was overshadowed by New Jersey ports and became more locally oriented instead of focused on exports. Several Brooklyn neighborhoods were forced to transition to a more service-oriented economy in order to retain and increase jobs. This shift protected the borough from the economic downturns in the late 20th century and its stability was further supported by a diverse economy.

Brooklyn's numerous warehouses and wide inventory of under-developed buildings present many opportunities for redevelopment. Changes are visible as new activities reinvigorate the formerly industrial waterfront. Brownfield redevelopment allowed many of the large parcels formerly used for shipping to become new sites of parks, big-box stores and large maker spaces. Organizations like Third Ward, a co-working technology incubator, have helped several Brooklyn neighborhoods transition from old industrial uses to new maker enterprises – facilitating growth in the arts and technology sectors, and providing affordable spaces for entrepreneurs.

As various parts of the borough revive, Brooklyn is gaining a reputation for attracting a younger population that doesn't mind transitional neighborhoods.  Taking advantage of lower rents than Manhattan, new residents have flocked to Brooklyn, seeking affordable housing and lower density. City placemaking investments have benefited both quality of life and community.  These improvements have come with a cost, however, as increasing demand and rents make parts of the borough increasingly unaffordable. In April 2013, Brooklyn rents were rising nearly twice as fast as those in Manhattan. With the estimated median household income (2011) of $42,752, Brooklyn has demonstrated a significant shift from the median household income of $32,135 recorded in 2000.

Brooklyn is now challenged by an inadequate supply of affordable housing and the continued prominence of low-paying industries. A higher number of individuals employed in low-paying industries reside in Brooklyn than in greater New York City. Defined as earning an hourly rate of $12.89 or less ($26,818 annually), 35 percent of New Yorkers aged 18 and over worked in a low-wage job in 2012; in Brooklyn, it was 39.6 percent.

Of particular relevance are three broad redevelopment projects and rejuvenated neighborhoods in Brooklyn that face challenges similar to Ward 5:

- Greenpoint/Williamsburg - Greenpoint Manufacturing Design Center (GMDC)—a very successful reuse of an abandoned industrial building for small maker businesses.
- Brooklyn Navy Yard – a physically secured hub of innovation, artistry, media and sustainability which has successfully redefined manufacturing for today's economy.
- Gowanus, Red Hook and Sunset Park – a neighborhood of revitalized piers that has overcome the challenge of restricted access to public transportation.
- Industry City – a collection of warehouses, rebuilt and redefined as studios for artists and entrepreneurs.

## REDEVELOPMENT ORGANIZATIONS

Many successes in Brooklyn's redefined industrial areas, such as Greenpoint, Williamsburg, Brooklyn Navy Yard and south neighborhoods, are facilitated by local economic development organizations and non-profits. These entities offer incentives for potential tenants, provide support in leveraging available tax breaks and credits, and offer a single place for new and start-up businesses to become familiar with city, state and borough assistance programs and regulatory requirements. Their programs collectively help current and potential tenants achieve financial stability.

For each of the major redevelopment projects, management entities are located on site to ensure security, fill vacancies, target space utilization and provide ongoing programming efforts for the community and business owners. The economic development organizations are also involved in creating a sense of community among tenants and anchor institutions. In addition to the aid from on-site management entities, philanthropic support and public subsidies fill funding gaps for capital and, on occasion, operational shortfalls.

### Greenpoint/Williamsburg

The East Williamsburg Valley Industrial Development Corporation (EWVIDC) was created by the St. Nicks Alliance almost 35 years ago as a non-profit entity. EWVIDC offers industrial business retention and development assistance services to production, manufacturing and industrial service businesses. The majority of EWVIDC's operations include programming support for the industrial business sector. Inspired by the success of other area non-profits, EWVIDC entered real estate development by adapting four buildings into an affordable industrial development. Many of the building tenants pay below-market rate rents for these small-scale spaces. Deed restrictions require the buildings remain in use as affordable industrial space for 30 years. As a mission-driven organization, EWVIDC intends to keep these buildings affordable in perpetuity.

EWVIDC's funding has heavily relied on city grants, making up approximately 60 percent of its total budget. Since the Great Recession, these grants have fallen to less than 30 percent of the group's total budget. This shift in government support required EWVIDC to diversify funding support, expanding to foundations. The non-profit group meets 20 percent of budget needs through fundraising and membership dues, and revenue captured from real estate holdings.

## GREENPOINT MANUFACTURING AND DESIGN CENTER

The Greenpoint Manufacturing and Design Center (GMDC) is a 501(c)(3) non-profit company that develops and operates space for small-scale industrial tenants in obsolete manufacturing facilities. Since 1993, GMDC has redeveloped seven buildings in Brooklyn that total 725,000 square feet. Its developments accommodate an estimated 100 businesses that employ approximately 500 workers. The tenants in GMDC's buildings include woodworkers, ceramists, glass makers, sculptors, furniture makers, cabinet makers, jewelry-and metal smiths, silk screeners, artists, printmakers and food entrepreneurs.

GMDC's first project at 1155 Manhattan Avenue in Brooklyn was a 366,000 square-foot former jute mill that was built in 1868 to make rope for the marine industry. Later used as a textile mill and warehouse, the six-story brick structure was in such disrepair by the 1980s that its owner abandoned it and left it to be acquired by New York City in a tax foreclosure. Woodworking and cabinet firms, artists and artisans occupied the building under month-to-month interim leases with the city. In the meantime, city officials attempted to sell the building for residential development but were unable to find a buyer. When they decided to demolish the property in the early 1990s, a group of tenants joined neighborhood groups and business leaders to create the non-profit GMDC in order to acquire the building from the city.

In 1993, the city and GMDC signed an agreement whereby GMDC purchased the building for $1 and the city contributed $1 million to GMDC to help defray the cost of installing new electrical, plumbing and fire safety systems that would meet building code requirements. After taking ownership, GMDC developed a plan to finance the renovations and established a line of credit with Sovereign Bank in New York City for building rehabilitation and tenant improvements.

Although the building did not carry a mortgage, GMDC was nevertheless hindered by a low level of operating income that initially prevented it from undertaking expensive improvements. Instead, it took a more economical approach by relying on an in-house construction crew to implement a steady building investment strategy that allowed GMDC to expand its tenant base. Monthly cash flow slowly improved and more expensive renovations were gradually completed. Between 1993 and 2011, an estimated $15 million (about $41 per square foot) was invested in improvements to the Manhattan Avenue building. By way of comparison, the average Brooklyn industrial building purchase price was estimated at $65 per square foot in 1993 and $195 per square foot in 2010.

By 1999, GMDC's operating surplus and bank credit were strong enough for it to purchase additional properties. The 80,000 square-foot, two-story former bowling alley at 810 Humboldt Street in East Williamsburg was a $6 million development ($74 per square foot) that has been fully leased since opening in 2000. Its uses range from woodworking and custom carpentry to a 15,000 square-foot hydroponic greenhouse on the roof.

Next, GMDC purchased 132 Harrison Place, a 65,000 square-foot former candy factory. This $4.7 million development ($72 per square foot) was a build-to-suit for two food manufacturers who relocated to Brooklyn from Manhattan and Long Island City, and, together, employ 97 workers. The largest tenant, a meatpacking company called Hoskie Trading, purchased the building from GMDC in 2009 in order to take advantage of tax, business and energy incentives. Its co-tenant, Starway, has remained in the building.

In 2001, GMDC purchased its smallest project, a four-story building at 7 Saint Nicholas Avenue in East Williamsburg. With a total development cost of $1.7 million ($71 per square foot), the 24,000 square-foot structure is occupied by a hat maker, garment manufacturers, commercial artists and woodworkers.

### McKibbin Street Industrial Center

GMDC's success with its earlier developments gave it the necessary experience to undertake a project that required a more complex financing plan. Acquired by GMDC in 2007, the McKibbin Street Industrial Center's financing involved New Market Tax Credits, Historic Preservation Tax Credits and real estate tax exemptions. The 72,000 square-foot brick structure was built in phases between the 1850s and 1870s in East Williamsburg for the manufacture of rope. When GMDC bought it, the three-story building had formerly been used as a furniture factory and was in poor condition.

Initially, the purchase price and renovation budget were met through relatively straight-forward financing through the Greenpoint Williamsburg Industrial Acquisition Fund ($3.5 million), a grant from the Brooklyn Borough President ($500,000) and a loan from Sovereign Bank. However, during demolition, GMDC uncovered problematic building conditions, including extensive fire damage, masonry deterioration, an unsound concrete slab and an abandoned boiler room. Based on these discoveries, the renovation plan was expanded to include a complete rebuilding of the roof, extensive structural work, facade and window restoration, and entirely new building systems (HVAC, electrical, plumbing).

Unfortunately, the original financing plan was insufficient to pay for the additional work required by the renovation. GMDC had used New Market Tax Credits on other projects but needed to combine them with other funding sources in order to complete the McKibbin development. Before accessing Historic Preservation Tax Credits, GMDC had to gain an agreement from the New York State Historic Preservation Office (SHPO) that the McKibbin Street Industrial Center deserved landmark status because of its age and role in Brooklyn's manufacturing history. The SHPO approved this request and the site was listed on the National Register of Historic Places.

GMDC then hired a tax credit expert, United Fund Advisors, a Portland, Oregon-based community development entity (CDE) and tax credit provider with previously successful financings in New York City. United Fund Advisors brought in two local CDEs, Citibank Community Capital and Seedco Financial, to share the lending risk. The trio worked with local agencies, such as the New York City Investment Fund, New York City Industrial Development Agency and New York City Economic Development Corporation, to secure $4.8 million in New Market Tax Credits, $1.7 million in Historic Preservation Tax Credits and an estimated $1.5 million in real estate tax exemptions on behalf of GMDC. These funds were used to leverage the $4 million in public grants that had already been approved and gave GMDC the ability to complete the $18 million project ($250 per square foot).

Renovation of the McKibbin Street Industrial Center was completed in 2009 and, despite the economic recession, more than half of the 72,000 square-foot building was quickly under lease. By 2010, two-thirds of the space was leased and three years later, 100 percent is occupied. The facility has been subdivided into units that range in size from 1,700 square feet to 7,000 square feet. Tenants include retail display manufacturers, stage and film set builders, woodworkers, metal finishers and printmakers, and together employ 60 workers.

### 1102 Atlantic Avenue

In 2012, based on the success of the McKibbin project, GMDC purchased a 47,000 square-foot former auto parts warehouse at 1102 Atlantic Avenue in Crown Heights. The design and manufacturing group intends to transform the two-story building into a multi-tenanted center targeted to small-scale food manufacturers. This plan is partially in response to food procurement guidelines, announced in 2012, that encourage city agencies to purchase food products grown, produced or harvested in New York.

Food manufacturing is one of the few industrial sectors without significant job losses in New York City over the past decade. For many food manufacturers, proximity to consumers is of equal importance to location costs. In addition, New York City offers a considerable labor force of food sector workers, particularly among its immigrant communities.

Both the city and state have witnessed a recent proliferation of start-up food and beverage manufacturing businesses that offer niche products and cater to a narrow sector of consumers or wholesale buyers. While the city is supporting efforts to encourage and retain these businesses, the high cost of kitchen and production space, and the unwillingness of many landlords to grant long-term leases (beyond five years) present challenges to small firms. GMDC's Atlantic Avenue project presents an attractive alternative for small food-related companies by providing them with competitive rents, eight-year leases and access to a business network of similar and complementary firms. In addition, Crown Heights will benefit from jobs created by the building's tenants.

Renovation of the two-story building requires complete systems upgrades, including new gas-fired heating units, expanded electrical service and new plumbing. Fireproofing, sprinklers, fire alarm system and life safety upgrades are also needed. GMDC plans to replace the roof and all windows, and install a new elevator and food-sector infrastructure such as floor drains. Space will be subdivided on a build-to-suit basis and each tenant will be equipped with a three-phase electrical sub panel. The electricity will be sub-metered and gas service will be directly billed to tenants by the utility company.

This overhaul is estimated to cost $11.6 million and will be financed through a combination of grants from the New York City Council ($4.1 million) and Brooklyn Borough President ($500,000), New Market Tax Credits ($3.8 million) and loans from Citibank and Sovereign Bank ($3.2 million). The project also received approval for real estate, sales tax and mortgage recording tax benefits from the New York City Industrial Development Agency totaling $1.1 million.

When completed in 2014, 1102 Atlantic Avenue is projected to provide space for 12 businesses that will create or retain 53 jobs with an average hourly wage of $19.94.

## PFIZER BUILDING

Since its founding in 1849, Pfizer pharmaceutical was a major Brooklyn industry with a large presence in Williamsburg neighborhood. As the company evolved, operations in Brooklyn were downsized and the existing facilities became available for redevelopment. The city and community struggled with the closing of this major institution, which resulted in a huge loss of PDR jobs.

Pfizer opted to sell one building to a private developer for small-scale industrial reuse. In 2011, Acumen Properties, known for successfully redeveloping other industrial buildings for "maker" users, purchased the 600,000 square foot building. The existing structure provided a sterile environment for food producers but was not immediately suitable for division to small-scale space (less than 5,000 square feet). The improvements necessary to divide up the Pfizer building included new plumbing, windows and other core upgrades, such as hallways, across large-scale floor plates of 50,000 to 100,000 square feet.

Without access to financing, Acumen structured its redevelopment based on tenant needs and the capacity of its income stream to support capital improvements. In some cases, tenants opted to build out their spaces independently and Acumen provided lists of approved contractors and legal advice. This partnership between landlord and tenant expanded the capacity of the "maker" entrepreneurs. Interestingly, rent deals provided large-scale rent concessions as the tenants built out their own spaces, allowing the developer to invest more resources in the total building redevelopment.

Acumen Properties, like many developers, used the most cost-effective approach to providing networking and connections among tenants, helping to build first-stage companies to the second and third stages. As of 2013, the Pfizer building is more than 40 percent occupied. More transient tenants occupy individual spaces of less than 2,000 square feet, totaling approximately 100,000 square feet within the building. These transient tenants may sign leases for terms as short as 120 days. As expected, the more permanent tenants sign longer terms between 5 to 7 years for larger blocks of space.

In many instances, retail space or temporary retail options proved critical for the financial success of many start-up entrepreneurs. Acumen Properties pointed to several small entrepreneurs who relied on the flexibility of the lease term and ability to capture retail sales revenue to pay for a month's rent without losing focus on their main business efforts, usually production.

## BROOKLYN NAVY YARD

Established in the early 1800s, the Brooklyn Navy Yard has transitioned from a naval shipyard to a 4 million square-foot maker and media hub. This 300-acre site on the East River employs 6,400 people and has become a national model for sustainable urban industrial parks. Its legacy of innovation includes the first steam-powered pile driver and first undersea cable, allowing Britain's Queen Victoria to transmit the first Morse code message to the United States.

Increased demand for shipping at the start of World War II led the Yard to double in size from 1939 to 1945. Adjacent land was annexed and the shipyard exploded in both population and employment. This surge would last until 1966 when the Navy Yard was closed, along with 90 other military bases. Undeterred, New York City purchased the property from the federal government and reopened the Navy Yard in 1969 as an industrial park. Commerce Labor and Industry in the County of the Kings (CLICK) served as the nonprofit management entity and Seatrain Shipbuilding became the most prominent employer. The area would remain a stable employment base until 1975 when Seatrain laid off 3,250 employees.

