Planning Process for North **Brooklyn**

The North Brooklyn Plan is based on a robust community engagement process and an in-depth analysis of economic, real estate, land use, and infrastructure conditions.

Community Outreach

The North Brooklyn Plan was informed by extensive stakeholder outreach to identify the needs and challenges of local stakeholders and by feedback over time as recommendations were developed. Over the course of late 2015 and 2016, DCP held three large public Open Houses with over 150 attendees, including business owners, local residents, and other stakeholders. DCP also engaged over fifty businesses located within the Study Area and fifteen developers/brokers through interviews and roundtables. presented to and received feedback

from Community Boards 1 and 4 and other local community groups focused on issues of workforce development, environmental preservation, waterfront access, and environmental justice. Much of the outreach was conducted in coordination with Evergreen, the local Industrial Business Service Provider, which was conducting outreach for Brownfield Opportunity Area (BOA) planning study. Evergreen also contributed its extensive knowledge of the IBZ and was instrumental in connecting DCP with local stakeholders. Outreach kicked off at an Open House in December 2015, hosted jointly with Evergreen, designed to gather input on benefits and challenges of working or living in or near the Study Area. At the June 2016 Open House, DCP shared a preliminary Land Use Framework informed by input from the first Open House and other outreach to businesses and community groups. At the Open House in September 2016, DCP shared a revised Land Use Framework and recommendations for infrastructure investments.

Seven roundtables, also hosted in collaboration with Evergreen, were organized by discussion topic: large industrial businesses, small industrial businesses, open industrial uses, commercial office businesses, retail entertainment and businesses, transportation issues, and resident issues. Through these roundtables and many one-on-one interviews, DCP was able to speak to fifty different businesses about their needs and plans for the future.

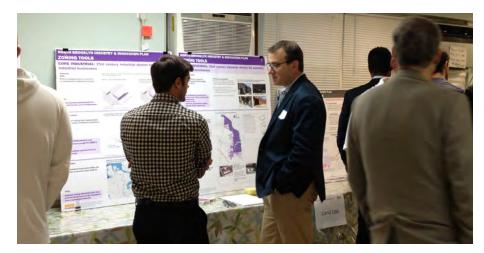
DCP also worked with local elected officials as well as other City agencies such as the NYC Department of Transportation (DOT), the Department of Small Business Services (SBS), and NYCEDC on infrastructure, workforce development, and economic development issues.



Public Meeting #1: December 2015

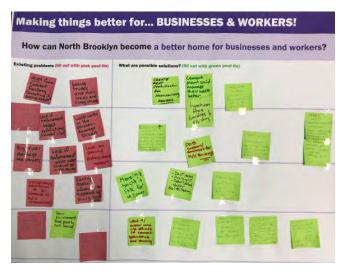


Public Meeting #2: June 2016



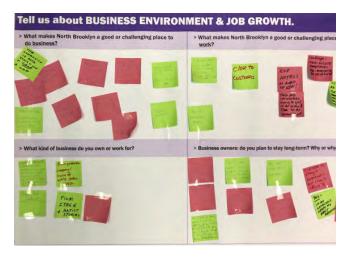
Public Meeting #3: September 2016











Why are Businesses Located in North Brooklyn?

What we heard in interviews, roundtables, and public meetings

Location & Access



Character



"Lots of talented people can easily commute to this location. Half of our employees live in Brooklyn and love their commute, taking the L train in the opposite direction of rush hour. It's a dream."

- Tech company

"It's good to be close to our clients in Manhattan. When we do custom interior installations, we need to go back and forth from the site to our shop. Because we are close, designers are also willing to come to us, and our employees love being near the subway."

- Woodworking company

"Access to the water is key for us. We rely on the water to move fuel."

- Energy distribution company

"We are in New York because we need to access our clients... and in Bushwick because we don't like wearing ties."

- Media company

"We are trying hard to bond our brand with Bushwick and Brooklyn."

- Tech company

"The appeal of this area is its diversity of uses. We should encourage new development and building that supports this."

- Local business

Workforce



Business Community



Workspace



"We have been in North Brooklyn since the 1990s, and half of our employees have worked here for more than ten years. We want to stay here because most of our customers are in New York, and we feel loyal to our employees."

- Large food manufacturing company

"A lot of artists, photographers, and creatives live within a ten minute radius of here; we could put together a whole crew within the neighborhood."

- Film company

"It's good to be in an industrial area with similar businesses that don't mind truck traffic and noise."

- Recycling business

"Residents in the East Village no longer want venue space; you can be louder out here, and don't have 500 neighbors above complaining."

- Music venue

"Local woodworking and metal shops helped to build out our space! We have a symbiotic relationship with local industry and want to see them stay. Their workers are some of our favorite customers."

- Restaurant

"Our space is a lovely place to work; it's a former industrial building with great light, tall ceilings, and glass block walls."

Media production company

"We ended up here because I found a large space with gas lines, good truck access, and high ceilings, and I was able to sign a 10 year lease."

- Distillery

"We're opening a second location in a warehouse. We like these spaces; they're easy to convert and provide lots of room."

- Music venue



What are Community Members' Concerns?

What we heard in interviews, roundtables, and public meetings

Maintaining & Growing the Local Economy



Space Constraints & Zoning Issues



"Local businesses are important because they help to grow employment in the area. We need to keep people living and working in Brooklyn."

- Public meeting attendee

"We need spaces for the heavy industrial businesses because there is nowhere else for them to go."

- Public meeting attendee

"Current zoning doesn't allow us to expand up - we need more height and FAR."

- Small manufacturing company

"It's becoming harder to get longterm leases and affordable space. This makes industrial business planning difficult for existing tenants and impossible for new tenants that need to invest in large build-outs."

- Public meeting attendee

"M1-2 parking requirements really prevent creation of commercial/ creative uses with any street presence. For a two-story building, we might need to devote a third of the space just to parking."

- Property owner

Quality of Life & Conflicts



Transportation Challenges



Infrastructure Issues



- "Just because you're in an industrial zone doesn't mean you need to breathe bad air."
- Large industrial company
- "Newtown Creek pollution, illegal dumping, standing water, and noxious emissions and smells need to be addressed."
- Public meeting attendee
- "We need more trees and green space!"
- Public meeting attendee

- "The area is easy to get to, slow to get through."
- Large industrial company
- "Because of congestion, we are paying truck drivers to sit in traffic and our deliveries are delayed."
- Construction supply company
- "We need more crosswalks, improved sidewalk conditions, dedicated bike lanes, street trees, and speed bumps."
- Retail store
- "There are a lot of safety concerns around truck traffic for pedestrians and cyclists. We need to find a better way to coexist."
- Beverage distribution company

- "We need high speed internet access - sometimes it's easier to FedEx our files on a hard drive!"
- Tech company
- "The sewers are inadequate to handle all the stormwater run off."
- Public meeting attendee
- "We need more green infrastructure and wetlands at the shoreline to improve water quality."
- Public meeting attendee



Relevant Studies and Planning **Efforts**

The North Brooklyn Plan builds upon and complements recent and ongoing studies by the City and local advocacy organizations.

Mayor's Economic Development Strategy

Industrial Action Plan

Mayor de Blasio's 10-Point Industrial Action Plan, released in November 2015 in coordination with the City Council, committed to investing in City-owned industrial properties, creating affordable industrial space, and providing key support services to industrial businesses. To prepare New Yorkers for the industrial jobs of the future, the City committed to investing significant resources to provide training in these jobs, which included creating the Industry Partnerships program to align workforce programs and creating career centers in IBZs. The North Brooklyn Plan is a direct output of two of the plan's ten points: "Strengthening Core Industrial Areas" and "Creating New Models for Flexible Workspace and Innovation Districts." Other land use policy initiatives included limiting self-storage in IBZs and limiting hotels in M1 districts.

New York Works

In June 2017, Mayor de Blasio released New York Works, a plan to catalyze the growth of 100,000 good-paying private sector jobs over the next ten years. New York Works identified economic development challenges including rising inequality and fast-changing technologies driving automation and new skillset requirements. The City committed to target jobs in both emerging and established sectors, including tech and cybersecurity, life sciences and healthcare, industrial/ manufacturing, and creative ventures.

The City agreed to look to its toolbox of programs and approaches to economic development, including activating City-owned property for commercial and industrial use, financing and tax incentives, capital investments in infrastructure that benefit business growth, directing investment growing industries, and expanding workforce development programs and tools. To ensure that there is space for these jobs, the City committed to zoning changes that remove barriers to commercial and industrial space and supporting growth of established office districts in Manhattan, emerging commercial centers (e.g., Downtown Brooklyn and Long Island City), smaller-scale, neighborhood employment districts such as the Study Area.



Mayor de Blasio announcing the Industrial Action Plan



New York Works jobs plan

Other Studies & Plans

Evergreen Brownfield Opportunity Area Plan

Evergreen was awarded funding by the New York State Department of State's Brownfield Opportunity Area (BOA) program to create a revitalization plan for the North Brooklyn IBZ. DCP and Evergreen launched their respective studies of the IBZ in late 2015, and conducted several joint outreach sessions, including a public Open House and stakeholder roundtables. Released in February 2018, the Evergreen BOA *Plan's* vision is "a thriving 21st century industrial area that is diverse and inclusive, adaptable yet stable, and environmentally responsible, allowing businesses to grow in place and continue providing the neighborhood with high quality jobs, the city with essential services, and the world with excellent products."

Similar to the North Brooklyn Plan, the BOA Plan identified challenges to the IBZ's current capacity for high quality job growth due to space constraints, land use conflicts, and infrastructure needs. While some of the area-wide policy interventions proposed in the Evergreen BOA Plan differ from those in the North Brooklyn Plan, there is alignment on the Study Area's economic importance and its unique strategic advantages for employment growth. Evergreen's continued input and collaboration will play an important role in the development of any future land use changes or other City actions within the Study Area.

