

# **Existing Conditions**



August 2024









# **Table of Contents**



1.	. Exe	ecutive Summary	5
	1.1.	Reimagine the Cross Bronx	5
		1.1.1 Study Overview	5
		1.1.2 Study Area Description and Cross Bronx Expressway Background	6
	1.2.	Connected Communities	7
		1.2.1 Multimodal Travel	7
		1.2.2 Vehicle Travel & Traffic Patterns	8
		1.2.3 Freight Movement	8
	1.3.	Safe Communities	8
		1.3.1 Crash Analysis & Vision Zero	8
		1.3.2 Climate Change Effects	9
		1.3.3 Corridor Conditions	9
	1.4.	Healthy Communities	9
		1.4.1 Health Disparities	9
		1.4.2 Air and Noise Pollution	10
	1.5.	Strong Communities	10
		1.5.1 Public Amenities	10
		1.5.2 Land Use and Zoning Patterns	10
		1.5.3 Socioeconomic & Demographic Conditions	10
2	. Tra	vel Patterns	11
	2.1.	Origin Destination Data	11
	2.2.	Traffic Patterns	12
		2.2.1 Annual Average Daily Traffic	12
		2.2.2 Truck Percentages on NYC Truck Routes	15
		2.2.3 Cross Bronx Ramp and Service Road Peak Hour Volumes	17
		2.2.4 Cross Bronx Mainline and Local Streets Speed Profiles	19
	2.3.	Multimodal	24
		2.3.1 Pedestrians	24
		2.3.2 Bicyclists	27
		2.3.3 Public Transit	28
		2.3.4 Mode Share & Trip Purpose	34
		2.3.5 Shared Micromobility	37

# **Table of Contents**



3. Pu	blic Amenities	40
3.1	Description of Amenities 3.1.1 Waterways	40 40
	3.1.2 Parks and Playgrounds	42
	3.1.3 Civic Amenities and Public Facilities	45
	3.1.4 Neighborhood Services	47 48
3.2	<ul><li>3.1.5 Ecological Systems</li><li>Commercial Conditions and Employment Opportunities</li></ul>	50
	nd Use, Socioeconomic and Demographic Conditions	54
4.1	. Land Use and Zoning Patterns	54
	4.1.1 Residence Districts	57
	4.1.2 Commercial Districts	59
	4.1.3 Industrial Districts	60
	4.1.4 Special Districts	62
	4.1.5 Land Ownership	65
4.2	. Current Socioeconomic Conditions	66
	4.2.1 Household Conditions	66
	4.2.2 Employment and Unemployment Conditions	67
	4.2.3 Education	69
4.3	. Current Demographic Conditions	69
	4.3.1 Density and Age Distribution	69
	4.3.2 Ethnic and Racial Composition	71
5. He	alth Conditions	72
5.1	. Disparities in Health Outcomes and Contributing Factors	72
5.2	. Air Pollution	75
5.3	. Noise	77
6. Tra	affic Safety	79
6.1	. Crash Analysis for Cross Bronx Mainline	79
6.2	. Crash Analysis for Local Roads within the Study Area	82
	6.2.1 Local roads total and severe injuries	82
	6.2.2 Local road cyclist and pedestrian total and severe injuries	84
6.3	. Vision Zero Corridors and Intersections	86

# **Table of Contents**



7. Cr	oss Bronx Corridor Conditions	89
7.1	. Mobility Gaps	89
	7.1.1 Mobility Gaps in East-West Connectivity	89
	7.1.2 Mobility Gaps in North-South Connectivity	91
7.2	2. Structural Condition of Mainline Viaducts and Overpasses	94
	3. Retaining Walls	98
	I. General Pavement Conditions	98
	5. Geometric Conditions and Non-standard Geometrics	98
	5. Drainage and Utility	101
7.7	7. Reconstruction Projects	101
8. CI	imate Change	102
8.1	. Heat	102
8.2	2. Flood	105
9. Ap	ppendix	108
9.1	. Additional Travel Pattern Information	108
	9.1.1 Origin and Destination Data along Cross Bronx Expressway	108
	9.1.2 Cross Bronx Expressway Ramp and Service Road Peak Hour Volumes	108
	9.1.3 Cross Bronx Mainline and Local Streets Speed Profile	109
	9.1.4 Additional Segment-Level Bus Speed Maps	109
9.2	2. Health Indicators	112
9.3	B. Additional Traffic Safety Information	119
9.4	I. Structural Condition of CBE Mainline Viaducts and Overpasses	120
9.5	5. Cross Bronx Retaining Wall General Condition Ratings	122
9.6	6. Planned and Ongoing Projects and Programs	125
	9.6.1 Planned and Ongoing Projects	125

# 1. Executive Summary



# 1.1. Reimagine the Cross Bronx

# 1.1.1 Study Overview

New York is developing a community-driven vision to Reimagine the Cross Bronx and reconnect neighborhoods along the Cross Bronx corridor. This study is a partnership between the New York City Department of Transportation (NYC DOT), the NYC Department of City Planning (NYC DCP), the NYC Department of Health and Mental Hygiene (NYC DOHMH), and the New York State Department of Transportation (NYSDOT), together referred to as the Study Team.

The Existing Conditions Summary Report describes and analyzes current physical and social conditions along the corridor. The contents of this report will inform the location and type of concepts proposed in future stages of the study.



Figure 1.1. Reimagine the Cross Bronx Calendar

This report provides the Study Team, Cross Bronx stakeholders, and local communities with a foundation of shared knowledge. It also complements the <a href="Engagement Summary Report: Issue Identification Round">Engagement Summary Report: Issue Identification Round</a>, which gathers insights from 2023 summer and fall community engagement. The <a href="Identified Issues Synthesis">Identified Issues Synthesis</a> brings together the most important concerns of the Study Area as understood through both reports. These issues will guide the Concept Development phase taking place during summer of 2024.

# 1.1.2 Study Area Description and Cross Bronx Expressway Background

The Cross Bronx stretches across the Bronx, linking northeast drivers to Long Island. It is also a part of Interstate 95 (I-95), the main north-south Interstate Highway on the east coast of the United States. It is a six-lane highway that stretches 6.5 miles from the Harlem River to the Throgs Neck Bridge. **The Study Area extends half a mile north and south of the Cross Bronx, and spans 4.5 miles from the Harlem River to Westchester Creek.** The western study limit at the Harlem River coincides with the mapped location of the beginning of the Cross Bronx. The mapped eastern end of the CBE is at the Bruckner Expressway / Throgs Neck Expressway Interchange. However, the Cross Bronx becomes at-grade east of Westchester Creek, which significantly changes the interaction between the highway and surrounding communities. Within the Study Area section of the Cross Bronx, approximately three miles of the highway are below grade (in a trench) and 1.5 miles are above grade (elevated over local surface streets), as illustrated by **Figure 1.3**.

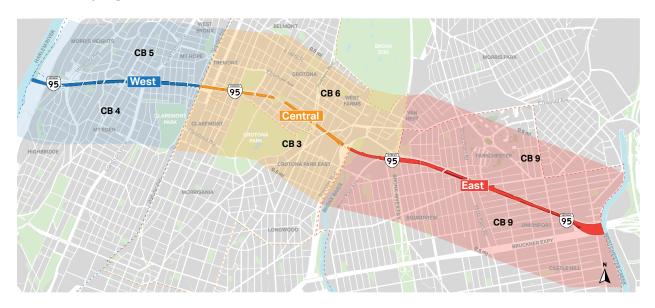


Figure 1.2. Study Area with West, Central, and East Sections

Like many other major highways in NYC, the Cross Bronx was planned and built under the direction of 20<sup>th</sup> century urban planner Robert Moses. Constructed between 1948 and 1972, it was one of the earliest highways in the United States to be built through a crowded urban environment, effectively cutting the South Bronx off from the rest of the borough. The Cross Bronx is important for through traffic as well as Bronx-based travel and is a crucial truck route within the region. It is currently one of the most congested American interstate highways.

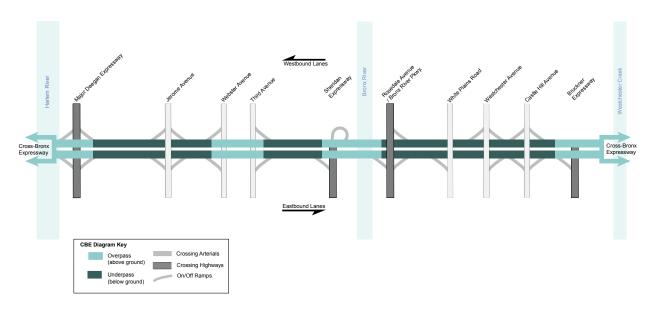


Figure 1.3. Cross Bronx Expressway diagram of above vs below grade areas and major crossing arterials and highways

Approximately 300,734¹ people live within the Study Area, which encompasses a diverse range of neighborhoods and communities. This report assesses and describes the current conditions of this area and its communities. The remaining sections of this chapter summarize the most relevant findings of the report. Findings are grouped based on the four central topics that emerged through the study's parallel Issue Identification Round of community engagement. These topics will be used to structure conversations throughout the study process. Additional explanations, data, and graphics can be found in the subject-specific chapters which follow the Executive Summary.

# 1.2. Connected Communities

New York City relies on complex systems of transportation infrastructure to support the movement of people and goods. Understanding how these systems operate within the Study Area is the first step to reimagining how communities connect to each other and to the rest of the city.

# 1.2.1 Multimodal Travel

The Study Area is composed of dense neighborhoods which rely on a variety of active, public, and private modes of transportation to move within the Study Area and around the city. Due to disjointed local streets, the physical barrier of the Cross Bronx, and the north-south orientation of Bronx subway lines, moving east-west across the borough is challenging across all modes of travel. East-West movement is particularly difficult for public transit users because the bus routes that provide this service experience high ridership and low speeds. In the lower density eastern

<sup>1</sup> U.S. Census Bureau. "ACS DEMOGRAPHIC AND HOUSING ESTIMATES." American Community Survey, ACS 5-Year Estimates Selected Population Data Profiles, Table DP05, 2021.

section of the Study Area, commuting by personal vehicle is more common than in the west and central sections, where up to 80% of workers commute by public transit.

Based on the NYC DOT Pedestrian Mobility Plan Design Guidelines, some portions of the Study Area pedestrian infrastructure are inadequate to support current demand, particularly around key commercial corridors like Jerome Ave and Tremont Ave. Despite increased investments in the Bronx bike network, the Study Area lacks safe and efficient east-west routes and existing infrastructure fails to provide consistent access to key destinations. This is particularly true of the eastern section. However, the addition of shared-use micromobility systems - like Citi Bike and e-scooters - to the Study Area has increased transportation options for residents and visitors alike.

#### 1.2.2 Vehicle Travel & Traffic Patterns

As part of an important interstate highway, the Cross Bronx experiences total vehicle volumes on par with other major NYC highways. However, it has the highest proportion of freight traffic (18% of all vehicles). While the highway is frequently used for through trips that neither start nor end in the Bronx, the majority of trips (66%) have an origin or destination in the Bronx, including the roughly 13% of trips that are Bronx-to-Bronx. Congestion is severe across the Cross Bronx mainline but is more extreme in westbound lanes and in the western half of the Study Area. Many local streets also experience heavily congested periods throughout the day.

# 1.2.3 Freight Movement

Trucks are vital to the economy and to the delivery of goods throughout the borough, city, and region. However, they also contribute to traffic congestion, noise pollution, and poor air quality. Most freight trips on the Cross Bronx start or end in the Bronx, indicating that the expressway is essential to freight movement that serves the borough. The Hunts Point Cooperative Market – located just to the south of the Study Area - is the world's largest food distribution center. The Market is the source of much of the Cross Bronx mainline and local road freight traffic.

# 1.3. Safe Communities

The physical safety of those living in or traveling through the Study Area is a central concern for both community members and the Study Team agencies. Motor vehicle crashes are a leading cause of death in NYC, and climate change has a range of effects that endanger lives. Both issues are focus areas for the study.

# 1.3.1 Crash Analysis & Vision Zero

Large numbers of crashes occur on both the Cross Bronx mainline and surrounding local roads. Many segments of the highway experience crash rates as much as two times higher than state averages, and several segments have even higher crash rates. Among arterial and local roads, the western section of the Study Area has several intersections and areas that experience higher rates of injury-causing crashes. All roadway users including pedestrians and cyclists experience higher risk of injury than the statewide average at these intersections. As part of the citywide

Vision Zero program to eliminate serious crashes, NYC DOT has identified several priority locations inside of the Study Area in need of measures that increase roadway safety: five priority intersections and thirteen priority corridors.

# 1.3.2 Climate Change Effects

Climate change impacts neighborhoods across the city in different ways. Due to environmental conditions and socioeconomic inequality, issues like extreme heat disproportionately affect those living in the Study Area. On average, the Study Area is hotter than the rest of NYC, and some locations are two to seven degrees hotter than the citywide average. Climate change causes sea-level rise and more frequent extreme weather events. Both factors will increase the intensity and prevalence of rainfall-based flooding across the city.

#### 1.3.3 Corridor Conditions

Built before modern federal standards, the Cross Bronx includes many non-standard features such as short acceleration and deceleration lane lengths in addition to inadequate shoulder and lane widths. These factors can contribute to both congestion and safety concerns around the Cross Bronx mainline.

# 1.4. Healthy Communities

Socioeconomically disadvantaged communities often experience disproportionately negative environmental conditions and poor health outcomes. It is important to identify the specific health concerns facing the Study Area so that any future interventions are targeted to address those concerns.

# 1.4.1 Health Disparities

The South Bronx, including communities living near the Cross Bronx Expressway, has long suffered from conditions that do not support good health and which contribute to disparities across a range of health outcomes. Rates of asthma-related emergency department visits due to exposure to outdoor pollutants are over three times higher in the Study Area than in the rest of the city. These visits make up a small fraction of the total number of asthma emergency department visits in the Study Area. Other factors contributing to high rates of asthma emergency department visits include poor housing quality, lack of access to medical care and medication, and the prevalence of other chronic conditions that increase the severity of asthma. Adults in the area are much more likely than those in the rest of the city to: not receive needed medical care, be hospitalized for heat stress, and to experience diabetes, hypertension, and obesity.

#### 1.4.2 Air and Noise Pollution

Highways contribute to both air and noise pollution, although air quality varies from neighborhood to neighborhood based on local levels of emissions and many other factors. In areas around the Cross Bronx, approximately 15% of the air pollution comes from car and truck traffic, while other major sources include building energy emissions and out-of-state power plants. Policies regulating emissions from residual fuel oil, electric generating units, and motor vehicles have resulted in decreased fine particulate matter (PM2.5) and nitrogen dioxide (NO2) concentrations citywide. Air pollution in the Study Area has decreased substantially since monitoring began in 2009, but still poses health concerns. A recent study near the Cross Bronx found noise levels to be within a marginally unacceptable range and approaching clearly unacceptable during certain periods of the day. Sustained high levels of noise can have negative health effects on adults and children. It can contribute to issues such as stress, increased blood pressure and risk of heart disease, and interfere with cognitive development in children.

# 1.5. Strong Communities

Study Area communities face many opportunities and challenges, including various environmental justice issues. Details of the Study Area's built environment, natural assets, and socioeconomic and demographic characteristics help highlight these issues.

#### 1.5.1 Public Amenities

The Bronx is in part defined by its waterways and the ecosystem services they provide. The Study Area limits are defined by the Harlem River to the west and Westchester Creek to the east. The Bronx River bisects the Study Area and is the only freshwater waterway in NYC. In addition to a network of small neighborhood parks and playgrounds, this area hosts several regional landmarks such as Claremont, Crotona, and Starlight Parks.

# 1.5.2 Land Use and Zoning Patterns

While the distribution of land uses in the Study Area is largely consistent with that of the rest of the Bronx, a much smaller proportion of the Study Area is open space compared to the borough as a whole (11% versus 30%) and a greater percentage is residential (55% versus 38%).

# 1.5.3 Socioeconomic & Demographic Conditions

All census tracts in the Study Area are designated as Environmental Justice Areas by New York City, are densely populated, and are ethnically diverse. The majority (88%) of households in the Study Area live in rental units. The median household income of \$38,694 is roughly half the citywide median of \$67,997.

# 2. Travel Patterns



This study is centrally concerned with the effect of the Cross Bronx Expressway on local communities. Addressing this concern requires learning how people in these neighborhoods get around, the types of transportation options available to them, and what challenges they face. The Cross Bronx is part of the network of local travel options in addition to being a crucial route for regional travel and freight movement. Since any changes to the expressway would have local, citywide, and regional impacts, it is important to understand the role that it currently plays.

# 2.1. Origin Destination Data

An origin destination (OD) analysis estimates how many trips start in one defined location and end in a second defined location. Applying this analysis to the Cross Bronx reveals that the expressway is essential for both local and regional travel, and that travel patterns differ substantially in eastbound versus westbound lanes.

Figure 2.1 and Figure 2.2 below summarize the average weekday (Thursday, all time periods) origin and destination patterns for all vehicular traffic and for truck traffic alone using the Cross Bronx.<sup>1</sup>

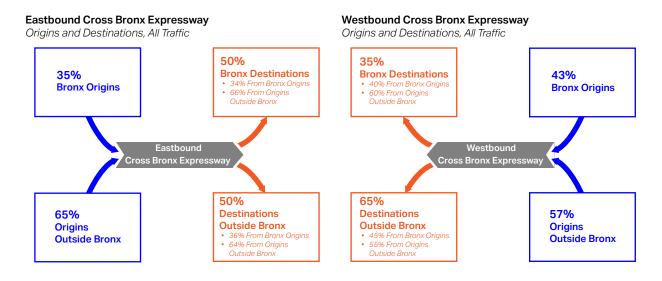


Figure 2.1. Cross Bronx Expressway Weekday All Vehicular Traffic Trip Origin-Destination. Source: Replica 2023

<sup>1</sup> These travel patterns were estimated using Replica, a platform that incorporates multiple third-party data sources such as de-identified mobile location data from vehicle GPS and location-based services data from phones.

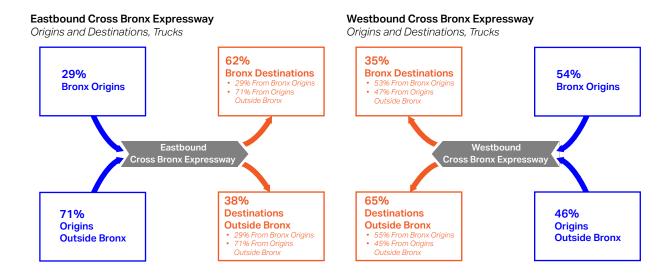


Figure 2.2. Cross Bronx Expressway Weekday Freight Traffic Trip Origin-Destination. Source: Replica 2023

About 34% of all traffic on the Cross Bronx in both directions is through traffic that does not start or end in the Bronx (Figure 2.1). The percentage of trips with an origin and/or destination in the Bronx varies between eastbound and westbound traffic. For both directions, over 13% of trips are Bronx-to-Bronx. Freight traffic demonstrates a similar pattern, as shown in Figure 2.2. For more detail on the origins and destinations of Cross Bronx traffic, see section 9.1.1 of the Appendix.

# 2.2. Traffic Patterns

This section summarizes traffic volume and speed patterns on the Cross Bronx, major local roads within the Study Area, and major freeways within the Bronx.

# 2.2.1 Annual Average Daily Traffic

An Average Annual Daily Traffic (AADT) value is the total annual volume of vehicle traffic on a road divided by 365. AADT provides a simple measurement of how many vehicles a roadway accommodates on an average day. Within the Study Area, the highest trafficked roadways include the southern portion of the Bruckner Expressway, the central section of the Major Deegan Expressway, and the western section of the Cross Bronx.

**Figure 2.3** illustrates directional AADT values across the Cross Bronx mainline,<sup>2</sup> showing separate eastbound and westbound traffic volumes. The eastbound lanes of the Cross Bronx accommodate higher traffic volumes than their westbound counterparts. The most travelled segments of the Cross Bronx are the eastbound segments between Macombs Rd and Webster

<sup>2</sup> All AADT values in section 2.2.1 are from traffic counts and estimates found in the New York State Department of Transportation's Traffic Data Viewer. The AADTs of some segments are based on 2019 traffic counts, while others are based on counts from previous years that have been adjusted with a modifier to estimate 2019 traffic.

Ave and between Crotona Ave and the Sheridan Expressway. Both have an approximate AADT exceeding 80,000 vehicles per day.



Figure 2.3. Cross Bronx Mainline Directional AADT. Source: NYSDOT Traffic Data Viewer 2019

**Table 2.1** compares Cross Bronx total AADT volumes to several other important NYC expressways. In this table, AADT values are combined for both directions of each roadway to show total volumes. While the Cross Bronx does not carry the highest volumes in the city, it is comparable to other major expressways in NYC and is one of the highest volume roadways in the Bronx.

Roadway	Total AADT		
Cross Bronx Expressway	90,000-150,000		
Brooklyn Queens Expressway	120,000-170,000		
Long Island Expressway (within Queens)	80,000-220,000		
Major Deegan Expressway (within Bronx)	100,000-145,000		
Staten Island Expressway	140,000-195,000		

Table 2.1. AADT Volumes on Major Expressways. Source: NYSDOT Traffic Data Viewer 2019, combined directions

Principal Arterials<sup>3</sup> in the Study Area include major expressways and interstates like the Bruckner Expressway and the Major Deegan Expressway, as well as Bronx arterials such as Grand Concourse, Tremont Ave, Westchester Ave, and Webster Ave. The AADT for the western segments of the Cross Bronx, the southern extent of the Bruckner Expressway, and the central section of the Major Deegan expressway reach above 120,000 vehicles (Figure 2.4). Other segments of these roadways, such as the eastern section of the Cross Bronx and the Bruckner Expressway and the southern section of the Major Deegan Expressway, accommodate between 60,000 and 120,000 vehicles every day. With few exceptions, most other local arterials within the Bronx typically carry fewer than 30,000 vehicles per day.<sup>4</sup>

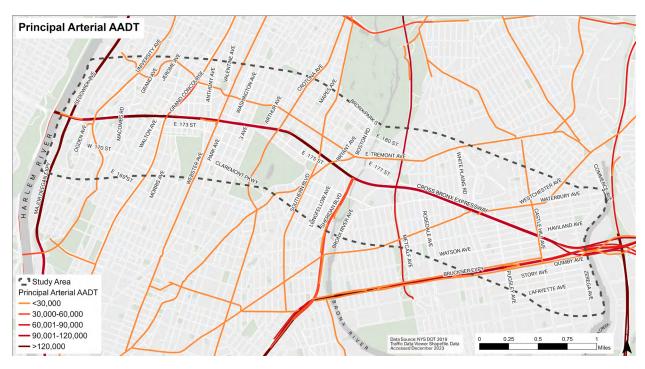


Figure 2.4. Principal Arterial Combined Direction AADT. Source: NYSDOT Traffic Data Viewer 2019

Local roadways in the Bronx carry much less traffic than highways. Among the local roads for which AADT estimates are available, most carry fewer than 15,000 vehicles per day (**Figure 2.5**). Some of the busiest local roads in the Bronx are White Plains Road, 3rd Ave, and E 149th St, carrying between 10,000 and 20,000 vehicles per day. Only a small number of scattered segments, such as the Washington Bridge crossing between the Bronx and Manhattan and the terminus of Sheridan Blvd at E 177th St, carry more than 20,000 vehicles per day.