To spark a quick recovery, US House of Representatives Shirley Chisholm and Fred Richmond obtained $40 million in Congressional loans. CLICK was replaced with the Brooklyn Navy Yard Development Corporation (BNYDC) in 1981. Understanding the shifts in the economy, BNYDC began to diversify the tenant base in 1987, accommodating smaller industrial enterprises to attract and reflect the diversity, energy and creativity of the surrounding community. This approach worked; in 1998, the occupancy rate was 98 percent and 3,000 employees were working in 200 small and midsize businesses. The Navy Yard began offering a summer youth program and providing shuttle service to nearby subways to entice visitation and tenancy.

From 1999 to the present day, more than $250 million in city capital funds were invested in infrastructure upgrades. These improvements attracted a variety of industrial users, creating a larger economic impact and approximately $750 million in private investment. In addition, the city's zoning and rezoning has been based on the premise of social equity and an attempt to diversify Brooklyn's economy, not returning to a reliance on a single industry. In 2011, the economic impact of the 300 acres totaled almost $2 billion for the local economy, accounting for 10,000 jobs and $350 million in earnings, more than triple the impact estimates from 2001.

### Brooklyn Navy Yard Development Corporation

Governance has varied throughout the history of the Navy Yard. Current management of the Navy Yard is overseen by the not-for-profit, Brooklyn Navy Yard Development Corporation (BNYDC). Assisting more than 330 tenants and overseeing 4 million square feet of space, the BNYDC runs an aggressive development strategy based on green strategies, social responsibility and technologically driven companies. Among the sustainable features of the Navy Yard are the largest rooftop farm in New York City, LEED Silver-rated buildings, wind turbines and bike share programs.

Since 1999, the BNYDC has offered job applicant screening for Yard businesses, emphasizing employment for local residents. Its Employment Center has found jobs for more than 1,800 workers. Funding for the operations of the on-site job center comes from both the BNYDC and the Brooklyn Workforce Innovations (BWI), with additional grant sources funding specific initiatives. With this support, the Employment Center's capacity was expanded to provide customized job training as well as pre-screening and placement.

The Navy Yard's restrictive zoning provides certainty for its tenants, who can remain in their facilities for an extended period of time. However, educational institutions are only allowed as accessory users to support manufacturing. This practice helps to prevent satellite campuses from being established at the Yard.

### Navy Yard's Tenant Mix and Development Patterns

Beginning in the 21st century, the number of direct employees at the Navy Yard reached 6,000 with many businesses focused on innovation. Among the key tenants are high-tech fabricators, media companies and green manufacturers. Currently, the Navy Yard has more than 330 tenants and 6,400 workers. Its roster of full-time creative and media-based firms may contrast with the traditional definition of manufacturing, but these companies are helping to redefine and rebrand the concept of a "maker" community.

Attracting the unique tenant base reflects the strength of the demand and Brooklyn Navy Yard Development Corporation's ability to offer flexible building sizes and lease terms. Over the past decade, much of the tenant turnover at the Yard has involved smaller spaces of less than 5,000 square feet. These spaces quickly become re-occupied once vacated due to pent-up demand. Most leases for small or start-up entrepreneurs range from one- to two-year terms, allowing firms to expand or contract as necessary. As a non-profit, mission-driven organization, BNYDC prioritizes the generation of jobs over long-term lease structures. This model proves successful for BNYDC, but requires public support and cross-subsidy. Most rents range from $12 to $14 per square foot, the market rate for this section of the borough.

With the help of booming tenants, the Navy Yard has continued to expand. One of the largest studios outside of Hollywood, the 355,000-square-foot Steiner Studios opened in 2004 and plans to double in size over the next decade. It has attracted film programs from Brooklyn College and Carnegie Mellon University, and the production of television shows and movies, including "Boardwalk Empire" and "Men in Black 3."

Steiner Studios will invest an additional $347 million in the Navy Yard to renovate nine historic structures and erect new buildings, sound stages and a back lot. Its expansion and academic partnerships are expected to create 2,200 permanent jobs. Under the deal, BNYDC granted a 99-year lease to Steiner.

Duggal Visual Systems also has taken up residence in the Yard. The photo and visual production company is converting a two-story warehouse to manufacture eco-friendly products and become a laboratory for new sustainable products, including solar- and wind-powered street lamps. Some of these lights have been installed at the Navy Yard to reduce electricity bills. Duggal's Greenhouse will have rooftop solar panels and a graywater system, and incorporate classrooms, offices and gallery space with views of the Manhattan skyline across the East River.

Another new venue in the Yard is an exhibition and visitor center operated by the BNYDC. Building 92, a remodeled Marine commandant's residence, provides access to information displays, public tours, educational programs, archival resources and workforce development services. It supplies a "front door" to the revitalized Navy Yard, while welcoming potential employees.

The Green Manufacturing Center (GMC), funded by a combination of city, borough, federal and state programs, and tax credits, aims to create 2,500 permanent jobs in more than 1.8 million square feet by 2015. A new corporate-academic partnership shared by the architecture firm Skidmore, Owings and Merrill (SOM) and Carnegie Mellon University will create a large next-generation fabrication lab that will allow a wide range of entities – including small, hourly renters – access to highly sophisticated, 3D printing and other fabrication devices.

This project will begin with the renovation of three buildings to create 215,000 square feet for two companies, real estate developer Macro Sea and Crye Precision, a manufacturer of body armor and clothing for the US military. These employers are expected to supply 300 of the new jobs. The remodeled buildings will incorporate space for collaboration between designers and fabricators. Macro Sea's New Lab will support exchange among green manufacturing start-ups, digital fabricators, research and development teams, and academia. It consists of 8,000 square feet with plans to expand to 84,000 square feet by 2015.

The Navy Yard continues to grow. Twelve, newly adapted green industrial buildings are slated to be completed as part of four development projects over the next 15 years. BNYDC tends to structure lease terms for projects based on the level of private investment and uses, direct earnings, city capital funds, state and federal aid to bridge the financial gaps for Yard projects. In general, BNYDC considers large projects more favorably for tax credit deals due to the high fees and complications. Most previously successful transactions required the tenant to fit out the space, as opposed to the traditional tenant improvement allowance structure. In some cases, BNYDC applies for grant funding or uses city capital funds to prepare buildings, covering initial remediation and demolition costs.

Future prospects for redevelopment at the Navy Yard highlight the success during the past 15 years. Admirals Row is a $120-million project featuring 285,000 square feet of mixed-use development, including a supermarket, retail, commercial and office. This project represents a diversion from the typical Yard deal structure, as the developer will control the supermarket operations and build industrial space above. The industrial space reverts to BNYDC ownership after 30 years. The entire Admirals Row project will create approximately 200 light industrial jobs and 350 retail jobs.

Another project is the renovation of Building 77, a 17-story building of slightly less than 1 million square feet. Its anchor tenant, Shiel Medical Lab, is expected to create more than 1,000 permanent jobs. Funded by New Market Tax Credits and federal and state historic tax credits, this project aims to invest $50 million in base building improvements.

In many ways, the Brooklyn Navy Yard is an anomaly, given it is a secure facility with highly restrictive zoning that caters exclusively to industrial businesses. Although several land uses – particularly market-rate housing and large-scale retail - are prohibited within its walls, the sheer volume of PDR businesses within the Yard is driving significant mixed-use residential developments in adjacent neighborhoods. Increasingly, these mixed-use projects are designed to house some tenants employed in the Navy Yard, while also supporting the broader PDR community through incentives that encourage industrial space in market-rate developments. These projects typically comprise 80 percent market-rate uses and a 20 percent capacity set-aside for new and emerging businesses. Added development capacity and other incentives subsidize below-market rents.

## RED HOOK

Red Hook, named for its red clay soil and physical features, lies in the southern part of Brooklyn along the East River. The neighborhood occupies a peninsula between Buttermilk Channel, Gowanus Bay and Gowanus Canal just south of Governors Island. Notable for their unique waterfront views, Gowanus Bay and Gowanus Canal are the only parts of New York City with a frontal view of the Statue of Liberty. Featuring a substantially smaller population density than the rest of Brooklyn (9,036 people per square mile versus 34,917 in the rest of the borough), the nearly square-mile Red Hook district attracts a large number of young adults, particularly those in their late 20s.

Historically, the Atlantic Basin was one of the busiest ports in the country. Grain from the Erie Canal would wait on ships at the Gowanus Canal before moving into the Red Hook piers, known then as the Erie Basin. With the completion of the Erie Canal and the real estate boom of the 1830s, 20 acres of warehouses became a hub of the area for the shipping industry. As this industry underwent a shift in both location and frequency, metal containers replaced barrels and bales, and fewer hands were needed to load and unload. Many shipping jobs moved to New Jersey and the economics shifted drastically. Much of Red Hook's space was rapidly vacated and the port was overtaken by garbage processing plants.

Urban renewal plans proposed a container port, a waterfront park and housing for those displaced by the port. However, these designs were abandoned as port design continued to change. Further decline and housing abandonment followed. The 1950 peak of working and living gave way to a wave of unemployment, compounded by geographical isolation and declining population. With the opening of the Gowanus Expressway and the Brooklyn Battery Tunnel, Red Hook found itself further isolated and in greater competition. Other government attempts at renewal failed due to ill-timed neighborhood investment and the city developed the waterfront into an impound lot, further discouraging people from coming to Red Hook. By 1990, the district was one of the worst neighborhoods in the United States, cited in Life magazine as the "crack capital of America."

But since 1994, Red Hook has sustained a waterfront revival. Its historically low rents, old world industrial character and views have attracted both residents and business tenants. Part of this renewal stems from the area's cultural attractions. The open pier hosts the annual Red Hook waterfront arts festival, Young People's Performance Festival and Brooklyn Waterfront Artists Coalition exhibit. The Go Brooklyn art project lists 148 artists in the neighborhood. Fairway Supermarket and Ikea are part of the neighborhood.

All of these venues are both draws for regional visitors and assets for local residents. Live/work spaces above the Fairway have shifted over time. Initially reserved for makers, increasing rents have displaced some of these industries. Now this segment of the market is shifting to nearby small (less than 10,000 square feet) warehouses. As a vehicular-based district, Red Hook offers a unique real estate product in the otherwise transit-oriented New York area – making it a magnet for businesses that rely on cars and trucks.

### Southwest Brooklyn Industrial Development Corporation

The Southwest Brooklyn Industrial Development Corporation (SBIDC) advocates for and provides services to businesses in the Brooklyn neighborhoods of Red Hook, Gowanus and Sunset Park. Recognizing the working class history of these areas, SBIDC seeks to provide economic opportunities to residents with the recognition that many are only slightly above the poverty level and may not achieve a high level of education. It ensures manufacturing jobs fit the current market and evolve to reflect rapidly changing industries to provide job security as well as opportunity.

In 2012, SBIDC placed 110 residents in jobs using only two to five staff people with two monthly screen days. In addition, direct work through the Main Streets program, job training and knowledge of local development opportunities allow SBIDC to act as a conduit between opportunity and investor. The community is heavily involved in planning and revitalization, and consults the SWBIDC for guidance about allocating Main Street grants. Communication between the SWBIDC and residents is nearly constant.

SBIDC receives funding from foundations like Robinhood and Tiger Foundation for direct placement and business retention, as well a huge annual fundraising effort that accounts for approximately 20 percent of the organization's total budget. Within the SIBDC neighborhoods, food production continues to gain popularity with city-owned property propelling the movement in Red Hook. Trends suggest that providing places for shared infrastructure and options to allow co-packing for food producers advances many first-stage entrepreneurs to the second and even third stage.

## INDUSTRY CITY

Brooklyn-based Industry City is a for-profit entity working to establish a cluster of revitalized warehouses as a destination for companies and organizations in the largest multi-tenant industrial property in the country. Supporting multiple sectors, this organization aims to become a business accelerator and a commercial and cultural hub. It provides flexible and build-to-suit rental spaces, modernizing the term "manufacturing" to include artists, fashion designers, textile and tech companies, retail, research and development. Its location offers easy accessibility to highways—a relatively unique offering in the New York real estate market. Industry City has set forth a 10-year renovation plan, demonstrating a commitment to investing in the neighborhood.

### History of Industry City

Constructed on the Sunset Park waterfront, Industry City is the largest multi-tenant industrial property in the United States. Its Greenwood Heights neighborhood was once so busy that it warranted its own rail line and police and fire departments. Industry City is accessible to the Brooklyn Queens Expressway and is one block from three subway lines.

Situated directly off the Gowanus Expressway, its 17 buildings and 6.5 million square feet of space offer one of the more accessible industrial waterfront developments in Brooklyn. Originally called Bush Terminal after businessman Irving Bush who constructed the complex in 1895, the vast warehouse complex was built on the textile, automotive and machinery industries to serve their manufacturing, storage and shipping needs.

During the late 19th and early 20th centuries, Bush Terminal was a hub for maritime operations, sugar refineries, and manufacturing. In 1970, it was 95-percent occupied with 20,000 workers. In the mid-1980s Bush Terminal was renamed Industry City and modernized to become a prototype for worldwide business developments. Today, Industry City caters to various sectors, offering flexible space options, built-to-suit outfitting, marketing and promotional platforms.

Manufacturers are attracted to its oversized freight access and elevators, loading bays, heavy power from two separate leads, infrastructure equipment storage and ample parking. Arts and retail operations like its 24-hour security, event space and structurally sound network of buildings and open space. Industry City is currently being redeveloped into 690,000 square feet of office space and 2.5 million square feet of loft/showroom space. Initially, occupancies dropped in the new configuration, but by 2012, occupancy was at 66 percent and currently remains steady with a 2,500 employees.

Industry City is organized into several enclaves that cater around various industry sub-sectors. For example, an artistic enclave is overseen by the Industry City Art Project and the Industry City Creative Work Spaces organizations. These groups allocate 46 rent-stabilized commercial artist lofts and 12 market-rate artist lofts for more established tenants. Thirty-one of the low-rent lofts are rented to established artists, who are attracted to the high-ceilinged spaces and physical support for loads up to 2,000 pounds per square foot. The lofts range in rent from $975 to $1,250 per month, and artists are not permitted to live in the spaces. This situation is volatile and subject to market forces. As of April 2013, rising PDR demand for the space had forced many artists to relocate to comparable spaces.

The City of New York has designated the area an Industrial Business Zone, which cannot be rezoned for residential uses. This designation means that artists and businesses will not be threatened by conversions of industrial space into residential lofts. It also provides tax credits for manufacturers.

Rents start at $10 per square foot for industrial space, $15 for R&D space, $20 for office and tech space, and $25 for retail space. Offering roughly one-third the rents charged in Manhattan, Industry City has been successful in attracting an eclectic mix of companies.

In terms of its physical setting, Industry City has sought to refine itself with improvements, beginning with street paving and bulkhead renovations, power distribution upgrades and modernizing the 150 elevators in the complex. Structural renovations are supplemented with amenities like sport fields, viewing areas, tidal pools and, soon, small park concessions. These developments aim to preserve this part of Brooklyn as a sustainable, urban industrial district. By investing in both the physical environment and governing policy, the area looks to balance neighborhood and industrial development. Through collaboration with the Department of Parks and Recreation, Industry City intends to preserve its history and innovative spirit through modernization, while establishing an address and destination for makers and creative enterprises.

Industry City focuses on a particular range of tenants. Its greatest competitor for talent is the city-run Army Terminal and, while the services offered by the two locations are similar, their tenant pool and target populations are different. The Army Terminal has a 30,000-40,000 square-foot minimum lease policy, which ensures below-market rents per square foot. In contrast, Industry City does not attempt to attract tenants of this size, but instead focuses on smaller tenants who pay slightly higher rents with flexible terms.