Brooklyn Chamber of Commerce Comprehensive Economic Development Strategy (CEDS)

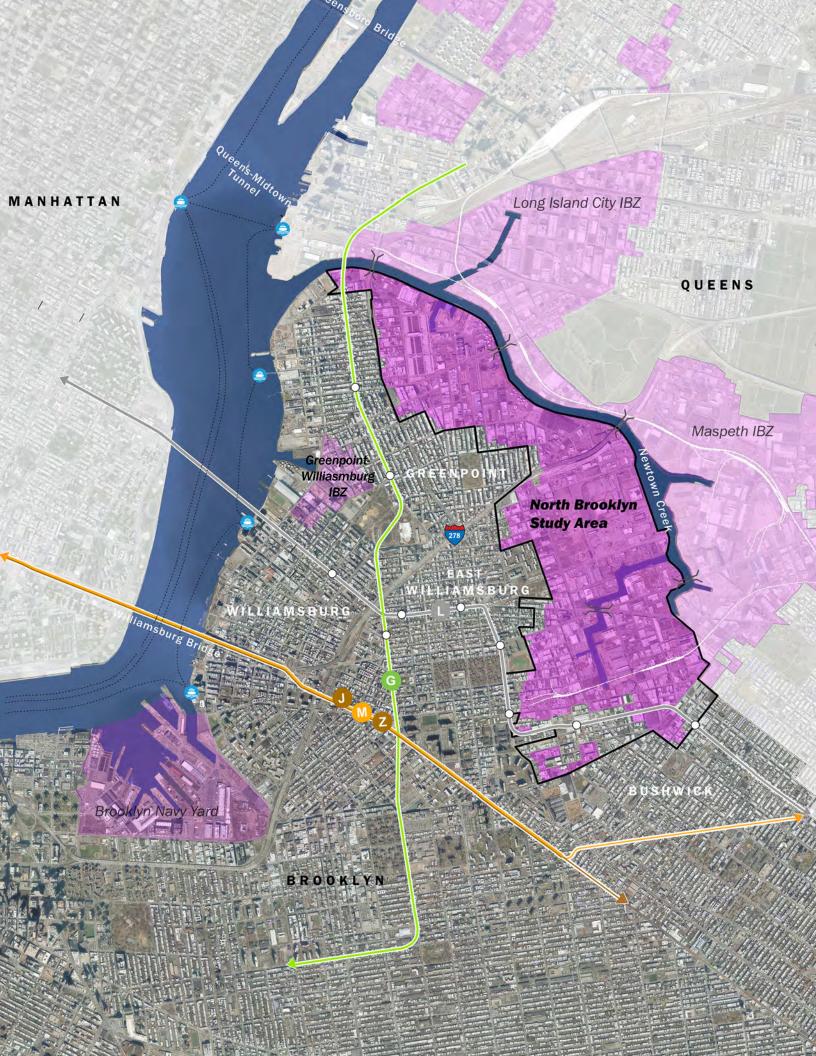
In February 2018, the Brooklyn Chamber of Commerce released a Comprehensive Economic Development Strategy (CEDS) with an agenda to "support Brooklyn's continued economic growth and to ensure future growth is equitable, sustainable, and resilient" for the next one hundred years. The CEDS proposed initiatives for employer attraction and retention, workforce development, infrastructure, and housing and neighborhood vitality. This included a new vision of a network of expanded commercial centers forming a ring around Downtown Brooklyn, including industrial areas in North Brooklyn, Broadway Junction, Coney Island, and a Central Brooklyn Wellness District. Supporting the objectives of the North Brooklyn Plan, the CEDS recommended unlocking commercial space with new zoning in transit-accessible industrial areas to foster the growth of creative and innovative businesses emerging there.

Engines of Opportunity

In November 2014, New York City Council's Land Use Division released the Engines of Opportunity report, which provides recommendations on how to protect and grow the industrial economic base, support new kinds of economic activity, and promote a diversity of uses. Recommendations seek to update zoning to provide protections for essential industry, as well as provide a framework for job growth and districts that integrate manufacturing with other uses. This report was in part informed by the research and policy guidance of the Pratt Center. The North Brooklyn Study was announced at the City Council hearing on the report.

NYC DOT North Williamsburg **Transportation Study**

The North Williamsburg Transportation Study was conducted by DOT in response to growing congestion as well as requests from community members and elected officials to address other transportation-related problems. The study aims to comprehensively examine and improve travel conditions for all users, and enhance the quality of life for residents and visitors to the area. DOT will develop recommendations to relieve congestion, expand travel choices and enhance safety for all travelers by various modes (surface transit, ferries, automobiles, trucks, bikes and walking).



North Brooklyn

The Study Area is an active 1,066-acre employment hub located in the geographic center of city, offering a unique strategic advantage for businesses seeking access to customers and suppliers in Brooklyn, Queens and Manhattan. It has been one of New York City's most important industrial assets since the early 1800s. Today, the Study Area contains a dynamic mix of industrial and manufacturing activities, creative and artistic uses, and officebased businesses.

History

1800s through World War II

Newtown Creek was once one of the most heavily industrialized waterways in the country. Industry and maritime uses, attracted by waterfront access, first developed in the Study Area beginning in the 1800s, and the area became a major hub for shipbuilding. Industry diversified in the late 19th century with additional, noxious uses that included oil refineries, natural gas, scrap metal, waste treatment and storage, metal plating, chemical companies, and warehouses.15

Movement of freight was first by horsedrawn carriages and eventually by small trucks that ferried goods and materials along narrow streets between the Study Area, the Greenpoint waterfront, and the freight rail yard at Johnson Avenue. The street network reflects this era before tractor trailers and is characterized by narrow streets and an irregular grid.

Portions of the Study Area were historically mixed-use. The developed at first without land use restrictions with a mix of small-scale industrial and residential buildings close to the surrounding neighborhoods of Greenpoint and Bushwick, functioning as a walk-to-work community.

In the 1920s, the City extended the Canarsie subway line to Manhattan through the Study Area, which made it more accessible to workers and residents alike. Aerial photographs from the 1920s and 1950s show an area teeming with industry and tenements side-by-side. However, after industrial zoning was put into place in 1961, worker housing dwindled due to attrition and disinvestment. Especially in the southern portion of the Study Area, the remaining tenements, small residential buildings, and presence of narrow and irregular tax lots are a testament to this mixed-use legacy.

The Newtown Creek waterfront, originally wetlands, marsh gradually filled in over time, but remained substantially undeveloped until construction of the Brooklyn-Queens Expressway in the late 1940s, providing important interstate highway access. Large, open land — ideally sited away from residential areas was developed in this area with new street infrastructure, new large-scale industrial buildings, and large utility facilities such as gas and oil storage tanks and municipal water pollution control plants.

Post-World War II

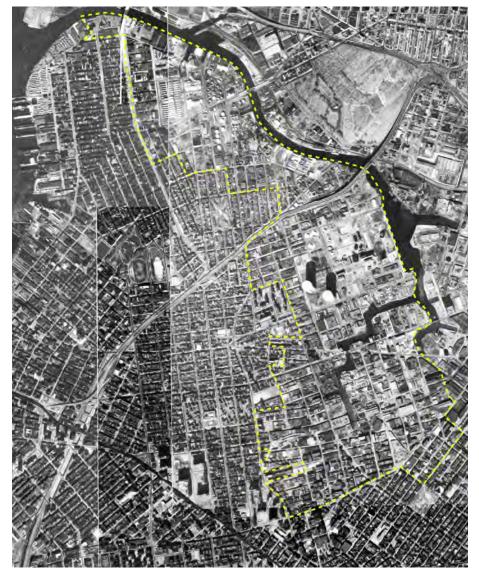
Following World War II, macroeconomic forces and the city's infrastructure limitations caused industrial firms to migrate from New York City to the region, the nation's South, or abroad. These factors included lower labor,



1924 Aerial Image of North Brooklyn. Source: NYCityMap.



Newtown Creek, 1930s. Federal Art Project (Photographic Division). Courtesy NYC Municipal Archives.



1966 Aerial Image of North Brooklyn. Source: NYCityMap.



Newtown Creek, 1966. Courtesy NYC Municipal Archives.

tax and operating costs; constrained transportation access due to the city's narrow streets; congestion; and physical separation from the nation's mainland. Despite City policies to support industry, including zoning restrictions and financial incentives, New York City's industrial economy steadily declined from its peak in 1954. In the Study Area and citywide, industrial buildings and lots became vacant and jobs declined.

In the 1980s, vacant industrial loft buildings in the Study Area began attracting artists and other residents looking for affordable live/work space. These conversions were originally illegal, but the Loft Law and subsequent amendments established procedures by which tenants in some of these dwellings could be granted rights and rent protections and required that these buildings comply with residential building and fire codes.16

Since that time, the Study Area's economy has shifted and grown, driven by citywide economic growth that has buoyed industrial businesses, as well as an influx of non-industrial uses. Today, vacant loft buildings in the Study Area are rare, and the Study Area is evolving into a new kind of employment hub.

The North Brooklyn **Economy**

Between 2010 and 2016, private employment in the Study Area grew by 13 percent, adding 2,270 new jobs for a total of 19,500 jobs. Even as non-industrial businesses moved into the neighborhood, industrial sectors gained a net of over 1,200 jobs between 2010 and 2016, driven by growth in telecommunications, utilities, construction, and motion picture recording. (While film studios may not be a traditional industrial use, they are similar to other industrial businesses in that they require large footprint sites with wide column spacing and storage warehouses, and larger ones

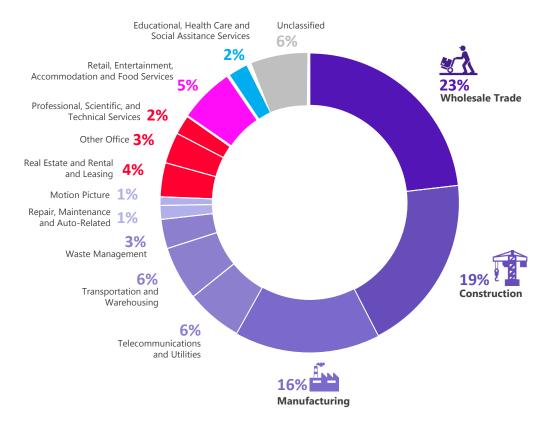
produce significant truck traffic. The number of motion picture soundstage jobs are likely underestimated, as many are employed by companies with headquarters outside of the Study Area. On the other hand, available data locate jobs based on business addresses and may count off-site workers, especially in the case of construction companies.)

Continuing a long-term trajectory since 2010, food manufacturing also grew, gaining 180 jobs between 2010-2016. This was offset in a decline in other types of manufacturing, making overall manufacturing employment essentially stable, with an increase of forty jobs.

This growth has reversed a decadeslong trend of job losses across the Study Area. In 1969, the Study Area had 42,000 industrial jobs, but over the next 40 years, the area lost more than 25,000 jobs.17

In recent years, 51 percent of job growth in the Study Area was in non-industrial sectors located almost exclusively south of Metropolitan Avenue, closer to transit. This was driven by retail, arts, and entertainment (+970 jobs), followed by office-based sectors (+530 jobs) including professional services (particularly computer systems design), administrative and support services, and real estate.

NORTH BROOKLYN PRIVATE EMPLOYMENT, 2016



Source: NYS Department of Labor. Quarterly Census of Employment and Wages (QCEW), 2016 (3Q). "Other Office" includes Administrative Support, Finance and Insurance, Information, Management of Companies, Other Services. "Unclassified" contains unclassified firms and sector data that could not be disclosed due to disclosure rules.

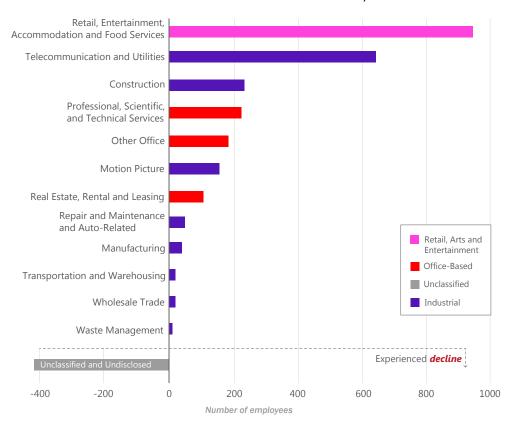
Workers in North Brooklyn

The most recent available demographic data on workers in the Study Area are from 2014. They indicate that more than 72 percent of people working in the Study Area at that time over the age of thirty did not have a college degree, as compared to 60 percent in New York City as a whole. 18 This reflects the largest employment sectors in the Study Area (wholesale trade, construction, and manufacturing), for which most occupations do not require a college degree.