<sup>3</sup> Principal Arterials are identified through New York State's functional class definition: Functional Class Maps (ny.gov)

<sup>4</sup> Principle Arterial (Figure 2.4) and Local road (Figure 2.5) AADT values are mapped separately due to large differences between their respective traffic volumes. Both sets of roadways are symbolized using their combined direction AADT.

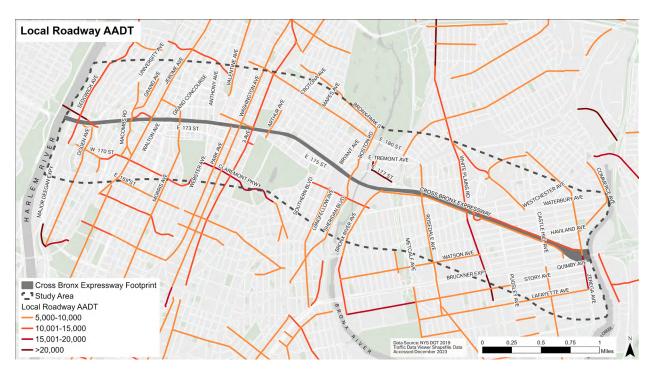


Figure 2.5. Local Road Combined Direction AADT. Source: NYSDOT Traffic Data Viewer 2019

# 2.2.2 Truck Percentages on NYC Truck Routes

On the Cross Bronx, an average of 18% of all vehicles are trucks. Several other major roads in the South Bronx also carry high volumes of freight traffic. Trucks contribute to traffic congestion, noise pollution, and poor air quality, but are also vital to the economy and to the delivery of goods throughout the borough, city, and region.

The Cross Bronx is one of just a few highways linking Long Island to the rest of the northeast United States (Figure 2.6 below) and is an essential route for the movement of people and goods. Most freight vehicles (72%) using the Cross Bronx begin and/or end their trips within the Bronx. There are multiple ongoing NYC DOT initiatives to decrease the negative impact of freight on local communities. Managing this traffic will be central to any future interventions in the Study Area.

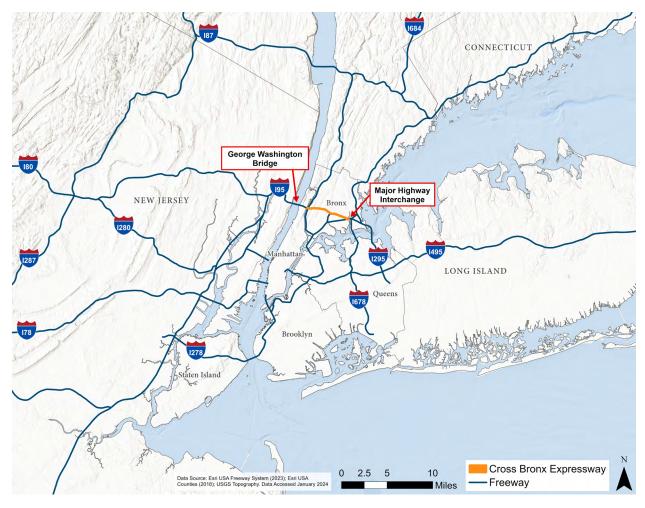


Figure 2.6. Regional Freeway Network. Source: Esri USA Freeway System 2023

The Cross Bronx has the highest percentage of freight traffic of any roadway in the Bronx, and **Table 2.2** shows that certain segments carry more freight traffic than any other major expressway in the city.<sup>5</sup>

Roadway	Total AADT	Truck AADT	Truck Percentage	
Cross Bronx Expressway	90,000-150,000	18,000-25,000	17-21%	
Brooklyn Queens Expressway	120,000-170,000	9,000-18,000	7-13%	
Long Island Expressway (within Queens)	80,000-220,000	4,000-22,000	5-17%	
Major Deegan Expressway	100,000-145,000	8,000-13,000	6-11%	
Staten Island Expressway	140,000-195,000	14,000-15,000	8-9%	

Table 2.2. Truck Percentages on Major Expressways. Source: NYSDOT Traffic Data Viewer 2019, combined directions

<sup>5</sup> Trucks are defined by NYSDOT as having 2+ axels and at least 6 wheels.

**Figure 2.7** illustrates that the Cross Bronx is heavily utilized by truck traffic, with trucks making up approximately 18% or more of total daily traffic throughout the entire corridor. In addition to the Cross Bronx, the Brucker Expressway and some local streets within the Hunts Point area also have a high truck traffic percentage. This is largely because the Cross Bronx and Sheridan Blvd are among the truck routes used by drivers to make deliveries for the Hunts Point Cooperative Market.

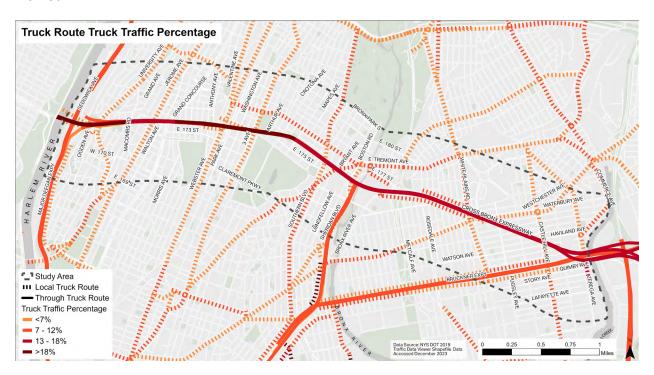


Figure 2.7. Truck Route Truck Traffic Percentage. Source: NYSDOT Traffic Data Viewer 2019

# 2.2.3 Cross Bronx Ramp and Service Road Peak Hour Volumes

Ramps provide access points to and from the Cross Bronx. The most heavily utilized ramps are near major interchanges and freight corridors like Jerome Ave and 3rd Ave. Some local roads that run parallel to the highway are intended to provide connectivity between the expressway and the local street network. Service roads west of the Bronx River Parkway are discontinuous, which can force more local traffic to use the Cross Bronx mainline for east-west trips.

Of all assessed ramps, the eastbound on-ramp at 3rd Ave has the highest hourly volume. Other heavily utilized ramps are located at major interchanges such as the Cross Bronx and Major Deegan Expressway interchange and Cross Bronx and Sheridan Blvd interchange, and at freight corridors like Jerome Ave and Webster Ave. The ramps at Rosedale Ave also experience heavy traffic, largely due to the lack of a direct connection between the Cross Bronx and Bronx River Parkway. Generally, eastbound ramps have higher volumes compared to westbound ramps. In some cases, roads can experience lower volumes due to congestion rather than lower demand. In addition, the ramps are heavily used for local trips. Based on analysis of Streetlight data, almost 70% of the vehicle trips using the Jerome Ave ramps terminate in adjacent

neighborhoods. For additional details on the methodology used for this analysis, please see section 9.1.2 of the Appendix.

Direction	Ramp Location	Morning Peak	Afternoon Peak	Evening Peak	AADT	Truck %	Origin or Destination Trip %
	Major Deegan On-ramp	1,066	729	805	11,724	10%	2%
	Washington Bridge On-ramp	1,156	789	1,171	18,838	3%	1%
	Jerome Ave Off- ramp	605	540	531	10,384	10%	66%
	Jerome Ave On- ramp	827	605	885	10,224	10%	70%
	Webster Ave Off- ramp	973	887	969	15,127	4%	47%
	3rd Ave On-ramp	1,584	1,384	1,937	22,875	10%	48%
EB	Sheridan Blvd Off-ramp	628	604	525	10,945	17%	8%
	Bronx River Ave Off-ramp	853	866	976	14,085	1%	24%
	Rosedale Ave On-ramp	1,262	1,446	1,628	22,793	1%	18%
	White Plains Ave Off-ramp	469	376	439	6,797	10%	55%
	Pugsley Ave On- ramp	270	196	293	3,936	10%	71%
	Olmstead Ave Off-ramp	696	491	692	9,172	10%	57%
	Bruckner Expy Off-ramp	955	871	1,046	18,011	13%	3%
	Ellis Ave Off- ramp	777	434	504	5,821	10%	33%
	Ellis Ave On- ramp	635	282	329	6,438	10%	35%
WB	E174th St On- ramp	744	176	190	4,427	10%	53%
VVD	E174th St Off- ramp	614	587	625	10,052	19%	15%
	Rosedale Ave On-ramp	1,013	246	242	6,121	10%	34%
	NB Sheridan Blvd On-ramp	564	428	376	8,130	19%	14%

Note: AADT, Truck%, and peak hour volumes are sourced from NYSDOT Traffic Data Viewer 2019 data, accessed via the website in December 2023. Origin and Destination Trip % within a 0.5-mile radius is estimated using Streetlight data from March 2023, with analysis completed in April 2024. For the Origin and Destination column, the percentages represent trips that either start or end within a half-mile radius of the ramp, depending on the ramp type (on-ramp or off-ramp).

Table 2.3. Cross Bronx Ramp Volumes, Source: 2019 NYSDOT Traffic Data Viewer and 2023 March StreetLight data

Direction	Ramp Location	Morning Peak	Afternoon Peak	Evening Peak	AADT	Truck %	Origin or Destination Trip %
	SB Sheridan Blvd On-ramp	888	615	708	11,307	3%	21%
	3rd Ave Off-ramp	850	634	655	11,159	10%	57%
	Webster Ave On- ramp	1,092	805	918	14,285	10%	46%
WB	Jerome Ave Off- ramp	838	379	492	8,355	10%	78%
	Jerome Ave On- ramp	821	711	929	13,109	10%	71%
	Major Deegan Off-ramp	1,252	796	944	17,994	7%	3%

Note: AADT, Truck%, and peak hour volumes are sourced from NYSDOT Traffic Data Viewer 2019 data, accessed via the website in December 2023. Origin and Destination Trip % within a 0.5-mile radius is estimated using Streetlight data from March 2023, with analysis completed in April 2024. For the Origin and Destination column, the percentages represent trips that either start or end within a half-mile radius of the ramp, depending on the ramp type (on-ramp or off-ramp).

Table 2.3. Cross Bronx Ramp Volumes, Source: 2019 NYSDOT Traffic Data Viewer and 2023 March StreetLight data

Table 2.4 displays traffic data for select service road segments and indicates that while overall usage varies, truck percentages are similar across segments.

Direction	Service Road Segment	Morning Peak Hour Volume	Afternoon Peak Hour Volume	Evening Peak Hour Volume	AADT	Truck %
EB	from Bronx River Ave to White Plains Rd	254	306	398	5,012	9
ED	from Hugh Grant Cir to Bruckner Blvd	512	406	558	8,273	8
	Zerega Ave to Westchester Ave	725	638	738	12,980	8
WB	from Hugh Grant Cir to Bruckner Blvd	698	335	378	6,828	8

Table 2.4. Cross Bronx Service Road Volumes, Source: 2019 NYSDOT Traffic Data Viewer and 2023 March StreetLight data

# 2.2.4 Cross Bronx Mainline and Local Streets Speed **Profiles**

Congestion and travel times are important considerations for both Cross Bronx users and residents of the Study Area. The westbound Cross Bronx mainline experiences extreme congestion throughout all weekday daytime hours, while eastbound congestion is restricted to certain segments and is more likely to occur during traditional weekday morning and evening peak hours. Many local roadways follow similar peak hour congestion patterns.

The speed data displayed in Figure 2.8 and Figure 2.9 represents weekday morning and evening peak periods (7-10 A.M. and 4-7 P.M.). Detailed descriptions of the speed maps are in section 9.1.3 of the Appendix. Because traffic conditions and speed limits vary widely between local and arterial roadways, different scales are used to represent congested conditions. For example, an average speed of 20 miles per hour (mph) on arterial roadways is considered congested while the same speed on local roads is considered free-flowing.

During the weekday morning peak period, represented in **Figure 2.8**, most roadways within the Study Area experience moderate or severe levels of congestion. During this period, local roads also experience considerable congestion, notably neighborhood and regional connectors (see Section 2.3.1. for a definition of these terms) like Jerome Ave, Grand Concourse, and E Tremont Ave.

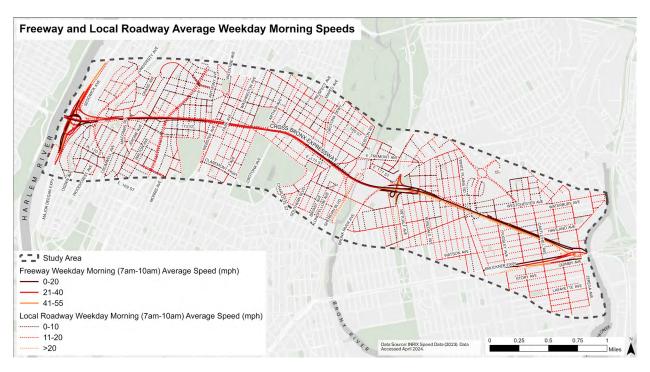


Figure 2.8. Freeway and Local Roadway Average Weekday Morning Peak Speeds. Source: INRIX, March 2023

The weekday evening peak period experiences greater traffic congestion than the morning period, as represented in Figure 2.9. The most severe congestion occurs between the George Washington Bridge and the Jerome Ave on-ramp and between Sheridan Blvd and the Bronx River Parkway interchanges. Local street congestion is also more pronounced in the PM peak period than in the AM peak period.

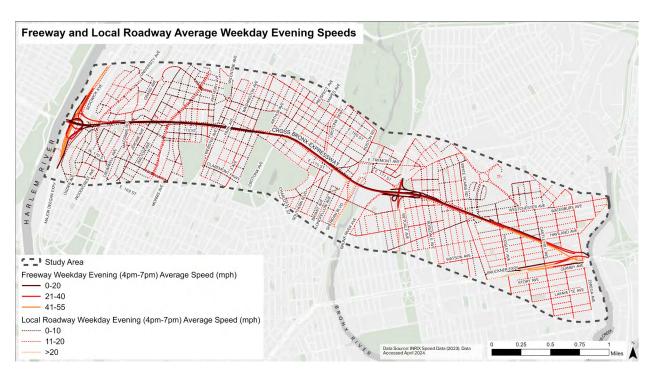


Figure 2.9. Freeway and Local Roadway Average Weekday Evening Peak Speeds. Source: INRIX, March 2023

Figure 2.10 and Figure 2.11 are congestion scan heat maps of the Cross Bronx mainline based on 2023 March 24-hour annual average speed data. A congestion scan helps depict the location, intensity, and longevity of congestion along a specific roadway. The right side shows the hour of the day, and the bottom shows specific locations along the Cross Bronx. For example, at 2 (2am) the westbound lanes experience higher speeds across the corridor, whereas at 20 (8pm), the westbound lanes get increasingly congested from Zerega Ave to University Ave.

These heat maps demonstrate that both the eastbound and westbound Cross Bronx are congested during the morning and evening peak periods. However, the westbound mainline has a greater number of congested segments and experiences a longer period of congestion than the eastbound mainline. Westbound congestion starts at about 6:00 AM in the morning and continues until about 7:00 PM in the evening for the entire corridor. Eastbound congestion occurs only at certain segments and during typical morning and evening peak hours.

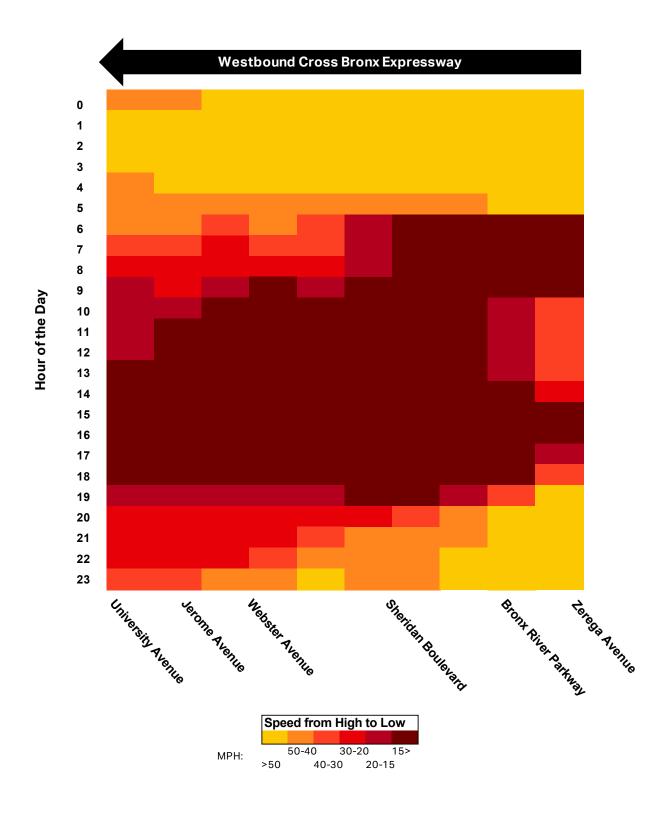


Figure 2.10. Cross Bronx Westbound Mainline 24 Hour Congestion Scan. Source: INRIX, 2023

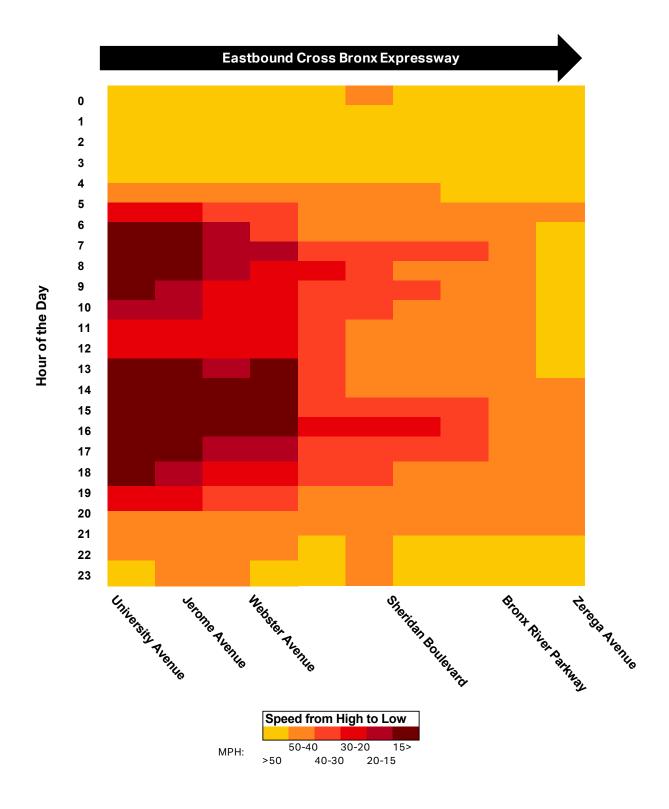


Figure 2.11. Cross Bronx Eastbound Mainline 24 Hour Congestion Scan. Source: INRIX, 2023

# 2.3. Multimodal

#### 2.3.1 Pedestrians

In a city where most trips are made on foot, pedestrian infrastructure is important to the accessibility and connectedness of any neighborhood.

Study Area topography varies substantially from west to east, as illustrated in **Figure 2.12**. The western half of the Study Area includes steep hills that create complex roadway relationships and challenging pedestrian conditions. Step streets and steep roads can create barriers for individuals with mobility challenges and can impact route choices and ease of movement for all pedestrians.

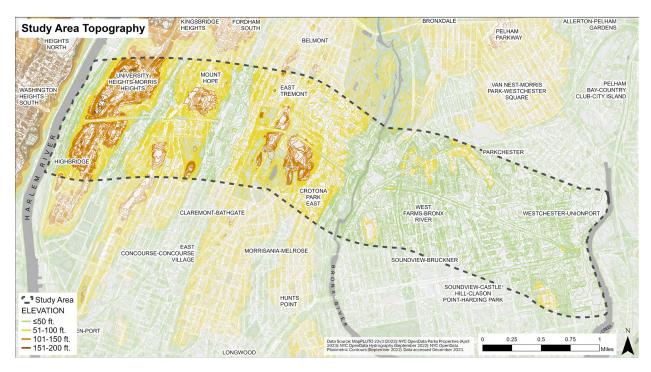


Figure 2.12. Study Area Topography. Source: NYC OpenData Planimetric Contours, 2022

The NYC DOT Pedestrian Unit has mapped pedestrian trip generators (e.g. schools and subway stations) to estimate demand and assign every street in NYC to a "pedestrian demand" category. The model assigns the "baseline" category to streets with relatively little demand, while community, neighborhood, and regional streets are of increasing importance to pedestrian movement, as shown in Figure 2.13. Within the Study Area, streets around major green spaces such as Crotona Park and commercial corridors such as E Tremont Ave stand out as neighborhood or regional connectors.

<sup>6</sup> NYC DOT Pedestrian Demand Map Methodology, 2024, https://www.nyc.gov/html/dot/downloads/pdf/methodology-ped-demand-map.pdf

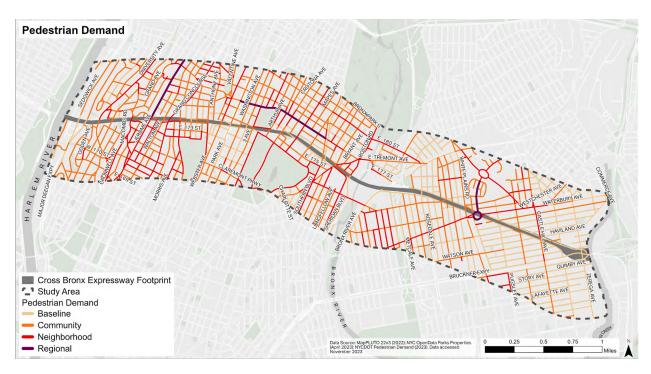


Figure 2.13. Pedestrian Demand. Source: NYC DOT Pedestrian Demand, 2023

The Sidewalk Deficiencies map (Figure 2.14) describes the quality of sidewalks in the Study Area. Where sidewalks exist, their actual width is compared to their ideal width based on the Pedestrian Mobility Plan Design Guidelines<sup>7</sup> A sidewalk that meets the guidelines is "adequate," while narrow sidewalks are "deficient" and wide ones are "superior." The red lines in Figure 2.14 indicate surface streets that are missing sidewalks on one or both sides. Most streets with missing sidewalks are expressway service roads such as those along the Cross Bronx and Bruckner Expressway. Other areas with missing sidewalks include Sedgwick Ave where it runs along the Major Deegan Expressway and Park Ave where it borders the Metro-North Railroad.

Overall, most sidewalks within the Study Area are adequately sized. However, in the western and central portions of the Study Area, which include high-demand streets due to nearby mass transit and high-density land uses, many sidewalks are not wide enough.