Upcoming improvements and initiatives at Industry City include a rooftop greenhouse and new businesses, such as a vodka producer and an organic ice cream manufacturer. Industry City has realized the "pull" of food as a destination, and has introduced an entertainment aspect by installing windows to allow passers-by to watch its production. The leasing company has also activated a courtyard by staging events and movie nights for tenants.

## LESSONS LEARNED

The Brooklyn experience yields key lessons and best practices for Ward 5 as follows:

» **Ensure authenticity through the re-use of old buildings** – The gritty environments of formerly industrial areas with renovated historic buildings give these communities an authenticity that is highly valued by young and creative people. Taking advantage of existing buildings helps to maintain that authenticity while providing low-cost space for entrepreneurs and the arts. Renovations of masonry factory buildings provide striking opportunities for offices and residences.

» **Renovating buildings for industrial use can have a steep learning curve** – The Greenpoint Manufacturing and Design Center (GMDC) had somewhat modest beginnings in terms of staffing and experience, and it took seven years before the group was ready to redevelop a second building. City agencies, neighborhood groups and funders had the patience to let GMDC gain experience because they support its mission. As a result, GMDC has become a highly professional organization that provides guidance to other cities interested in its model.

» **Redefine industry to attract a wide range of businesses** – Traditional industrial hubs in Brooklyn have updated their definitions of "industry" and "manufacturing" to reinvigorate their assets This process not only allows greater inclusivity for workers and budding enterprises, but also attracts a greater pool of tenants and investors—demonstrating the acceptance of creativity and innovation as part of 21st-century industry.

» **Locally produced food can drive demand for the District's industrial space** – As in New York, local food producers can be encouraged or incentivized to lease industrial space in the District. Public policies that direct agencies to purchase food locally (e.g., school districts, government building concessions, cafeterias, etc.) can create a foundation of demand that will support local food companies as well as the District's industrial zones.

» **Use zoning to benefit businesses** – Committing to long-term industrial uses with no provision for conversion to residential uses helps to assure artists and small businesses of long-term stability.

» **Spur redevelopment through partnerships with non-profits** – Some of Brooklyn's redevelopment and revitalization has depended on non-profit entities acting as "credit tenants" and subleasing to emerging businesses—offering these start-ups access to market-rate developments they otherwise could not afford.

» **Tax concessions are a helpful way to lower development costs** – Real estate tax exemptions can be a useful tool for lowering development costs. For GMDC, they required a lengthy and time-consuming effort because of requirements for extensive documentation. However, the exemptions reduced GMDC's real estate taxes by $1.1 million and allowed the center to build more tenant space which helped to create and retain more jobs.

- **Consult a tax expert to obtain financing** – GMDC's redevelopment of the McKibbin Street Industrial Center is a successful model for using a combination of New Markets Tax Credit and Historic Tax Credit financing. If a project involves tax credit financing, District staff should encourage the developer to work with a tax credit provider with previous successful financings in the District. GMDC staff members have indicated that they are available for consultations to help other cities or developers take advantage of combined New Market Tax Credit / Historic Tax Credit financing.
- **Market vehicular access as an asset** – In some areas of Brooklyn, particularly Red Hook, access to highways and an emphasis on car-based developments allow the districts to position themselves as unique offerings in an otherwise transit-oriented metro area.
- **Ensure stability for industrial tenants** – The investments made by economic development non-profit organizations in Brooklyn (Southwest Brooklyn Industrial Development Corporation, East Williamsburg Valley Industrial Development Corporation, Greenpoint Manufacturing and Design Center) enable growth and stability in existing industrial areas impacted by market-rate pressures.
- **Build relationships with neighborhoods** – For economic development agencies, fostering relationships among tenants, merchants and residents is of the highest importance, allowing them to keep their fingers on the pulse of the neighborhood—and creating the type of environments attractive to young, emerging businesses.

# CASE STUDIES IN PHILADELPHIA, PENNSYLVANIA

## INTRODUCTION

Historically an industrial hub, Philadelphia is working to sustain its production, distribution and repair (PDR) activities and leverage its higher education and life sciences sectors to support an economy of innovation. The city's early manufacturing was concentrated in multi-story, rail-served buildings on small lots. As these industries declined and relocated in the post-World War II years, they left behind extensive areas of underutilized manufacturing buildings in the city's northeast and southwest districts. Today, many of these areas are being redeveloped into sites for entertainment, artisanal arts and craft businesses, and residential loft developments.

Higher education, health care and life sciences play a central role in the Philadelphia economy. The city is anchored by several significant universities, including the University of Pennsylvania, Drexel University and Temple University along with major allied medical centers, most notably, the Children's Hospital of Pennsylvania. Although these institutions have traditionally played a peripheral role in industrial activities, more universities—particularly Penn and Drexel—are actively working to convert their research activities into marketable products. With this in mind, many developments are evolving to leverage synergies between higher education and manufacturing.

Philadelphia retains a major industrial base that has expanded to include manufacturing, warehouse/distribution, repair and other PDR uses. Each year, the industrial employment sector provides more than $5 billion in income to individuals and more than $322 million in direct payroll taxes to the City of Philadelphia. In 2010, industrial jobs accounted for roughly 20 percent of the city's total employment – 104,300 jobs. With an average wage of more than $50,000, these jobs provided employment opportunities for residents with lower educational levels and low barriers to entry. The city's 28 percent poverty rate and the need for jobs have necessitated a focused effort to retain and attract businesses that will employ those residents.

## PHILADELPHIA INDUSTRIAL DEVELOPMENT CORPORATION

Formed in 1958 as a private non-profit, the Philadelphia Industrial Development Corporation (PIDC) has spearheaded efforts to rebuild the city's economy. Half of its 30-person board of directors is appointed by the mayor and half by the president of the Philadelphia Chamber of Commerce, balancing public policy with the discipline of the private market. Receiving no operating funds from the City of Philadelphia, the corporation's revenues are generated primarily through fees for services. PIDC is self-sustaining with an annual budget of roughly $10 million and a staff of 60. Since its founding, the organization has undertaken more than 6,200 transactions, including $11.4 billion in financing and more than 3,000 acres of land sold.

PIDC is involved in a wide variety of initiatives and projects, but has remained focused on three primary activities:

- Creation of developable sites for industrial and commercial activity;

» Investment in Philadelphia businesses;
» Marketing Philadelphia to the business and investment community.

Development activity involves acquisition, assembly, environmental remediation, building demolition and site preparation of land around the city, often in organized industrial parks. These properties are located in areas with access to the regional transportation network where modern structures can be built for industrial uses that increasingly demand one-story buildings for efficient operations. Typically, the economics of land redevelopment work against covering those site assembly and preparation costs. PIDC taps brownfield clean-up funding from the Commonwealth of Pennsylvania and federal government.

The corporation's financing services include below-market-rate loans, grants and access to tax-exempt financing. PIDC packages capital investment loans for local businesses under federal and state funding programs, as well as Section 108 loans that use Community Development Block Grant funds as collateral. State grant programs for capital investment in economic, cultural, civic and historical improvement projects, and infrastructure include the Redevelopment Assistance Capital Program, Infrastructure and Facilities Improvement Program and Infrastructure Development Program.

Eligible participants include non-profit corporations, developers and private companies in eligible industries. On a much smaller scale and concentrated on minority- and women-owned businesses, working capital and loan guarantees are funded from PIDC's own financial resources. Loans for energy-efficiency building improvements and equipment also are available through the Energy Works Loan fund, supported by the city, PIDC and the Reinvestment Fund. PIDC manages the Philadelphia Authority for Industrial Development (PAID), which is a conduit for tax-exempt financing for eligible non-profit and manufacturing borrowers. PIDC's loan portfolio exceeds $500 million.

Pennsylvania's Redevelopment Assistance Capital Program provides grants for acquisition and construction of regional economic, cultural, civic and historical improvement projects. PIDC has received grants of $2 to $50 million to support different economic development projects. It also has made good use of energy efficiency grant programs.

PIDC is the nation's largest user of EB-5 visa funding, having placed more than $500 million in foreign investments. In exchange for an investment of $1 million or $500,000 in a "targeted employment area" and creation of at least 10 full-time US jobs, the foreign investor is provided a green card (resident status) with minimal delay.

### Urban Industry Initiative

The Urban Industry Initiative is an independent, non-profit corporation and city economic development agency created in 1996 with a grant from the Pew Charitable Trusts to help retain manufacturing jobs in Philadelphia neighborhoods and keep urban manufacturers from relocating to the suburbs. It organizes neighborhood industries to work together to address the issues that affect their business operations as follows:

» Encourages ongoing collaboration between local businesses and government;
» Seeks to leverage the collective strengths of area industrial businesses;
» Addresses those issues which are of greatest concern to businesses – security, neighborhood reinvestment, appearance and cleanliness;
» Accesses the strengths of the local residential and commercial communities, and provides benefits for these communities;
» Targets a neighborhood that still retains genuine business and residential vitality.

One of its initiatives, the Port Richmond Industrial Development Enterprise (PRIDE), represents businesses within an urban industrial park that tax themselves to provide services such as security cameras, litter removal, infrastructure improvements and district cleanups. Its planned capital investments include central employee parking lots, a truck staging area, sidewalk replacement, street furnishings, signage and pedestrian lighting.

The Urban Industry Initiative spawned the Manufacturing Alliance of Philadelphia (MAP) to give manufacturers a voice on issues affecting their operations. MAP has expanded its efforts to help link businesses with available properties and provide a permanent placement service. The group advertises manufacturing positions, screens resumes and finds appropriate candidates for those positions, alleviating the recruitment burden on its participating members.

### Navy Yard

The crown jewel in PIDC's portfolio is the Philadelphia Navy Yard, which dates from 1776 and encompasses seven miles of waterfront and 1,200 acres. Presenting a unique opportunity to acquire a massive site under single ownership, the Navy Yard came to PIDC on behalf of the City of

Philadelphia through the Base Realignment and Closure Commission (BRAC) to close the Navy's shipbuilding operations in Philadelphia. From 1990 to 2001, the BRAC drawdown eliminated 10,000 to 15,000 military jobs. The Navy remained with a contingent of 2,000 employees, largely focused on research and technology.

Under PIDC's direction, the Philadelphia Navy Yard has been rebuilt with upgraded infrastructure, new office construction and rehabilitation of many existing buildings for a total of 6.5 million square feet. Since its inception, the Navy Yard has attracted and retained 130 companies with 10,000 employees. PIDC took ownership of the land and facilities, undertook the master planning, established sustainability standards, solicited private developer involvement for certain areas of the Yard, found federal and state funding for infrastructure, built roads and utilities, legislated incentive programs and developed an extensive portfolio of office space with its private development partner. Liberty Property Trust was selected to develop 70 acres as a corporate business park.

A federal budget earmark provided money for shipbuilders in order to help replace the jobs lost to the Navy shipyard closing. Early in the redevelopment process, a Norwegian shipbuilding company took over the existing shipyard to manufacture ships for intra-US routes. The US Economic Development Administration (EDA) provided $25 to $30 million in funding to help diversify the economy and help the city rebound from the BRAC closure.

The Navy Yard is a designated Keystone Opportunity Improvement Zone, which provides abatement of city and state taxes. Several larger companies relocated to the Yard to take advantage of those tax incentives. Urban Outfitters consolidated its operations from six different Philadelphia buildings into multiple historic structures in excess of 350,000 square feet. It turned dilapidated shipyard buildings into offices, common areas, cafeteria and coffee shop, investing $100 million in restoration and using reclaimed materials to preserve the history of the site. Its workforce expanded from 600 to 2,000 employees. Tastykakes relocated its operations to the Yard, a move funded by a $32 million loan from the state and PIDC. Currently, GlaxoSmithKline is developing a new headquarters facility in the Yard.

The Penn State Energy Efficient Building Hub is being developed in the Navy Yard with $180 million in funding from the US Department of Energy (DOE). This R&D center will build on related Navy research and will involve other universities. The Center for Building Energy Education and Innovation will be a living laboratory for demonstrating the strategy and technique for retrofitting commercial buildings for energy efficiency. The goal is to reduce energy usage by 20 percent in Philadelphia's commercial buildings by 2020. At build-out, the EEB Hub is expected to include 11 academic institutions, two DOE labs, six high-profile global industry partners, regional economic development agencies and community and technical colleges. More than 90 organizations have secured $130 million from four federal agencies to establish a model of energy efficiency in buildings for the nation.

### TJ Maxx

One of the PIDC's greatest recent successes has been locating a major TJ Maxx regional distribution facility (1 million square feet) that employs more than 1,500 workers. The value proposition for TJ Maxx was not land cost, but rather access to a stable, well-trained workforce. More PDR employers are moving back into cities, because finding and retaining stable high-skill employees trumps the lower up-front costs of suburban sites. If workers have to commute long distances to PDR jobs, they are less likely to stay in those jobs. The resulting high turnover is expensive and disruptive to company operations.

### American Street Corridor

The American Street Corridor is a historic industrial district west of Center City. Developed before World War II, this area is characterized by multi-story industrial buildings on small lots and a series of vacant parcels and buildings. The corridor was designated as an Empowerment Zone in 1996 with an aggressive program of vacant land stabilization, murals, public safety initiatives, litter removal, housing counseling, children and youth programming, façade grants, business rent rebates and financial and technical assistance. To protect the long-term viability of the corridor's industry and to attract additional investment, the corridor's industrial zoning was retained to exclude residential uses. The concern was that land and building price escalation engendered by gentrification would force industry to relocate.

A citywide industrial land use study completed in 2010 reached the conclusion that the corridor's supply of obsolete industrial buildings without access to regional transportation networks was not competitive for industrial redevelopment at the scale required to fill the vacant buildings and lots. The multi-story buildings are not conducive to the operations of large industrial companies, which rely on single-story, high-ceiling facilities to maximize the use of technology. But their small floor plates make them particularly attractive for residential reuse. The study recommended rezoning the lower portion of the corridor between Girard and Berks avenues for mixed-use, commercial and residential uses. A 320-unit, $70 million mixed-use development is proposed now for a vacant steel site.

Crane Arts, a 100-year-old former plumbing warehouse in the corridor, has been converted into the region's preeminent artist clusters. It offers four floors of artist studios and suites with monthly rents of $280 to $2,500 for 300 to 4,000 square feet. Also provided on site are major exhibition and event spaces. The facility accommodates dozens of studios, arts organizations and galleries, and attracts visitors from across the region and beyond.

### Lower Schuylkill River Plan

The Lower Schuylkill River portion of Philadelphia is a cluster of older industrial areas in southwest Philadelphia. The City Planning Commission, PIDC and Pennsylvania Department of Commerce invested significant funds and manpower into master planning the area. The resulting recommendations suggest connecting University City to the Philadelphia Navy Yard and Philadelphia airport. Dividing 2,000 acres into 3 zones, the plan focuses on creating areas for innovation, logistics and energy. The innovation district proposes low scale PDR facilities supporting Penn, Drexel and Children's Hospital research, while the logistics hub focuses on creating a major distribution hub with access to regional highways, airport and rail.

Finally, the proposed energy corridor would improve major fuel facilities adjacent to the Lower Schuylkill. The plan calls for investing $411 million in public infrastructure, including five miles of trails, 46 acres of green space, a new River Road link to University City and a district-wide stormwater management system.

### Globe Dye Works

Until 2005, Globe Dye Works was a 200,000-square-foot yarn-dying factory occupying 17 buildings. It was purchased and redeveloped by a woodworking company and then shared with artists, artisans and fabricators. Touting itself as a place "where art meets industry," the operation provides a range of maker spaces, from 500 square-foot artist studios to fabrication spaces of 30,000 square feet or more. Tenants include a coffee roaster, an art framer, several artisan food producers, a custom floral designer, a book designer, a photographer and the Philadelphia Wooden Boat Factory.