Data also show that there is a disproportionate share of Hispanic workers in the Study Area; they constitute 34 percent of all workers, as compared to 23 percent in the city as a whole. Almost three quarters of workers live within ten miles of the Study Area (in one of the city's five boroughs or in northern New Jersey). In comparison, in the city as a whole, only two-thirds of workers live within ten miles of their workplaces.



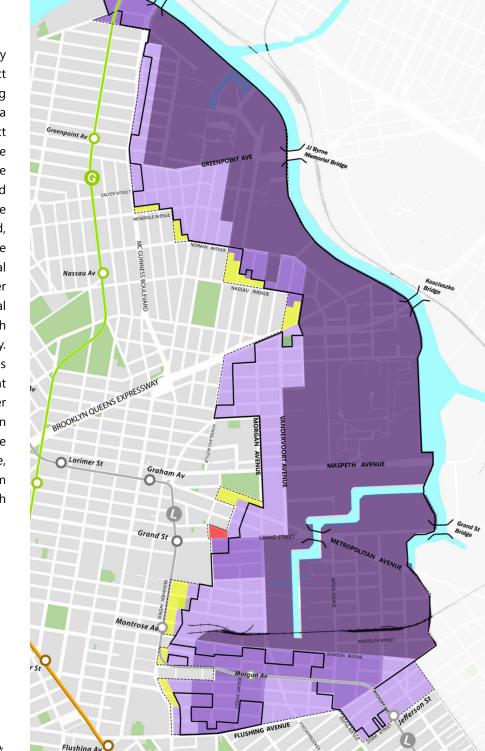
CHANGE IN NORTH BROOKLYN PRIVATE EMPLOYMENT, 2010-2016

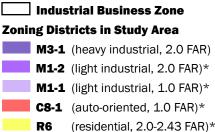


Source: NYS Department of Labor. Quarterly Census of Employment and Wages (QCEW), 2016 (3Q). "Other Office" includes Administrative Support, Finance and Insurance, Information, Management of Companies, Other Services. "Unclassified" contains unclassified firms and sector data that could not be disclosed due to disclosure rules.

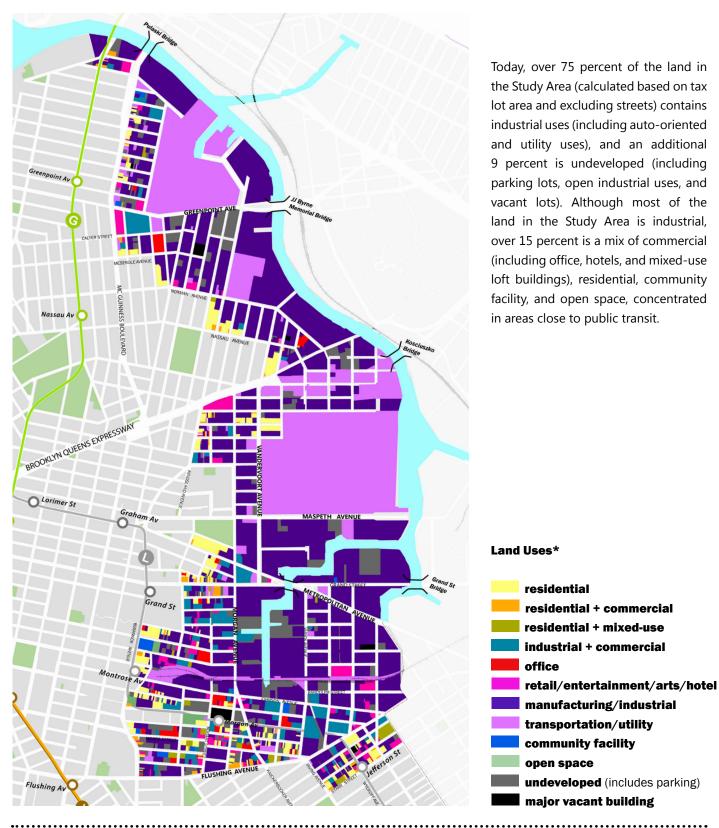
Land Use and Zoning

Already an industrial hub, the Study Area was zoned as an M district by New York City's 1961 Zoning Resolution. Land use in the Study Area today generally continues to reflect the different zoning districts that were applied. The zoning is M3 where there are heavy industrial uses concentrated along Newtown Creek, and M1 where more mixed-use areas are located, south of Metropolitan Avenue. There are also some predominantly industrial M1 districts that serve as a buffer between the M3 districts and residential areas along Morgan Avenue and north of the Brooklyn-Queens Expressway. A small portion of the Study Area is mapped C8, a zoning district that accommodates auto-related and other commercial uses. There have been minimal changes to the zoning in the Study Area since it was put into place, apart from rezoning small areas from M1-1 to M1-2 to better align with existing character.





^{*} For certain community facility uses, FARs are higher in some zoning districts than for other uses. M1-1 districts allow for 2.4 FAR of some community facility uses; M1-2 districts allow 4.8 FAR. In C8-1 districts, all community facility uses are permitted at 2.4 FAR, and R6 districts allow for 4.8 FAR of all community facility uses.



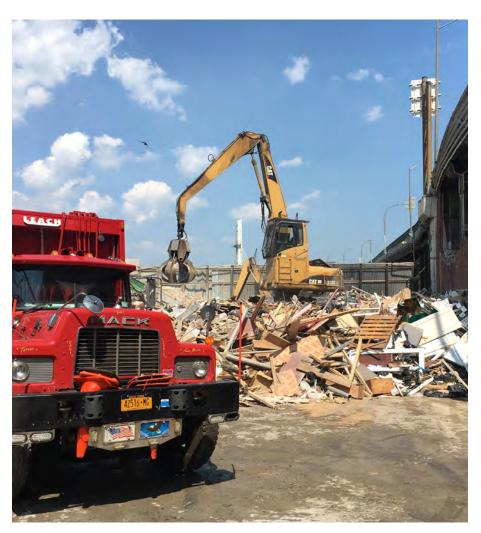
*This land use map reflects the Study Area's buildings with eclectic mixes of uses that defy traditional land use categories. "Residential + mixed-use" denotes live/work loft buildings or buildings with residential and a mix of other uses, and "industrial + commercial" predominantly denotes multi-story loft buildings that may include a mix of artistic, creative office, media uses. Both categories may include ground floor retail.

Heavy Industrial Areas Adjacent to Newtown Creek

The heavy industrial uses along Newtown Creek include the Newtown Creek Wastewater Treatment Plant and National Grid sites, construction materials storage, open industrial uses, wholesale, manufacturing, and film studios. Many of these uses take advantage of the large lots here. Seventy percent of the Study Area is made up of lots of over 20,000 SF and 40 percent is made up of very large lots of over 100,000 SF, with a greater concentration of large lots closer to Newtown Creek. Heavy industrial uses also benefit from the separation from residential uses and excellent transportation access that this portion of the Study Area offers.

Buildings are predominantly low-scale and many lots are underbuilt (i.e., less than 75 percent of the allowable floor area under existing zoning has been built). More than 80 percent of the buildings were built prior to 1961 zoning regulations, and many do not contain the off-street loading berths required by zoning today, leading to on-street loading and congestion.

In this part of the Study Area, mostly zoned M3, there has been little development over the last twenty years. Recent development has been predominantly sound stages, one-story warehouses, and City-owned facilities. Industrial businesses have indicated that the high parking requirements for



Open industrial use

commercial space imposed by existing zoning limit their ability to create office space they need, and that parking and loading requirements prevent those businesses from expanding.

areas characterized by a concentration of heavy, truck-intensive industrial businesses generally constitute the Core Industrial Area in the Land Use Framework.

Emerging Mixed Commercial Areas Near Transit

Portions of the Study Area south of Metropolitan Avenue contain a diverse mix of uses and are changing rapidly. These areas have a long mixed-use legacy, reflected by the prevalence of small lots that originally contained rowhouses. Today, a neighborhood with an eclectic mix of uses and a robust creative arts scene has emerged.

In 2010, approximately 80 percent of the land in the Study Area closest to public transit (south of Metropolitan Avenue west of Morgan Avenue, and south of Randolph Avenue east of Morgan Avenue) contained industrial uses, with an additional 7 percent undeveloped or used for parking.¹⁹ Just over five years later, only 50 percent of the land contained industrial uses, largely due to conversions to retail and office uses. Significant numbers of building permits indicate the scale of recent investment: between 2010 and 2017, nearly 100 permits were issued or filed for major alterations to existing buildings, and over twenty-five issued or filed for new buildings.20

mixed These areas contain concentration of loft buildings that have been converted for live/work space, artist studios, small niche manufacturing, and office users. Today, 15 percent of the land in these areas contain mixed-use loft buildings. As



Commercial uses in a converted loft building on Flushing Avenue

attractive as these buildings are, nearly all of the neighborhood's loft buildings exceed today's zoning envelopes and maximum allowable floor area and could not be built today. Low-scale warehouses are also increasingly being converted for arts, food and beverage, entertainment, and office spaces, alongside legacy small and large industrial businesses.

These areas also contain the greatest concentrations of housing within the

Study Area, with over 1,200 housing units. This includes units in historic rowhouses and over twenty buildings legally converted pursuant to the Loft Law.

Areas with the greatest concentrations of non-industrial uses closest to the subway comprise the Growth District, while mixed areas with moderate transit access constitute the Transition Area within the Land Use Framework.

Preexisting Residential Uses

The Study Area as a whole contains approximately 400 residential buildings (not including residential conversions of industrial lofts) that predate zoning and are located within M districts, many located on predominantly residential blocks at the periphery of the Study Area, although others are scattered within the Study Area. While legal, their status as non-conforming uses can present challenges to property owners seeking to secure mortgages or make significant building improvements.

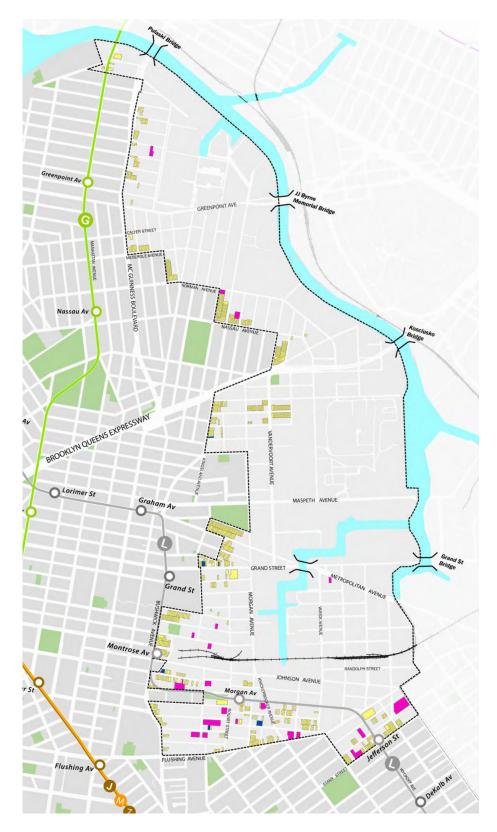
The Study Area also contains Loft Law buildings and what appear to be nonconforming conversions of industrial loft buildings. There has also been a small number of new residential buildings developed pursuant to variances from the NYC Board of Standard and Appeals (BSA).