<sup>7</sup> NYC DOT Pedestrian Mobility Plan, 2024, https://www.nyc.gov/html/dot/html/pedestrians/pedestrian-mobility.shtml

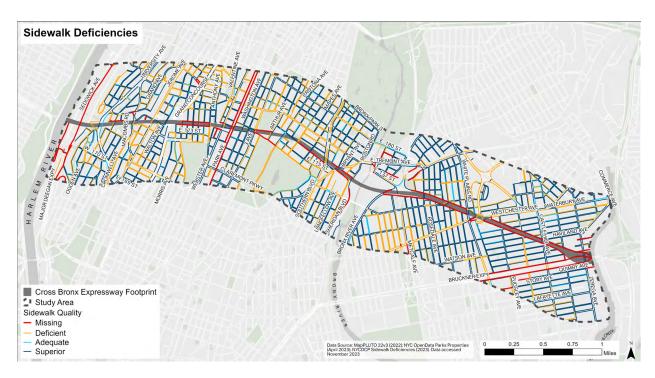


Figure 2.14. Sidewalk Deficiency. Source: NYC DCP Sidewalk Deficiencies, 2023

**Figure 2.15** combines the information in **Figure 2.13** and **Figure 2.14**, highlighting streets modeled as having both high pedestrian demand and less than guideline width. These locations include sidewalks surrounding subway stations on north-south connectors like Jerome Ave, Grand Concourse, Boston Road, and Westchester Ave. Other critical pedestrian streets include main streets in Parkchester and those surrounding Claremont, Crotona, and Walter Gladwin Parks, such as Morris Ave, Fulton Ave, and E Tremont Ave.

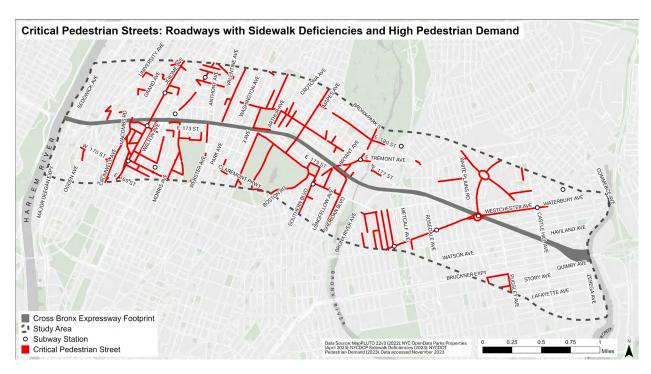


Figure 2.15. Critical Pedestrian Streets: Roadways with Sidewalk Deficiences and High Pedestrian Demand. Source: NYC DCP Sidewalk Deficiencies, 2023 & NYC DOT Pedestrian Demand, 2023

# 2.3.2 Bicyclists

The Bronx's bike route network includes:

- Protected bike lanes some form of physical barrier separating cyclists from traffic
- Conventional bike lanes separated with painted lines
- Shared lanes marked in roadways with mixed traffic

While the last several decades have seen substantial investment in the Bronx bike network, the Study Area lacks safe and efficient east-west routes and existing infrastructure does not provide consistent access to key destinations. This is particularly true of the eastern half of the Study Area, where bike infrastructure is most limited.

The 2019 <u>Green Wave</u> plan for cycling in NYC outlines the goal of a citywide, connected network of protected bike lanes. There has been progress in developing features of that network such as the Bronx River Greenway. Additionally, neighborhood networks of conventional bike lanes have been built out over substantial portions of the Study Area west of the Bronx River. While the conventional bike lane network covers some areas of the west and central portions of the Study Area, protected bike lane coverage is limited.<sup>8</sup>

According to a NYC DOT study, protected bike lanes reduce overall injury risk by 34%, with over 60% risk reduction on the highest risk streets. Conventional bike lanes reduce overall injury risk by 32% and are most effective on low and medium volume streets. The study also found that bike lane treatments reduce the number of injuries not only for cyclists but also for pedestrians and motor vehicle occupants, likely a result of traffic calming effects.

Currently, there are few bike routes east of the Bronx River. The western network is more developed but contains some crucial gaps. The Bronx River Greenway is an important asset within the Study Area and the Bronx at large, providing a safe connection between green spaces throughout the borough. However, one of several major gaps (circled in purple in **Figure 2.16**) in the Greenway is located between Starlight Park and Bronx Zoo. The gap forces cyclists and other micromobility users onto roadways that have no cycling infrastructure. E Tremont Ave is an important east-west throughfare with a conventional bike lane broken up by sections of shared roadways. Similar challenging situations occur across the corridor.

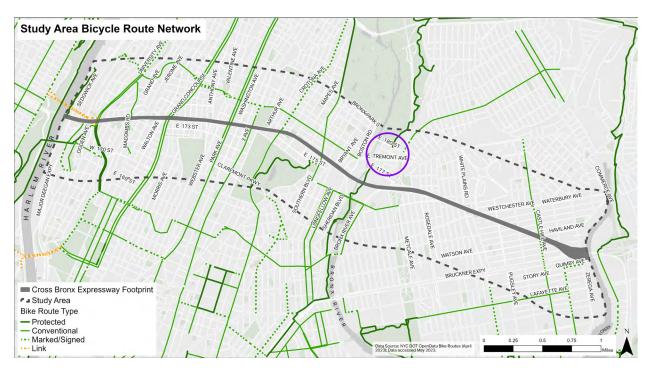


Figure 2.16. Study Area Bicycle Route Network. Source: NYC DOT OpenData Bike Routes, 2023

# 2.3.3 Public Transit

Many subway lines intersect the Study Area to provide north-south connections. However, East-West connections are served only by bus routes which have below-average speeds and face the same congestion problems as personal vehicles.

Walksheds around MTA bus and subway stations approximate the service areas of Study Area public transportation. The purple areas in **Figure 2.17** indicate streets that are within a 5-minute walk from a subway station. While overall catchment areas for mass transit stations are larger than the 5-minute walks displayed, these areas have the best access to service. Much of the Study Area is a substantial distance from a subway station. **Figure 2.18** highlights areas that are outside of a 5-minute walkshed from any public transit.

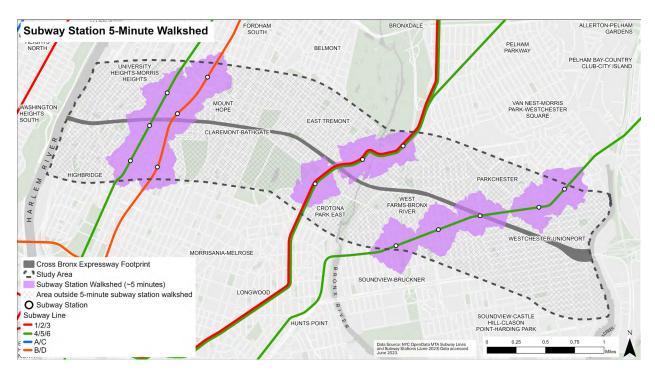


Figure 2.17. Subway Station 5-Minute Walkshed. Source: NYC OpenData MTA Subway Lines and Subway Stations, accessed June 2023

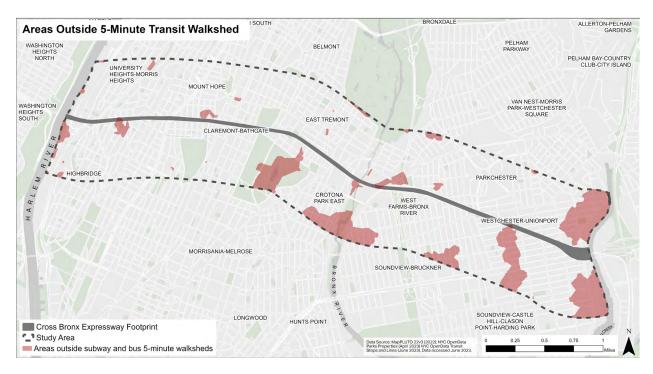


Figure 2.18. Areas Outside 5-Minute Transit Walkshed. Source: NYC DOT MTA Bus Stops, Bus Routes, Subway Lines, Subway Stations, accessed June 2023

Although most of the Study Area is within a 5-minute walking distance of a bus stop (Figure 2.19), distance alone does not guarantee that anyone living within a service area experiences reliable and effective public transit mobility. Service levels vary dramatically across the NYC bus system, and routes crossing the Study Area have relatively low average speeds, as shown in Figure 2.20. The bus routes in Figure 2.21 provide the only public transit options to travel eastwest along the corridor. All of these routes have greater ridership than the citywide average, and the Q44-SBS and BX36 see ridership levels greater than three times the citywide average. All east-west routes – except for Q44-SBS – have weekday peak-hour average bus speeds below the borough average, which itself is more than one mph slower than the citywide average.

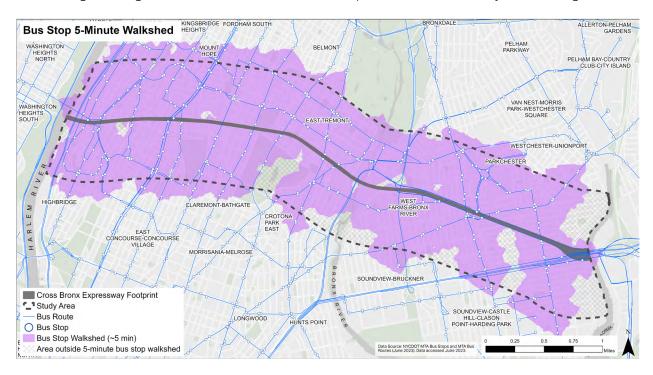


Figure 2.19. Bus Stop 5-Minute Walkshed. Source: NYC DOT MTA Bus Stops and MTA Bus Routes, June 2023

<sup>9</sup> Note that these speeds are for the full routes, not just the portions passing through the Study Area.

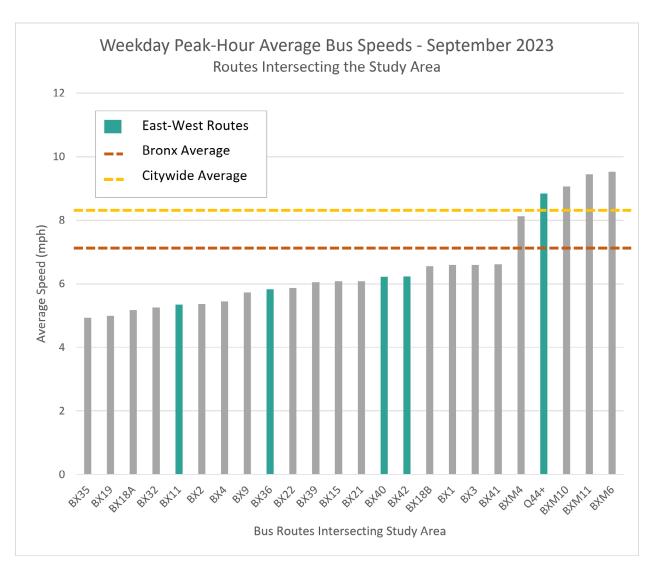


Figure 2.20. Weekday Peak-Hour Average Bus Speeds, September 2023, Routes Intersecting the Study Area. Source: NYCT Operations Planning, 2023

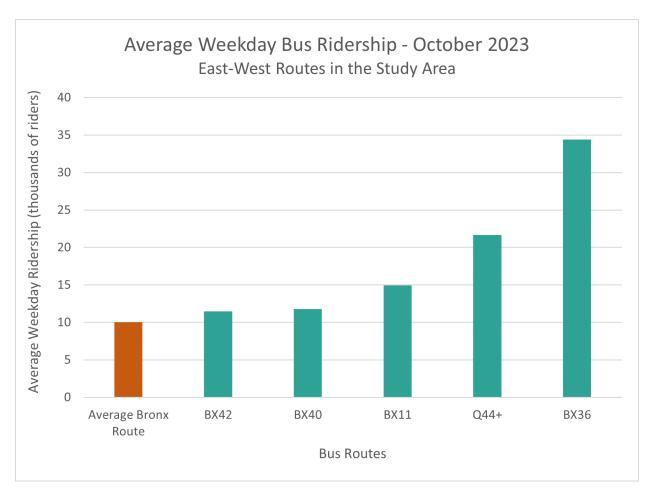


Figure 2.21. Average Weekday Bus Ridership, October 2023, East-West Routes in the Study Area. Source: NYCT Operations Planning, October 2023

In most locations, east-west buses travel at 7.5 mph or slower. This means that even short-distance trips between adjacent neighborhoods can be time consuming for riders. High levels of congestion also make it more difficult to ensure reliable and timely service. **Figure 2.22** below displays segment-level westbound average bus speeds for weekday peak PM hours. For additional segment-level bus speed maps, see section 9.1.4 of the Appendix.

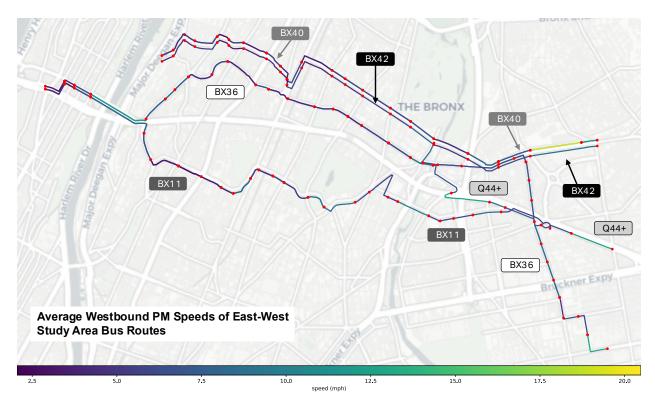


Figure 2.22. Average Westbound PM Speeds of East-West Study Area Bus Routes. Source: NYCT Operations Planning, October 2023

NYC DCP's Transit Travelshed Index (Figure 2.23) incorporates the schedules and locations of all major public transportation options to depict variation in transit access across the city. Every census tract is scored based on its residents' level of access to public transportation options. In the "Access to Jobs Index," census tracts where residents can use public transit to reach the largest number of jobs in the least amount of time have the highest scores. For example, a census tract where residents can reach 3,000 jobs within 35 minutes will have a higher score than a census tract where residents can only reach 500 jobs within 35 minutes.

Across NYC and within the Bronx, census tracts further from mass transportation and from job centers like downtown Manhattan have lower scores. However, there is variation in the Access to Jobs Index within the Study Area. In general, access to jobs by transit decreases from west to east across the Study Area. When comparing **Figure 2.23** to **Figure 2.26** in the following section, areas in the east with low transit access also exhibit higher rates of commuting by car.

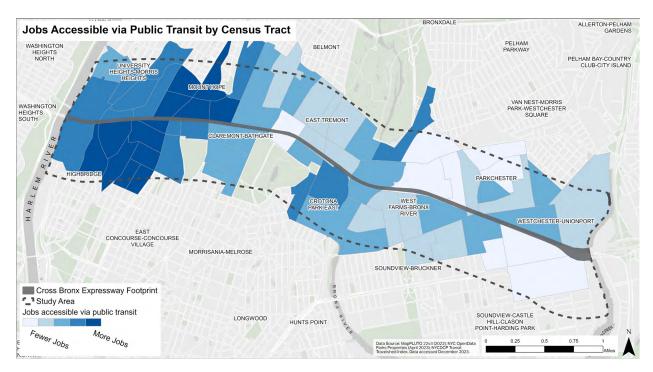


Figure 2.23. Jobs Accessible via Public Transit by Census Tract. Source: NYC DCP Transit Travelshed Index, accessed December 2023

# 2.3.4 Mode Share & Trip Purpose

Many factors contribute to the types of trips an individual makes and which mode they choose to use. It is important for both equity and sustainability goals to maximize the travel options available to residents of and visitors to any NYC neighborhood. Access to public transportation, shared use services, and micromobility infrastructure varies throughout the Study Area. Mode share data reflects this variation, while trip purpose data indicates that the *types* of trips that people make to the Study Area are similar to those destined to the rest of the city.

Residents of neighborhoods surrounding the Cross Bronx use a variety of transportation modes to travel to work (Figure 2.24). Most trips are on public transit, with nearly 60% of commutes taking place via subway and bus. However, Figure 2.26 indicates that residents in the west are more likely to commute using public transportation, while higher rates of commuting by single occupancy vehicle are concentrated in the east (Figure 2.25).

## Mode of Travel to Work of Residents in the Study Area

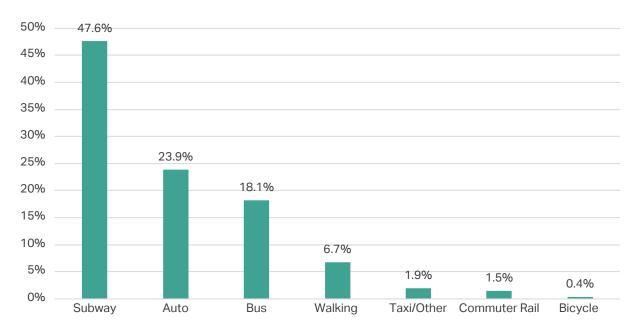


Figure 2.24. Mode of Travel to Work of Residents in the Study Area. Source: US Census Bureau (2021) ACS 5-Year Estimates.

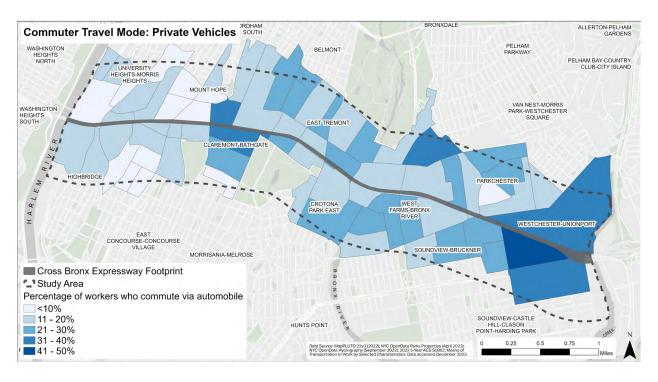


Figure 2.25. Commuter Travel Mode: Private Vehicles. Source: 2022 5-Year ACS, Means of Transportation to Work by Selected Characteristics

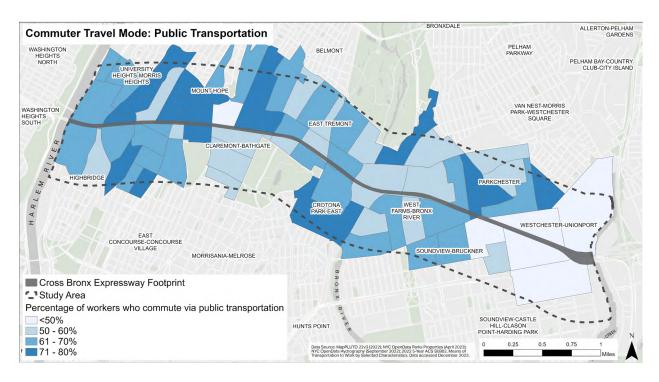


Figure 2.26. Commuter Travel Mode: Public Transportation. Source: 2022 5-Year ACS, Means of Transportation to Work by Selected Characteristics

Among those who live in the Study Area, transit riders experience longer commuting times, especially compared to those who take automobiles to work (Figure 2.27). Over 50% of subway riders and approximately 35% of bus riders whose trips start near the Cross Bronx endure commutes over one hour long, while only about 15% of automobile users experience similar commute lengths. While these travel times are not controlled for distance or destination, it illustrates the additional burdens placed on those who depend on public transit to reach work.

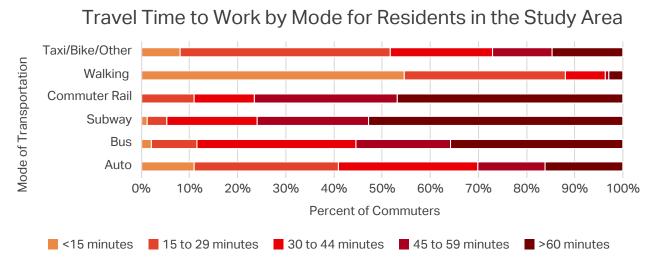


Figure 2.27. Travel Time to Work by Mode for Residents in the Study Area. Source: US Census Bureau (2021) ACS 5-Year Estimates.

The Trip Destination Purpose chart (Figure 2.28) is based on data from the 2022 Citywide Mobility Survey. Due to data constraints, the Study Area data represents trips across all seven days, while the NYC data is limited to weekdays. This difference in time coverage likely explains the difference in the percentage of trips with work as a destination. Overall, Study Area trip purposes closely resemble those of the city as a whole. The one exception is the escort category, which refers to trips where the primary trip-taker is accompanying another person (e.g. taking a family member or friend to school or work). It is difficult to know why a greater percentage of these trips occur within the Study Area without further study.

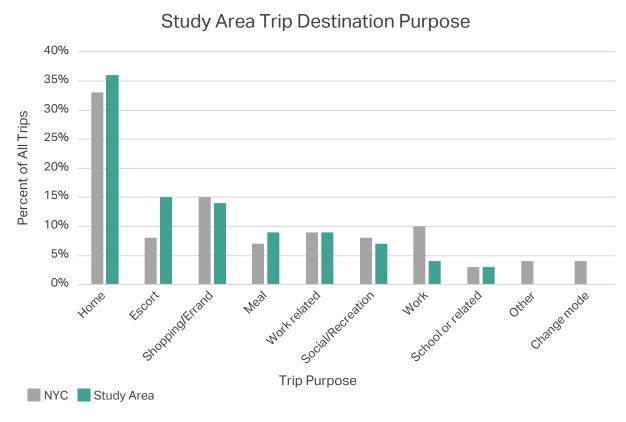


Figure 2.28. Study Area Trip Destination Purpose. Source: NYC DOT 2022 Citywide Mobility Survey<sup>10</sup>

#### 2.3.5 Shared Micromobility

Shared micromobility services provide sustainable travel opportunities for residents of and visitors to the Study Area. These new options can be particularly helpful for connecting people to public transportation. Currently, Citi Bike and e-scooter share service areas do not overlap, limiting potential users to one mode or the other.

Micromobility refers to the use of lightweight vehicles such as bicycles or scooters. Share systems provide self-service short-term rentals of such devices. The Cross Bronx Expressway corridor is served by two shared micromobility options: Citi Bike west of the Bronx River (Figure 2.29) and the East Bronx Shared E-Scooter Pilot (Figure 2.30) east of the Bronx River. Bike and e-scooter share services bolster mobility by enabling users to travel the "last mile" to and from

Note that the NYC values represent unlinked trips while the Study Area values are based on linked trips, which is why the "change mode" option only has values for NYC.

transit or complete short trips not served by transit options. It provides an option that is fast, active, and affordable relative to other shared mobility options like rideshare and car share.