## LESSONS LEARNED

The Philadelphia experience yields key lessons and best practices for Ward 5 as follows:

» **Focus on the full spectrum of industrial jobs** – To attract a wide range of maker, creative and start-up businesses, and research and development, "industrial" must be defined beyond manufacturing and smokestacks.

» **Support private, quasi-private and non-profit governance** – The market discipline provided by a board of directors with substantial private-sector representation is invaluable in focusing the economic development activities and achieving financial self-sufficiency.

» **Hire trained staff with resources and sustained focus** – The Philadelphia Industrial Development Corporation (PIDC) model emphasizes the importance of qualified staff focused on industrial development on a day-to-day basis, working with businesses and pro-actively seeking out and developing industrial properties.

» **Clearly identify the organization's mission** – PIDC's focus on creating jobs for the 28 percent of the city's residents that live in poverty has helped it adapt its programs and activities to expand beyond manufacturing to include logistics and distribution jobs, which provide valuable career-ladder opportunities.

» **Scale the investment to development opportunities** – PIDC's full-time staff of 60 employees is justified only by the volume of its transactions, its success in creating jobs, the extent of poverty and the vast amounts of obsolete industrial properties.

» **Control the site to ensure success** – Because the costs of assembling and preparing industrial properties often exceed their market value and ultimate sales price, the private sector cannot be expected to undertake major brownfield remediation and site preparation. The costs and the associated risks inevitably drive an investor to seek higher returns from commercial or residential uses rather than industrial. Much of the success of the Navy Yard can be attributed to PIDC's ownership of more than 1,000 acres not encumbered by existing tenants or encroachment by nearby residential development. It allowed PIDC and its development partners to control the total environment and to make and benefit from placemaking investments.

» **Support operations through fees** – Revenues from financing and other fees have allowed PIDC to achieve self-sufficiency in supporting its own operating costs.

» **Create improvement districts** – The Port Richmond Industrial Development Enterprise program encouraged by the Urban Industrial Initiative shows the potential for a special assessment district approved by the businesses to provide public safety, cleanup and capital improvements.

- **Protect industrial uses** – Philadelphia's experience underscores the importance of protecting industrial zoning and preventing conversion of industrial facilities to other uses. However, in areas that are no longer very competitive for industrial uses, the supply of industrially zoned land may exceed the potential demand for industrial use. In those situations, zoning for mixed-use development may be appropriate.
- **Share space and equipment** – Grove Dye Works, 3rd Ward and Crane Arts demonstrate the appeal of shared space and equipment in supporting artists, artisans and other makers. Co-working and shared educational experiences also help to build community and engage nearby residents.
- **Expect job creation to occur at different rates** – Relative to the 1,500 jobs created in one major distribution facility in Philadelphia, the number of jobs associated with the artisan and maker market pales in comparison.
- **Partner with universities, governments and industry** – The Penn State Energy Efficiency Building Hub initiative, encompassing the Navy, 11 academic institutions, federal labs, industrial partners and local community and technical colleges, underscores the value of broad-reaching partnerships that can pursue major federal and other funding.

# CASE STUDIES IN PITTSBURGH

## INTRODUCTION

Pittsburgh is an outstanding example of a Rust Belt city that has shifted its economy from heavy industry to higher education, medicine and technology. The city developed as a manufacturing and distribution center, building on its location at the confluence of three rivers and multiple railroads. Once a major center of steel production, Pittsburgh suffered a decline in the 1970s as this industry moved overseas. The city became a home to several Fortune 500 companies until corporate mergers eliminated several major headquarters operations in the 1980s.

Over the past two decades, the University of Pittsburgh, Carnegie Mellon University, Duquesne University, Point Park University and other institutions of higher education have emerged as major drivers of the local economy. Through the transfer of knowledge to practical applications, support for entrepreneurs and education of a valuable workforce, these institutions are helping to transform Pittsburgh into a technology center.

Pittsburgh has spent decades investing in its communities to create a high quality of life. Developed on a series of hills and valleys, the city has remained relatively compact without the sprawl and abandonment of the urban center experienced in many Rust Belt cities. Topography limited the alternatives for suburban development and the downtown has maintained its regional importance despite the competitive industrial and business parks in the area. Within the city, light rail and a network of bus routes have helped guide development patterns.

A fortunate legacy of the city as a major corporate center is an extensive base of foundations and other philanthropic organizations, which have invested in Pittsburgh's arts, culture, education and urban development through the years. For its size, the city has several outstanding museums, sports venues and public parks, and has supported a major initiative to reclaim the rivers as an amenity for residents.

## NEIGHBORHOOD REVITALIZATION

Pittsburgh's civic amenities and relatively affordable housing have helped the city to attract and retain Generation Y/Millenials who have come of age since 2000. Interested in urban living, these young residents have renovated inexpensive houses in historic neighborhoods, bringing new energy and investment to the city. Placemaking amenities, including town squares and riverfront improvements, have helped to attract this interest in the city and generate urban vitality in several key neighborhoods.

The city's economic struggles over several decades have spawned a tradition of aggressive public, non-profit and private redevelopment efforts. Historically, public/private partnerships in the city have faced a 20- to 40-percent financial gap between the revenues generated by development and the cost of completing the projects, and the city and region have developed tools to bridge the gap.

Relative to the issues facing the District's Ward 5, three Pittsburgh neighborhoods have particular relevance:

- Strip District with its concentration of food and creative industries, and a growing surge of new and renovated loft-style housing;
- Lawrenceville in its mix of industry, retail, housing and emerging tech firms;
- East Liberty in its emergence as a major tech and retail center.

## REDEVELOPMENT ORGANIZATIONS

In considering these three Pittsburgh neighborhoods, it is important to understand the public and private non-profit groups – that spearhead economic and industrial development in the city. They are supported by a network of philanthropic organizations, non-profits and neighborhood-based Community Development Corporations.

The Urban Redevelopment Authority of Pittsburgh (URA), incorporated in 1946 by corporate and civic leaders, is the city's economic development agency. It operates under an independent board appointed by the mayor. The URA acts as a catalyst and facilitator for a broad and diverse portfolio of projects and investments, ranging from land assembly and business support to housing construction and rehabilitation.

Aggressive and creative in its pursuit of funding opportunities, the URA pursues major federal grants in support of its redevelopment activities and partners extensively with the region's foundations and other non-profit organizations. Though not involved in workforce development, the URA requires neighborhood hiring and contracting for its sponsored redevelopment projects.

URA's Center for Innovation and Entrepreneurship works with small businesses. Another URA affiliate, Pittsburgh Urban Initiatives, LLC, is a community development entity that has received $90 million in federal tax credits since 2011 to invest in projects throughout the city. The URA also operates the Pittsburgh Technology Center, a state-of-the art riverfront office park and regional research and development center that houses several major corporations.

The other major group is the Regional Industrial Development Corporation (RIDC) of Southwestern Pennsylvania. This independent private non-profit was formed in 1955 by business, corporate, government and labor leaders to approach economic development from a regional perspective. It aims to preserve, strengthen and expand the region's employment base through retention and expansion of job opportunities, and by developing and promoting programs that assist in the creation of a more diversified regional economy.

RIDC focuses on manufacturing, assembly, distribution and research and development through creation and operation of urban and suburban industrial parks, and much of its inventory is in the suburbs. The non-profit invests in new and redeveloped buildings, and supports area businesses through industrial revenue bonds and other financing tools for environmental assessment and remediation, infrastructure, building construction and working capital. The group's private, non-profit status means that a major portion of its funding for new investments is generated by the sale or lease of its land and building assets, particularly now when state and municipal budgets are tight.

Several of Pittsburgh's most successful redevelopment efforts have been directed, at least in part, by neighborhood-based Community Development Corporations (CDCs), such as East Liberty Development, Inc. and the Lawrenceville Corporation.

### The Strip District

Pittsburgh's Strip District is a one-half square-mile area in the flood plain of the Allegheny River, stretching roughly two miles east from downtown along a freight railroad line. This former center of manufacturing mills, foundries, factories and wholesalers became the major focal point of food distribution for the region at the beginning of the 20th century. The development of a terminal supported the nightly auctioning of meats and produce brought to Pittsburgh by rail.

The major factories are now gone, but the area's food cluster remains. In the 1950s, the Strip had 71 wholesale produce dealers. By the 1970s, that number had dwindled to about two dozen as supermarket chains contracted directly with growers and major distribution companies moved to industrial parks along interstate highways. The Pennsylvania Railroad stopped serving the area in the 1980s and the URA purchased the terminal in order to preserve the businesses and jobs located within the building. Several Individual family-owned businesses bought buildings in the area and held on through the transition.

Now this portion of the Strip District is home to an eclectic mix of businesses, including food producers and wholesalers, food retailers, restaurants, cafes and nightclubs. It has even become a tourist attraction with a cluster of antique stores and tourist memorabilia taking advantage of older storefronts. The primary land use, however, is parking for downtown office workers and visitors to PNC Park and Heinz Field located on the north side of the river and connected to the district by bridges.

The Buncher Company purchased land from the Pennsylvania Railroad in its bankruptcy in the 1980s. Buncher has an option to purchase the produce terminal from the URA and proposes to redevelop the building along with its property holdings as a mixed-use riverfront development. The company plans to demolish one-third of the terminal and rehabilitate the remaining portion for office and retail use. It found the rents achievable through continued use for food wholesalers and retailers could not support the high costs of adding heating, air conditioning and restrooms. The financial returns from office and retail are also insufficient, but the developer is cross-subsidizing this historic structure from the higher returns achievable along the riverfront. Buncher has secured rezoning for the mixed-use development with housing, office and retail.

Public investment in Strip District infrastructure has been limited to date. The planned development of the Buncher holdings will be supported by major new infrastructure investment using state capital budget funds and possibly tax-increment financing (TIF). The city is currently pursuing potential development of a streetcar or circulator to better serve the Strip District and parts of Lawrenceville, connecting these areas to downtown and a regional bus route.

Of the remaining tenants in the terminal, one company is going out of business and another would not sign a lease for replacement space for more than three years. Another food company is relocating to a URA site four miles to the east with better regional access. It will be doubling its size and adding a greenhouse to provide its customers with year-round specialty vegetables grown locally. One remaining tenant, Pittsburgh Public Market, is relocating one mile east. Its 16 merchants are primarily specialty food retail vendors rather than a full-line produce market, and it operates only three days per week. With relocation, the market will be adding some craft shops.

An organic grocery opened in the Strip with about 22,000 square feet of space, but closed after failing to achieve adequate sales. It has now been replaced by a 10,000 square-foot market that combines locally grown organic foods with cooking demonstrations, a café and a coffee bar – a food-based experience business. The market occupies retail space in a new parking garage – along with a restaurant, deli and antique store – that was constructed to serve an emerging residential area by the developers of the Cork Factory Lofts, a 279-apartment building in the heart of the Strip.

Further east from the concentration of food-related businesses, the supply of available industrial buildings has attracted a variety of industrial and construction suppliers, a major trucking company and a growing number of creative industries. Businesses and institutions include architecture, design and communications firms, furniture stores, theater, opera, ballet and Society for Contemporary Crafts. The district's gritty environment, authenticity, low-cost space and creative vibe give it a unique character.

The Lawrenceville Corporation has branded the Strip District and Lawrenceville as the 16:62 Design Zone (16th to 62nd Street), marketing to the home and office design industry. The corporation conducts joint marketing and networking events.

Several substantial masonry mill buildings still remain. Most have been reused for condos and apartments over the past 10 years. The URA helped to fund a parking garage to expand the most successful building, the Cork Factory Lofts, which took advantage of the federal historic tax credit. The same partnership developed a new adjacent apartment complex, called Lot 24, which was 100-percent leased without marketing.

On the western end of the Strip, adjacent to the Convention Center and Cultural District, the District has central business district zoning. A new office building was built for Seagate, a disc drive manufacturer, but now is only partially occupied due to the company's departure and its specialty fit-out. The historic Ice House was reused for the Senator John Heinz Pittsburgh Regional History Center, a major attraction. A Hampton Inn was also built.

The Strip District is similar to Ward 5 in its cluster of older industrial buildings and concentration of food-related businesses. However, the area is different in its concentration of land holdings by a single private entity and relatively small population. Only a few blocks of residential units persist in the midst of the industrial uses. For the properties west of 21st Street, site control has been an issue through the years as the owner has allowed major acreage to remain as surface parking lots for decades. However, the area east of 21st Street is emerging as a very dynamic real estate market where multiple property owners are coordinating investments in infrastructure and open space to generate value and demand for three new real estate developments.

Traffic congestion has diminished the district's appeal to transportation companies. The one remaining major trucking company is relocating its operations to a more accessible site, although the headquarters will remain in its riverfront office building. Its move will open up property for a new 300-unit residential development.

### Lawrenceville

Directly east of the Strip District is the Lawrenceville neighborhood. It is divided between Lower, Central and Upper Lawrenceville. This area developed to support heavy industry along the Allegheny River with a railroad line, worker housing and a retail district. Much of the riverfront is now underutilized or devoted to uses such as bus parking. Its greatest similarity to Ward 5 lies in the mix of industry and housing in close proximity and the underutilization of many properties. Unlike the Strip District where one owner controls a major portion of the land, Lawrenceville has multiple owners. Its revitalization has been more a story of gradual improvements, piece by piece, rather than wholesale clearance and redevelopment.

Recently, the City of Pittsburgh adopted a plan to revitalize the area as part of the Allegheny Riverfront Green Boulevard, which includes both the Strip District and all of Lawrenceville, extending six miles east from downtown. Sponsors include the URA, federal Office of Sustainable Communities and Riverlife, a major non-profit formed to reclaim, restore and promote Pittsburgh's riverfronts.

The plan builds on the potential for joint development with the Allegheny Valley Railroad, a short-line freight line running through the six-mile corridor. Commuter rail service on the line is being explored as a way to connect the riverfront area with communities located to the east. Within the corridor, bike and pedestrian paths will be constructed along with new access routes to the river and major new open space amenities, including the future expansion of the Three Rivers Park from downtown along the waterfront.

The plan calls for a mixed-use community that combines residential and recreational uses with industrial and commercial uses, and provides existing residents with access to the riverfront, which has not been available for most of the neighborhood's history. Also included in the plan are street and streetscape upgrades to the existing infrastructure, which is generally dilapidated.

Three major industrial investments have sparked revitalization of Central Lawrenceville from 40th to 49th streets:

» Carnegie Mellon University's National Robotics Engineering Center (NREC) is a converted steel mill with an adaptable first floor for robotics prototyping and testing, and a mezzanine for offices and meeting rooms. The center was funded by the URA and federal and state grants. NREC now occupies more than 108,000 square feet and employs scientists, technicians, designers and fabricators. It uses surrounding property to test many of its robots.

» The Chocolate Factory is a fully renovated 71,000 square-foot, multi-tenant building that accommodates technology companies of varying sizes. The private, nonprofit Regional Industrial Development Corporation (RIDC) of Southwestern Pennsylvania constructed the facility and operates it as an incubator providing low-rent space to early-stage companies.

» The Lawrenceville Corporation in collaboration with ArtSpace renovated the historic Ice House for its offices, artist studios and tenant spaces for businesses related to tech and robotics.