There were approximately residential units and 8,700 residents in the Study Area as of 2010.21

Residential Uses

Grandfathered (residential uses in buildings that pre-date zoning) Loft Law (residential uses in buildings with Loft Law status) BSA (new residential uses

pursuant to a BSA variance)





Predominantly residential block



Historic residential building adjacent to industrial uses



Justice Gilbert Ramirez Park

Open Space

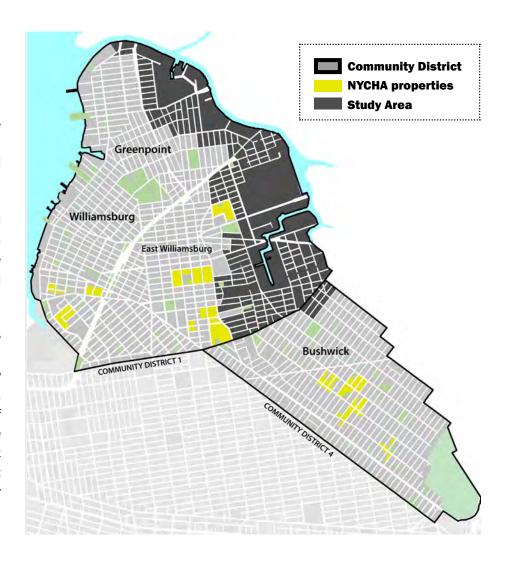
There is little open space in the Study Area. Justice Gilbert Ramirez Park is a small park located on McKibbin Street between Bogart Street and White Street, and Ten Eyck Playground, associated with P.S. 196, is located on Meserole Street.

Other open spaces include the Newtown Creek Nature Walk, a quartermile public walkway built as part of the Newtown Creek Wastewater Treatment Plant. The Newtown Creek Alliance has also led the creation of small waterfront pocket parks at street ends along the Creek, such as the Manhattan Avenue Street End. Further, the New York State Department of Transportation is undertaking the reconstruction of Sgt. William Dougherty Park, located just south of the Brooklyn-Queens Expressway.

Surrounding Residential Neighborhoods

The Study Area is surrounded by the residential neighborhoods of Bushwick, East Williamsburg, Williamsburg, and Greenpoint.

Greenpoint-Williamsburg (defined here by the boundaries of Brooklyn Community District 1) includes the area of Brooklyn north of Flushing Avenue and contains mostly residential and commercial uses, as well as a small area of legacy industrial uses near the East River waterfront. In 2005, 183 blocks were rezoned to allow for new housing and mixed-use development. There is now a significant number of new waterfront residential units in the pipeline. There are also three New York City Housing Authority (NYCHA) public housing developments immediately adjacent to the Study Area.

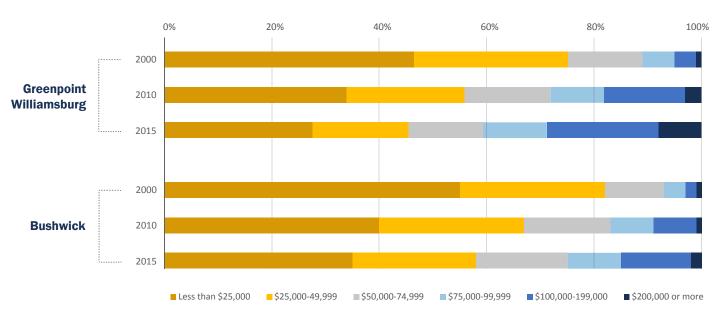


DEMOGRAPHIC PROFILE OF GREENPOINT-WILLIAMSBURG, BUSHWICK, AND BROOKLYN RESIDENTS

	Green	Greenpoint-Williamsburg			Bushwick				Brooklyn			
	2000	2010	2015		2000	2010	2015		2000	2010	2015	
Young adults (20-34)	26%	33%	36%		25%	30%	33%		23%	24%	25%	
Share of non- family households	39%	51%	52%		24%	37%	39%		34%	37%	38%	
Population 25+ with bachelor's degree or greater	18%	37%	46%		7%	16%	28%		22%	28%	35%	
							10	20	30	40	50	

Source: U.S. Census Bureau. 2000 Census; American Community Survey 2006-2010 5-year period estimates, and 2012-2016 5-year period estimates. Greenpoint-Williamsburg defined as PUMA 4001, approximately the geography of Brooklyn CD 1; Bushwick defined as PUMA 4002, approximately the geography of Brooklyn CD 4.

MEDIAN INCOME (% OF HOUSEHOLDS), 2000-2015



Source: U.S. Census Bureau. 2000 Census, 2010 Census, 2010 American Community Survey-Summary File, and 2015 American Community Survey-Summary File.

Bushwick (defined here by the boundaries of Brooklyn Community District 4) located south of Flushing Avenue. A small number of blocks south of Flushing Avenue zoned as M districts are included in the Study Area.

Both neighborhoods experienced demographic change between 2000 and 2015 and increases in housing costs. The change in Greenpoint-Williamsburg has been more dramatic, with a significant increase in incomes and education levels, as well as more young adults and nonfamily households. Bushwick seen modest increases in income and education levels as well, although it still contains a significant population with low incomes (56 percent of households have an income below \$50,000) and lower educational attainment (24 percent of residents have a college degree).

As populations with higher incomes move to these areas, housing costs are likely to continue to rise, putting pressure on lower-income residents. The North Brooklyn Plan offers an opportunity for local residents with different skill sets and education levels to access quality jobs in both industrial and non-industrial sectors that can allow them to earn a living wage.

Transportation Conditions

One of the Study Area's greatest assets is its strategic location: access to major truck routes and highways, the Bushwick Branch rail freight line, the Newtown Creek waterway, and two subway lines. However, outreach has indicated that transportation conditions are also one of the greatest concerns for industrial businesses, as well as for other types of businesses, workers, and residents.

Street Network and Congestion

The Study Area's narrow and irregular street grid dates to when horse-drawn carts and box trucks were the primary means of moving goods. While the truck route network is extensive, narrow streets make it difficult for today's modern tractor trailers to navigate. Further, physical barriers - such as Newtown Creek, English Kills, and the large National Grid and Newtown Creek Wastewater Treatment Plant sites – result in few north-south street connections. This funnels traffic onto a few critical through streets, especially Morgan Avenue. Truck route signage is also limited in certain areas, leading to further navigational challenges.

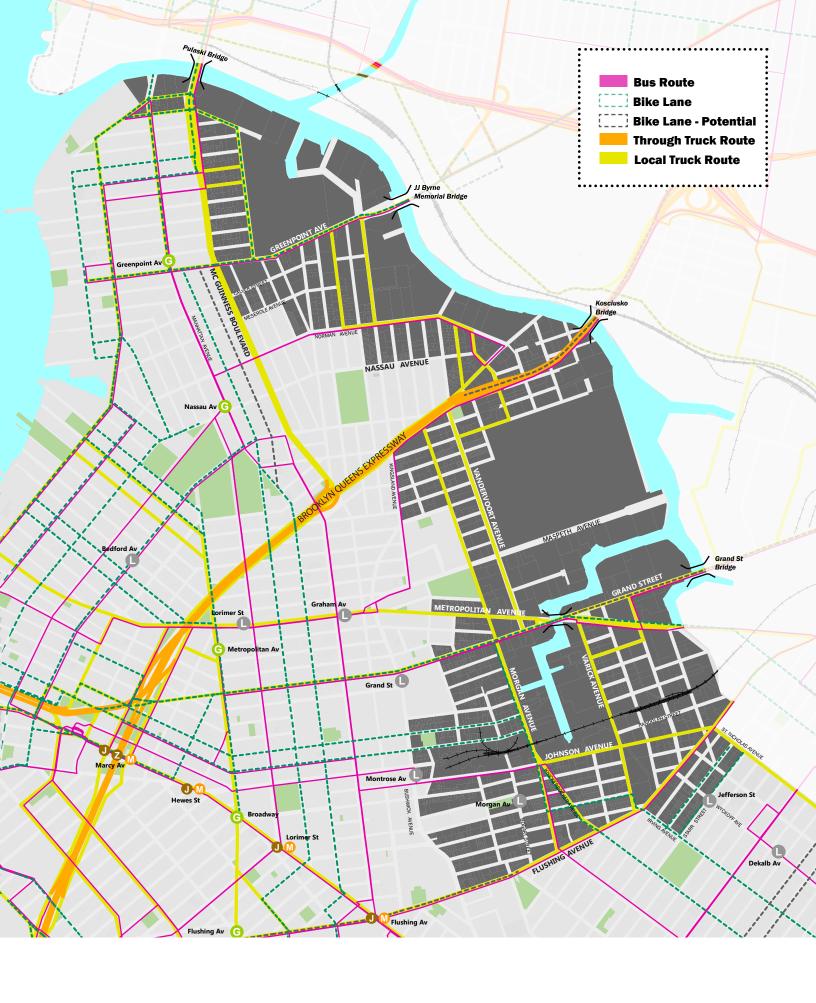
There is also a limited number of connections to Queens, which causes the Greenpoint Avenue, Kosciuszko, and Grand Street bridges to be routinely congested. The Grand Street Bridge, in particular, is too narrow for

trucks to pass one another, resulting in backups on Grand Street, a major truck thoroughfare.

The Kosciuszko Bridge is currently being replaced with a new structure that will meet modern interstate standards. Phase 1, the Queens-bound bridge, opened in 2017 and will operate as a two-way crossing until the Brooklynbound bridge is completed as part of Phase 2, expected in 2020. Together, the two new bridges will contain nine wide travel lanes and are expected to reduce vehicle delays.

Transit Access

Approximately 50 percent of the Study Area is within a half-mile of a subway station. Transit access in the southern portions of the Study Area is excellent: two L train stations are located within it (Morgan Avenue and Jefferson Street), with three additional L train stations at the periphery (Grand Street, Montrose Avenue, and DeKalb Avenue). The northwestern edge of the Study Area is within walking distance of the Greenpoint Avenue and Nassau Avenue G train stations. This leaves the north, central, and eastern portions of the Study Area with poorer access. This contributes to a reliance on personal vehicles for transportation, leading to additional congestion and competition between on-street employee parking and on-street commercial loading.



In recent years, entries during the evening peak period at nearby stations have increased significantly. The L train is operating at capacity during peak periods and the Canarsie Tunnel, which carries trains between Manhattan and Brooklyn, is scheduled to be closed for fifteen months for repairs starting in 2019. The G train is currently operating, on average, at 75 percent capacity at peak AM hours and 63 percent at peak PM hours.²²

There are nine bus routes that provide access to the Study Area. Ridership on these lines varies, with highest ridership at the edges of the Study Area and fewer riders in the IBZ. Average bus frequency in the morning ranges from every five to thirty minutes, and on-time performance in the Study Area is low.²³

Bicycle Infrastructure

Commuting by bicycle increased in Brooklyn by 83 percent between 2010 and 2015 (from 10,500 cyclists to over 19,000), a trend that is likely to continue as businesses and residential populations grow.²⁴ Some bike routes exist in the northern tip of the Study Area, including the protected route that crosses the Pulaski Bridge and the buffered route that crosses the Greenpoint Avenue bridges. In late 2016, DOT installed a bike route on Metropolitan Avenue, connecting the Grand Street route in Brooklyn with a one-way pair in Queens. In general, however, there are very few routes in the Study Area, leaving



Tight turning radius on a major truck route



Narrow two-way street



Street congestion near the Brooklyn-Queens Expressway



Major north-south street without bike lane



Shared bike lane



New bike lane on Scholes Street

cyclists to risk conflicts with trucks and other vehicles. The top bikeinvolved crash locations are on truck routes and on streets without bike lanes. Between 2012 and 2016, there were seventeen crashes at Bushwick Avenue and Flushing Avenue, eleven at Johnson Avenue and Bushwick Avenue, and nine at Knickerbocker Avenue and Flushing Avenue.25

In response to the upcoming L train closure, DOT has improved pedestrian safety and bike access on and around the Williamsburg Bridge in anticipation of a substantial increase in ridership. This includes two pairs of new bike lanes along Scholes Street/South 3rd Street and Meserole Street/South 4th Street, connecting East Williamsburg to Manhattan. DOT is also connecting bike lanes on Grand Street to the Bushwick bike network through the Study Area.