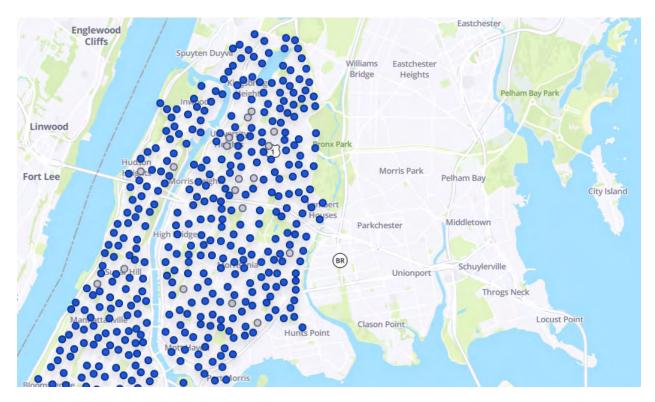


Figure 2.29. Citi Bike coverage in the Bronx. Source: Citi Bike

Citi Bike, which was expanded to the Bronx beginning in 2019, is a docked bikeshare system in Manhattan, Brooklyn, Queens, and the Bronx. It is operated by Lyft as part of a contract with the City of New York. Citi Bike, which includes both manual and electric versions, can be rented from and returned to fixed docking stations throughout the Citi Bike service area. The program offers annual memberships and pay-per-ride options, with a reduced fare membership program for NYCHA residents and SNAP recipients. Citywide, Citi Bike has seen growing ridership numbers, with a high of 34 million trips in 2023. Citi Bike's service area does not extend to the East Bronx.

In 2021, NYC DOT launched an e-scooter share pilot in the East Bronx. The pilot ended in August 2023 and was replaced by a long-term contract. Three companies provide e-scooter share service in the East Bronx - Bird, Lime, and Veo. Unlike Citi Bike, these e-scooters are dockless, meaning that they do not need to be parked at a station or fixed location. However, to prevent parked e-scooters from blocking sidewalks, NYC DOT has established designated parking corrals along certain commercial corridors where users can safely park e-scooters. The e-scooters operate on a pay-as-you-go system, with a base cost to unlock and a per-minute ride cost. Like Citi Bike, they offer discounted rates for recipients of state and federal assistance.

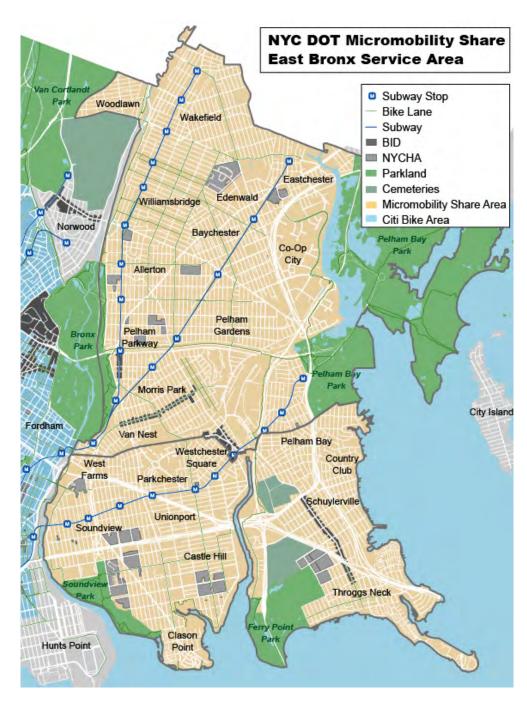


Figure 2.30. East Bronx Pilot Zone. Source: NYC DOT 2024

From 2021 to 2023, the East Bronx Shared E-Scooter Pilot program served over three million trips, many of which connected people to transit. The median number of trips per user account during 2023 was 8.6. During 2022-2023, about 20% of user accounts made over 25 trips. Usage has increased since the first year of the pilot, but relatively few riders have incorporated shared e-scooters into their regular travel patterns. Riders using discounted membership completed a higher-than-average number of trips. Limited awareness of the program among eligible residents may be one factor in the low participation rates.

### 3. Public Amenities



#### 3.1. Description of Amenities

The location, diversity, and quality of public amenities play a crucial role in shaping urban environments. These amenities have an important impact on the quality of life of and opportunities available to Study Area residents.

#### 3.1.1 Waterways

The Study Area is bounded by two waterways: the Harlem River to the west and Westchester Creek to the east. The Bronx River passes through the center of the Study Area. These waterways form an important part of the area's landscape and ecology, providing ecosystem services (the direct and indirect contributions of ecosystems to human well-being) and recreational opportunities.

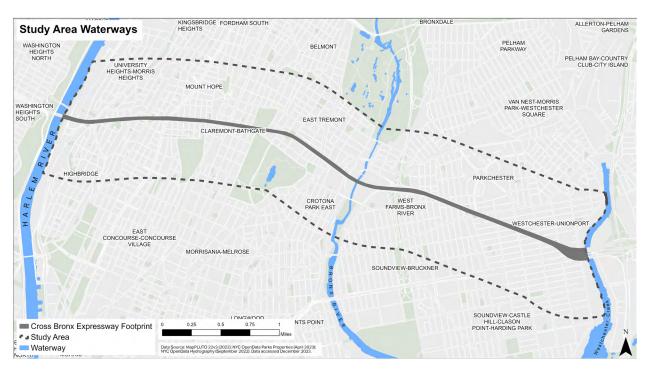


Figure 3.1. Study Area Waterways Map. Source: NYC OpenData Parks Properties, April 2023

#### **Harlem River**

The Harlem River runs approximately eight miles along the west and south of the Bronx and separates the Bronx from Manhattan. Historically, a curving portion of the river called the Spuyten Duyvil Creek connected the Hudson and Harlem rivers north of Marble Hill. In 1895 a canal was cut through the flatland. This intervention separated Marble Hill from Inwood, rerouting the river and dividing the two communities. The Harlem River has long been used for recreational activities such as rowing, as well as for shipping and industrial uses.



Figure 3.2. Bridge Park and the Harlem River. Photo: AECOM

Today, the southern half of the shoreline is lined with industrial uses. The northern half is more scenic, especially near the Henry Hudson Bridge and Hudson River. Access to the Harlem River waterfront on the Bronx side is impeded in many places by railroad tracks and the Major Deegan Expressway, which both run along most of the length of the river. Despite limited access points, parks such as Bridge Park and Roberto Clemente State Park provide important recreational opportunities along the waterfront.

#### **Bronx River**

The Bronx River flows approximately 24 miles through Westchester County and the Bronx. It originates near Kensico Reservoir, passes through the Bronx, and empties into the East River between the Soundview and Hunts Point neighborhoods.

The river flows through the center of the Bronx, dividing the East Bronx from the West Bronx. It is flanked for much of its length by the Bronx River Greenway, a 20-mile multiuse path for walking, biking, and recreation, and passes through landmark open spaces such as Bronx Park, the New York Botanical



Figure 3.3. The Bronx River at West Farms Rapids. Photo: Hidden Waters of NYC, Sergey Kadinsky, 2016

Garden, and the Bronx Zoo. In the early 19<sup>th</sup> century, the Bronx River was polluted with sewage and industrial waste. It is currently the site of numerous habitat restoration projects that aim to restore the river's ecology and improve recreation opportunities along its banks.

#### Westchester Creek

Westchester Creek is a two-mile-long tidal inlet of the East River in the southeastern Bronx. The creek flows from the East River, between Clason Point and Throgs Neck, to its current end near Westchester Square. Its original path reached further inland to what is now Pelham Parkway, but that portion has been filled in. It has historically been used for shipping by the industrial businesses along its shores. Over the decades, it has become polluted by industrial use and sewer overflows. Efforts are underway to remediate this pollution.

Figure 3.4. Westchester Creek intersection with the Cross Bronx Expressway Photo: Michel Brodner

## 3.1.2 Parks and Playgrounds

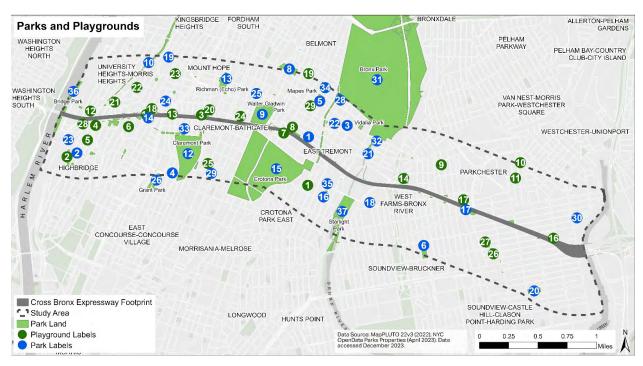
As of Fall 2023, there are 66 parks and playgrounds within the Study Area. These range from regional landmark parks like Starlight Park and Crotona Park to small neighborhood playgrounds that serve as anchors of their local communities. Parks and playgrounds are vital amenities that increase public health and wellbeing.

These open spaces create opportunities for play and exercise, provide much-needed respite from urban heat, decrease flooding risks, serve as centers of community life,



Figure 3.5. Crotona Park aerial view. Google Earth, accessed in 2023

create habitat for local wildlife, and more. Currently, the distribution of parks and playgrounds in the Study Area is concentrated in the central area of the corridor, where there are large parks like Claremont Park, Crotona Park, Walter Gladwin Park, Starlight Park and Bronx River Park. Figure 3.6 shows playgrounds and parks located within the Study Area.



Parks			
1. Miracle Garden	14. Jerome Playground South	27. Eae J Mitchell Park	
2. Mosaic Success Garden	15. Crotona Park	28. Volky Garden & Flowers	
3. Vidalia Park	16. Rock Garden Park	29. Jardin De La Familia	
4. College Avenue Greenthumb	17. Virginia Park	30. Castle Hill Little League Field	
5. Mapes Park	18. Captain William Harry Thompson Playground	31. Bronx Park	
6. Watson Gleason Playground	19. LeAvenue it Better Kids' Garden	32. River Garden	
7. Garden of Eden	20. P.O. Serrano Playground	33. Garden of Life	
8. Quarry Ballfields	21. West Farms Rapids	34. Garden of Happiness	
9. Walter Gladwin Park	22. Daly Avenue Garden	35. Angie Lee Gonzales Garden	
10. Aqueduct Park	23. Highbridge Park	36. Bridge Park	
11. 176th Street Community Garden	24. Townsend Garden	37. Starlight Park	
12. Claremont Park	25. El Batey de Dona Provi Garden		
13. Richman (Echo) Park	26. Grant Park		

Playgrounds		
1. Seabury Playground	11. Caserta Playground	21. Half-Nelson Playground
2. Merriam Playground	12. Sedgwick Playground	22. Galileo Playground
3. Peace Park	13. Morris Mesa	23. Mount Hope Playground
4. Plimpton Playground	14. Noble Playground	24. Stop & Go Playground
5. Ogden Plimpton Playground	15. Jerome Playground South	25. Little Claremont Playground
6. Goble Playground	16. Havemeyer Playground	26. FDNY-EMT Yadira Arroyo Playground
7. Admiral Farragut Playground	17. Virginia Playground	27. Haviland Playground
8. Prospect Playground	18. Jennie Jerome Playground	28. Bridge Playground
9. Taylor Playground	19. Belmont Playground	29. Mapes Pool
10. Castle Hill Playground	20. Cleopatra Playground	

Figure 3.6. Parks and Playgrounds Map. Source: NYC OpenData Parks Properties, April 2023

The NYC Department of Parks and Recreation's *Walk to a Park* initiative focuses on increasing access to parks and open spaces. The initiative defines "walking distance" as 1/4-mile or less for sites under six acres, such as small playgrounds and sitting areas. For parks that are six acres or larger, greenways, recreation centers, or parks with pools, the walking distance is 1/2-mile. **Figure 3.7** and **Figure 3.8** show the walking distance service areas for sites located within the Study Area. Comparing the service areas to 2020 U.S. Census block-level population data reveals that while most people living in the Study Area have access to small open spaces like playgrounds or seating areas (**Figure 3.7**), only around half of all residents live in walking distance of larger or higher amenity sites (**Figure 3.8**). Almost the entire eastern section of the Study Area is not within walking distance of these larger sites, indicating a disparity in the quality of open spaces across the corridor.



Figure 3.7. Walk-to-a-Park Service Area for Study Area Sites Under 6 Acres. Source: NYC OpenData, Walk-to-a-Park Service Area, 2023

<sup>1</sup> NYC Parks, Walk to a Park Initiative, 2024. https://www.nycgovparks.org/planning-and-building/planning/walk-to-a-park

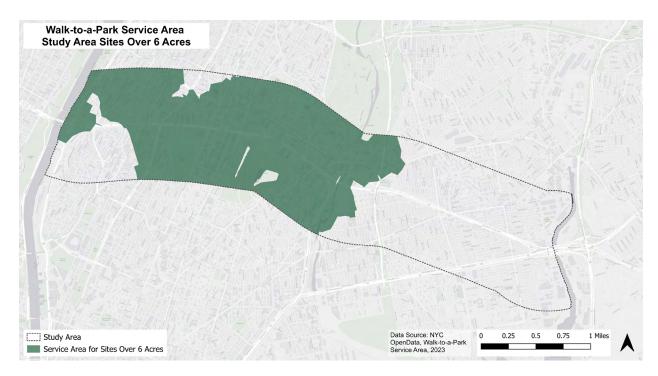


Figure 3.8. Walk-to-a-Park Service Area for Study Area Sites Over 6 Acres. Source: NYC OpenData, Walk-to-a-Park Service Area, 2023

#### 3.1.3 Civic Amenities and Public Facilities

The map below shows the distribution of civic amenities and public facilities in the Cross Bronx corridor. These include schools and childcare centers, hospitals and clinics, libraries and cultural centers, emergency services, faith-based facilities, and government administration offices. These institutions serve as centers of neighborhood life, bolster community resilience, and provide vital services.

Forty-one daycare centers are within a 10-minute walk of the Cross Bronx Expressway. The Study Area, encompassing parts of four different school districts, includes numerous schools situated directly adjacent to the expressway. Notable examples include P.S. 70, the largest elementary school in District 9, as well as P.S. 170, P.S. 211, P.S. 044, and P.S. 036.

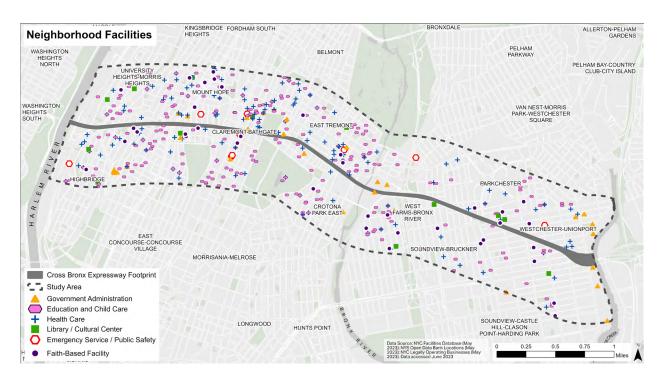


Figure 3.9. Neighborhood Facilities. Sources: NYC OpenData, Facilities database, 2023

#### 3.1.4 Neighborhood Services

A map of neighborhood and retail amenities reveals the concentration of essential services throughout the Study Area. The level of access to neighborhood amenities such as banks or grocery stores varies throughout the corridor. Some neighborhoods are limited by topography or by the Cross Bronx itself.

These businesses (Figure 3.10) represent core neighborhood assets that communities rely on for their daily needs, such as banks, grocery stores and bodegas, launderers, and pharmacies. However, some neighborhoods along the Cross Bronx have limited access to such retail services. For instance, in the far west portion of the Cross Bronx corridor, topographic challenges limit access to services located along University Ave. Additionally, access to neighborhood services is limited between the E Tremont Ave and E 170th St corridors.

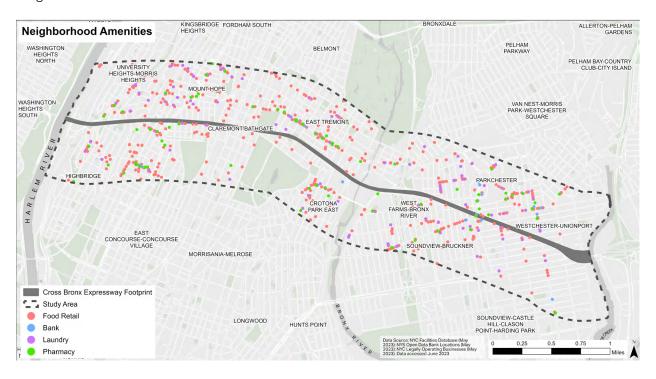


Figure 3.10. Neighborhood Amenities Map. Source: NYC OpenData, Facilities database, 2023

In the central section of the corridor, neighborhoods north of the Cross Bronx have access to multiple service corridors, such as E Tremont Ave and E 180<sup>th</sup> St, while neighborhoods to the south of the Cross Bronx, like West Farms, have less access. In the eastern section of the Study Area, services are mostly concentrated along Westchester Ave. Fewer services are present in the Soundview neighborhood.

#### 3.1.5 Ecological Systems

The Bronx is home to important ecosystems that clean the air and provide many benefits. Existing assets like Starlight Park are positive examples of ecologically rich greenspaces along the corridor.

The Bronx River is a unique geographic feature within the Study Area. It is New York City's only freshwater river, and it supports wildlife including muskrats, blue crabs, and a variety of fish species.<sup>2</sup> Several initiatives are currently underway to conserve and restore this 23-mile river, including planning and policies to address "threats from stormwater runoff, sewer overflow, and pollution."<sup>3</sup> The estuary, where the stream meets the tide, is the section of the river beneath the Cross Bronx and is the subject of greatest concern. According to NYC Parks, "the Estuary Section extends from Drew Gardens to the mouth of the river. Most of the historical wetland loss occurred in this section and industrial development further confined and hardened the banks, limiting waterfront access and contaminating the shoreline with manufacturing waste and debris. Although the filled salt marshes can never be recovered, better management of the shoreline can help protect water resources here, and small areas of wetland vegetation and structure can be protected and re-established."<sup>4</sup>

Trees are one of the most visible aspects of urban ecology. They provide an environmental benefit by absorbing carbon emissions and providing shade from the sun. Across the Bronx, there are over 127,000 trees managed by NYC Parks that remove over 139,000 pounds of pollutants from the air every year. The thornless honey locust is the most common tree species in the Bronx and can be found at parks near the Cross Bronx, including Sedgwick Playground and Jennie Jerome Playground. Accounting for and preserving the local flora and fauna is an important consideration in the planning process.

There are several different organizations in the Bronx dedicated to collecting information about and protecting existing ecosystems, including the New York Botanical Garden<sup>6</sup> and the Bronx River Alliance.<sup>7</sup>

NYC Parks maintains an updated map of trees managed by the city. The map includes street trees and trees in landscaped areas of parks. Figure 3.11 shows trees that are managed by NYC Parks along and near the Cross Bronx Expressway west of the Bronx River. Figure 3.12 shows the same information east of the Bronx River. Figure 3.13 shows the trees that are managed by NYC Parks near the Crotona Parkway Malls. The Malls are an area of particular interest to this study because they provide a positive example of greenspace that can exist on top of the Cross Bronx Expressway.

<sup>2</sup> Bronx River Alliance, Website Resources, 2024. https://bronxriver.org/resources/jsf/jet-engine:resources/tax/category:82

<sup>3</sup> Bronx River Alliance, Restoring the Ecology, 2024, https://bronxriver.org/restoration-access/restoring-the-ecology

<sup>4</sup> NYC Parks, Estuary Section: Wetlands of the Bronx River Watershed, 2024. https://www.nycgovparks.org/greening/natural-resources-group/bronx-river-wetlands/estuary-section

<sup>5</sup> NYC Parks, New York City Tree Map, 2024, https://tree-map.nycgovparks.org/tree-map/borough/2

The New York Botanical Garden, State of New York City's Plants, 2018, https://www.nybg.org/content/up-loads/2018/08/SCI\_State-of-the-Citys-Plants-2018-FULL4.pdf

<sup>7</sup> The Bronx River Alliance, Website Resources, 2024, https://bronxriver.org/

<sup>8</sup> NYC Parks, New York City Tree Map, 2024, https://tree-map.nycgovparks.org/tree-map/neighborhood/169

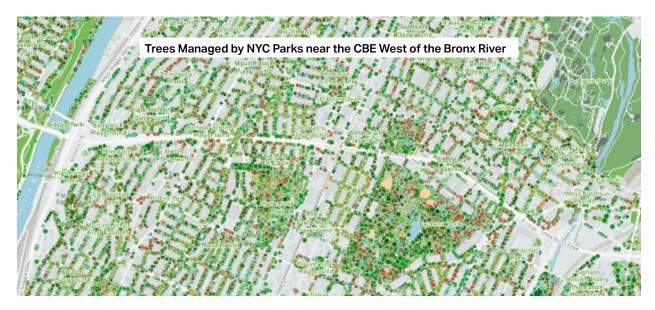


Figure 3.11. Trees Managed by NYC Parks near the Cross Bronx West of the Bronx River. Source: NYC Parks.



Figure 3.12. Trees Managed by NYC Parks near the Cross Bronx East of the Bronx River. Source: NYC Parks.



Figure 3.13. Trees Managed by NYC Parks near the Crotona Parkway Malls. Source: NYC Parks.

## 3.2. Commercial Conditions and Employment Opportunities

The Study Area contains a diverse mix of commercial entities and job opportunities. Storefronts are concentrated along major commercial corridors, while employment is often geographically clustered by industry type.

There are 3,920 storefronts in the Study Area, which includes a mix of street-level commercial and community spaces. As of November 9th, 2023, 350 storefront spaces were vacant, representing 9% of Study Area storefronts. This rate is slightly below the city's average storefront vacancy of 12%. Storefronts are located throughout the Study Area, as seen in **Figure 3.14**, with higher concentrations along major thoroughfares both parallel to and intersecting the Cross Bronx.

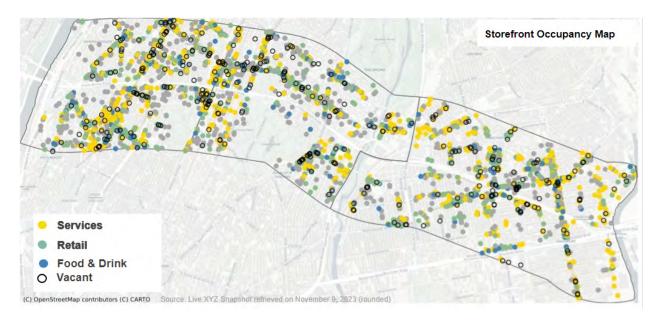


Figure 3.14. Map of Storefronts by Occupancy Type. Source: NYC DCP analysis of Live XYZ, November 2023

Study Area street-level uses are diverse. Services represent the highest share (34%) of storefront spaces (Figure 3.15). Service categories include but are not limited to: auto repair, gyms and fitness studios, funeral homes, banks, wholesalers, laundromats, personal care, and offices. Retail accounts for the second highest share of occupied storefronts (29%) and represents a range of goods, such as clothing stores, stores selling essential items (e.g., pharmacies, grocery, bodegas), and other tangible commodities. Community Facilities & Other represents 22% of storefronts. These uses include government services (e.g., police, fire, education), religious and educational organizations, entertainment and culture, and healthcare. Food and Drink accounts for the smallest share, 15%, and includes businesses like bars and restaurants.