Complementing these investments have been improvements to existing storefront spaces just a few blocks from NREC and the river. Building on the success of the Strip District, creative uses have moved east along Butler Street, bringing new restaurants and cafes as well as small retailers. Architects, designers, furniture stores and other design-type tenants have helped to rejuvenate the Butler Street commercial strip. Relatively modest façade improvement investments have resulted in a dynamic district for urban, one-of-a-kind retail and nightlife.

In the historic industrial district along the river, several older factories and warehouses have become home to several private robotics companies with ties to NREC. One difficult issue for retaining such second-stage companies is the high cost of newly built space. Most of the firms at that stage of development are not yet able to pay higher rents and they lack the credit history that would encourage a private developer to invest in building or finishing out space for them. State funds will cover about 25 percent of the cost of new industrial space, but they are insufficient to close the financial gap between the cost of building and the rents that these companies can pay.

At least one heavy industrial user remains in Lawrenceville– a foundry that manufactures couplers for railroad cars and is currently expanding. RIDC has demolished most of another plant, the Heppenstall complex, creating a 30-acre site for future industrial use. Some private infill development has occurred in the area over the past decade or two, including a 158,000 square-foot warehouse/ distribution facility built by the Buncher Company along the riverfront. The URA has secured an option to buy that building in the future as part of a larger deal that included selling improved industrial land at the 62nd Street Bridge to Buncher. However, the price is tied to the remaining life on the existing lease and the URA likely will wait a few years for the price to decline before acquiring the facility. A private flex building was developed four or five blocks away, but had trouble attracting tenants at the rents required to cover development costs. It has since been leased to Goodwill Industries.

The neighborhood includes several blocks of modest housing developed for workers in the area's mills. Those row houses were available at very low prices, and many were acquired and renovated by graduate students and other young workers and families. With their investments and the Butler Street storefront improvements, the neighborhood is now attracting some small new construction residential developments. The URA has helped underwrite a couple of these developments to help the community achieve a wider mix of incomes. Currently, there are several market-driven residential townhouse clusters under construction.

In Lower Lawrenceville, between Central Lawrenceville and the Strip District, a movie studio was developed in stages by the owner of a large warehouse and three successive production companies. The first two companies began conversion of the warehouse but ultimately went out of business. The third company has been able to purchase the studio and complete the improvements. Blackbird Artist Studios offers affordable studio and retail space for professional artists. It was developed by Artists and Cities, and is now owned and operated by the Lawrenceville Corporation. Artists commit to open studio hours when the public is invited to watch them work. Aquion, a battery manufacturer, established a research and prototyping operation in the area.

The city's Department of Public Works controls at least one prime riverfront property, the tow site used for parking and truck maintenance. The URA has pushed for years to repurpose that land for higher and better uses, but the city has been challenged to find alternate locations within the municipality.

Site control has been a major issue affecting the potential for revitalization of Central Lawrenceville. A major concrete company that uses dredge material from the river is blocking the key access point to the river. The URA has been working with the company for more than two years in an effort to help it relocate to another riverfront site. However, there are only a few suitable sites and the preferred parcel was bought by another party before the deal could be finalized. The relocation carries a high price tag for replacing the existing facilities so that the company can stay in business.

The Buncher Company warehouse also blocks waterfront access. Its truck-oriented use does not need frontage on the river and brings unwanted truck traffic through the neighborhood. Acquisition of the warehouse is a key to implementing the city's plan to revitalize the area as part of the Allegheny Riverfront Green Boulevard.

One major historic mill building was leased to an industrial manufacturer several years ago. Although the company no longer uses most of the building for its intended purpose, its lease provides long-term rights and the ability to block the reuse of the structure for other purposes. The company's owner has demanded a major cash payment to relinquish its lease rights.

Site control became an issue for the URA and RIDC over several acres of prime land in the middle of the community. With a mandate to create jobs, particularly industrial jobs, RIDC could not use its land for new housing and continued to market the site for conventional industrial uses, driven in part by its need to recoup its investment. The URA and RIDC attempted to reach an agreement for transfer of the land to the URA in exchange for URA-owned properties adjacent to other RIDC holdings in the city. However, no agreement could be reached on the valuations of those assets and the transfer fell through. The RIDC did fund a new building for new offices to support the foundry and additional space to help attract new businesses to the area. Its site development effort included constructing a portion of the required infrastructure upgrades next to the property.

Funding sources typically available to the URA are not oriented to land and building acquisitions. But, historically, the URA has made use of city funds to purchase major brownfield sites abandoned by steel mills. Most of the currently available funding resources are tied directly to creation or retention of jobs, and these acquisitions do not qualify. Funding limitations are a major concern as the URA proceeds with plan implementation. Tax-increment financing is available to the plan but insufficient to underwrite the major infrastructure upgrades required. The city and Riverlife are pursuing a variety of infrastructure grant programs from the US Department of Transportation and the Commonwealth of Pennsylvania. The railroad has been successful in securing Federal Railroad Administration funding for modifications to rail sidings for individual businesses.

Intensification of the industrial uses in the area has caused some backlash from neighborhood residents. Most of the houses have no garages or driveways, relying on street parking. With formerly empty houses now renovated and occupied, and expansion of the workforce at NREC and the Chocolate Factory, residents are finding it hard to secure parking near their homes. Potential development sites are tied up in parking for area employees. Residents also are resisting introduction of new industrial uses that depend on truck traffic in spite of the area's industrial history.

### East Liberty

The East Liberty business district was Pittsburgh's third largest commercial district in the 1950s, but it began to falter in competition with newly developed shopping centers. An ill-advised urban renewal investment converted the major street into a pedestrian mall with traffic detoured around one-way streets. Resulting in the demolition of roughly one-third of existing businesses, it was ultimately unsuccessful. This clearance, combined with construction of three high-rise public housing complexes, devastated the neighborhood, leading to four decades of decline. A later effort to develop Motor Square Mall, an indoor shopping center, also was unsuccessful and became back-office space.

Now East Liberty is emerging from these past mistakes as a major retail and tech center. The public housing towers have been demolished and are being replaced with scattered townhouses and apartments to create mixed-income communities. Though not an industrial district, the neighborhood provides good examples of public investment in infrastructure that have attracted private investment and led to technology companies' reuse of historic buildings.

East Liberty adjoins several Pittsburgh neighborhoods, including Shadyside, an affluent community with vibrant street retail. The University of Pittsburgh and Carnegie Mellon University are located primarily in Oakland, four miles to the west. Facing a severe shortage of office space and land in Oakland, these institutions and other universities have located facilities in East Liberty. The University of Pittsburgh leased 23,000 square feet of space for researchers in its department of rehabilitation science and technology. Chatham University acquired a nearby 250,000 square-foot office building for graduate programs.

East Liberty's authentic environment has attracted an eclectic mix of tech companies, entrepreneurs, night life and restaurants. The city's first Whole Foods opened in the neighborhood in 2002, after Home Depot arrived in 2000; both were developed with tax-increment financing. A two-story Target opened in 2011.

Bakery Square is a $150-million revitalization of the historic 300,000-square-foot National Biscuit Company building for mixed uses, including Google's Pittsburgh research hub (40,000 square feet), retail, fitness center, coffee shops and restaurants. The development is being expanded to a second phase with new construction.

One of Bakery Square's tenants, TechShop, provides access to more than $ 1 million of equipment, software and training for fabrication. It offers prototyping equipment and facilities to members, including laser cutters, plastics and electronics labs, a machine shop, a wood shop, a metal working shop, a textiles department, welding stations and a waterjet cutter. Funding was provided in part by the Defense Department's Defense Advanced Research Projects Agency (DARPA) and by the US Citizenship and Immigration Services' EB-5 program, which is designed to provide permanent residency to foreigners who invest in job-creating projects. A special program provides a free one-year membership for military veterans.

Three organizations have spearheaded East Liberty's revitalization in accordance with the 1999 community plan and vision: East Liberty Development, Inc. (ELDI); East End Cooperative Ministries (EECM); and the East Liberty Quarter Chamber of Commerce (ELQCC). Formed by the ELQCC in 1979, ELDI is a 501(c)(3) community development corporation that has mobilized community businesses and residents in a comprehensive revitalization effort. Its activities included an aggressive program of acquiring all abandoned property in East Liberty, renovating those that could be saved and converting others into community gardens or side lots, stabilizing the residential community.

In recent years, ELDI has pursued investments and policies designed to help create a sustainable community, including construction of prototypical energy-efficient houses. Measures to mitigate stormwater runoff have been incorporated into a series of public area improvements. Green infrastructure includes geothermal heating and cooling systems for 800 new homes.

To achieve this sustainability, the development group partnered with area stores and institutions. It owns the Beauty Shoppe, a 4,000 square-foot co-working space run by Thinktiv, Inc., a venture accelerator, and formed a partnership with the Mosites Company, a local real estate development and property management firm. This joint effort has attracted significant investments in the area from major retailers, connecting the districts of Shadyside and East Liberty with a new commercial hub.

ELDI benefited from the creation of the East End Growth Fund, a pool of pre-development funds from local foundations, banks, nonprofits, URA and state. The funding supported site assembly and development of design guidelines. Its initial $4 million leveraged $66 million in private investment from 2001 to 2006.

EECM, an interfaith ministry of 40 congregations, has been working in East Liberty and other East End neighborhoods since 1970, helping at-risk children and youth, the hungry, the homeless and others in need. Its deep community roots and demonstrated commitment to social needs gave the neighborhood planning effort great credibility.

The ELQCC represented the interests of businesses and property owners in the planning process. This group helped merchants and landlords understand the long-term potentials of working together toward a shared vision rather than simply consider short-term profits. It succeeded in enlisting their support and participation in the community's revitalization.

Working together, the three organizations ensured that the neighborhood plan addressed economic, social and physical concerns, and developed solutions acceptable to the entire community. Transportation infrastructure has been enhanced with the creation of a connected busway with new pedestrian bridges and intersection improvements. The federal government has approved Transportation Investment Generating Economic Recovery (TIGER) funds for the construction of a parking garage to be executed by a public-private partnership.

Arts have played a key role in East Liberty's development, building on the appeal of large, affordable spaces separated from residential neighbors. The Kelly Strayhorn Theater for community performing arts was renovated with URA and philanthropic funding in 1999; it presents innovative works in dance, theater, music and live art. VIA Pittsburgh, a collective of artists, musicians and event producers, sponsors an audio/visual festival in temporary space. Private entertainment venues have also helped draw interest to the area. Now that the retail district is successful, rents are increasing and pricing out some of those arts uses.

## LESSONS LEARNED

The Pittsburgh experience yields key lessons and best practices for Ward 5 as follows:

» **Ensure authenticity through the reuse of old buildings** – The gritty environments of formerly industrial areas give Pittsburgh's communities an authenticity that is highly valued by young and creative people. Taking advantage of existing buildings helps to maintain that authenticity while providing low-cost space for entrepreneurs and the arts; however, only a few young companies are prepared to invest in building fit-out or purchase. Renovations of old factories and steel mills provide striking opportunities for offices and residences.

» **Placemaking is key to developing technology clusters** – East Liberty's success in attracting Google and many other technology companies is due in large part to its emergence as a well-rounded community with retail, restaurants, entertainment, arts, affordable housing and pedestrian-oriented environments. Public amenities, such as open space and bike trails, have been strategically located to connect commercial and residential assets, which in turn attract entrepreneurs, knowledge workers and the companies depending on those workers.

» **Site control is challenging** – Redevelopment in an established industrial district is often very dependent on achieving control of key sites that may not be easily relinquished by their owners. Potential tools for land acquisition include swaps of other city-owned land.

» **Partnerships with non-profits are crucial to the vision** – Much of Pittsburgh's redevelopment and revitalization has depended on partnerships with major foundations, philanthropic partners and non-profits for whom strategically targeted investment is mission-appropriate. The long-term view and willingness to make "patient" investments has enabled the implementation of holistic plans. They have enabled the creation of public assets, such as open space, riverfronts, bikeways and green infrastructure, the financing and construction of which usually spans changing cycles of political leadership.

» **Government programs can bridge funding gaps** – In Pittsburgh, public authorities such as the URA have played an important role in providing a variety of funding programs and financing capacities to bridge gaps in the real estate market. Those entities need professional staff and institutional flexibility to take advantage of every-changing resources and stable governance to manage political and neighborhood change.

» **Supply sufficient employee parking** – Employee parking for local businesses should be adequate to prevent backlash from residents no longer able to park in front of their homes. Surface parking commands too much land, but the land economics do not support construction of structured parking. Where it occurs, structured parking is often financed as a loss leader.

» **Start-ups require affordable space** – Incubators provide invaluable support through technical assistance and inexpensive start-up space. To retain those start-up companies as they grow out of the incubator, the area needs to be able to offer existing industrial space that does not cost as much as newly constructed space. Most tech companies are not equipped to undertake a real estate investment and prefer to rent space that is ready to move in. This can be a problem for landlords because these companies do not have a credit history.

» **Consider shared facilities and equipment** – TechShop, coworking and other opportunities to share space and equipment allow early-stage companies to conserve their limited capital. WiFi is a critical resource for most new companies.

» **Engage the entire community in planning** – Long-term support for a plan and its implementation is built during the planning process by engaging a variety of community groups to consider social, economic and physical issues. Forming partnerships with organizations that have deep roots in the community is crucial to gaining this support. Faith-based and other trusted community organizations should be integral partners and planning processes must be continually refreshed as circumstances, partnerships and political cycles change.

» **Provide opportunities for existing businesses and residents** – Revitalization plans need to allow existing businesses to stay and grow, along with providing job opportunities for neighborhood residents. They should not focus solely on the development strategies and physical improvements.

# CASE STUDIES IN SAN FRANCISCO AND WEST BERKELEY, CALIFORNIA

## INTRODUCTION

The following case studies of Pier 70 and 5M in San Francisco and development of industrial zones in West Berkeley examine the recent growth of small manufacturing businesses, characteristics of those firms and their different types of spaces. It also looks at efforts by public agencies and private developers to support the growth of these new businesses. Redevelopment in San Francisco and West Berkeley has succeeded in maintaining an industrial character while simultaneously attracting other uses, including office, research, residential and retail, through new construction and adaptive reuse of existing structures.

During the research into these case studies, it was discovered that this conversion process in San Francisco and West Berkeley pushed some industrial tenants to relocate to other areas. In recent years, this pressure has been lessened somewhat by an increased demand for industrial space.

## SAN FRANCISCO CASE STUDY

### Small-Scale Manufacturing in San Francisco

Contributing to the success of industrial building re-use in San Francisco are groups dedicated to promoting the city's manufacturing sector. One of the leading organizations is SFMade, a non-profit founded in 2010 that represents 400 local manufacturing companies. It encourages innovation and entrepreneurship, and operates programs for business advisory services, industrial real estate assistance, hiring assistance and youth apprenticeships.

Most notably, SFMade created a nationally recognized brand platform that promotes consumer awareness of locally-made products. It publishes and distributes Discover Locally Made, a free map showing the locations of more than 70 retailers that sell goods produced by SFMade members. It also offers a mobile shopping tool for smartphones and tablets, and its SFMade decals are displayed in the windows of stores carrying member products.

In 2007, SFMade's founder, Mark Dwight, started Rickshaw Bagworks, a design and manufacturing company in the historic Dogpatch neighborhood. Previously, Dwight was CEO of Timbuk2 Designs, another San Francisco-based bag manufacturing company. He is active in many San Francisco civic organizations, worked for 20 years in high-technology and consumer marketing, and lives in the city's South of Market neighborhood.