Other efforts to improve bike connections include adding bike lanes on the new Kosciuszko Bridge to provide an additional connection to Queens.

Pedestrian Conditions and Public Realm

The streetscape and public realm do not yet reflect the increased levels of pedestrian activity south of Metropolitan Avenue. A lack of marked crossings, intersection controls, and curb ramps create a challenging walking environment and sometimes dangerous conditions.

Between 2012 and 2016, the most vehicle crashes involving pedestrians were clustered in the more transitaccessible and mixed-use portions of the Study Area: eight at Flushing Avenue and Knickerbocker Avenue, seven at Bushwick Avenue and Johnson Avenue, and six at Flushing Avenue and Bushwick Avenue.26

Sidewalks and curbs are in poor condition, often caused by heavy trucks using the curb for turns, and are also frequently blocked by on-street loading. There is also a lack of public realm amenities, such as street trees, trash cans, bicycle racks, and benches, which are essential to creating attractive, walkable areas.



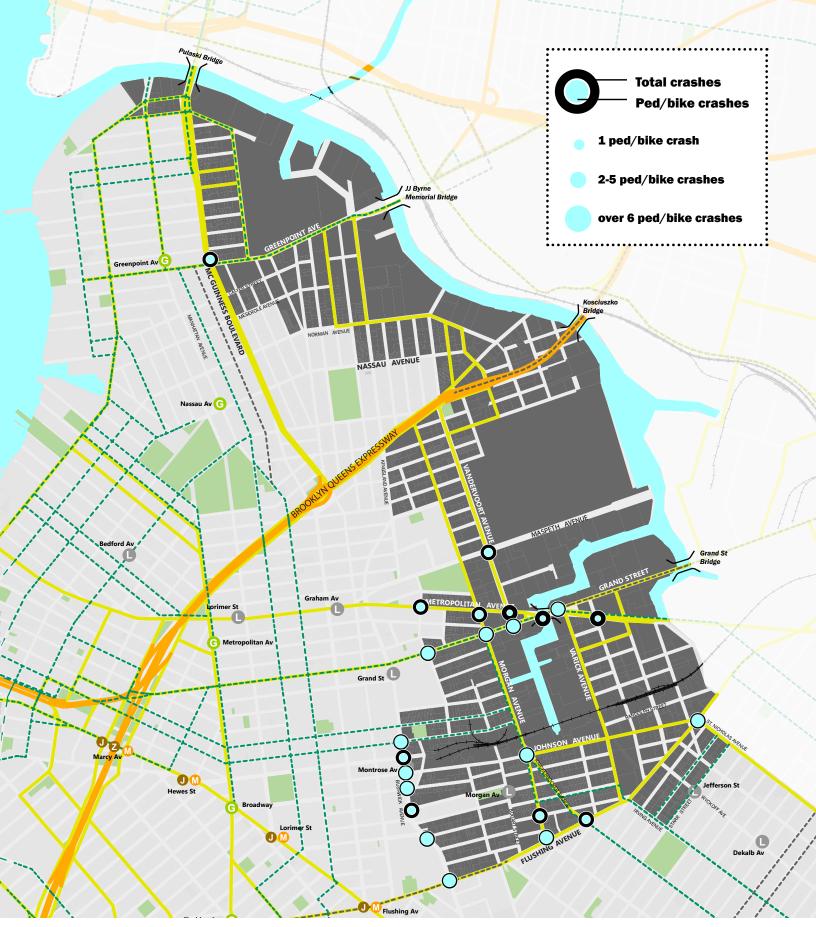
Intersection without crosswalk near the Jefferson St station



Loading and parking on sidewalks



Pedestrian block lacking street amenities



INTERSECTIONS WITH MORE THAN 10 CRASHES (2012-2016)

NYC Department of Transportation, 2010-2016.

Loading Conditions

Truck loading in a dense, urban industrial area is challenging, with space constraints leading to conflicts and congestion. While today's zoning code requires loading berths in new buildings, most industrial businesses reuse existing buildings, most of which lack adequate loading berths and were built before current zoning was put into place.

The many businesses without loading berths (as well as businesses that simply prefer to load on the street) load curbside, on sidewalks, or double park. Businesses with shallow berths load with trucks jutting out into the street, blocking traffic and pedestrians. In new buildings, zoning requires berths be a minimum 50 feet in length, while large tractor trailers up to 55 feet long are legally allowed in New York City. Despite the 55 foot limit, some businesses seem willing to risk incurring fines in order to use even larger tractor trailers.

Further, current on-street designated loading zones do not always reflect the existing needs of businesses or are sporadically placed. Some businesses do not use the loading zones adjacent to their buildings and would prefer to use the space for employee parking. Other issues include unused curb cuts that reduce space for parking and loading and a lack of space for trucks to queue.



Outdated loading facilities that cannot accommodate modern tractor trailers



On-street loading



Difficulty backing trucks into loading berths on narrow streets

Potholes in areas with heavy truck usage



Roadways in need of resurfacing



Drainage issues

Roadway Conditions

Reflecting the impacts of intensive truck usage, many roadways and sidewalks are in poor condition. Several streets are marked by potholes, cracks, and damage to cobblestones, including Varick Avenue south of English Kills, Grand Street, and Morgan Avenue. Other streets have faded striping, including Provost Street and Metropolitan Avenue. There are also subsidence, flooding and drainage issues, particularly around the northern portions of Provost and McGuinness Streets and further south around Jefferson Street and Varick Avenue.

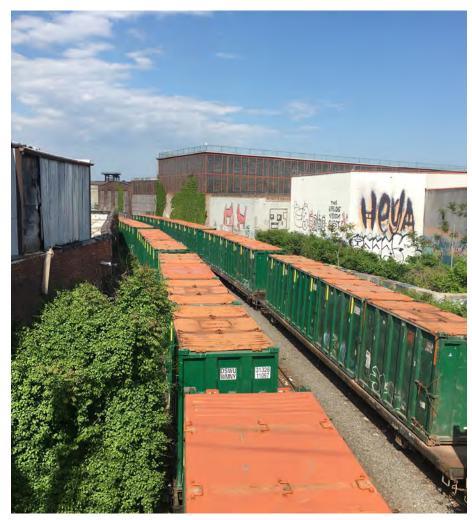
In general, infrastructure improvements such as roadway repairs are often driven and prioritized by community requests. In industrial areas, there may be fewer requests received than in surrounding residential areas.

Alternative Freight Modes: Rail and Waterborne Freight

One of the Study Area's unique assets is its access to two alternative freight modes to truck transportation: rail and waterway.

The Bushwick Branch, operated by New York & Atlantic (NY&A) Railway, is an important freight asset for the city that reduces truck vehicle miles traveled, particularly on Hudson River crossings such as the George Washington and Verrazano bridges. The Bushwick Branch is used by thirty to forty industrial businesses along the length of the rail line in the Study Area, Maspeth, and Long Island City. Current operations include inbound building supplies, industrial raw materials such as ink, metal and plastic, and non-perishable food and beverages; outbound shipment of waste; and trans-load activity — transferring the contents of a railcars to trucks for local deliveries. Approximately 1,800 railcars are handled on the Bushwick Branch each year, the equivalent of 7,200 truck trips, supporting better air quality in New York City.

Using rail for freight is most efficient for adjacent businesses that have room for loading on their properties; however, many businesses adjacent to the rail cannot, or do not, use the rail. Expanding use of the rail faces some constraints: limited availability



Rail cars on the Bushwick Branch



Rail crossing at Morgan Avenue

of properties adjacent to the rail, limited space available for loading, competition with the cost of trucking driven by low fuel prices, the need to ship goods that do not spoil quickly, and the need to work with and store large enough shipments to fill rail cars (three to four railcars minimum, equivalent to twelve to sixteen tractor trailers). Nevertheless, there appears to be unmet demand for use of the rail. NY&A has negotiated a lease of the rail line recently and has plans to increase activity by 5 to 10 percent annually through 2027.

Newtown Creek is the most heavily used borough waterway in New York City, moving over one million tons of predominantly scrap metal, aggregates and fuel, or the equivalent of 38,000 truck trips.27 Overall, New York City's borough waterways contribute to an economic output of \$300 million each year and support over 700 jobs.²⁸

Increasing use of the Creek could help to reduce the number of trucks on the road. Yet many of the properties along the Creek are occupied by businesses that do not transport goods by barge. Waterborne freight is most costeffective when shipment origins and destinations are convenient to water.

Further, poor conditions of bulkheads can also preclude barge loading and unloading on some properties, and addressing this requires high levels of investment.



Barge on Newtown Creek



Aging bulkhead

Environmental Conditions

Newtown Creek has functioned as an industrial hub for several centuries and has a long history of noxious uses resulting in environmental contamination.

Greenpoint Oil Spill

Newtown Creek is home to one of the largest oil spills in American history. Between seventeen and thirty million gallons of gasoline, fuel oil, and chemicals — mainly from operations of ExxonMobil, Chevron/Texaco, and BP (formerly Standard Oil) dating back to as early as 1947— had been streaming into the Creek and the Brooklyn-Queens Aguifer when the spill was identified in 1987.29 ExxonMobil led the collection of spilled oil using containment booms and skimmers from 1993 to 2005. Since then, Chevron/Texaco has continued the remediation at the Peerless Importers site.30

Superfund and Contaminated Sites

Newtown Creek was enrolled in the **United States Environmental Protection** Agency (EPA) Superfund program in 2010 to authorize the federal government to implement cleanup of contaminated sites and to recover costs from responsible parties.31

In addition to the Superfund program, many sites are currently enrolled in the NYS Department of Environmental Conservation's Brownfield Cleanup Program and the Voluntary Cleanup Program, which preceded it.

The contamination of Newtown Creek and other areas in the Study Area is not only a problem of the past. In 2010, the EPA determined that over one million tons of contaminants were entering the Creek annually.32 In 2016, the Newtown Creek Alliance identified over twenty-four sources of pollution, including dumping and runoff, directly impacting Newtown Creek.