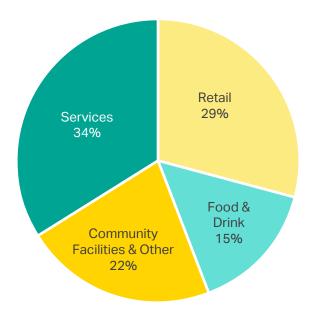


Figure 3.15. Occupied Storefronts by Economic Activity: Source: NYC DCP analysis of Live XYZ, November 2023

As of the first quarter of 2023 (Q1 2023), businesses in the Study Area generated approximately 42,350 jobs. About 73% of those jobs were in the private sector while the remainder were in the public sector.<sup>9</sup>

The Study Area is home to a diverse mix of industries and economies, as shown in **Figure 3.16**. The Institutional macro sector, covering Health Care and Education, represents more than half of Study Area employment. Health Care Services accounts for the highest share of jobs, representing one-third of Study Area employment.

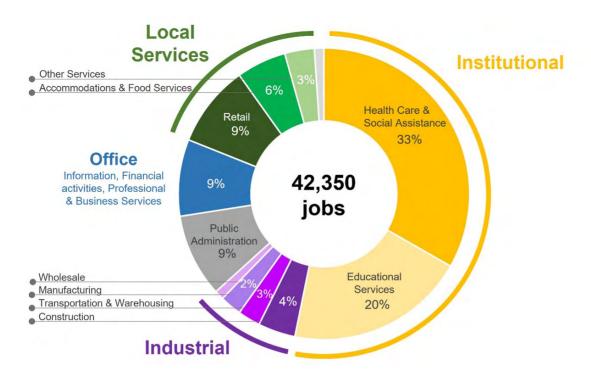


Figure 3.16. Employment by Macro Sector and Industry Sector. Source: NYC DCP analysis of New York State Department of Labor (NYS DOL) Quarterly Census of Employment and Wages (QCEW) Q1 2023 (preliminary).

Jobs are located throughout the Study Area, as seen in **Figure 3.17**, with economic activity clustered by macro industry sector. There are notable pockets of Industrial and Office-based employment concentrated in select geographies, while Institutional jobs are located throughout the Study Area. Local Services jobs are also spread throughout and are clustered around shopping corridors and malls.

<sup>9</sup> NYC DCP analysis of New York State Department of Labor (NYS DOL) Quarterly Census of Employment and Wages (QCEW) Q1 2023 (preliminary).

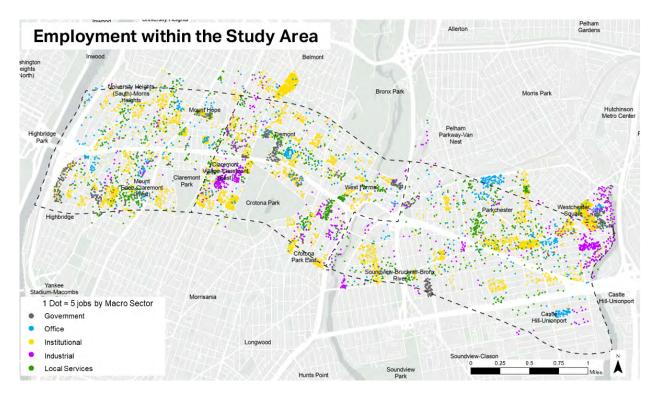


Figure 3.17. Employment within the Study Area. Sources: NYC Planning analysis of NYS Department of Labor (DOL) Quarterly Census of Employment and Wages (QCEW) data, Q3 2022; U.S. Census Bureau Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) Workplace Area Characteristics (WAC) JT00 Total Employment 2020 (Map only; data are mapped to Census Blocks)

# 4. Land Use, Socioeconomic and Demographic Conditions



#### 4.1. Land Use and Zoning Patterns

The land use and development patterns within the Study Area reflect those in much of the Bronx. Zoning regulations determine the use of land across the city and influence the distribution of housing, businesses, and public services. Today, 300,734 people live in the Study Area across eight different types of residential zoning districts.

Approximately 55% of the Study Area's land area is devoted to residential use. A portion of the housing stock consists of one- and two- family homes, particularly in lower density neighborhoods within the eastern section of the Study Area. Castle Hill and Crotona Park East are some of the Study Area's lower density neighborhoods. Higher density residential uses are more common in the western portion of the Study Area (see **Figure 4.3**) but they can be found throughout.

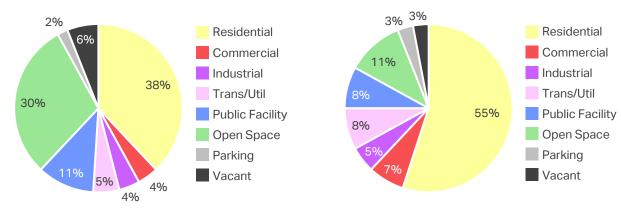


Figure 4.1. Bronx land uses by land area. Source: NYC OpenData GIS Zoning Features, April 2023

Figure 4.2. Study Area land uses by land area. Source: NYC OpenData GIS Zoning Features, April 2023

Commercial uses are located along major thoroughfares such as Westchester Ave and E Tremont Ave, and near subway stations. There are pockets of industrial spaces throughout the Study Area, including warehouses nestled between Claremont and Crotona Parks and railroad rights-of-way along the Harlem and Bronx Rivers and in the area abutting Westchester Creek.

The major Study Area parks (Claremont Park, Crotona Park, and Walter Gladwin Park) together cover approximately 11% of the land.

Study Area land use is similar to that of the Bronx overall (see **Figure 4.1** and **Figure 4.2**). In both the Bronx and the Study Area, the land used for purposes other than open space and housing is roughly the same: 32% in the Bronx and 34% in the Study Area. However, in the Bronx overall, approximately 30% of land is dedicated to open space, as opposed to 11% in the Study Area. The difference in open space is primarily due to the large open spaces within northern Bronx, such as Bronx Park, Van Cortlandt Park, and Pelham Bay Park. In the Bronx overall, only 38% of land area is residential as opposed to 55% in the Study Area.

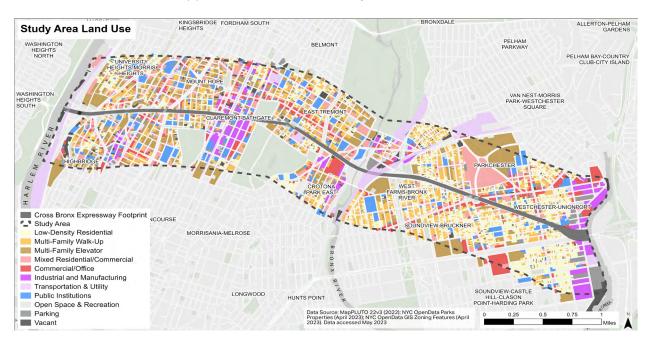


Figure 4.3. Detailed Land Use Patterns within the Study Area. Source: NYC OpenData GIS Zoning Features, April 2023



Figure 4.4. Higher-Density Housing in Parkchester. Source: Google Maps, accessed 2024



Figure 4.5. Low-Density Housing in Unionport. Source: Google Maps, accessed 2024

As shown in **Figure 4.6**, lots designated for residential use make up the largest zoning district, comprising 78.5% of the Study Area. Commercial and Manufacturing Districts are small in comparison, making up 6.1% and 15.4% of the Study Area, respectively. The following sections provide a detailed breakdown of these zoning patterns.

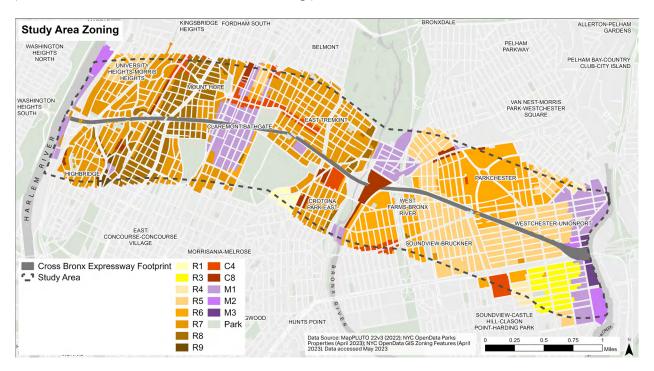


Figure 4.6. Study Area Zoning Districts. Source: NYC OpenData GIS Zoning Features, April 2023

#### 4.1.1 Residence Districts

Residence districts are the most common type of district in the Study Area. Designated density decreases from west to east across the corridor.

In New York City, residence districts are designated R1 to R10 in increasing order of bulk and density. In other words, R1 is the least dense designation and R10 is the most dense. The Study Area includes all districts except Study Area R2 and R10. R7 and R6 are characterized by medium-density apartment housing and together represent approximately 60% of residential land in the Study Area. Another common designation is R5 (22.2% of residential land), where structures are typically three- and four-story attached houses and small apartment buildings.

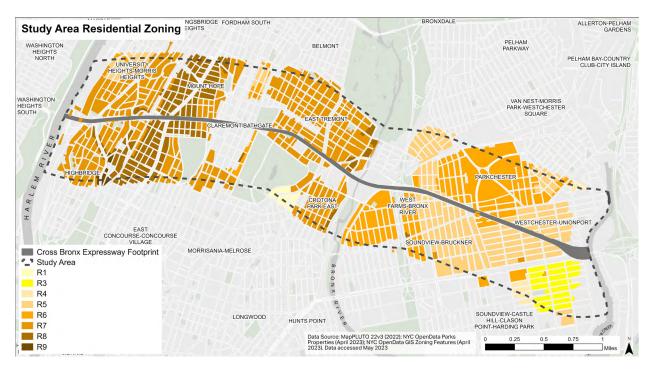


Figure 4.7. Study Area Residential Zoning Map. Source: NYC OpenData GIS Zoning Features, April 2023



Figure 4.8. High density housing along Grand Concourse. Source: Wikimedia Commons



Figure 4.10. Medium density housing in Southern Blvd, Crotona Park East. Source: <u>Google Maps</u>



Figure 4.9. Low density housing in Castle Hill. Source: <u>New York Times</u>



Figure 4.11. High density Bronx River Project at Cross Bronx-Bronx River Pkwy. Interchange. Source: <u>Google Maps</u>

Residential density is higher west of the Bronx River. In the west, there are R8 and R9 districts, while in the east districts are R6 or below. One of the densest areas, designated R8, can be found along Grand Concourse. Areas zoned for low-density single-family homes, designated R3, can be found around Unionport and Castle Hill near Westchester Creek. Charlotte Gardens south of Crotona Park is zoned R1 for large-lot single family homes.

#### 4.1.2 Commercial Districts

Commercial districts make up only 6.1% percent of the Study Area. These two commercial districts are C4 and C8:

- C4 regional commercial centers outside of central business districts, which offer retail stores and services at a scale larger than neighborhood shopping areas.
- C8 automotive and other heavy commercial services that often require large amounts of land, bridging commercial and manufacturing uses.

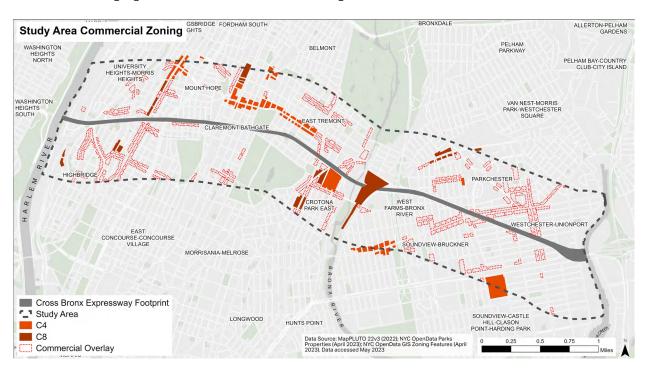


Figure 4.12. Study Area Commercial Zoning Map. Source: NYC OpenData GIS Zoning Features, April 2023

<sup>1</sup> For more information on Commercial Districts, see NYC DCP's Commercial Districts page: https://www.nyc.gov/site/planning/zoning/districts-tools/commercial-districts-c1-c8.page



Figure 4.13. Commercial and Mixed-Use development along E Tremont Ave. Source: Google Maps



Figure 4.14. New York City Transit Bus Depot near West Farms. Source: Google Maps

There are concentrations of commercial districts along Jerome Ave in the western part of the Study Area, north and east of Crotona Park, and along Webster Ave and E Tremont Ave. Additional pockets of commercial activity are scattered around the periphery of the Study Area.

#### 4.1.3 Industrial Districts

Manufacturing districts comprise roughly 15% of the Study Area<sup>2</sup> and are concentrated in several areas throughout the corridor.

New York City's three manufacturing district designations determine the intensity of permissible use. M1 is primarily characterized by light industry while M3 is for heavy industry. The prevailing manufacturing district in the Study Area is M1.

<sup>2</sup> For more information on Manufacturing Districts, see NYC DCP's Manufacturing Districts page: https://www.nyc.gov/site/planning/zoning/districts-tools/mfg-districts.page

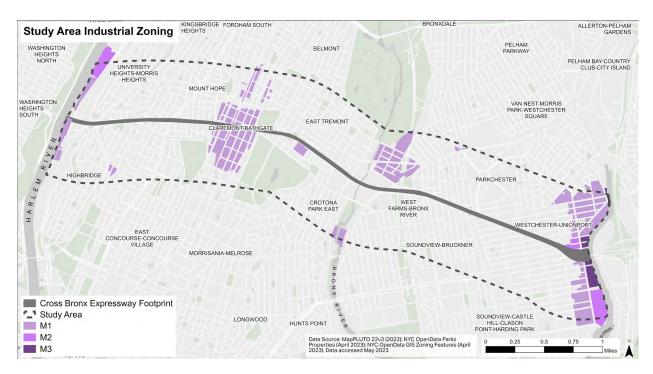


Figure 4.15. Study Area Industrial Zoning Map. Source: NYC OpenData GIS Zoning Features, April 2023

More than 75% of manufacturing districts in the Study Area are classified as M1. This zoning designation is concentrated on the far west side of the Study Area along the Harlem River, in Claremont between Claremont Park and Crotona Park, south of Bronx Park, and on the far east end of the Study Area in Unionport. Small parts (18.9% of manufacturing land) of the Study Area are zoned for medium industrial activity in Morris Heights along the Harlem River and in Castle Hill by Westchester Creek and Unionport. Only 3.9% of manufacturing land, all within Unionport and Castle Hill, is zoned as heavy manufacturing.

Businesses in the Study Area's manufacturing districts are found across five macro sectors – Local Services, Industrial, Office, Institutional, and Public Administration (Figure 4.16). Of the 340 business, over half are in the Local Services and Industrial sectors. There are 125 (37%) businesses in Local Services, which includes Retail Trade and Accommodation and Food Services. The large number of Other Services and Retail Trade businesses are attributable to auto-related industries, such as gasoline stations, auto repair, auto parts, and tires dealers. Other industries could include various types of local service providers – like food, drink, laundromats, and grocers – as well as businesses that classify themselves as retail but have a manufacturing or wholesale component.

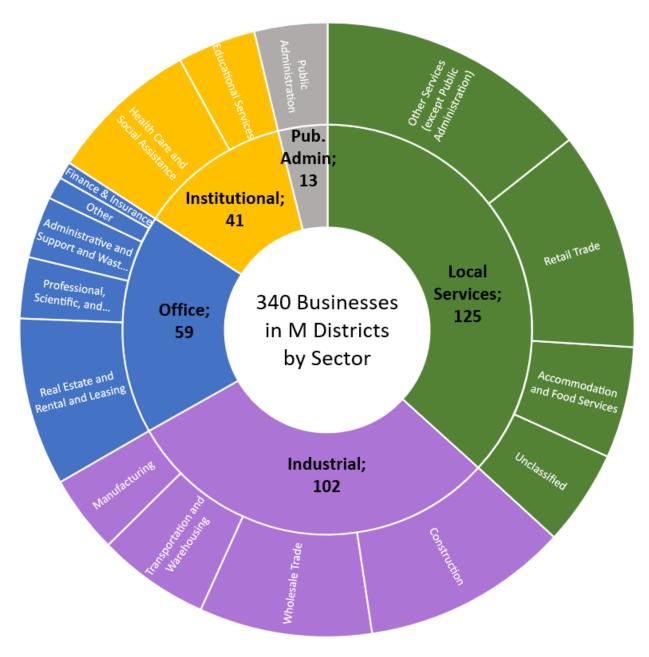


Figure 4.16. Businesses in Study Area Manufacturing Districts by Sector. Source: NYC DCP analysis of NYS DOL Quarterly Census of Employment and Wages, public and private sector, 2023 Q2 (preliminary).

#### 4.1.4 Special Districts

Special purpose districts are designated by the City Planning Commission to enable the preservation or development of an area's unique characteristics that may be hindered by general zoning requirements and incentives.<sup>3</sup>

<sup>3</sup> For more information on Special Districts, see NYC DCP's Special Districts page: https://www.nyc.gov/site/planning/zoning/districts-tools/special-purpose-districts-bronx.page

The Study Area includes part or all of the following special districts:

- Special Jerome Corridor District: A district in the western part of the Study Area adjacent to the elevated rail line on Jerome Ave to facilitate the development of residential, commercial, and community facility uses.
- **Special Grand Concourse District:** A district in the western part of the Study Area along the Grand Concourse created to protect the art deco-era composition and scale of its apartment buildings.
- **Special Mixed-Use District (MX-14):** A district in Tremont established to invest in nearby neighborhoods with mixed residential and industrial uses.
- Special Planned Community Preservation District: A district on the east side of the Study Area in Parkchester where development and demolition are restricted to preserve the planned community nature of area.
- Castle Hill Business Improvement District (BID): A BID was established to enable local stakeholders near the intersection of Castle Hill and Waterbury Ave to oversee and fund the maintenance, improvement, and promotion of their designated district.
- Industrial Business Zones (IBZ): IBZs protect existing manufacturing districts, foster economic development, and encourage industrial growth. IBZs have been established in Bathgate and Zerega.<sup>4</sup>

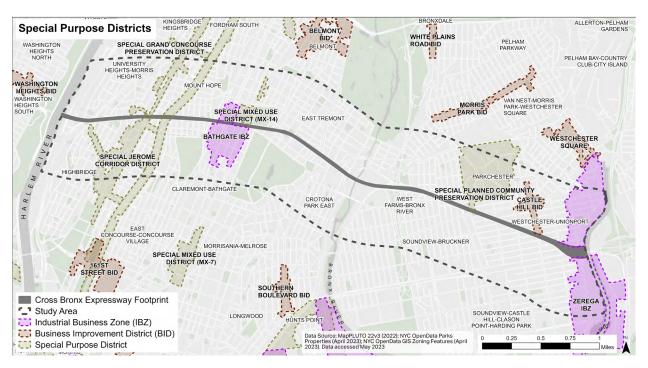


Figure 4.17. Special Purpose Districts Map. NYC OpenData GIS Zoning Features, April 2023

<sup>4</sup> NYC EDC, Industrial Business Zones, 2024, https://edc.nyc/industry/industrial-and-manufacturing

Two of the city's twenty-one IBZs – Bathgate and Zerega – are located at least partially in the Study Area and contain nearly 270 businesses. Like the Manufacturing districts across the Study Area, businesses in the IBZs are represented by the five macro sectors. Ninety-three businesses (35%) are in the Industrial sector, like Wholesale Trade and Construction, and represent the largest share of businesses in the IBZ. Other dominant businesses include Retail Trade and Real Estate services.

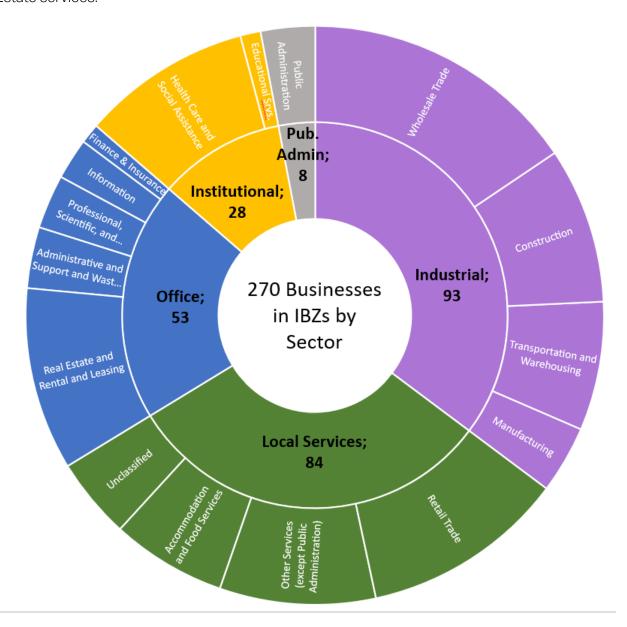


Figure 4.18. Study Area Businesses in IBZs by Sector. Source: NYC DCP analysis of NYS DOL Quarterly Census of Employment and Wages, public and private sector, 2023 Q2 (preliminary).

#### 4.1.5 Land Ownership

Non-residential land ownership is illustrated below because ownership can affect the city's capacity to make changes to the built environment.

Figure 4.19 illustrates the land ownership type for each non-residential tax lot in the Study Area. Privately owned and residential parcels make up the majority (61.3%) of parcel area while publicly owned parcels make up 25.1% of the Study Area. These parcels include city-owned public spaces like Crotona, Walter Gladwin, Starlight, and Claremont Parks. Approximately 17% of city-owned parcels (56 individual parcels) are designated as vacant; many of the larger vacant parcels are owned by the NYC Department of Parks and Recreation.

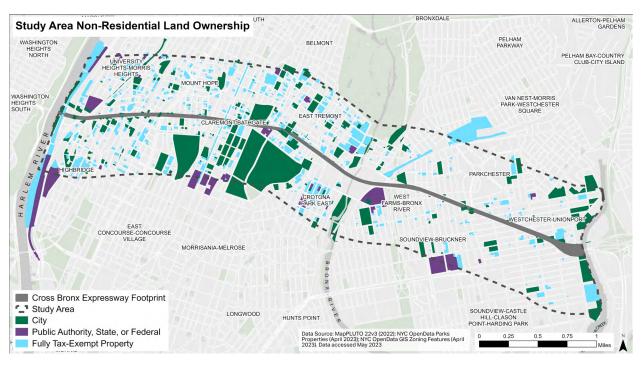


Figure 4.19. Study Area Non-Residential Land Ownership Map. NYC OpenData GIS Zoning Features, April 2023

Other notable city-owned parcels are those located within the Bathgate IBZ between Crotona and Claremont Parks, as well as those in the Zerega Ave IBZ at the east end of the Study Area. Other parcels in the Study Area are owned by city, state, and federal public authorities like the New York City Housing Authority (NYCHA). Tax exempt properties include churches, transit maintenance facilities and rights-of-way, and utilities.

#### 4.2. Current Socioeconomic Conditions

Assessing the socioeconomic conditions of an area can reveal disparities and help shape strategies for community development.

#### 4.2.1 Household Conditions

Within the Study Area, most households live in rental units occupied by families. The median household income is \$38,694, which is approximately \$30,000 dollars less than the citywide median.