SFMade has six paid staff members and 20 percent of its $500,000 annual budget is funded by the City of San Francisco and other public agencies. Approximately 25 percent of SFMade's budget is contributed by financial institutions such as Bank of America, Wells Fargo, Bank of the West, Citibank and USBank through Community Reinvestment Act funds. Corporate sponsors include Timbuk2, Rickshaw Bagworks, Forest City, Levi Strauss & Co., Banana Republic (owned by Gap), Google, Heath Ceramics, Whole Foods, FedEx and others. SFMade also occupies premises free of charge in the San Francisco Chronicle Building (now owned by Forest City) in the South of Market neighborhood.

### Emerging Urban Manufacturers

According to data from SFMade, its membership increased from 102 in 2010 to 398 in 2012. A recent survey indicates that 31 percent of its members (122 manufacturers) have been launched since 2010.

Most SFMade members produce consumer goods and their largest sectors are apparel, accessories, food and beverages. Emerging sectors that are gaining strength include furniture and green building products. Another interesting trend has been an increase in manufacturers of small accessories that combine traditional materials like wood, metal and fabric with technology.

A recent survey indicates that 47 percent of SFMade members produce 100 percent of their product in-house, while 40 percent produce the majority of their products through a combination of San Francisco and Bay Area manufacturing partners. Only 11 percent partner with a manufacturer located elsewhere in California or another location in the US or overseas.

Because so many SFMade members produce consumer goods, most of them are opening retail operations, either on-site or online, in order to sell to customers directly. More than 75 percent of SFMade companies operate e-commerce sites and 35 percent have a company-owned physical store that is a stand-alone retail outlet or in a factory. SFMade members indicate that direct sales to customers generate higher revenue and build stronger brand loyalty.

Even SFMade members who operate their own store or e-commerce site make an effort to maintain strong connections with local independent retailers. Such shops are valued as an important sales channel and a relevant source of consumer feedback. In turn, local shop owners benefit from their alliances with local manufacturers as well as their association with the SFMade brand.

SFMade is gaining additional exposure from inventive partnerships, such as a national airport concessionaire at San Francisco International Airport. A SFMade store is planned for the airport's international terminal, giving travelers the opportunity to purchase locally produced items.

### Space Requirements of SFMade Members

A recent survey of SFMade members indicates that 40 percent are seeking expansion space, but they cite the lack of available or affordable space as a challenge. To assist members, SFMade staff has created the Places to Make program, linking members with brokers and building owners to locate appropriate space. They also provide guidance on lease negotiations, tenant improvements and other business advisory services.

SFMade staff has helped to place members in spaces ranging from 500 square feet to 60,000 square feet, with lease rates ranging from 75 cents to $2 per square foot. Although rentals in the South of Market neighborhood are generally more expensive than most small firms can pay, SFMade staff indicates that areas such as the Northeast Mission, Dogpatch (central waterfront) and Bayview are more affordable.

According to SFMade, most members, including mature businesses, need less than 5,000 square feet of space. The majority of SFMade-assisted searches are for 1,500 square-foot starter spaces for newly formed companies. However, such small spaces are rarely available and stand-alone spaces of 1,500 square feet are basically non-existent.

Because the market is currently not meeting its members' requirements, SFMade supports planning or zoning policies that would encourage the subdivision of large industrial spaces to accommodate the growing number of small firms. Conversely, SFMade recognizes that it is equally important to preserve the building stock of spaces that are 50,000 square feet and larger, especially on Port property, so that San Francisco's major manufacturers can remain in the city as they grow. The contradiction between these priorities is a quandary shared by SFMade with building owners, Port planners and the city's economic development staff.

When providing assistance with site selection, SFMade staff has discovered that most manufacturers require a location near public transit as a convenience for both their workers and for shoppers at their factory retail outlets. Although the South of Market area and Central Market corridor have good public transit, competition from other uses has resulted in low vacancies and high lease rates. Locations with more attractive lease rates, such as Bayview, are not considered viable options because of poor access to public transit.

SFMade views transit improvements to the city's outlying industrial areas as critical elements in enabling the expansion of affordable space for its members. SFMade supports a range of transit options, including additional bus routes, private shuttle services, ride sharing programs and upgraded bikeways within the city's industrial zones.

### Preserving San Francisco's Industrial Buildings

In 2002, the San Francisco planning department issued a study examining the role of production, distribution and repair (PDR) in the city's economy, prompting public officials, economic development specialists and industrial users to raise concerns about the preservation of urban industrial zones. The study concluded that, although PDR firms pay above average wages and support the city's economic diversity and stability, they typically are unable to compete in the real estate market with most other uses. The study, therefore, recommended that the preservation of the city's existing industrial building stock should become a priority.

While many San Francisco industrial buildings were constructed decades ago, they remain functional, have space that can be flexibly divided and provide features that accommodate different sized PDR users. However, most of the city's existing stock of older industrial buildings would not be financially viable as newly constructed industrial space given San Francisco's high real estate prices and construction costs. Therefore, if older industrial buildings are demolished, market conditions would make them nearly impossible to replace with the identical use.

Based on these findings, the 2002 PDR study concluded that a policy of industrial land preservation accompanied by strict zoning enforcement effectively removes the option of redeveloping industrial properties with buildings of higher market value. As a result, the preservation of existing PDR buildings becomes a more appealing investment option and the city's PDR firms are assured of a more stable operating environment.

Planning for Forest City's Pier 70 and 5M, the redevelopment of the former San Francisco Chronicle building, is currently underway. In accordance with city policy, both projects place a priority on preserving or renovating existing industrial buildings and retaining PDR uses.

## Pier 70 Redevelopment

Given the growth of small-scale manufacturing firms in San Francisco and public policy support for the preservation of PDR space, large projects in the city such as 5M and Pier 70 have incorporated a significant level of light industrial development to accommodate small-scale users.

The Pier 70 complex is operated by the Port of San Francisco and is located 1.9 miles south of the San Francisco-Oakland Bay Bridge along the city's central waterfront. These 69 acres have supported industrial uses since the 19th century with suppliers to California and Nevada mines, steel manufacturing for the Transcontinental Railway and shipbuilders for the Spanish American War. Bethlehem Steel built destroyers for the US Navy during World War I and repaired 2,500 ships at Pier 70 during World War II.

Today, BAE Systems operates a ship repair facility on 19 acres of the site and another 28-acre portion is undergoing redevelopment by the Port of San Francisco and Forest City. The developer's plan for Pier 70 includes 2.5 million square feet of office space, 1,000 residential units, 270,000 square feet for retail, arts and light industrial space, and eight acres of parks and open space.

In its development proposal, Forest City found that small-scale PDR uses complement the function of many of Pier 70's existing industrial structures. Because the cost to convert some historic structures to non-industrial uses may be too high to justify the investment, the most efficient option for some of these old buildings may be to construct more modest improvements to accommodate small industrial tenants (in a manner similar to the Greenpoint Design and Manufacturing Center in Brooklyn).

Pier 70 has 44 historic structures that contain approximately 480,000 square feet. Both the Port and Forest City view the site's major industrial structures as an opportunity for adaptive reuse that will preserve historic features and simultaneously accommodate new tenants. Because the preservation of these resources is a primary goal of the Port, Forest City plans to rehabilitate two historic industrial buildings in order to provide 130,000 square feet of space for small-scale production, arts and retail uses.

The conversion of historic structures for small-scale production will include low-cost facilities suitable for start-up enterprises as well as shared spaces for collaboration and networking. Forest City plans to locate small-scale production, arts and retail tenants at street level and views them as essential to establishing the sense of community that will make Pier 70 a unique part of San Francisco's waterfront.

Pier 70's redevelopment is estimated to cost $1.8 billion. This amount includes $1.65 billion for building construction and $155 million for new infrastructure and public facilities. The Port's development agreement with Forest City recognizes that a substantial amount of new construction is essential to make the project financially feasible. The revenue generated by new development is an important source of funding for the rehabilitation of historic structures and the Port has adopted design guidelines for integrating new development with preserved buildings.

Forest City is responsible for financing all residential and commercial construction. In addition, predevelopment, infrastructure and historic preservation costs are to be initially financed by Forest City. However, this investment will be reimbursed from the proceeds of debt issuance from community financing districts (CFD) and infrastructure facilities districts (IFD). Using IFD financing, the Port has agreed to pay for the rehabilitation costs of two historic structures that will provide 130,000 square feet of retail, arts and light industrial uses. The Port will convey these two buildings to Forest City under a 99-year ground lease and Forest City will be exempt from ground lease payments.

## 5M Project in San Francisco Chronicle Building

Unlike many traditional credit tenants, innovation and next-generation PDR businesses require highly flexible, adaptable environments with month-to-month rental terms. In many cases, developers targeting these types of businesses support unique, signature projects that tap several third-party groups catering to this market. Through a combination of tenants, branding and physical design, these sorts of facilities become hubs of innovation and maker businesses – spurring related growth in the surrounding neighborhood. One of the most prominent examples of this trend is the 5M project in downtown San Francisco.

Forest City and the Hearst Corporation are redeveloping a four-acre site, including the historic San Francisco Chronicle building (constructed in 1924), located at Fifth and Mission Streets near downtown San Francisco. Known as 5M, the plan is to preserve the existing 178,000 square-foot Chronicle headquarters (owned by Hearst Corp.), renovate its interior, add two partial floors on top of the existing three-story building and build a 22,000 square-foot rooftop garden that would be open to the public.

Currently, the existing eight buildings on the site house an estimated 318,000 square feet of office and light industrial space. Most of the site's existing buildings are obsolete and, with the exception of the Chronicle building, plans call for their demolition.

In addition to renovating and expanding the Chronicle building, Forest City it is proposing to construct five new buildings. Rising from 50 to 400 feet in height, these structures would contain office, residential, retail, arts, cultural and educational uses.

The total size of the proposed project, including renovated existing space and new construction, is approximately 1.8 million square feet. Components include 1.1 million square feet of offices, 748 housing units (550,000 square feet), 147,000 square feet of ground floor retail/office/cultural/ educational spaces and 18,000 square feet of arts/cultural/educational uses. In addition, the plan calls for 888 parking spaces in a three-level underground parking structure, 270 spaces for bicycle parking and 34,000 square feet of publicly accessible open space (including a 22,000 square-foot roof garden).

Hearst has indicated that the newsroom of the San Francisco Chronicle will remain at the site. 5M's office development will be targeted to technology firms, especially growing San Francisco companies. Currently, Square, the maker of a plug-in device and software for credit card payments on smartphones and tablets, is a tenant on the site but is moving to new headquarters a few blocks away. However, Yahoo announced that it will be moving into the 60,000 square feet occupied by Square and is expected to remain a 5M tenant when new office space is built.

Other current 5M tenants include TechShop, SFMade and The Hub. Forest City is a corporate sponsor of these organizations and is providing free space to them during the 5M planning process. In addition to office space for SFMade's six staff members, 5M has allocated 17,000 square feet of workshop and classroom space to TechShop.

The Hub is an incubator for social enterprises that occupies 20,000 square feet in the Chronicle building. (A social enterprise is defined as a business that blends financial and social returns.) It is a membership organization that provides work space for individuals and small teams. Hub's facility at 5M provides individual work stations, meeting and conference rooms, a kitchen and a cafe. Its members are involved in a wide variety of social causes, including renewable energy education, arts education and affordable technology solutions for developing countries.

The Hub, SFMade and TechShop are expected to remain at 5M when new facilities are developed and occupy a ground-floor location next to arts, cultural, educational and retail tenants. This mix of tenants and the planned public spaces are designed to make 5M a more appealing option for technology companies who appreciate its creative environment and sense of community.

Construction is projected to be phased over 10 years and Forest City estimates that business and residential operations at 5M will result in 5,000 on-site jobs once the project is completed. Information about construction costs, infrastructure costs and project financing is not yet available.

## SAN FRANCISCO LESSONS LEARNED

The Pier 70 and 5M case studies offer relevant lessons and best practices for Ward 5 as follows:

- » **Local demand for local wares can be promoted in any market** – Branding by SFMade for locally made goods can be duplicated in Washington, DC. There is nothing unique about San Francisco shoppers that makes them more willing to support local manufacturers. Consumer awareness is key to this support and SFMade provides a model for how to tell local shoppers where to find locally-made goods. Washington, DC is particularly equipped to generate increased demand for locally-made goods based on the high incomes of its residents.
- » **High demand for low tech goods means low barriers to entry** – Local makers are generally focused on consumer goods (such as apparel

and accessories), and on consumables (food and beverages). Since these items are often relatively simple products to make, the barriers to entry are low for innovators and entrepreneurs.

» **High cost of building conversion can help preserve industrial space** – Because the cost of converting industrial space to office or residential uses may be too high to justify the investment, the more economical option for some large industrial buildings may be to subdivide them and make modest tenant improvements to accommodate smaller industrial tenants.

» **Begin redevelopment with a building that can be subdivided** – Because there are few urban manufacturers than need large amounts of space (50,000 square feet and larger), a neighborhood or property redevelopment is likely to be more successful if priority is given to a building that can be subdivided for many users. Where possible, precedence should be given to a developer who is experienced with industrial properties and building subdivisions for smaller industrial tenants.

» **Preserve a few large buildings for large users** – Accommodating small-scale manufacturers is a priority, but it can also be important to preserve the building stock of spaces that are 50,000 square feet and larger so that manufacturers can remain in the District as they grow. Balancing these contradictory priorities is a challenge.

» **Transit access is an important amenity** – Even in urban industrial zones (which are rarely pedestrian-friendly), good access to transit helps attract tenants.

» **Start-up niche manufacturers require small spaces** – Small-scale urban manufacturers who are in the start-up phase are generally looking for no more than 1,500 square feet in a subdivided industrial building.

» **Start-up space can have an influence beyond its own doors** – Developing industrial space for small-scale production can provide a low-cost option for start-up enterprises. The clustering of these firms can influence a neighborhood's ambiance so that the area attracts more businesses that want to be located in a creative environment

## WEST BERKELEY CASE STUDY

West Berkeley is similar to Ward 5 in its good transportation linkages through roads and rail. It is bordered by Interstate 80 and has an Amtrak station (although it lacks a BART station) and is adjacent to educational and research institutions (UC Berkeley, Lawrence Berkeley National Lab). Like residents of Ward 5, the West Berkeley community is apprehensive about the transformation of existing industrial property into other uses such as retail, office, research and development, and residential.

The following case study of development in West Berkeley provides insight into how market demand for non-industrial space has been balanced against community concerns about the potential displacement of industrial users.

### Industrial History

The boundaries of West Berkeley (population 7,000) are approximately located between Gilman Street and Ashby Avenue (from north to south) and San Pablo Avenue and Interstate 80 (from east to west). West Berkeley is approximately 600 acres in size and contains approximately 10 million square feet of non-residential space. Approximately 340 acres in West Berkeley are zoned for industrial uses.

West Berkeley has been an industrial area since the 19th century. During the 20th century, industrial plants in West Berkeley were operated by H.J. Heinz, Colgate-Palmolive, Del Monte, Durkee Foods, Challenge Dairy Products, Kawneer Manufacturing, Triangle Paint Company, American Soils Products, Flint Ink, Cutter Labs (acquired by German pharmaceutical firm Bayer Group in 1974) and others. In the late 1960s, when many of West Berkeley's industrial employers departed or ceased operations, some of the buildings they left behind were subdivided for light industry and artists who were drawn to their convenient location and low rents.

In the early 1980s, building owners and developers began to convert old factories into lofts, offices and live/work space. During this period, concerned about the displacement created by industrial building conversions, a coalition of artists groups, manufacturing firms and Berkeley citizens began working with city staff to protect West Berkeley's industrial zones.