Combined Sewer Overflows

During heavy rainstorms, a portion of wastewater that cannot be handled by wastewater treatment facilities expelled directly into nearby waterbodies via combined sewer outflows (CSOs). There are twentyone CSO outfalls in Newtown Creek, which receives 1.2 million gallons per year of discharge.33 This is one of the greatest sources of ongoing pollution in the Creek.34 In June 2017, the NYC Department of Environmental Protection (DEP) released a Long Term Control Plan for Newtown Creek, which recommended the following to mitigate CSO impacts and improve water quality: continue with currently planned improvements, build green infrastructure, increase control of the annual CSO volume at one of the

largest outfalls, and construct a new CSO Storage Tunnel to provide control of three of the other largest outfalls. DEP has begun building an aeration system to increase dissolved oxygen levels in the water and has built some green infrastructure in the Study Area.

Concentration of Waste Transfer Stations

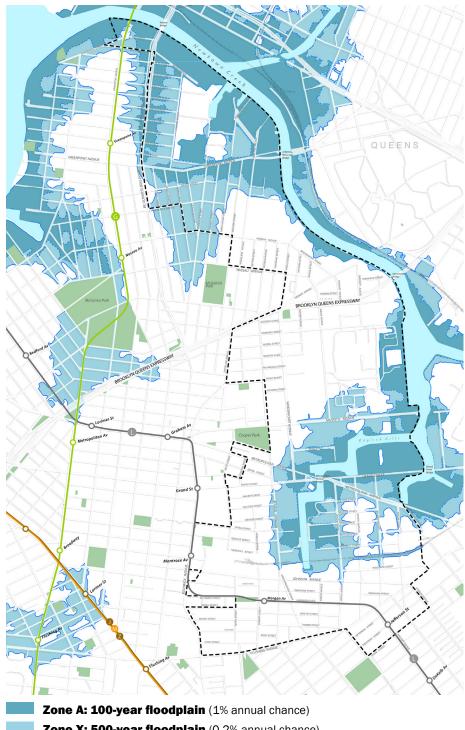
Areas around Newtown Creek contain nineteen waste transfer stations, which handle 40 percent of New York City's commercial putrescible waste, or 4.8 million tons a year.35 This generates truck traffic, odors, and noise that impact surrounding residential areas. The City's Comprehensive Solid Waste Management Plan, released in 2006, seeks to more equitably disperse waste transfer stations throughout New York City. In April 2017, the NYC Department of Sanitation announced the plan to open a new marine transfer station in Gowanus and in Gravesend Bay, both of which have since opened. Further, in August 2018, the Mayor signed the Waste Equity bill (Intro 157-C), which will put a cap on the amount of waste trucked into waste transfer stations in areas with a concentration of these facilities, including North Brooklyn. This would be achieved by redistributing waste processing to new facilities, eliminating a significant amount of truck trips a day in North Brooklyn.

Flood Risk

Areas surrounding Newtown Creek lie within FEMA's Flood Zone A (the 100-year floodplain with a 1% annual chance of a major storm event) and Zone X (the 500-year floodplain with a 0.2% annual chance of a major storm event). As most industrial buildings in this area predate flood-resistant construction requirements, many are vulnerable to future flooding.

The area was significantly affected by flooding during Hurricane Sandy, experiencing 6 to 10 feet of water in some areas, and faced sewer backups. Deteriorating bulkheads exacerbate the vulnerability to flooding, and reconstruction can be cost prohibitive.

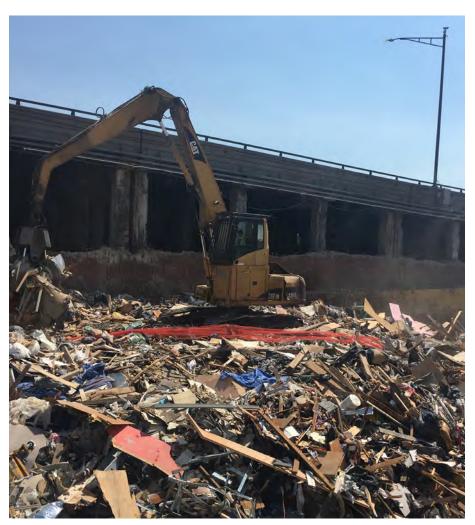
DCP's Resilient Industry Study, released in March 2018, identifies ways to reduce industrial business' vulnerability to flooding, focusing on cost-effective floodproofing measures, such as elevating or wet floodproofing work spaces, innovative approaches storing hazardous materials, and preparedness plans to protect expensive equipment.



Zone X: 500-year floodplain (0.2% annual chance)

Open Industrial Uses

There are many open industrial uses throughout the Study Area, such as concrete manufacturing, auto salvage, scrap metal salvage, waste transfer, and open storage. While some of these uses are only allowed as-of-right today in M3 districts, a number of these uses are also allowed in M1 districts, many of which are located closer to residential uses. Further, in the Study Area, there is a number of non-conforming, intensive open industrial uses in M1 districts. These uses can have a negative impact the neighborhood, producing air pollutants, noise, and material runoff. This is compounded by the fact that these facilities often do not comply with existing regulations for numerous reasons, and enforcement is challenging. Open industrial uses in the flood zone, of which there are a few in the Study Area, are even more problematic, as any flood event has the potential to carry unsecured materials as well as contaminants from these sites into residential areas.



Brooklyn C&D (recycling)



Concrete manufacturing

Ecological Restoration Efforts and Waterfront Access

Before industrialization, Newtown Creek was home to banks of wetlands and marshes. There are several ongoing efforts to improve the natural habitat. The Newtown Creek Alliance monitors the conditions of the Creek and advocates for habitat restoration, bioremediation, and green infrastructure. It also pursues creation of open space and Creek access. Crabs, fish, birds, and plants can now increasingly be found in the Creek.

New access points to the Creek have been created, such as the Newtown Creek Nature Walk and smaller projects like street end gardens.

Other Infrastructure Issues

Some industrial users report sewer capacity issues. Despite the proliferation of technology uses in the Growth District, businesses have indicated that there is a lack of broadband access in portions of the Study Area.



Sign for Newtown Creek Nature Walk



Newtown Creek Nature Walk waterfront access



Doing **Business in** North **Brooklyn**

Extensive outreach to a wide variety of businesses helped to identify the benefits and challenges of doing business in the Study Area.

Business in North Brooklyn

The North Brooklyn Plan was informed by conversations with three major groups of businesses in the Study Area: industrial businesses; TAMI and officebased businesses; and retail, arts and entertainment businesses. Businesses provided input - through one-on-one interviews, in small group roundtables with similar businesses, and at large public meetings - on two overarching questions. Why did you choose to locate here? What are the greatest challenges of doing business here?

This section summarizes trends and feedback that informed the development of a Land Use Framework and helped to identify infrastructure improvements and workforce development strategies to better support businesses and encourage balanced job growth.

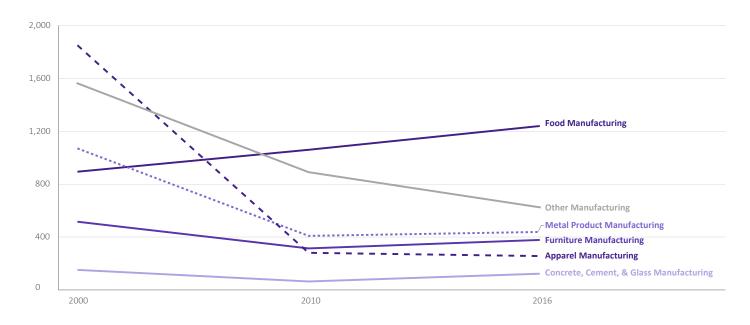
Industrial Businesses: Essential Services that Keep the **City Running**

	TOTAL JOBS (2016)	JOB GROWTH (2010-2016)
NYC	580,000	12%
NBK	14,750	9%

Industrial businesses are distributed throughout the Study Area, with heavy, truck-intensive industrial businesses generally clustered along Newtown Creek. The three largest industrial sectors are wholesale, construction, and manufacturing. The Study Area also contains waste management and recycling, utilities, and an ecosystem of film and television studios.

The Study Area's food manufacturing sector is strong. Despite an overall decline in citywide manufacturing employment between 2000-2016, food manufacturing rose steadily in the Study Area over that period.

MANUFACTURING EMPLOYMENT IN THE STUDY AREA (2000, 2010, 2016)



Source: NYS Department of Labor. Quarterly Census of Employment and Wages (QCEW), 2000, 2010, 2016 (3Q).

Why are industrial **businesses in North Brooklyn?**

- The Study Area is positioned in the geographic center of New York City, with direct access to Brooklyn, Queens, and Manhattan.
- The Study Area is accessible to customers and suppliers via major truck routes and transportation infrastructure.
- Large sites and separation from residential areas are ideal for many larger-scale industrial operations.
- Newtown Creek and the freight rail provide alternative modes for moving goods.
- For some businesses, site ownership means that remaining in place makes more economic sense than looking for alternative locations at affordable prices, which are limited.



Martin Greenfield Clothiers (custom suit manufacturing)



New Yung Wah Trading (food wholesale)



Bayside Fuel (fuel distribution)

What are the challenges of industrial business in **North Brooklyn?**

- Congestion, poor roadway conditions, and difficulty navigating a narrow, inefficient street network result in delays that impose costs on business operations.
- The lack of adequate off-street loading berths in existing buildings leads some businesses to load on the streets and sidewalks, blocking traffic and exacerbating congestion.
- Constrained sites and existing zoning regulations limit expansions of existing buildings. On many properties, it is not possible to expand buildings horizontally beyond their current footprint or to expand vertically.
- Businesses that do not own their spaces face unpredictability in terms of rent increases and tenure, which limit their ability to make longterm investments. While industrial rents have risen from an average of \$14 per SF in 2008 to \$23 per SF as of early 2018 in the Study Area, industrial rents along Newtown Creek have remained more stable.36

- The most heavily industrial portions of the Study Area have limited public transit access for employees.
- Many sites necessitate costly environmental remediation if they are redeveloped. Additionally, Newtown Creek is a Superfund site and some businesses along the Creek may be responsible for cleanup costs.
- Bulkheads along Newtown Creek are deteriorating, but many businesses cannot afford the expense of repairs; the Creek's Superfund status also makes approvals for repairs more complex and onerous.

- Many businesses lie within the 1 percent annual chance floodplain and are at risk of flooding during storm events. Most buildings and open storage uses pre-date regulations requiring resilient construction in the floodplain.37
- Competition for large lots exists between industrial businesses and other non-industrial uses. a particular concern in the M3 portion of the Study Area, which is especially suitable for industrial uses and where there is a concentration of large lots.

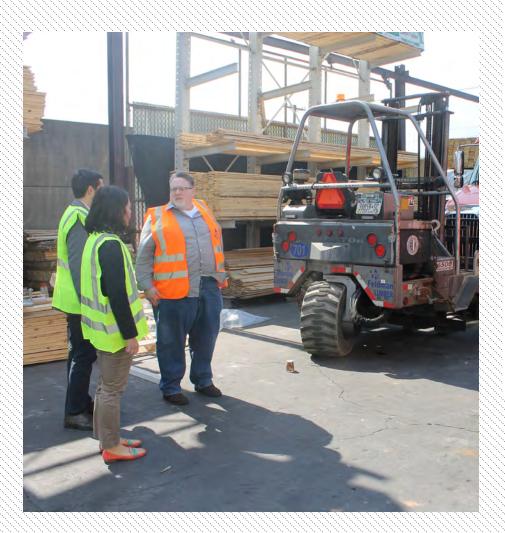


Deteriorating bulkheads

Feldman Lumber

An essential industrial business dependent on a central location and access to major truck routes

Located in New York City since 1912, Feldman Lumber is a full line building materials distributor and the largest supplier of lumber to contractors and industrial companies in the tri-state area. Originally located in Greenpoint, it moved to its current East Williamsburg location ten years ago so that it could have more space while remaining centrally located, with close proximity to Manhattan, where the majority of the construction sites are.