Household income provides insight into the financial well-being of Study Area residents. Household incomes vary across the Study Area (**Figure 4.20**). About one third of households make \$35,000 to \$75,000, while 25% earn over \$75,000. Approximately 45% of households in the Study Area earned less than \$35,000 in 2021. Citywide, 28.5% of the population makes less than \$35,000, while 47.9% of the population makes above \$75,000.<sup>5</sup>

## Study Area Household Income (In 2021 Inflation-Adjusted Dollars)

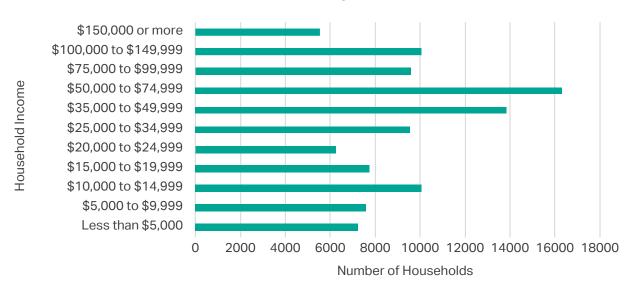


Figure 4.20. Study Area Household Income. Source: ACS 5-Year Estimates, 2021

As defined by the U.S. census, a household is composed of one or more people who occupy a housing unit. A family household is one in which members are related through birth, marriage, or adoption. The Study Area includes a slightly larger proportion of family households compared to the city as a whole (67% in the Study Area versus 59% in NYC). However, the share of single-

<sup>5</sup> US Census Bureau, ACS 2021 5-Year Estimates Subject Tables, Income in the Past 12 Months (in 2021 inflation-adjusted dollars), https://data.census.gov/table/ACSST5Y2021.S1901?q=income&g=160XX00US3651000

householder households is nearly twice as large in the Study Area (41% in the Study Area versus 23% in NYC), implying a much greater rate of single-parent families.<sup>6</sup>

Within the Study Area, 88% of housing units are occupied by renters. By comparison, the citywide average of renter-occupied housing units is 70.2%.<sup>7</sup> These numbers indicate the Study Area's greater dependency on rental accommodations.

#### 4.2.2 Employment and Unemployment Conditions

The Study Area's unemployment rate is nearly twice as high as the citywide rate, despite having similar levels of labor force participation.8

Employment, workforce participation, and major employing industries play a crucial part in determining the economic vitality of the Study Area. Approximately 59% of the working age population (Figure 4.21) is in the labor force, compared to 63.4% citywide. These are individuals who are either working (employed) or are actively seeking work but do not currently have jobs (unemployed). Although the Study Area has a similar labor force participation rate compared to NYC, it has a much higher unemployment rate (13.4% in the Study Area compared to 7.5% in NYC). The remaining 41% of the workingage population include retirees, students and individuals not seeking employment. Additionally, a small percentage of residents in the Study Area are involved in the armed forces.

#### Study Area Employment Status

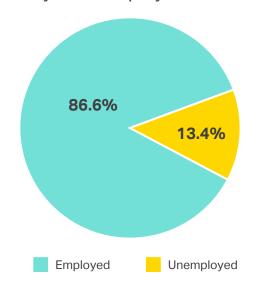


Figure 4.21. Study Area Employment Status. Source: ACS 5-Year Estimates, 2021

<sup>6</sup> US Census Bureau, ACS 2021 5-year estimates subject tables, Occupancy Characteristics, https://data.census.gov/table/ACSST5Y2021.S2501?q=Household%20Size%20and%20Type&g=160XX00US3651000

<sup>7</sup> DCP Population Fact Finder, 2020, https://popfactfinder.planning.nyc.gov/explorer/cities/New%20York%20City?acsTopics=demo-sexAndAge%2Cdemo-mutuallyExclusiveRaceHispanicOrigin%2Cdemo-hispanicSub-group%2Cdemo-asianSubgroup&censusTopics=populationSexAgeDensity%2CmutuallyExclusiveRaceHispanicOrigin%2CrelationHeadHousehold%2ChouseholdType%2ChousingOccupancy%2ChousingTenure%2Chousehold-Size&compareTo=0&showCharts=true&showReliability=false&source=decennial-current

<sup>8</sup> U.S. Census Bureau. "SELECTED ECONOMIC CHARACTERISTICS." American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP03, 2021, https://data.census.gov/table/ACSDP5Y2021.DP03?q=employ-ment&q=050XX00US36005\$1400000

About 81% of employed residents are private wage or salary workers, while 13% are employed in government positions. The remaining portion includes individuals who are self-employed but not actively involved in business activities. These figures closely match city-wide averages.

The primary industries employing Study Area residents (Figure 4.22) include educational services, healthcare and social assistance. Together, these industries employ approximately one-third of the population. The retail industry is the second largest contributor, providing employment for 11% of residents in the Study Area. Additionally, the arts, entertainment, accommodation, and food services sector employ approximately 10% of the residents.

#### Study Area Resident Employment by Labor Industry

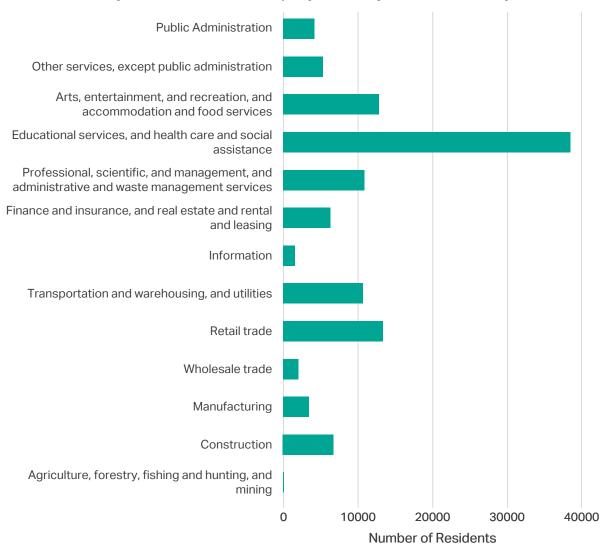


Figure 4.22. Labor Industry. Source: ACS 5-Year Estimates, 2021

#### 4.2.3 Education

School enrollment and educational attainment data provide a detailed understanding of educational pursuits and overall socioeconomic conditions within the Study Area.

The data from Figure 4.23 provides an overview of enrollment in various levels of education. Approximately 30% of residents over the age of three in the Study Area are actively enrolled in schools, which is greater than the NYC share of 24%. Approximately 21% of those enrolled are engaged in college or graduate school-level education, lower than the citywide share of 30%.

#### Study Area School Enrollment by Level of Education 70000 Number of students enrolled 60000 50000 40000 30000 20000 10000 0 Kindergarten to 12th Nursery school, College, Graduate, preschool arade undergraduate professional school Level of Education

#### Figure 4.23. School Enrollment. Source: ACS 5-Year Estimates, 2021

#### 4.3. Current Demographic Conditions

#### 4.3.1 Density and Age Distribution

The Study Area contains some of the most densely populated areas in New York City and has a higher proportion of children relative to the rest of the city.

The Study Area contains some of the most densely populated areas in New York City. The population per acre in the Study Area is about 99 people per acre compared to approximately 55 people per acre in the Bronx, and 46 people per acre in New York City. Areas in Mount Eden and Claremont have some of largest concentrations of people per acre, followed by areas in Parkchester and Mount Hope.

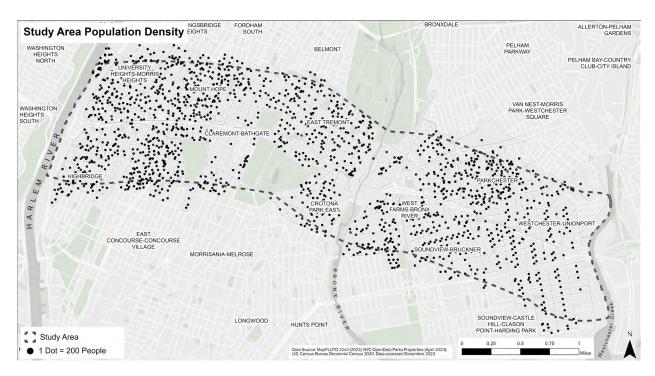


Figure 4.24. Study Area Population Density. Source: U.S. Census Bureau Decennial Census, 2020.

Dot density maps are illustrative only.

**Figure 4.25** shows the number of residents of the Study Area and their distribution across age ranges. Compared to the city-wide average of 22.1%, the Bronx has a higher percentage of residents under 19 years old. The city-wide average of residents between ages 20 and 64 is 62.9% and 15% of city residents are 65 or older.<sup>9</sup>

<sup>9</sup> DCP Population Fact Finder, 2020, https://popfactfinder.planning.nyc.gov/explorer/cities/New%20York%20 City?acsTopics=demo-sexAndAge%2Cdemo-mutuallyExclusiveRaceHispanicOrigin%2Cdemo-hispanicSub-group%2Cdemo-asianSubgroup&censusTopics=populationSexAgeDensity%2CmutuallyExclusiveRaceHispanicOrigin%2CrelationHeadHousehold%2ChouseholdType%2ChousingOccupancy%2ChousingTenure%2Chousehold-Size&compareTo=0&showCharts=true&showReliability=false&source=decennial-current

#### Study Area Resident Age Distribution

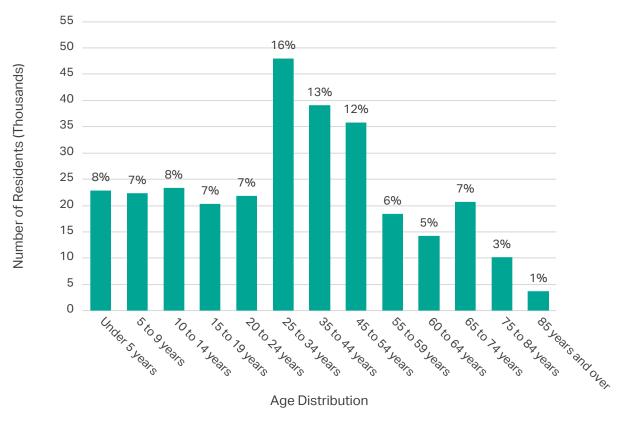


Figure 4.25. Study Area Resident Age Distribution. Source: ACS 5-Year Estimates, 2021

#### 4.3.2 Ethnic and Racial Composition

The Study Area is majority Hispanic or Latino (of any race) and the second largest ethnic group is Black or African American alone.

Hispanic or Latino (of any race) individuals make up 62% of the Study Area population (Figure 4.26). The next largest ethnic or racial group is Black or African American alone, and all other ethnicities and races make up the remaining 11% of residents in the Study Area. Citywide, 28.3% of the population is Hispanic or Latino (of any race) and 20.2% of the population is Black or African American alone. The Bronx has the highest portion of Hispanic or Latino (of any race) residents of any borough (54.8%).<sup>10</sup>

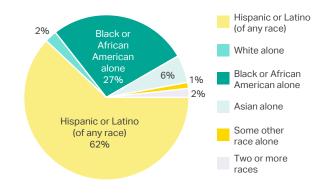


Figure 4.26. Study Area Ethnic and racial composition. Source: ACS 5-Year Estimates, 2021

<sup>10</sup> DCP Population Factfinder, 2020, https://popfactfinder.planning.nyc.gov/explorer/cities/New%20York%20 City?compareTo=2

#### 5. Health Conditions



## **5.1. Disparities in Health Outcomes and Contributing Factors**

The conditions in which people are born, live, learn, work, play, and age greatly shape health. These social and economic factors are closely connected to the physical environment, which also plays an important role in shaping health (Figure 5.1).



Figure 5.1. Social Determinants of Health. Source: Centers for Disease Control and Prevention - <a href="https://www.cdc.gov/public-health-gateway/php/about/social-determinants-of-health.html?CDC\_AAref\_Val=https://www.cdc.gov/publichealthgateway/sdoh/index.html">https://www.cdc.gov/publichealthgateway/sdoh/index.html</a>

The South Bronx, including communities north and south of the Cross Bronx Expressway, has long suffered from conditions that do not support good health. These conditions have resulted in higher rates of poor health outcomes in those neighborhoods than in the rest of the city. The indicators in the table below were selected to represent the categories of factors that impact health directly related to the highway's existence. A more complete table of indicators can be found in Appendix 9.2.

One of the health outcomes that people commonly associate with highways and traffic-related pollution is asthma.<sup>1</sup> Rates of asthma emergency department (ED) visits due to exposure to fine particulates (PM2.5), an outdoor air pollutant, are over three times higher in the Study Area than in the remaining neighborhoods in NYC (Table 5.1). While asthma can be triggered by outdoor air pollution, the number of emergency department visits for asthma due to outdoor air pollution is only a small fraction of the total asthma emergency department visits in the Study Area. Allergies to pollen and upper respiratory infections can trigger asthma.

Other factors contribute to higher asthma rates in certain communities. These factors include poor housing quality leading to issues with mice, cockroaches, and mold; lack of access to medical care due to cost; difficulties with physically accessing health services; lack of sick time; lack of access to medication; and the prevalence of other chronic conditions like obesity, which increase the severity of asthma.<sup>2</sup> Adults in the Study Area are almost twice as likely to not receive needed medical care as adults in the rest of the city and are more likely to have diabetes, hypertension, and obesity. A study done by the Montefiore Medical Group found that the most frequent reason that people missed primary care appointments was a lack of transportation.<sup>3</sup>

Many strategies to address health issues that are experienced by the residents of the Study Area will be explored in the Concept Development phase of the study. Access to open space that encourages physical activity and social cohesion can help address obesity and related chronic diseases and mental health, improved public transit can help people get to healthcare more easily, and more green space can help to cool the neighborhood during very hot weather. Heat-stress hospitalizations in the Study Area are almost double the rate in the rest of the city. Addressing traffic safety through improved intersection design and marking, better lighting and dedicated pedestrian paths can help reduce the rate of pedestrian injury hospitalizations which is 40% higher in the Study Area than the rest of the city (Table 5.1).

<sup>1</sup> Khreis H, Kelly C, Tate J, Parslow R, Lucas K, Nieuwenhuijsen M. Exposure to traffic-related air pollution and risk of development of childhood asthma: A systematic review and meta-analysis. Environ Int. 2017 Mar;100:1-31. doi: 10.1016/j.envint.2016.11.012. Epub 2016 Nov 21. PMID: 27881237.

<sup>2</sup> NYC Health, Asthma Factsheet, 2024, https://www.nyc.gov/assets/doh/downloads/pdf/asthma/asthma-mvths-facts.pdf

<sup>3</sup> Fiori, Kevin P., et al. "Unmet social needs and no-show visits in primary care in a US northeastern urban health system, 2018–2019." American journal of public health 110.S2 (2020): S242-S250.

Indicator	Neighborhoods in the rest of NYC	Cross Bronx Expressway Study Area	How much higher the rates are in the Study Area compared to the rest of NYC	Description
Average annual rate of emergency department (ED) visits for asthma among adults (+18 yrs) due to PM2.5 exposure per 10,000*	2.1	8	3.9	Rate of adult ED visits for asthma triggered by air pollution is 4 times higher in the Study Area than the rest of the city
Average annual rate of emergency department visits for asthma among children (<18 yrs) due to PM2.5 exposure per 10,000*	4.7	15.1	3.2	Rate of child ED visits for asthma triggered by air pollution is 3 times higher in the Study Area than the rest of the city
Average annual age adjusted rate of emergency department visits for asthma among adults per 10,000*	54.2	181.1	3.3	Rate of adult ED visits for asthma due to any cause is over 3 times higher in the Study Area
Average annual rate of emergency department visits for asthma ages 5 to 17 per 10,000*	150.7	611	4.1	Rate of child ED visits for asthma caused by all triggers is 4 times higher in the Study Area than the rest of the city
Rate of pedestrian injury hospitalizations per 100,000 people*	20	28	1.4	Pedestrian injury hospitalizations are 40% higher in the Study Area than the rest of the city
Percentage of adults (+18 yrs) who report ever being told by a healthcare professional that they have diabetes**	11	16	1.5	Rate of diabetes is twice as high in the Study Area as the rest of the city
Percentage of adults (+18 yrs) who report ever being told by a healthcare professional that they have hypertension, also known as high blood pressure**	25.5	35	1.4	Rate of hypertension is 40% higher in the Study Area than the rest of the city
Percentage of adults (+18 yrs) who have obesity (Body Mass Index of 30 or greater) based on self-reported height and weight**	24.5	40	1.6	Rate of obesity is 60% higher in the Study Area than the rest of the city

Table 5.1. Categories of factors that impact health directly related to The Cross Bronx Expressway. \*Source: <a href="https://a816-health.nyc.gov/hdi/profiles/">on.nyc.gov/dataportal</a>.

\*\*Source: <a href="https://a816-health.nyc.gov/hdi/profiles/">https://a816-health.nyc.gov/hdi/profiles/</a>

Indicator	Neighborhoods in the rest of NYC	Cross Bronx Expressway Study Area	How much higher the rates are in the Study Area compared to the rest of NYC	Description
Percentage of adults (+18 yrs) who report not getting needed medical care at least once in the past 12 months**	11.5	20	1.7	Percent of adults not getting needed medical care in the past year is almost twice as high in the Study Area as in the rest of the city
Average annual rate heat stress hospitalizations per 100,000*	1.3	2.3	1.8	The rate of hospitalizations for heat stress is almost twice as high in the Study Area than the rest of the city

Table 5.1. Categories of factors that impact health directly related to The Cross Bronx Expressway. \*Source: <u>on.nyc.gov/dataportal</u>.

\*\*Source: https://a816-health.nyc.gov/hdi/profiles/

### 5.2. Air Pollution

New York City's air contains particles, drops of liquid, gasses, and other pollution that can affect health. Bad air quality can be particularly dangerous for older adults, children, and people with heart or lung conditions. Air quality varies from neighborhood to neighborhood, based on local levels of emissions and many other factors.

The NYC Health Department runs the New York City Community Air Survey (NYCCAS), NYC's neighborhood level air quality monitoring and modeling network. NYCCAS allows us to understand neighborhood differences in air quality - and what contributes to those differences. Air pollution in the neighborhoods along the Cross Bronx comes from:

- Grilling and broiling food in restaurants (10%)
- Building heating and hot water (25%)
- Car and truck traffic (15%)
- Sources outside of NYC, such as coal power plants in Pennsylvania and Ohio (30%)
- Local power plants (1%)
- Construction, industrial processes, non-road equipment (19%)

Monitors located along the Cross Bronx show improving air quality since the start of monitoring. Policies and events regulating emissions from residual fuel oil, electric generating units, and motor vehicles resulted

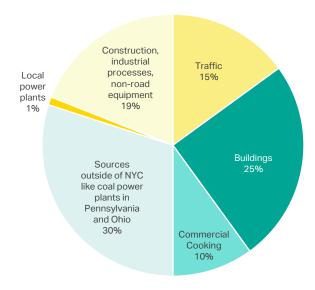


Figure 5.2. Air Pollution Source by Category. Source: EPA National Emissions Inventory, 2020

in decreased fine particulate matter (PM2.5) (Figure 5.3) and nitrogen dioxide (NO2) (Figure 5.4) concentrations citywide. Stricter emissions standards for passenger vehicles and heavy-duty trucks and buses have helped to lower NO2 levels while cleaner fuels used in power plants and building heating, like NYC's Clean Heat Program, have helped to lower PM2.5 levels.



Figure 5.3. Average PM2.5 levels have been going down at the 3 sites closest to the Cross Bronx (circled in red in Figure 5.5). Source: DOHMH NYCCAS Report: 2008-2021

Figure 5.4. Average NO2 levels have been going down at the 3 sites closest to the Cross Bronx (circled in red in Figure 5.5). Source: DOHMH NYCCAS Report: 2008-2021

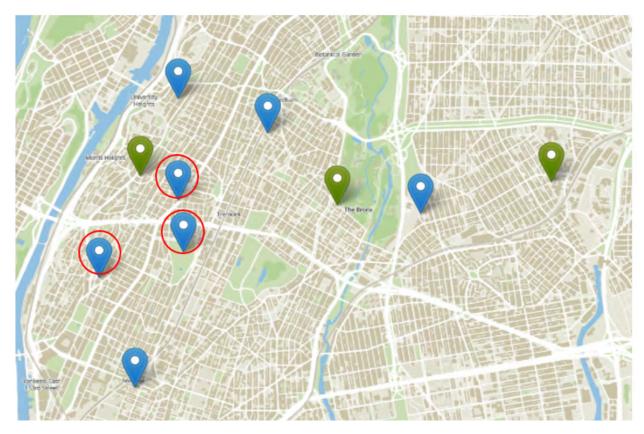


Figure 5.5. Health Dept. Air Pollution Monitors in the Bronx. Those closest to the Cross Bronx are circled in red.

Additional maps of air quality in NYC neighborhoods can be found here: <u>Air Quality in NYC |</u> Environment & Health Data Portal

### 5.3. Noise

City residents are exposed to substantial environmental noise. A Health Department survey showed that one in five adult New Yorkers experience noise that disrupts sleep and other home life activities three or more times per week - and some high-poverty neighborhoods experience even greater rates of noise disruption.<sup>4</sup>

Noise is more than an annoyance - it can cause stress, increase blood pressure and the risk of heart disease, and interfere with cognitive development in children.

To measure noise levels, NYC DOHMH collected week-long sound pressure measurements at 56 sites across the city by mounting small sound-level meters on lampposts in 2012. The agency found that for weeklong average values:

- All sites exceeded noise guidelines set by the EPA and World Health Organization to protect health and quality of life (55 decibels [dBA]).
- Over half of sites exceeded EPA noise guidelines to prevent hearing loss (70 dBA).

The highest noise levels were recorded during the daytime hours of weekdays, in areas with substantial vehicular traffic within 100 meters.