### West Berkeley Plan

In 1993, after an eight-year planning process involving extensive outreach to West Berkeley residents, employers, property owners, developers, manufacturers, artist groups and other stakeholders, the City Council unanimously approved the West Berkeley Plan. The plan specifically focuses on the protection of industrial zones because manufacturing businesses in West Berkeley provide many well-paid jobs to workers who lack advanced education. Since West Berkeley is the only industrial zone in the city, these manufacturing businesses would inevitably be pushed out in the absence of a policy to preserve a diverse and balanced economy in this area. In addition, the retention of industrial uses is viewed as a stabilizing force in preventing the overdevelopment of offices and retail.

The primary feature of the West Berkeley Plan is restrictive zoning to reinforce the precedence of industrial activity and preserve manufacturing space by preventing encroachment by conflicting uses. Three types of manufacturing and industrial districts are designated by the West Berkeley Plan: the manufacturing (M) district of about 95 acres, mixed manufacturing (MM) district of 80 acres and mixed-use/light industrial (MU-LI) district of approximately 165 acres.

The manufacturing district allows heavy industrial uses, such as steel fabrication and asphalt production. Manufacturing space cannot be converted to lab space because laboratory use in the M district is prohibited, although it can be allowed as an ancillary use only. The MM district includes the Bayer campus and allows heavy industrial uses as well as free-standing laboratories with upper-story office uses. The MULI district is generally intended for smaller scale manufacturing and light industrial uses. Since laboratory use is permitted in the MM and MU-LI districts, MM and MU-LI property owners are allowed to convert manufacturing space to lab space. For all three districts (M, MM, MU-LI), the maximum floor area ratio (FAR) is 2, maximum building height is 45 feet and no new residential uses are permitted.

The West Berkeley Plan also defines a 120-acre, mixed-use residential district (MUR) where residential and live/work uses are permitted, as well as light industrial and office uses. Laboratory use in the MUR district is prohibited.

### Industrial Companies and Developments

The West Berkeley Plan is viewed as successful by its proponents. Industrial companies in the area include Bayer Group, Pacific Steel Castings, Takara Sake, Poly Seal Industries, Adams and Chittenden Scientific Glass, Electro Coatings, Libby Laboratories and others. The local alliance, West Berkeley Artisans and Industrial Companies (WEBAIC), estimates that 310 industrial employers are currently located in West Berkeley, including 103 manufacturing firms, 42 automobile repair/restoration businesses, 41 building services contractors, 38 warehousing/wholesale companies, 33 food processors, 22 printing firms, 18 industrial/ construction/automotive suppliers and 13 laboratories. WEBAIC estimates that these industrial firms employ 5,000 workers in West Berkeley and that 50 percent of the workforce is made up of racial minorities.

While comprehensive data on new industrial/commercial development in West Berkeley are unavailable, most development in the city since the adoption of the plan in 1993 has been constructed by two developers (Wareham Development and Bayer), who have built approximately one million square feet. Wareham has constructed approximately 700,000 square feet of office and research and development uses. In 1992, Bayer entered into a 30-year developer agreement with the city to transform 45 acres in West Berkeley (30 acres of which was the former Cutter Labs campus) into its global center for biotechnology operations. Bayer has constructed approximately 300,000 square feet of manufacturing and research and development (R&D) space since 1992, bringing total occupancy on its 45-acre closed campus to approximately one million square feet.

### Pressure for Industrial Land Conversion

Opposition to the West Berkeley Plan's industrial land protections on the part of some developers and property owners has been ongoing. Even from the viewpoint of the plan's proponents, the city's commitment to industrial land protection has been faulty at times. Since 1999, when zoning to implement the plan was adopted, a number of property owners who succeeded in finding loopholes in the zoning ordinance were able to convert several industrial buildings into offices.

Proponents of industrial land preservation in West Berkeley believe that the piecemeal allowance of incompatible uses in industrial zones can create conflicts between long-time industrial businesses and new commercial and residential occupants. A greater concern is that zoning adjustments by the city have the potential to make expansion difficult for existing industrial businesses because up-zoning drives the cost of property higher. For example, when an industrial property is allowed to be converted to R&D or laboratory uses, then the underlying price of adjacent industrial properties is typically driven by the market for R&D and laboratory space. In such a case, expanding manufacturers or industrial users may be able to find a suitable property, but such properties are often held by investors who anticipate the higher value that eventual up-zoning would bring.

The benefit of a possible up-zoning windfall can create a situation where owners of vacant industrial properties demand R&D, laboratory, retail or residential values, which are generally unaffordable to manufacturers and industrial users. From the viewpoint of some industrial businesses in West Berkeley, this market and regulatory dynamic has resulted in the multi-year vacancy of both large and small industrial properties.

According to representatives of West Berkeley manufacturing businesses, there is sufficient demand for space from industrial users who already meet the M district zoning requirements (albeit at industrial lease rates or sales prices). But some property owners are seemingly less interested in accommodating industrial tenants than in the potential of a higher sales price that would occur with changes to the zoning laws. From the viewpoint of some industrial property owners, however, existing vacancies of M district and MM district properties, both large and small, are an indicator of the ongoing demise of the manufacturing sector across the nation.

### West Berkeley Project

In 2007, the City Council initiated the West Berkeley Project by asking the local planning commission to recommend zoning amendments for the West Berkeley area. The City Council's goal was to reduce obstacles to development in the M, MM, MU-LI and MUR districts by providing greater flexibility in development density, building height, parking ratios and allowed uses. West Berkeley Plan proponents regarded the West Berkeley Project as a weakened commitment by city officials to the initial plan.

Conversely, city officials viewed the West Berkeley Project as a way to retain local employers that were unable to expand because of the zoning restrictions. For example, ClifBar, a maker of energy bars with an office headquarters in Berkeley and a manufacturing plant in southern California, announced its intention to leave Berkeley in 2006, although it did not actually relocate its headquarters to Emeryville until 2010. ClifBar cited prohibitive zoning regulations and Berkeley's difficult development environment as factors in its decision to relocate.

Other firms that have left Berkeley in recent years include Power Bar (an energy bar maker that departed after its takeover by Nestle), Amyris Technologies (a biotech firm and Wareham tenant that moved to a Wareham property in Emeryville in 2008) and SunPower (a maker of solar power systems that is owned by Cypress Semiconductor and relocated to Richmond). Supporters of the West Berkeley Project state that 75 firms with 1,500 jobs have left Berkeley in recent years. WEBAIC and supporters of current zoning in West Berkeley have disputed those figures.

### 2012 Measure T Ballot Vote

After a five-year planning process that involved approximately 50 meetings and significant discussions among stakeholders, the City Council voted in June 2012 to place the most significant provisions of the West Berkeley Project on the November 6, 2012 election ballot. Known as Measure T, the ballot vote determined whether to adopt zoning changes in West Berkeley that would allow nine large sites (of four acres or more), an increased height limit from 45 feet to 75 feet, an increase in the floor area ratio (FAR) from 2 to 3, reduced parking requirements and new uses such as R&D, biotech labs, offices and residential.

The environmental impact report (EIR) for the West Berkeley Project estimated that net new development under the zoning changes would be 1.9 million square feet. Under Measure T, development approval for the nine sites would be contingent upon the provision of community benefits such as affordable housing, job training programs, transportation reduction programs (e.g., shuttles), publicly accessible open space, childcare space, affordable work space for artists and others.

Supporters of Measure T cited job creation and higher property tax revenue as important benefits of changes to West Berkeley's zoning. While acknowledging that the West Berkeley Project might result in traffic congestion, more parking, air pollution and business displacement, they believed that such negative effects would be mitigated through the community benefits that would be provided in exchange for development rights. In addition, since rezoning would increase property values and property tax revenue, the city would be able to use the increased tax revenue to create a bus shuttle system in West Berkeley to help mitigate increased traffic congestion caused by new development.

Measure T supporters also viewed existing industrial zoning in West Berkeley as out-of-date in the face of economic trends that have occurred over the two decades since the West Berkeley Plan was approved in 1993. They cited the continued decline in manufacturing jobs in the Bay Area, California and other parts of the US, and an indicator that the existing zoning in West Berkeley is obsolete.

For opponents of the project, community benefits were poorly defined under Measure T and therefore were deemed unlikely to successfully mitigate the negative effects cited in the West Berkeley Project EIR. There was also concern about the new 75-foot height limit and the potential displacement of industrial businesses that would result from new offices, laboratories and residential units with bay and hillside views.

Measure T opponents believed that the inevitable upward pressure on rents would force industrial firms, small businesses and artists out of the area. The city would thereby suffer from the loss of economic diversity and vitality provided by manufacturing firms and small businesses, and job loss from industrial firms providing living wages to workers who lack advanced education. Because the primary goals and objectives of the 1993 West Berkeley Plan include the retention of industrial zoned land and living wage manufacturing jobs for less educated workers, opponents of Measure T believed that benefits of higher tax revenue were outweighed by the cost of displacing industrial businesses and workers, as well as by the negative effects associated with increased traffic and parking, and poor air quality.

### Measure T Election Results

The November 6, 2012 vote on Measure T was very close and was determined by 512 votes out of 50,070 total votes that were cast (a margin of 1 percent). Measure T was defeated by a vote of 25,291 (50.51 percent) to 24,779 (49.49 percent). In West Berkeley itself, 60 percent of the votes were cast against Measure T. In the precinct which encompassed most of the area that would have been re-zoned, 69 percent of the voters were against the measure. Although both City Council members who represented West Berkeley supported it, the measure nonetheless lost in both their districts.

The defeat of Measure T was a surprise to its supporters given a similar ballot issue focused on the city's downtown plan, designed to bring thousands of new residents to downtown Berkeley. In November 2010, 64 percent of Berkeley voters approved a measure authorizing the City Council to increase in downtown height limits from 65 feet to 117 feet in some areas, and five high-rise sites with residential or hotel towers between 120 feet to 150 feet. The outcome of the 2010 vote in favor of more intense development downtown (Measure R), versus the outcome of the 2012 vote against more intense development in West Berkeley (Measure T), signals a level of discernment by Berkeley voters in terms of the type of development they are willing to support (residential and hotel), and the location where more intense development should be allowed (downtown).

The West Berkeley Artisans and Industrial Companies (WEBAIC) and other opponents of Measure T have stated that they are not opposed to development in West Berkeley, but they believe that demand for office, R&D and residential space can be met under existing zoning regulations. For large industrial buildings that are currently vacant and cannot find a single user, WEBAIC believes that there is sufficient demand from light industry, artisan manufacturing, craftspeople and artists to occupy subdivided space in these buildings. However, the existing zoning regulations discourage such subdivision of large industrial spaces because they place light industry, artists and craftspeople in a different category from manufacturing. Therefore, WEBAIC supports the removal of these technical obstacles to allow the subdivision of industrial buildings for such users.

During the West Berkeley Project process, WEBAIC and others who generally opposed zoning changes nevertheless compromised with city officials and property owners by supporting the addition of 270,000 square feet of industrially-protected wholesale trade and warehouse space to be used for R&D. They also agreed to allow several hundred thousand square feet of R&D development to occur in industrially-protected space on nine large industrial sites of four acres or more.

### Renovation of the Berkeley Brass Foundry

In 2006, the owners of Swerve, a high end furniture manufacturer, rehabilitated the 18,000 square-foot Berkeley Brass Foundry located on a half-acre site in West Berkeley. The old industrial building was renovated to accommodate manufacturing and office space as well as live/work space for the company's owners. In addition to premises for Swerve (14 employees), the building has a tenant that distributes machine tools. The West Berkley business community supported the renovation of the vacant foundry and the creation of 14 new jobs.

However, neighboring manufacturers, artisans and artists were somewhat dismayed when Swerve's owners became advocates for the West Berkeley Project and Measure T. In addition to their furniture company, Swerve's owners were also co-owners of a 12.5-acre, mixed-use/light industrial-zoned parcel that would have benefited from the proposed zoning code changes. Swerve's critics felt that the company had enjoyed the benefits of the West Berkeley Plan since it purchased the Berkeley Brass Foundry at industrial rates and was permitted to make valuable improvements under current zoning with the support of city staff.

Ironically, the zoning changes advocated by Swerve's owners under the West Berkeley Project and Measure T were viewed by some as undermining the industrial land protections of the West Berkeley Plan that had benefited Swerve in the first place. From Swerve's viewpoint, the renovation of the Berkeley Brass Foundry was a complex process and led the company's owners to believe that existing zoning in West Berkeley was too rigid. They viewed the current zoning as preventing start-up companies from expanding and newer industry sectors from replacing aging companies.

### Small-Scale Manufacturing and Food Entrepreneurs

From 2007, when the West Berkeley Project was initiated, to the 2012 vote on Measure T, West Berkeley continued to support numerous small-scale manufacturers such as Berkeley Mills, The Wooden Duck, Giacomo

Furniture, Gilman Screen Printing, Sven Design, Sweeney Furniture, Sunrise Sewing, Pieces Clothing, SF Cotton/Bryn Walker, Two Star Dog Clothing, McEwen Lighting, Panache Lighting and Kirby Cabinetry.

Many West Berkeley manufacturers are small-scale, but they have established businesses and are long-term tenants. Vacancies in the more sought-after buildings can be rare and this situation can make it difficult for new firms to find space. As in San Francisco, niche manufacturers in the start-up phase in West Berkeley usually require no more than 1,500 square feet.

Food-related businesses in West Berkeley include Acme Bread, June Taylor Jam, Wine.com and Urbano Cellars. Small food companies that mainly require storage and distribution are generally able to find space in West Berkeley. For example, an online retailer of packaged organic foods found a small warehouse space in West Berkeley from which it offers limited hours for local customers who order goods online but want to avoid shipping costs.

Although warehouse space is available, the expense of installing drains, refrigeration and cooling systems has limited the ability of many West Berkeley landlords to accommodate businesses that require food production facilities. Instead, many of these firms prefer to locate in Oakland where sites formerly occupied by large food processors such as Nabisco, Kellogg's, Granny Goose and Del Monte have been subdivided.

Groups of small tenants in Oakland are moving into industrial buildings ranging from 60,000 square feet to 200,000 square feet that used to be occupied by a single user. Most new companies begin with a lease for 5,000 to 8,000 square feet. Firms that are successful and need additional space can often expand within their existing building. In West Berkeley, many artisan food start-ups occupy 1,200 square feet or less (sometimes as little as 500 square feet) and often move to Oakland when they need to expand.

## WEST BERKELEY LESSONS LEARNED

The West Berkeley case study provides relevant lessons and best practices for Ward 5 as follows:

- » **Work with stakeholders to change zoning** – When Berkeley officials moved forward with plans for more flexible industrial zoning without stakeholder support, the ballot measure for this change was defeated by voters.
- » **Regulatory clarity helps property owners and tenants** – Ongoing regulatory uncertainty contributed to a multi-year vacancy problem among large industrial buildings as property owners anticipated up-zoning. Although there was plenty of demand for industrial space among tenants, particularly for subdivided buildings, market options were limited. In the end, the property owners who held their buildings off the market lost revenue because the up-zoning effort failed.
- » **Industrial land preservation and zoning adjustments are usually incompatible** – Strict enforcement of the zoning code and denial of zoning adjustments effectively remove the option of replacing industrial properties with buildings that have higher market values. As a result, the preservation of existing industrial buildings becomes a more appealing investment option and industrial tenants are assured of a more stable operating environment.
- » **Make sure the zoning code does not hinder the subdivision of industrial space** – Because of narrow definitions in Berkeley's zoning code, building owners have been prevented from subdividing large industrial spaces for light industry, artists and craftspeople. Such technical obstacles, if any, should be removed from the District's zoning code in order to encourage the reuse of industrial buildings.
- » **Artisan food producers need small spaces** – Artisan food makers who are in the start-up phase typically require 1,200 square feet or less. Some need only 500 square feet. This limited need means that most of them can lease space in an existing facility that has been subdivided. The challenge is that it can be difficult to install food production facilities in a general industrial structure.
- » **Re-purposing industrial space for food production requires a specialist** – When transforming an existing industrial structure, such as a warehouse, to accommodate food production, District staff should give preference to a developer who specializes in food production facilities or who has a track record of creating food production space. Without previous experience, a general industrial developer may discover that the complexities of installing drains, refrigeration, cooling systems and other features may substantially hinder the feasibility of the building conversion.
- » **Entrepreneurship may be counter cyclical** – During the recession and post-recession period, niche manufacturers and food entrepreneurs continued to demand industrial space in West Berkeley, in spite of the regulatory uncertainty of the West Berkeley Project process and the Measure T vote (a five-year period).
- » **Small-scale industrial users are driven by market demand** – In West Berkeley, occupancy by smaller industrial users happened piecemeal and was market-driven on the part of individual firms and landlords, with no public agency involvement.