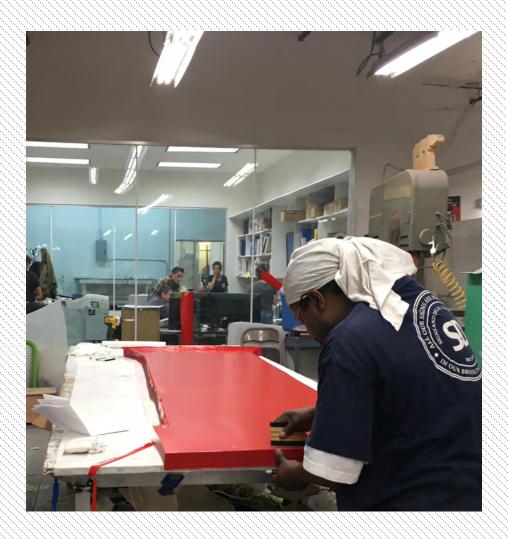
Feldman Lumber provides materials to significant real estate and infrastructure projects in New York City - such as Hudson Yards and the Second Avenue Subway - and businesses like it are critical to the ongoing growth of the city.

Even with five acres of land and approximately 50,000 SF under its roof, Feldman Lumber is space constrained. The company has had to make its operations highly efficient, making deliveries twenty-four hours a day, seven days a week, storing materials as compactly as possible, and adopting technology that improves the efficiency of its logistics and delivery times. Congestion and poor roadway conditions in the Study Area slow deliveries and increase costs, but the advantage of the location keeps Feldman Lumber here.

Signs + Decals

A small, space-constrained manufacturing company increasingly relying on new technology

Signs + Decals is an architectural signage fabricator that has been serving the tri-state area since 1972. It purchased its property on Morgan Avenue thirty years ago, relocating from Queens. The company, which has forty employees, manufactures custom signs for a wide variety of projects, including many major construction projects such as the World Trade Center.



Due to the highly customized and high end nature of its products, the company's close proximity to customers and suppliers in New York City has been critical to its business. The company contemplated moving to New Jersey ten years ago in order to obtain expanded production space, but it decided to remain at its current site due to its locational advantages.

Signs + Decals' property currently contains a single-story building. As it grows, it has become increasingly space constrained. Further, as its production methods change and become increasingly technology-driven, such as using waterjets and laser cutters, it may be able to use upper floors. However, the current zoning is M1-1, limiting FAR to 1.0, precluding Signs + Decals from building vertically to create the space it needs.

Cooper Recycling

An essential industrial business that benefits from its separation from non-industrial uses

Cooper Recycling operates the largest construction and demolition (C&D) debris recycling facility in New York City. Its facility on Maspeth Avenue, which was in operation from 1986 - 2017, processed 1,200 tons per day, of which 80 percent was recycled to beneficial end uses. In September 2017, it opened a new, state-of-the-art recycling facility on Varick Avenue that employs seventy workers.



The new facility is designed to process 2,000 tons per day and recycle 95 percent of that material. With its immense volume, Cooper Recycling operates twenty-four hours per day, six days a week.

Cooper Recycling relies on its proximity to Manhattan, where most of the construction feeding its business occurs. C&D facilities do not emit odors or cause emissions, but are required to be sited in heavy industrial areas. This benefits operations as the trucks entering and exiting the facility at all hours do not conflict with other types of businesses or residences.

The Bushwick Branch rail line runs adjacent to the Varick Avenue property. The company hopes to be able to use rail to send its recycled material to secondary processors. Cooper Recycling is located on Newtown Creek and will be able to use its barge access to ship aggregate once Superfund cleanup is complete.

TAMI and Office-Based **Businesses: Major NYC Growth Drivers**

TOTAL JOBS JOB GROWTH (2010-2016) (2016)NYC 1,323,000 **17% NBK** 1,780 42%

Available data suggest that in the Study Area between 2010 and 2016, office-based employment grew by 530 jobs, including 80 new computer systems design jobs - although as previously discussed, this is likely to be

an underestimate. One of the largest TAMI companies is Livestream, one of the largest video streaming service providers, which currently leases 30,000 SF of space at a lower cost than it did in its previous, smaller office in

Chelsea. Another notable businesses is ConsenSys, a blockchain software technology company that developed a virtual currency called Ethereum, located at 49 Bogart Street.

Many of the office-based companies in the Study Area were able to find affordable, flexible spaces with shortterm leases in converted industrial buildings. Some of these businesses the spectrum between on commercial and manufacturing, such advanced manufacturing film and photo studios. Some are in stand-alone buildings, while others are in multi-story loft buildings that contain a mix of tech, media, arts, and manufacturing, such as 195 Morgan Avenue, which is home to Livestream, artisanal manufacturing, artist studios and Voodoo Manufacturing, a 3D printing company.

There is a number of coworking spaces, such as Bathaus, a communityoriented model that has capacity for approximately thirty-five users in a small unfinished warehouse. These coworking arrangements provide flexible, shared space to startups, freelancers, and self-employed workers, many of whom live in nearby neighborhoods.



Paper Mill, loft office conversion on Johnson Avenue

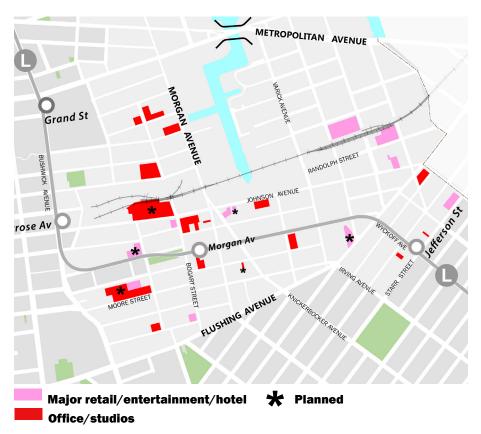
Real estate trends³⁸

Average office rents in the Study Area have been climbing from \$20 per SF in 2008 to \$37 per SF as of early 2018, although they remain competitive compared to more established markets in Manhattan, Williamsburg, DUMBO, or Downtown Brooklyn.³⁹ Property sales prices have also been rising. Data indicate that the average sales price for industrial and office buildings was \$340 per buildable SF in East Williamsburg in 2017 compared to \$252 in 2012; it was \$398 per buildable SF in Greenpoint in 2017 compared to \$144 in 2012. Across Brooklyn, sales prices were \$409 per buildable SF in 2017 and \$177 in 2012.40

Based on interviews and public media sources, there was over one million SF of office and retail space announced, under way, or completed in the past five years in the Study Area as of the fall of 2017. This consists almost exclusively of conversions of existing buildings. Were zoning to allow for greater density with lower parking requirements, more new construction might be feasible.



New coworking space on Bogart Street



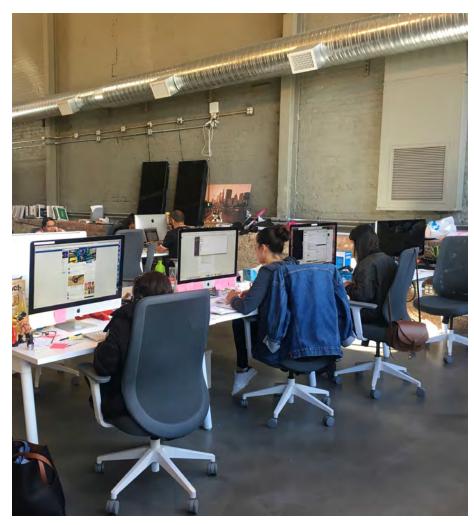
Commercial pipeline: planned, under construction, or completed in the past five years.

Why are TAMI and other office-based companies in **North Brooklyn?**

- Available warehouses and lofts provide flexible space that is affordable compared to more established commercial districts.
- Businesses say that many workers live in nearby Greenpoint, Williamsburg, and Bushwick and prefer to work nearby, avoiding a commute into Manhattan.
- The L train provides businesses access to customers and partners in Manhattan. Union Square is just 15 minutes from the Morgan Avenue stop and is a major transit hub proximate to the concentration of tech tenants in Midtown South.
- The Study Area has a distinct creative and industrial character and neighborhood services, including restaurants and retail, are growing.
- Some TAMI businesses find synergies with local industrial businesses, allowing them to procure materials and manufactured goods for projects or their workspaces.



Bat Haus (coworking space)



Remezcla (media)

What are the challenges of office-based business in **North Brooklyn?**

- Despite the growing investment momentum and demand for commercial space, there has been limited new construction:
 - > High parking requirements and low permitted density in existing zoning make it difficult to expand or develop new space.
 - > Many smaller firms locating in the Study Area cannot sign leases years in advance, making it difficult for developers to secure financing for new speculative office space.
 - > While some recently signed leases are reportedly in the high \$40 per SF or low \$50 per SF range, interviews and analysis suggest that, in general, the rent threshold for new construction is \$50-60 per SF. However, some new buildings have been built, potentially facilitated by purchases when land costs in the area were lower, such as the 100 Bogart coworking space. Rapid rent growth has incentivized some landlords to restrict lease lengths, which reduces certainty for businesses.

- The quality of the public realm is much lower than other active areas in New York City, and employees have cited transportation, lighting, and pedestrian safety concerns.
- Portions of the Study Area do not have the quality and speed of broadband internet that businesses expect in a modern commercial district.
- While the L train provides excellent connectivity, it is one of New York City's busiest subway lines and is operating at capacity.

Significant office development could be unlocked if zoning were to be modified. Because many sites in the Study Area are underbuilt, the capacity for new construction is substantial.



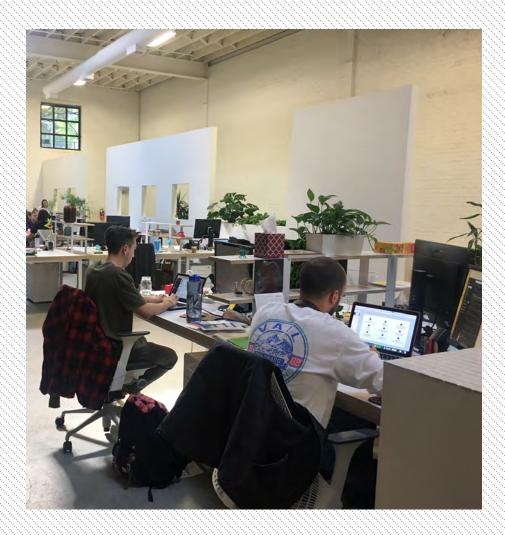
Given zoning constraints on new buildings, conversions of existing buildings are likely to continue to dominate the office development pipeline in the near term.

Madwell

A growing media firm with a strong Brooklyn brand

Madwell is a full-service advertising and marketing agency that has been located in East Williamsburg since 2010. Like other TAMI businesses that have moved to the Study Area, Madwell was attracted to the neighborhood due to relatively affordable, large, and flexible space.