#### **Highway Traffic Noise**

Highway noise from roadways such as the Cross Bronx Expressway compound the negative effects of noise and air pollution. Noise comes from the expressway in many forms: constant traffic flow, honking, braking, and from heavy trucks shifting gears. Noise can cause irritation and annoyance, sleep disturbances, stress, cardiovascular disease. risk of stroke, diabetes, hypertension, and loss of hearing.<sup>5</sup> At sites near the Cross Bronx Expressway, a recent study has found noise levels to be within a marginally unacceptable range (70-79dBA) and approaching clearly unacceptable (>80dBA) during periods of the day.6 Figure 5.7 and Figure 5.8 represent modeled noise pollution based on a variety of transportation noise sources, such as AADT values and airport operations.7

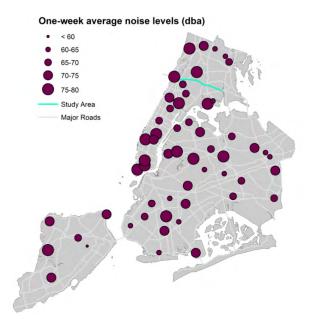


Figure 5.6. One-week Average Noise Levels. Source. NYC DOHMH. 2012

<sup>4</sup> NYC Health, Epi Data Brief, 2018, https://www.nyc.gov/assets/doh/downloads/pdf/epi/databrief105.pdf

<sup>5</sup> Münzel, T., Sørensen, M., Schmidt, F., Schmidt, E., Steven, S., Kröller-Schön, S., & Daiber, A. (2018). The Adverse Effects of Environmental Noise Exposure on Oxidative Stress and Cardiovascular Risk. Antioxidants & redox signaling. Accessed 2024. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5898791/

<sup>6</sup> NYC City Planning Commission, Final Environmental Impact Statement (FEIS) Jerome Avenue Rezoning, 2018, https://home.nyc.gov/assets/planning/download/pdf/applicants/env-review/jerome-avenue/14\_feis.pdf

<sup>7</sup> United States Department of Transportation Bureau of Transportation Statistics, National Transportation Noise Map Documentation, 2020, https://doi.org/10.21949/1520433



Figure 5.7. Noise pollution from road transportation. Source: <u>Bureau of Transportation Statistics (bts.gov)</u>

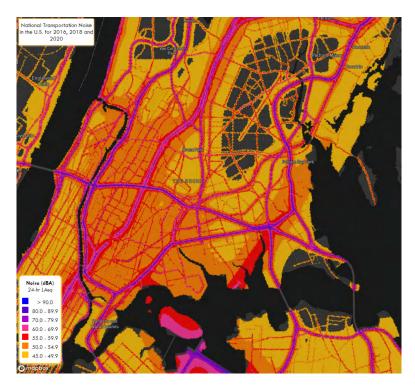


Figure 5.8. Noise pollution from all modes of transportation (includes aviation, rail, and road). Source: Bureau of Transportation Statistics (bts.gov)

## 6. Traffic Safety



## 6.1. Crash Analysis for Cross Bronx Mainline

Based on the results of a mainline crash analysis, many Cross Bronx segments within the Study Area experience crash rates much higher than state averages.

**Table 6.1** and **Table 6.2** compare sections of the Cross Bronx to average crash rates across all New York highways. Above-average Cross Bronx crash rates are highlighted in red. The NYS average values differ based on, for example, the number of lanes on a given highway segment. Overall, westbound lanes experience more crashes than eastbound lanes. The location with the highest crash rate is at the Sheridan Blvd interchange, followed by the segment between 3rd Ave and Webster Ave and the segment near Rosedale Ave. On the eastbound mainline, three locations have crash rates higher than the state average: the highest is the segment near the Major Degan Expressway, followed by the segment near Jerome Ave and the segment near Rosedale Ave.

For details on the methods used to complete the crash analysis of the Cross Bronx mainline, see section 9.3 of the Appendix.

Cross Bronx Mainline Eastbound						
Reference Marker Segment	AADT (veh/day)	Location	Segment Length (mi)	Total 2020- 2023 Crashes	Crash Rate (Acc/MVM)	"NYS Average Accident Rate (2017-2019)"
95IX1M21000	57,236	before Off-ramp to Major Deegan Expy	0.1	1	0.16	1.49
95IX1M21001-95IX1M21002	31,836	from Major Deegan Expy Off-ramp to Major Deegan Expy On-ramp	0.2	26	3.73	1.34
95IX1M21003-95IX1M21004	39,670	from Major Deegan Expy On-ramp to Washington Bridge On-ramp	0.2	6	0.69	1.34
95IX1M21005-95IX1M21006	59,211	from Washington Bridge On-ramp to Jerome Ave Off-ramp	0.2	8	0.62	1.49
95IX1M21007-95IX1M21008	48,439	from Jerome Ave Off-ramp to Jerome Ave On-ramp	0.2	30	2.83	1.49
95IX1M21009-95IX1M21011	70,261	from Jerome Ave On-ramp to Webster Ave Off-ramp	0.3	18	0.78	1.34
95IX1M21012-95IX1M21017	44,384	from Webster Ave Off-ramp to 3rd Ave On-ramp	0.6	22	0.75	1.34
95IX1M21018-95IX1M21024	60,318	from 3rd Ave On-ramp to Sheridan Blvd Off-ramp	0.7	28	0.61	1.34
95IX1M21025-95IX1M21028	51,489	from Sheridan Blvd Off-ramp to Rosedale Ave Off-ramp	0.4	16	0.71	1.34
95IX1M21029-95IX1M21031	41,213	from Rosedale Ave Off-ramp to CBE SR On-ramp	0.3	23	1.70	1.34
95IX1M21032-95IX1M21034	57,439	from CBE SR On-ramp to White Plains Rd Off-ramp	0.3	20	1.06	1.34
95IX1M21035-95IX1M21039	52,451	from White Plains Rd Off-ramp to CBE SR Rd S On-ramp near Ellis Ave	0.5	34	1.18	1.34
95IX1M21040	82,372	from CBE SR Rd S On-ramp near Ellis Ave to CBE SR Rd S Off-ramp near Powell Ave	0.1	0	0.00	1.49
95IX1M21041-95IX1M21044	75,641	from CBE SR Rd S Off-ramp near Powell Ave to Huchinson River Pkwy Off-ramp	0.4	25	0.75	1.34
95IX1M21045-95IX1M21046	56,958	from Huchinson River Pkwy Off-ramp to Bruckner Expy Off-ramp	0.2	8	0.64	1.21

Table 6.1. Cross Bronx EB Mainline Crash Rate. Source: NYSDOT CLEAR System (2020-2023), StreetLight Data and NYSDOT Traffic Data Viewer

Cross Bronx Mainline Westbound						
Reference Marker Segment	AADT (veh/day)	Location	Location Segment Length (mi)		Crash Rate (Acc/MVM)	"NYS Average Accident Rate (2017-2019)"
95IX1M22046-95IX1M22042	48783	from Bruckner Expy On-ramp to CBE SR Rd Off-ramp near Powell Ave	0.5	0	0	1.34
95IX1M22041-95IX1M22039	44512	from CBE SR Rd Off-ramp near Powell Ave to CBE SR Rd On-ramp near Ellis Ave	0.3	0	0	1.34
95IX1M22038-95IX1M22035	49236	from CBE SR Rd On-ramp near Ellis Ave to 174th St On-ramp	0.4	41	1.9	1.34
95IX1M22034	52485	from 174th St On-ramp to 174th St Off-ramp	0.1	3	0.52	1.49
95IX1M22033-95IX1M22031	25652	from 174th St Off-ramp to Rosedale Ave On-ramp	0.3	29	3.44	1.34
95IX1M22030-95IX1M22027	31139	from Rosedale Ave On-ramp to Sheridan Blvd NB On-ramp	0.4	17	1.25	1.34
95IX1M22026	39572	from Sheridan Blvd NB On-ramp to Sheridan Blvd SB On-ramp	0.1	24	5.54	1.34
95IX1M22025-95IX1M22018	42733	from Sheridan Blvd SB On-ramp to 3rd Ave Off-ramp	0.8	59	1.58	1.34
95IX1M22017-95IX1M22013	38471	from 3rd Ave Off-ramp to Webster Ave On-ramp	0.5	82	3.89	1.34
95IX1M22012-95IX1M22009	85117	from Webster Ave On-ramp to Jerome Ave Off-ramp	0.4	16	0.43	1.34
95IX1M22008	76450	from Jerome Ave Off-ramp to Jerome Ave On-ramp	0.1	9	1.08	1.34
95IX1M22007-95IX1M22006	90048	from Jerome Ave On-ramp to Major Deegan Expy Off-ramp	0.2	31	1.57	1.49
95IX1M22005-95IX1M22001	76920	from Major Deegan Expy Off-ramp to Major Deegan Expy On-ramp	0.5	1	0.02	1.34
95IX1M22000	53688	after Major Deegan Expy On-ramp	0.1	0	0	1.49

Table 6.2. Cross Bronx WB Mainline Crash Rate. Source: NYSDOT CLEAR System (2020-2023), StreetLight, Data and NYSDOT Traffic Data Viewer

# 6.2. Crash Analysis for Local Roads within the Study Area

#### 6.2.1 Local roads total and severe injuries

A hotspot analysis was used to identify and rank intersections that have the highest number of vehicle crashes that cause any injury as well as those that cause the greatest number of severe injury crashes. While the two lists are not identical, key intersections in the western section of the Study Area are high-risk in both categories.

Total injuries and total severe injuries are visualized in **Figure 6.1** and **Figure 6.2**, respectively. The red points indicate specific intersections with high crash injury rates, while the red areas are based on an ArcGIS kernel density analysis that emphasizes areas with the highest concentrations of crash injuries. The "severe injuries" category includes crashes that result in injuries such as skull fractures, broken limbs, or severe burns, but does not include fatalities.

The western section of the Study Area experiences more crash-related injuries compared with the central and eastern sections. Among north-south corridors, Jerome Ave, Webster Ave, 3<sup>rd</sup> Ave and White Plains Rd have multiple intersections with high numbers of total and severe injuries. E Tremont Ave, W 170<sup>th</sup> St and E 174<sup>th</sup> St appear to be the deadliest east-west corridors. The top 10 intersections with the highest number of injuries and highest number of severe injuries are listed in **Table 6.3** and **Table 6.4** respectively.

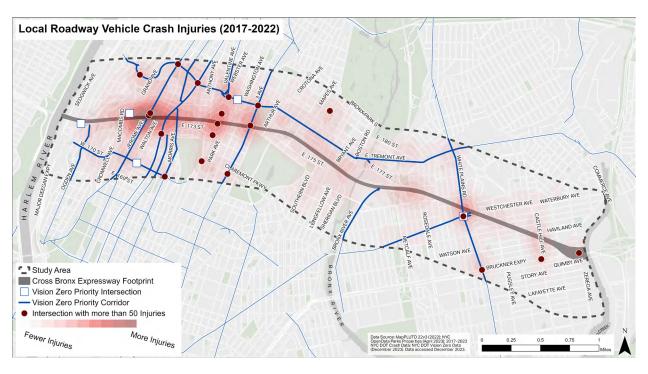


Figure 6.1. Total injuries on local roadways within the Study Area. Source: NYC DOT (2017-2022)

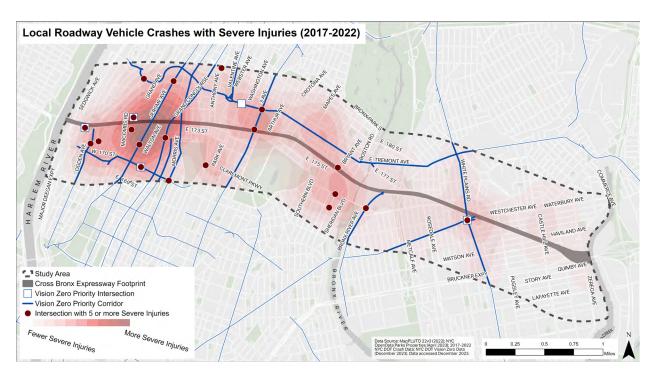


Figure 6.2. Severe injuries on local roadways within the Study Area. Source: NYC DOT (2017-2022)

#### Top 10 Intersections with Highest Injuries

Intersection	Total Injuries (2017-2022)	Total Severe Injuries (2017-2022)
3rd Ave & Cross Bronx WB E 175th St Off-ramp	103	7
University Ave & E Tremont Ave	90	5
White Plains Rd & WB Bruckner Blvd	88	4
Jerome Ave & WB Cross Bronx On/Off-ramp	86	4
Webster Ave & Claremont Pkwy	77	10
White Plains Rd & Westchester Ave	77	6
Jerome Ave & E 174th St	76	2
Grand Concourse & E Mt Eden Ave	73	5
Webster Ave & Cross Bronx EB Off-ramp	67	3
3rd Ave & E Tremont Ave	66	6

Table 6.3. Top 10 Intersections with Highest No. of Injuries. Source: NYC DOT (2017-2022)

Top 10 Intersections with Highest Severe Injuries

Intersection	Total Injuries (2017-2022)	Total Severe Injuries (2017-2022)
Webster Ave & Claremont Pkwy*	77	10
E 174th St Over Sheridan Blvd*	71	8
3rd Ave & Cross Bronx WB E 175th St Off-ramp*	103	7
Jerome Ave & E 177th St	33	7
White Plains Rd & Westchester Ave*	77	6
3rd Ave & E Tremont Ave	66	6
Anthony Ave & E Burnside Ave	29	6
University Ave & Plimpton Ave	28	6
E 173rd St & Longfellow Ave	19	6
Ogden Ave & W 171st St	15	6

<sup>\*</sup> Intersections among top intersection with highest no. of injuries

Table 6.4. Top 10 Intersections with Highest No. of Severe Injuries. Source: NYC DOT (2017-2022)

## 6.2.2 Local road cyclist and pedestrian total and severe injuries

Intersections with the highest number of cyclist and pedestrian injuries are often the same intersections that lead to the highest total injuries, indicating that certain areas are higher risk for all roadway users.

Total cyclist and pedestrian injuries and severe injuries are visualized in Figure 6.3 and Figure 6.4, respectively. While crashes with pedestrian and/or cyclist injuries are not as geographically concentrated as the locations for all injury-causing crashes, many of the same areas and intersections stand out. This is particularly true of Jerome Ave and Tremont Ave, where there are clusters of crashes resulting in all injuries as well as crashes resulting in severe injuries.

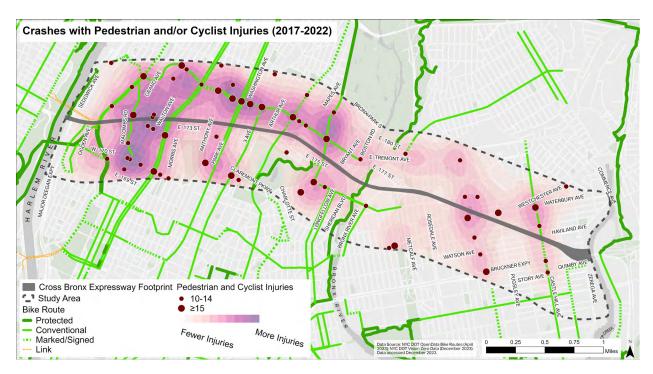


Figure 6.3. Crashes with Pedestrian and/or Cyclist Injuries. Source: NYC DOT (2017-2022)

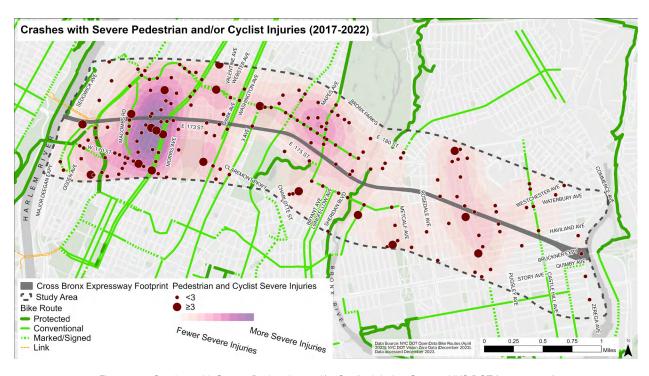


Figure 6.4. Crashes with Severe Pedestrian and/or Cyclist Injuries. Source: NYC DOT (2017-2022)

### 6.3. Vision Zero Corridors and Intersections

Vision Zero is an initiative to eliminate deaths and serious injuries from traffic crashes on New York streets. The Study Area contains numerous Vision Zero intersections and corridors, which means those areas are already priority locations for NYC DOT to increase roadway safety.

This program is based on the recognition that traffic deaths and injuries are not inevitable "accidents" but rather crashes that can be prevented through engineering, enforcement, policy and education. A central goal of Vision Zero is to identify priority corridors, intersections, and areas in each borough with the highest rates of pedestrian related fatalities and severe injuries. There are five Vision Zero priority intersections and thirteen Vision Zero priority corridors in the Study Area, as described in **Table 6.5** and **Table 6.6**. Vision Zero corridors and intersections are mapped in **Figure 6.5**. The intersections with the highest number of cyclist and pedestrian related injuries are summarized in **Table 6.7** along with indication of their Vision Zero status.

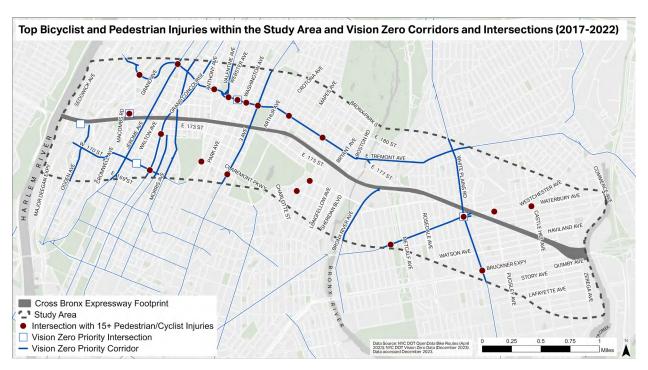


Figure 6.5. Top Bicyclist and Pedestrian Injuries within the Study Area and Vision Zero Corridors and Intersections. Source: NYC DOT (2017-2022), NYC Open Data

Vision Zero Corridor From		То
E Tremont Ave	Sedgwick Ave	Schurz Ave
Ogden Ave	Jerome Ave	University Ave
170th St	University Ave	Clay Ave
Jerome Ave	Sedgwick Ave	E 233 St
Grand Concourse	E 138 St	Mosholu Pkwy
Sheridan Ave	E 161 St	Mt Eden Pkwy
Morris Ave	Grand Concourse	E Fordham Rd
3rd Ave	E 138 St	E Fordham Rd
Bronx River Ave	Story Ave	Cross Bronx Expwy
Westchester Ave	Bronx River Ave	Hugh J Grant Cr
White Plains Rd	Boston Rd	Bronx River Ave
Valentine Ave	E Kingsbridge Rd	E Tremont Ave
Gerard Ave	Major Deegan Expwy	Jerome Ave

Table 6.5. Vision Zero Corridors within Study Area. Source: NYC Open Data

Vision Zero Intersections within the Study Area	Cyclist and Ped. Injury Rank
Featherbed Lane & Macombs Rd	4
Westchester Ave & White Plains Rd	6
E Tremont Ave & Park Ave	7
E 170 St & Walton Ave	23
Major Deegan Expwy Exit 7 N SB & Undercliff Ave	24

Table 6.6. Vision Zero intersections within Study Area. Source: NYC Open Data

Cyclist and Ped. Injury Rank	Intersection	Total Cyclist and Ped. Injuries	Total Cyclist and Ped. Severe Injuries	Vision Zero Intersection?	Vision Zero Corridor?
1	E Tremont Ave & 3 Ave	29	3		Yes
2	W Tremont Ave & University Ave	28	2		Yes
3	Webster Ave & Clay Ave	24	7		
4	Featherbed Ln & Macombs Rd	24	3	Yes	Yes
5	Southern Blvd & Boston Rd	23	2		
6	Westchester Ave & White Plains Rd	22	4	Yes	Yes
7	E Tremont Ave & Park Ave	20	2	Yes	Yes
8	E Tremont Ave & Webster Ave	19	2		Yes
9	E Tremont Ave & Southern Blvd	19	1		Yes
10	E Tremont Ave & Washington Ave	18	0		Yes
11	E 170 St & Grand Conc	17	3		Yes
12	E Tremont Ave & Crotona Ave	17	1		Yes
13	Bruckner Expy & White Plains Rd	17	0		Yes
14	Mount Eden Parkway & Grand Conc	16	5		Yes
15	Claremont Pkwy & Third Ave	16	1		Yes
16	Westchester Ave & Castle Hill Ave	16	2		
17	W Tremont Ave & Jerome Ave	15	1		Yes
18	E Tremont Ave & Anthony Ave	15	4		Yes
19	E 173 St & Boston Rd	15	3		
20	Westchester Ave & Morrison Ave	15	3		Yes
21	Westchester Ave & Pugsley Ave	15	1		

Table 6.7. Top Cyclist and Pedestrian Injury Intersections within Study Area. Source: NYC DOT Crash data (2017-2022) and NYC Open Data

# 7. Cross Bronx Corridor Conditions



## 7.1. Mobility Gaps

### 7.1.1 Mobility Gaps in East-West Connectivity

Community members traveling east-west experience long travel times, lack of connectivity and lack of reliability for all modes, particularly when using buses, bicycles and when walking. All these issues adversely impact people's ability to access critical destinations (Figure 7.1 and Figure 7.2). In addition, emergency response vehicles are adversely affected by east-west disconnection. Long travel times with circuitous routes on buses negatively affect quality of life including access to jobs, education, healthcare and family/social connections.

The following factors contribute to poor east-west connectivity:

- Discontinuous local street system parallel to the corridor
- Discontinuous service roads
- Various constraints, such as railroads and large housing developments, have prevented continuous service roads and local streets from having the opportunity to accommodate bus and bike/ped priority.
- The topography and geography of the land along the corridor which includes steep hills and valleys such as the Bronx River Valley



Figure 7.1. Example of Major Gaps in East-West Local Street Connectivity along the CBE Corridor. Source: Google Maps, accessed in 2023

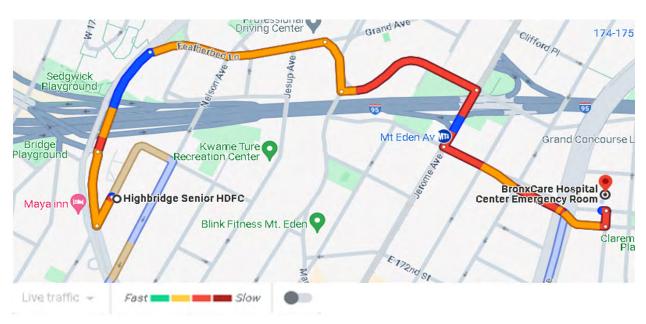


Figure 7.2. Emergency Vehicular Trip from Highbridge Senior Housing to BronxCare Hospital Center Emergency Room. Source: Google Maps, accessed in 2024

## 7.1.2 Mobility Gaps in North-South Connectivity

North-South mobility across the Cross Bronx's below-grade segments relies on overpass bridges carrying larger arterials and some of the local streets. On average there is a pedestrian crossing every 625 feet within the Study Area; however, there are notably larger gaps in the eastern portion. The Cross Bronx interchanges with Sheridan Blvd and Bronx River Pkwy respectively severely disrupt north-south pedestrian mobility due to their proximity. There is an approximately 2,800 feet (½ mile) vehicular gap between Hugh Grant Circle and Castle Hill Ave. For pedestrians, this gap is reduced to approximately 1,300 feet due to a pedestrian bridge at Gleason Ave.