E

# APPENDIX E: OVERVIEW OF EXISTING WORKFORCE AND ECONOMIC DEVELOPMENT PROGRAMS

The existing conditions analysis includes a review of relevant government and non-profit programs offering assistance accessible to Ward 5 property owners, business operators and developers. The following section describes each program.

## WORKFORCE DEVELOPMENT

Some of DC's unemployed residents are limited by the lack of literacy and/or job skills, such as the ability to work well with supervisors and other employees. For others, the absence of workplace contacts and information about job openings inhibits their ability to compete for available positions. The DC Department of Employment Services (DOES) operates one-stop job centers to help job seekers identify available positions and provide training for DC residents. However, only a small percentage of one-stop center customers achieves access to literacy and job training programs.

The DC Office of the State Superintendent for Education's (OSSE) Adult and Family Education program provides literacy and English-as-a-second-language training and adult basic education through 20 community-based organizations. That training is often linked with ancillary, workforce development and/or post-secondary education transition services. Adult charter schools in the District currently provide literacy and general educational development (GED) courses, and train students for careers in the culinary arts, construction, medical assistance and computer technology that potentially could flourish in Ward 5 as its industrial land is transformed with new businesses.

The DC Department of Employment Services (DOES) contracts with several non-profit organizations to provide life skills training (e.g., how to work well with supervisors, interviewing skills, etc.) and skills training for specific industries (e.g., construction). The One City One Hire program reaches out to area businesses to encourage each to create one new job for a qualified, unemployed District resident. DOES works with candidates to identify job opportunities, pre-screen applicants for specific jobs and provide workforce training and certification.

Stakeholder interviews conducted during the existing conditions analysis revealed a high number of long-time businesses conducting sophisticated on-the-job training programs. These businesses not only search and screen but offer training for groups of previously unemployed workers (e.g. ex-offenders). In all instances, the businesses reported a need to create a unique training program for entry-level workers and employees advancing along the designated career path. While not the norm in professional, scientific and technical service industries, Ward 5's PDR businesses represent a transitional entrepreneurial attitude toward workforce development, helping to upgrade the District's workforce.

## ECONOMIC DEVELOPMENT FINANCE

The DC Deputy Mayor of Planning and Economic Development offers financial assistance, most often to specific real estate developments offering substantial economic benefits to the city. Many of the local and federal financial incentives listed below become a part of the incentive packages.

The Economic Development Administration of the US Department of Commerce provides federal grants – typically limited to $1 million or less – to improve industrial sites and infrastructure in support of job creation.

The District's Industrial Revenue Bonds offer one source of funding for larger industrial companies seeking to expand or locate in DC. These public entity bonds are known as private-activity bonds because the private company repays the debt issued by the public on its behalf. These bonds are linked to new permanent jobs and large-scale capital investments. Also available are fixed-asset loans from the US Small Business Administration (SBA). The District Department of Local and Small Business Development assists small businesses in accessing SBA loans and tapping the District's micro-loan and other small business programs.

A relatively new source of significant investment, the EB-5 program administered by the US Citizenship and Immigration Services, attracts private investment by prospective immigrants. The immigrant makes an investment of at least $1 million (or $500,000 in a Targeted Employment Area with high unemployment) that creates at least 10 new jobs within two years (5 new jobs in a high-unemployment area). In exchange, the investor is permitted to immigrate to the US as a Conditional Permanent Resident with a green card for permanent residency issued within two years.

The investments are funneled through regional centers certified for participation in the program. DC is served by five regional centers. Investments may be direct infusions into American companies or real estate developments that will result in new permanent jobs (not relocation of jobs). To meet the job creation requirement, the EB-5 investment is typically combined with conventional debt financing. To date, most of the investment has come from Chinese nationals. EB-5 has been a major financing source for the Philadelphia Industrial Development Corporation and other economic development entities.

The SBA's HUBZone program provides incentives for businesses locating in historically underutilized business zones. Most important are competitive and sole source contracting opportunities with the federal government, which gives HUBZone businesses a price evaluation preference. Much of the Ward 5 industrial land is in a designated HUBZone, expect for properties along the Metrorail's Red Line east of the railroad and north of Rhode Island Avenue, NE, as well as the Bladensburg/Montana/New York Avenue triangle and the property directly to the east.

New Markets Tax Credits (NMTC) are credits against federal income tax liability of investors who help fund job creation for low- and moderate-income residents. The program is restricted to eligible US Census tracts, which qualify based on having median family incomes less than 80 percent of the metropolitan area's median family income. The equity investment by the NMTC investor typically leverages private bank financing, providing a loan at a blended interest rate well below market rates for seven years.

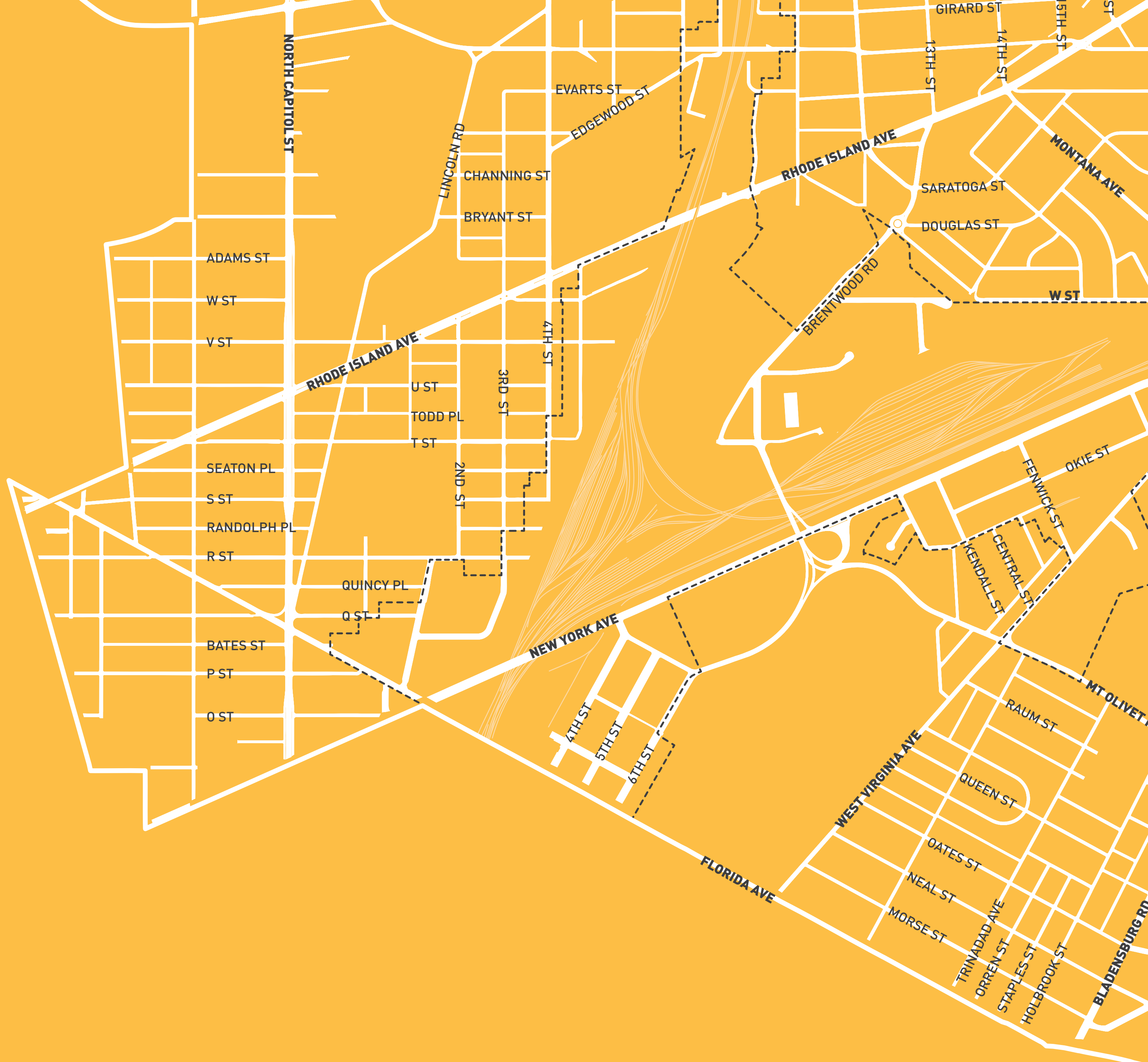
NMTCs are awarded competitively each year to community development entities, which then invest in specific projects, most often within a specific geography. Some public/private entities, such as the Philadelphia Industrial Development Corporation, have been very successful in securing NMTC allocations. Due to their job creation requirements, the credits are directed primarily to commercial and industrial developments, and to individual businesses. The Ward 5 industrial land is located in qualifying US Census tracts, except the northeast quadrant of Rhode Island Avenue, NE, at the nearby Metrorail station and east of the Metro tracks at Fort Totten.

Historic tax credits also offset federal income tax liabilities. They are available for rehabilitation of buildings listed on the National Register of Historic Places and/or for contributing structures in certified historic districts. The credits offset 20 percent of qualified rehabilitation expenditures. The rehabilitation must meet standards established by the US Secretary of the Interior, a process that typically raises costs and lengthens the development timeline.

A leveraged investment pool matches an initial local government investment with foundation and private financing to create a larger fund of dollars. The National Development Council has a Grow America Fund (GAF) that leveraged federal stimulus dollars to support small businesses with low-interest loans backed in part by the US Small Business Administration. As a non-bank lender, GAF makes US Small Business Administration 7(a) loans with a guarantee securing 75 to 90 percent of costs. GAF builds initial investments through an equity pool that allows GAF to further borrow from a group of lending partners. The organization has extended that practice to individual jurisdictions, operating as a community development lender, using local seed money to capitalize the local funds. In Buffalo, New York, the Erie County Industrial Development Agency created the Grow Erie Fund as a new, low-interest loan program managed by the GAF.

Brownfield assessment and clean-up funding is available through the US Environmental Protection Agency and Department of Housing and Urban Development.

The District Department of the Environment (DDOE) offers a range of small grants for businesses that are intended to improve their energy efficiency, create renewable energy or reduce stormwater runoff. These funds could help businesses offset capital costs and/or reduce operating costs. The Center for the New American Dream administers competitive grant programs, including the Get 2gether Neighborhood Challenge. This program supports neighborhood initiatives such as a tool library or a community garden.



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14TH ST
EVARTS ST
EDGEWOOD ST
LINCOLN RD
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BRYANT ST
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MONTANA AVE
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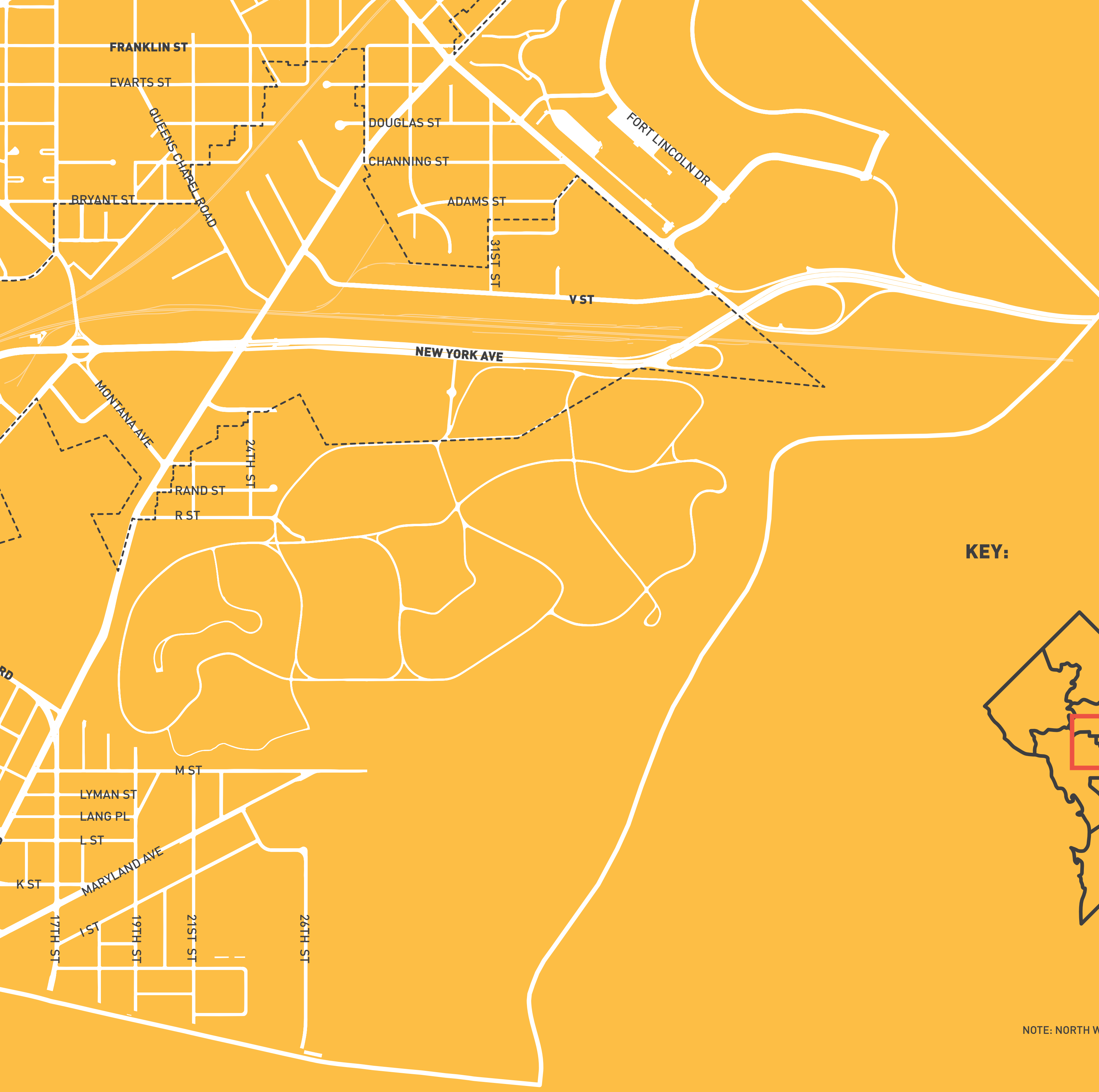


**KEY:**


NOTE: NORTH WARD 5 CAN BE FOUND ON THE FRONT INSIDE COVER