The neighborhood is also close to creative talent that Madwell observes primarily lives in Brooklyn. Many of the company's clients are located in



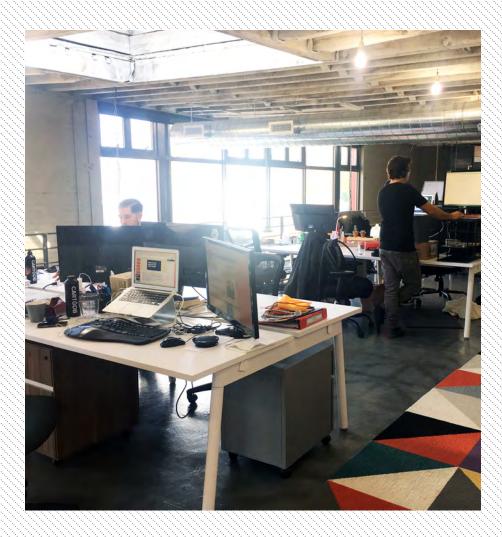
Union Square and the Flatiron District, easily accessed by the L train. But it is the cache of the neighborhood character that reinforces Madwell's creative identity. While much of its work is computer-based, Madwell occasionally fabricates trade show materials in its basement studio and collaborates with local manufacturers.

Flexibility of space has accommodated the company's rapid growth. In 2013 Madwell moved into 7,500 SF of space on Boerum Street with twenty-five employees. As it grew, employees were increasingly in close quarters, and in 2015, it began to lease an additional 7,000 SF in an adjacent building. As of 2017, Madwell had 100 employees.

Carto

A tech firm with flexible space for growth, offering local employees a reverse commute

Founded in Madrid, the company opened an office in October 2015 in New York City where the "geo" community is strong. It considered space in Williamsburg, Greenpoint, and Bushwick - areas less expensive than Manhattan. It selected its location on Moore Street because it was able to afford a larger space, enabling it to dedicate half of its space to events, such as gatherings for local tech and other types of entrepreneurs. For this fast-



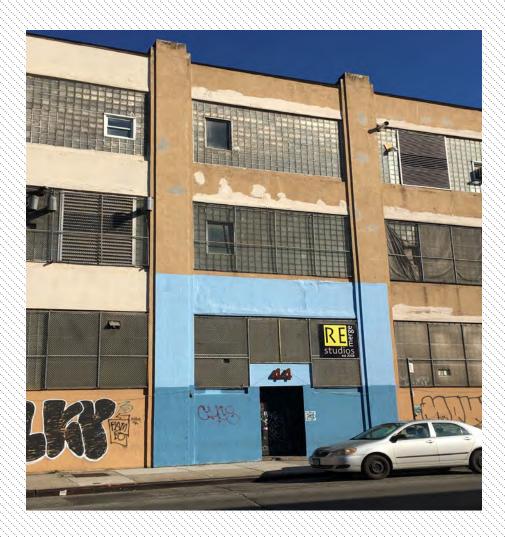
growing company, this large, flexible space will allow for future employee growth. Brooklyn and Bushwick also provide a strong brand that aligns well with company culture that "wouldn't work well in Midtown."

The owners of Carto have said that they have been able to find many qualified workers in nearby neighborhoods, and many of their Brooklyn-based employees love their commute because it allows them to take the L train in the opposite direction from Manhattan during rush hour.

MediaWorks

A media firm that relies on local talent

Iris MediaWorks is a video content strategy and video production company that works with a wide range of clients, from startups to global brands. Its space, within the Brooklyn Brush Studios loft building a few blocks from the Jefferson L station, includes a studio, an office, and multiple editing stations. The building has great natural light and large windows as well as high ceilings, which create a "lovely place to work."



The company has been in East Williamsburg for ten years. Its owners chose to locate in the Study Area because they were able to afford much more space than in Union Square, where many media companies are located. The creative industrial character is attractive to some clients who are increasingly willing to come to their offices for meetings.

Further, the location is convenient to the homes of the owners and a qualified and diverse workforce. The company works with hundreds of contractors, such as location scouts, directors of photography, graphic designers, and makeup artists. The owners say that there are many creatives that live within a ten minute radius, and they can "put together a complete crew within the neighborhood." The business also benefits from being part of a physical goods production culture and works with local studios large and small.

Retail, Arts, and **Entertainment: Essential to NYC's Culture** and Economy

	TOTAL JOBS (2016)	JOB GROWTH (2010-2016)
NYC	811,000	26%
NBK	2,270	74 %

New York City's rich cultural offerings and neighborhood retail amenities contribute to the city's quality of life and economy, enabling it to attract talent and businesses. In the Study Area, growth in retail, arts, and

entertainment appears to be driven by growing demand in nearby residential areas, a strong creative culture, and affordable space, with an increase of 970 jobs between 2010 and 2016.

Restaurants, bars, art galleries, performance venues, and retail stores are generally clustered near the Morgan Avenue and Jefferson Street L train stops, with a concentration along Bogart Street and Wyckoff Avenue. These businesses are commonly located in standalone one-story converted warehouses, but also on the ground floors of some pre-existing residential rowhouses and loft buildings.

A number of multi-story loft buildings have been converted to artist studios. The Study Area has a notable number of small music venues, small theaters, and rehearsal spaces. This includes two very large venues, Brooklyn Steel (a 1,800 capacity music venue near Brooklyn-Queens Expressway), and Brooklyn Mirage (a 6,000 capacity nightclub on Stewart Avenue near active heavy industrial businesses).

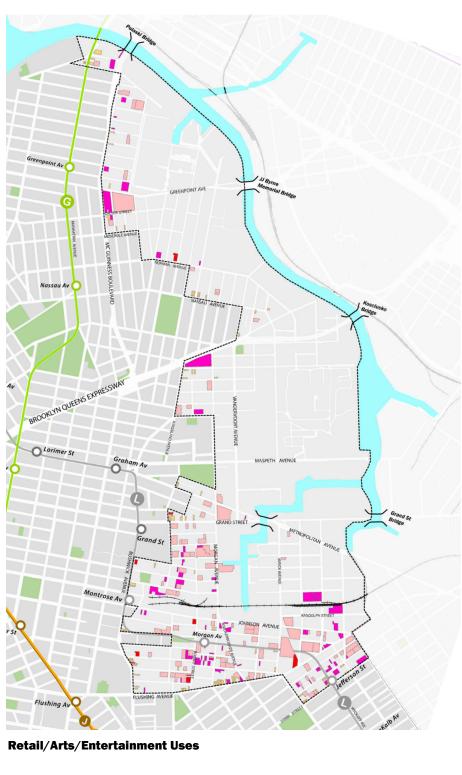
In New York City, larger venues are permitted in few zoning districts predominantly M districts that are separated from residential areas. These limitations, in part, explain the concentration of nightlife uses in the Study Area and other industrial areas.



Kings County Brewing Collective

In addition to established venues, there are informal DIY (Do-It-Yourself) art spaces in the Study Area that lack required permits for events and parties. This may reflect the regulatory challenges and costs of creating entertainment and arts spaces.

The City recently eliminated one hurdle by repealing the Cabaret Law, which required businesses with dancing to hold a cabaret license, in 2017, and established an Office of Nightlife led by a "Nightlife Mayor," which will provide support to these businesses and develop policy recommendations.





Why are retail, arts, and entertainment business in **North Brooklyn?**

- The Study Area has a longstanding creative and arts community, attracting artists and visitors from New York and beyond with galleries, event venues, and widespread street art.
- The Study Area is surrounded by growing residential neighborhoods whose residents patronize these businesses; the L train provides access to a wider customer base.
- Locating in an M district allows nightlife venues to operate apart from residential uses, where they might otherwise receive nuisance complaints.
- Existing building types are easily converted for these uses, and rents can be comparatively lower than in many other areas.
- Surrounding industrial businesses provide customers, and in some cases, resources, such as custom work for space fitout or materials for artwork.

What are the challenges for retail, arts, and entertainment business in **North Brooklyn?**

- The public realm is not pedestrianfriendly, which impacts customers and workers. Poor sidewalk conditions, lack of pedestrian safety improvements, and lack of street lighting are especially problematic in areas with concentrations of active uses.
- Like other sectors, these businesses are facing rising rents and some have trouble securing longer-term leases.
- As is the case citywide, many nightlife and entertainment businesses face rising operating costs, significant permitting costs and regulatory hurdles. The costs of upgrading spaces to code standards can be significant, and industry experts have stated that it can cost up to \$1 million to open a small venue.41



Street art near Jefferson Avenue L train stop

Pine Box Rock Shop

A music venue making plenty of noise without complaints

Opened in 2009, Pine Box Rock Shop is a bar and music venue located in a former casket factory, about one block from the Morgan Avenue L train station.

Pine Box was attracted to the Study Area for a few reasons. In residential areas, nightlife and music venues can create noise and attract traffic that draws complaints from neighbors. In its current location, the venue is able to



stay open late with no complaints. Pine Box was able to secure space in an existing warehouse. The large floorplates and high ceilings commonly found in these spaces make them relatively inexpensive to convert.

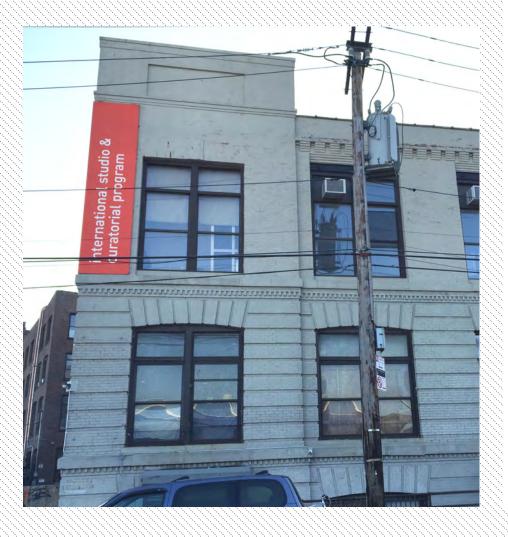
Locating in an industrial zone created proximity to many of the suppliers one needs to open a bar. The owners describe a "symbiotic" business relationship with woodworking and metal shops and also appreciate these businesses as good neighbors.

Pine Box was also attracted to the strong creative character of the neighborhood. Initially drawing a local crowd from the surrounding area, it is increasingly attracting guests from beyond the neighborhood, facilitated by excellent access to the L train. Most of its employees live in the neighborhood.

International Studio & Curatorial Program (ISCP)

A a non-profit arts organization that has blossomed in a large, flexible space within a strong arts community

ISCP is a comprehensive international visual arts residency program, the fourth largest worldwide, located in a former factory building on Morgan Avenue at Metropolitan Avenue. With thirty-five work studios and two gallery spaces, ISCP supports contemporary artists and curators and promotes



cultural exchange through residencies, exhibitions, and public programs.

Originally located in Midtown Manhattan, ISCP was attracted to its new location because of the opportunity to expand its programming and activities within a larger (17,000 SF), more affordable, and flexible space. The high ceilings and natural light typical of historically industrial loft buildings also create an attractive environment for producing art.

The move to its current space from West 39th Street allowed ISCP to create common areas and other spaces to facilitate more events, increasing its visibility and involvement in the arts community.