The following table lists the gaps in mobility between north-south local streets along with a list of disconnected streets between them:

Gaps in N/S Connectivity		Length	Disconnected Local Streets
From	То	(ft.)	Disconnected Local Streets
University Ave	Nelson Ave	490	Plimpton Ave
Nelson Ave	Jesup Ave	500	Shakespeare Ave
Jesup Ave	Macombs Rd	205	
Macombs Rd	Jerome Ave	760	Inwood Ave
Jerome Ave	Walton Ave	515	Townsend Ave
Walton Ave	Morris Ave	645	
Morris Ave	Weeks Ave	430	Eastburn Ave
Weeks Ave	Monroe Ave	190	
Monroe Ave	Clay Ave	440	Topping Ave
Clay Ave	Webster Ave	500	Anthony Ave; Carter Ave
Third Ave	Arthur Ave	675	
Arthur Ave	Crotona Ave	460	
Crotona Ave	Clinton Ave	300	
Prospect Ave	Marmion Ave	640	
Marmion Ave	Southern Blvd	665	
Southern Blvd	Boston Rd	465	Daly Ave
Boston Rd	West Farms Rd	730	
E177th St	Rosedale Ave	1,190	Noble Ave
Rosedale Ave	E 174th St	945	Commonwealth Ave; St. Lawrence Ave; Beach Ave
E 174th St	White Plains Rd	935	Taylor Ave; Thieriot Ave; Leland Ave
White Plains Rd	Hugh Grant Cir	340	
Hugh Grant Cir	Ped Bridge	1,340	Pugsley Ave
Ped Bridge	Castle Hill Ave	1,355	Olmstead Ave
Castle Hill Ave	Ped Bridge	285	

Table 7.1. North-South Mobility Gaps within the Study Area

The following figures depict three examples of north-south mobility gaps greater than 900 feet between pedestrian crossings:



Figure 7.3. North-South Mobility Gaps – E177th St to Rosedale Ave.



Figure 7.4. North-South Mobility Gaps – 174th St to White Plains Ave.



Figure 7.5. North-South Mobility Gaps – Hugh Grant Circle to Castle Hill Ave.

# 7.2. Structural Condition of Mainline Viaducts and Overpasses

To create a continuous expressway without major interruptions from local streets and to obtain vertical clearance over major geographic features and existing infrastructure throughout the Bronx, the Cross Bronx was constructed above or below grade at different points. The above grade section of the corridor is composed of a series of viaducts passing over local streets and other features. In the below grade sections, local streets pass over the Cross Bronx. Figure 7.6 below identifies these distinct segments of the Cross Bronx along with the major arterials that cross the Expressway:

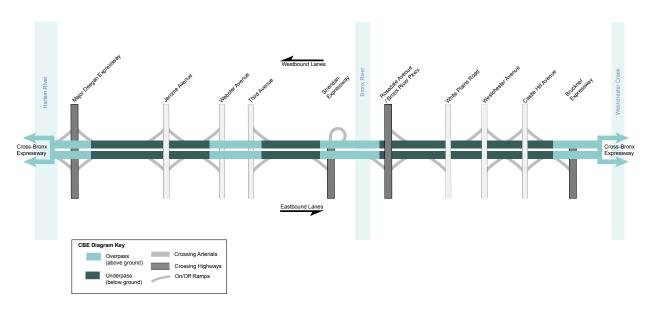


Figure 7.6. Cross Bronx Expressway Diagram

These bridges are inspected at least every two years. Afterwards, a unique inspection report is produced which compiles all the information collected during the field inspection. This report includes a detailed accounting of the condition of the bridge's structural elements along with a general recommendation rating which assesses its overall condition.

A detailed description of each general recommendation rating can be found in **Table 7.2** below. **Figure 7.7** through **Figure 7.10** below identify the bridges either on or above the Cross Bronx corridor within the Study Area and their respective general recommendation rating. More detailed information can be found in section 9.4 of the Appendix.

Code	Description
7	The bridge is in new condition, without deterioration except perhaps minor flaking of the top coat of paint. No work is needed other than routine maintenance.
6	Only minor deterioration is present. Touch-up painting may be required or other minor repairs to secondary elements. Minor bearing readjustments may be needed. There may be minor cracks or spalls in the substructures.
5	Primary members and substructures are in good condition and do not need major repairs. Bridge load capacity is not reduced, but other parts of the bridge (such as deck elements) may need extensive repairs. The bridge may require repainting because of corrosion starting on steel members. Scour may have exposed, but not undermined footings.
4	Moderate deterioration of primaries, secondaries, and substructures has occurred, but bridge load capacity is not substantially reduced. Considerable reconditioning of secondary members, substructures, and other components may be needed. Primary members do not yet need extensive reconditioning. There may be some minor substructure undermining.
3	Considerable deterioration of some or all bridge components. The bridge may no longer be able to support original design loads. Load posting may be needed. There may be considerable section loss on primary and secondary members. Concrete components are spalled with rebar exposure over a large portion of the areas. Extensive footing undermining may have occurred.
2	Most bridge components are in poor condition. Primary and secondary members are extensively deteriorated. The bridge can no longer safely carry original design loads. The bridge may still be open to traffic, but at a reduced load posting. Temporary shoring or bracing may be necessary. Substructures may be so badly deteriorated to require immediate repairs. Scour and undermining may be extensive enough to threaten the stability of the bridge.
1	Deterioration is so extensive that partial or total collapse is imminent. There is little or no live load capacity and the bridge may be closed. For the bridge to remain open to traffic, substantially reduced load posting and temporary shoring are necessary. Substructures may have settled, and be in danger of failing due to extensive undermining.

Table 7.2. Bridge General Condition Rating Legend. Source: NYSDOT Bridge Inspection Manual

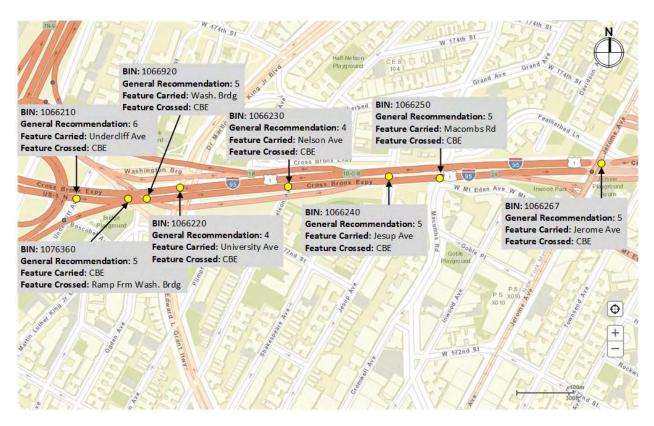


Figure 7.7. Cross Bronx Bridge Condition Ratings from Major Deegan to Jerome Ave. Source: NYSDOT Bridge Data Information System



Figure 7.8. Cross Bronx Bridge Condition Ratings from Jerome Ave. to Webster Ave. Source: NYSDOT Bridge Data Information System

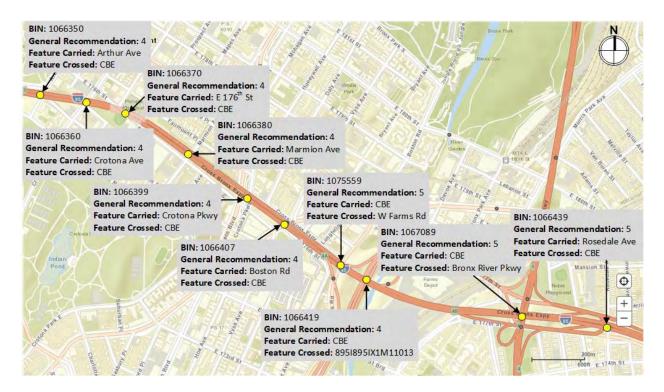


Figure 7.9. Cross Bronx Bridge Condition Ratings from Arthur Ave. to Rosedale Ave. Source: NYSDOT Bridge Data Information System

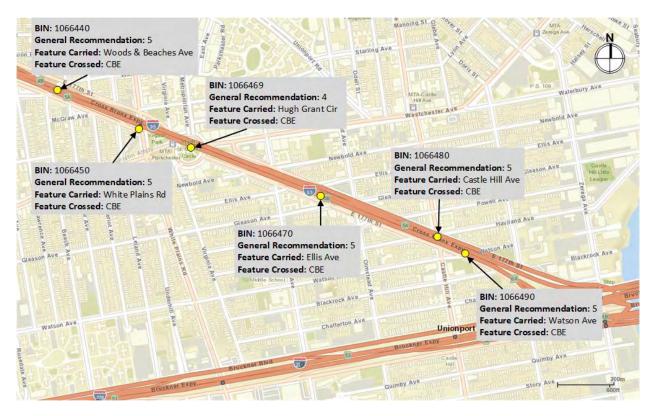


Figure 7.10. Cross Bronx Bridge Condition Ratings from Woods Ave. to Watson Ave. Source: NYSDOT Bridge Data Information System

## 7.3. Retaining Walls

Retaining walls provide structural support for the below-grade sections of the Cross Bronx, holding back the soil surrounding them. These walls were built at the same time as the roadways, from 1948 to 1972. They are inspected and maintained by NYSDOT through its Retaining Wall Inventory and Inspection Program, using a demand response model which expedites repair of critical elements discovered during scheduled inspections.<sup>1</sup>

A table with the location, general condition rating and latest inspection report date of retaining walls along the Cross Bronx within the Study Area can be found in section 9.5 of the Appendix.

### 7.4. General Pavement Conditions

Pavement on the Cross Bronx experiences wear and tear due to heavy truck traffic and weather conditions. NYSDOT continues to maintain the pavement on a regular basis. NYSDOT uses a Sufficiency Rating System to assess pavement conditions and issues contracts for periodic maintenance to maintain a state of good repair.

## 7.5. Geometric Conditions and Non-standard Geometrics

There are multiple non-standard acceleration, deceleration and weaving lengths on the corridor. In addition, there are locations with inadequate sight distances. There are portions of the Cross Bronx with either inadequate or no shoulder widths and non-standard lane widths.

The following figures (Figure 7.11-Figure 7.15) identify some locations with non-standard features:

<sup>1</sup> NYSDOT Retaining Wall Inventory and Inspection Program, 2024, https://www.dot.ny.gov/divisions/engineer-ing/technical-services/geotechnical-engineering-bureau/ RWIIP%20Manual

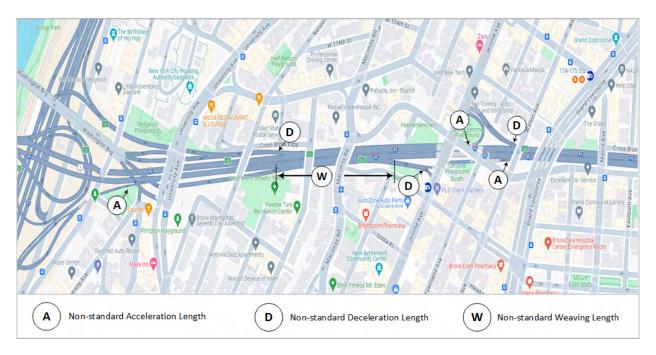


Figure 7.11. Cross Bronx between Major Deegan Expressway and Grand Concourse Non-Standard Ramps & Weaving Sections. Source: Google Maps

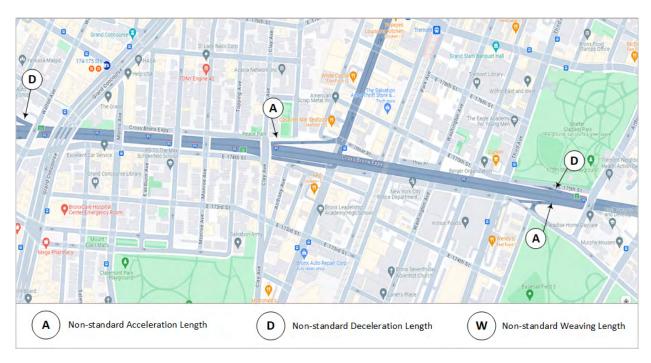


Figure 7.12. Cross Bronx between Grand Concourse and Arthur Ave. Non-Standard Ramps & Weaving Sections. Source: Google Maps

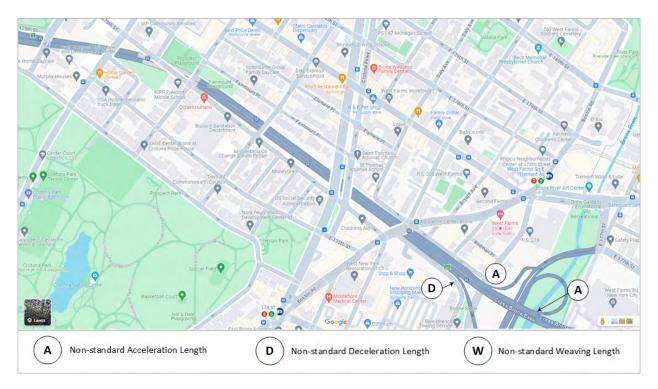


Figure 7.13. Cross Bronx Between Arthur Ave. and Sheridan Blvd. Non-Standard Ramps & Weaving Sections. Source: Google Maps

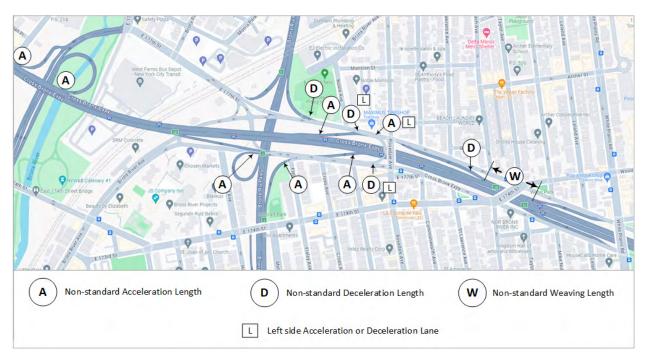


Figure 7.14. Cross Bronx Between Sheridan Blvd and White Plains Rd. Non-Standard Ramps & Weaving Sections. Source: Google Maps



Figure 7.15. Cross Bronx Between White Plains Rd and Zerega Ave. Non-Standard Ramps & Weaving Sections. Source: Google Maps

## 7.6. Drainage and Utility

Review of the existing drainage infrastructure within the vicinity of the Study Area is vital to ensure that existing infrastructure, such as catch basins and storm water pipes, have adequate capacity to handle any proposed improvements. Improving and increasing green infrastructure within the Study Area can minimize future flooding events, help maintain or minimize impervious surface and improve impacted drainage infrastructure.

It is also important to review existing utilities such as gas, electric, water, communication lines and cable. Any relocations causing impact to such services will require mitigation during construction. Review of maps from the various utility companies such as ConEd, National Grid, NYCDEP, Verizon and local cable network purveyors will assist in minimizing utility impacts or outages.

## 7.7. Reconstruction Projects

Due to the deteriorated conditions of the corridor, certain areas have required reconstruction. For example, in 2009 the Highbridge Interchange was reconstructed. This project consisted of the interchange of the Cross Bronx, Major Deegan Expressway, and Alexander Hamilton Bridge. When the Alexander Hamilton Bridge was reconstructed under this project, NYSDOT ensured that it would be sufficiently widened to accommodate a future bus priority lane. NYSDOT continues to maintain the highway with periodic state of good repair (SOGR) projects.

## 8. Climate Change



### 8.1. Heat

As climate change progresses, average temperatures are rising and extreme heat events are becoming more frequent. These phenomena have a detrimental impact on all New Yorkers. Research has shown that those living in the Study Area are disproportionately impacted by heat due to socioeconomic and environmental inequities.

Climate change affects New Yorkers in many ways and heat itself is one important way a warming planet negatively affects Bronx residents. Data released by the NYC DOHMH revealed that an estimated 350 New Yorkers die of heat-related deaths every year. Furthermore, research has found that Black residents of NYC are twice as likely to die of heat stress than white residents due to systematic and unequal access to a living wage, healthcare, quality housing, and other opportunities and resources that ensure good health.<sup>2</sup>

Economic inequities also contribute to disparate heat exposure and impacts. For example, according to a CNBC article, "on one afternoon in July 2021 there was at least a 7-degree difference between the South Bronx, one of the poorest neighborhoods in New York city, and the Upper East Side of Manhattan, one of the wealthiest."3 Due to high energy costs, low-income New Yorkers are also less likely to own or use air conditioning in their homes despite the fact that air conditioning can be life-saving during extreme heat events.

There are resources available throughout the five boroughs to help New Yorkers cope with rising temperatures. In the summer during heat emergencies, NYC runs cooling centers in public facilities with air-conditioning. Those meeting income and other requirements can also apply for a free AC and installation through the Home Energy Assistance Program (HEAP) administered in NYC by The NYC Human Resources Administration.<sup>4</sup> The city also helps New Yorkers stay cool during the summer through spray showers. Near the Cross Bronx, there are spray showers at Sedgwick Playground, Jennie Jerome Playground, Crotona Park, and Havemeyer Playground, in addition to several other locations.5

At the state level, New York State's Climate Justice Working Group has created a set of criteria meant to identify disadvantaged communities across the state that face higher burden, risk, and vulnerability to weather-related events caused by climate change. This designation entitles these communities to receive at least 35% of state spending on "cleaner, greener sources of energy,

<sup>1</sup> NYC Health, NYC Heat-Related Mortality Report, 2024, https://nyccas.cityofnewyork.us/nyccas2022/report/1

<sup>2</sup> NYC Health, Environment and Health Data Portal, Inequality and health inequities, 2024, https://a816-dohbesp.nyc.gov/IndicatorPublic/key-topics/social/

CNBC News, "Poor neighborhoods are hotter than rich ones — especially during heat waves", 2021, https:// 3 www.cnbc.com/2021/12/10/urban-heat-mapping-project-in-nyc-finds-poor-neighborhoods-hotter.html

NYC Office of Economic Opportunity, Home Energy Assistance Program, 2024. https://access.nyc.gov/programs/home-energy-assistance-program-heap/

NYC Parks, Cool Itl, 2024, https://www.nycgovparks.org/about/health-and-safety-guide/cool-it-nyc

reduced pollution and cleaner air, and economic opportunities." Based on these criteria, most census tracts in the Bronx are considered disadvantaged communities.<sup>7</sup>

Figure 8.1 shows a heat vulnerability index map visualizing "neighborhoods whose residents are more at risk for dying during and immediately following hot weather." Neighborhoods are scored from 1 (lowest risk, displayed in yellow) to 5 (highest risk, displayed in dark red). As indicated on the map, Bronx residents are at a disproportionately high risk of suffering a heat-related death.

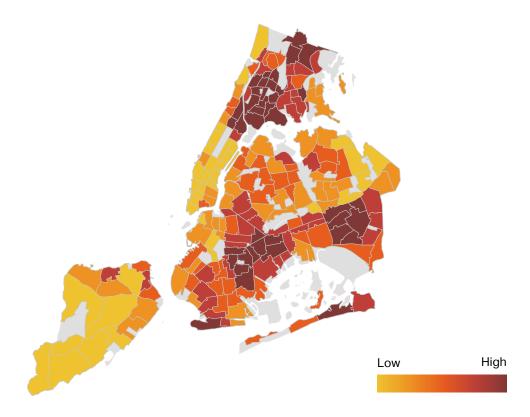


Figure 8.1. Heat Vulnerability Index Map. Source: Environmental and Health Data Portal, 2023 (https://a816-dohbesp.nyc.gov/ IndicatorPublic/beta/key-topics/climatehealth/hvi/)

New York State's Disadvantaged Communities Criteria, 2024, https://climate.ny.gov/-/media/Project/Climate/ Files/Disadvantaged-Communities-Criteria/LMI-daccriteria-fs-1-v2 acc.pdf

New York State's Disadvantaged Communities Map, 2024, https://climate.ny.gov/assets/leaflet/New%20 York%20City\_incl\_counties.html

Figure 8.2 indicates that on average, the Study Area is over a degree hotter than the rest of the city, and some locations are two to seven degrees hotter than the citywide average. This map is based on temperature values extracted from USGS satellite data. The average surface temperature in each location is used to create a "deviation from the mean" measure that shows how much hotter or cooler a location is compared to the citywide average temperature.

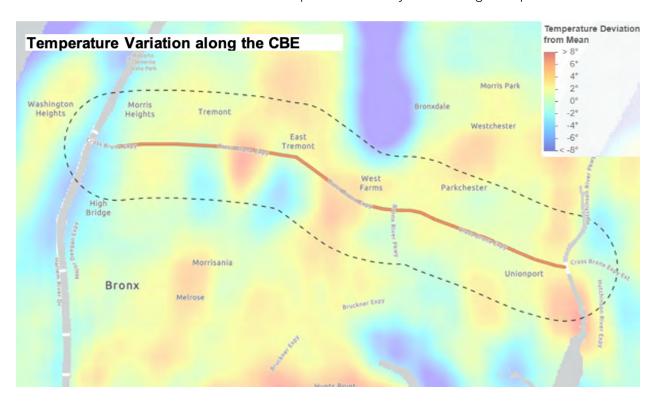


Figure 8.2. Temperature Variation along the Cross Bronx. Source: NYC Heat Map (Surface Temperature), New York City Council Data Team, 2022

Figure 8.3 shows an overlay of tree canopy and temperature variation along the Cross Bronx Study Area. Trees are major sources of relief on hot days. They provide shade from the sun and absorb carbon emissions. In general, areas of the city with trees will be cooler than areas without. There are several areas near the Cross Bronx, such as Crotona Park, which have substantial tree coverage and are cooler than the rest of the Study Area. Across the Study Area, 17.89% of land is covered by tree canopy.

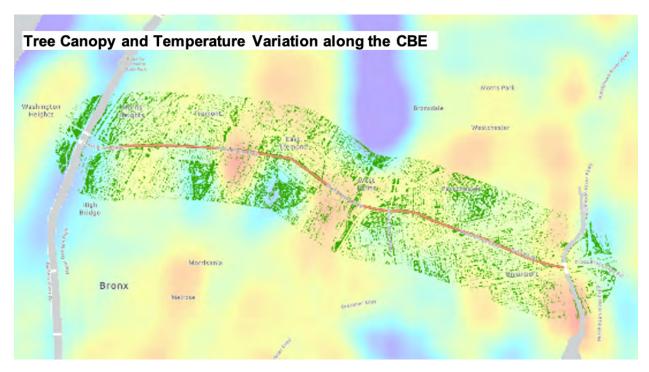


Figure 8.3. Tree Canopy and Temperature Variation along the Cross Bronx. Source: 2017 LiDAR data, via NYC Office of Technology and Information, published 2018

## **8.2. Flood**

Severe flooding causes serious harm to the homes we live in, the trains we take, and poses a danger to human life. As climate change progresses, sea-level rise and more frequent extreme weather events will only increase the degree and prevalence of rainfall-based flooding across the city. Heavier, more frequent, and more intense storm events and overall rainfall also lead to ponding and water freeze.

Past storms have caused New Yorkers to confront flooded basements, collapsed roofs, and navigate flooded subway stations. By 2080, due to anticipated sea level rise, areas along the Cross Bronx already prone to flooding are expected to swell and new regions will be affected. Flooding on the Cross Bronx exposes drivers and neighboring communities to danger, and these risks will worsen with time and without mitigation.

NYC is committed to constructing more green infrastructure to help limit flooding across the Bronx. Green infrastructure helps to prevent flooding by gathering stormwater from impervious surfaces during rainstorms.8 Green infrastructure has been installed as part of the city's stormwater management plan in locations such as Plimpton Playground, Crotona Parkway Malls, the area west of Westchester Creek, and the region north of West Farms Depot.9 Plimpton Playground, for example, has a subsurface detention system and bioswales have been installed west of Westchester Creek.

Figure 8.5 shows rainfall-based flooding across the Study Area with the expected 2080 sea level rise. By 2080, many more portions of the Study Area will experience substantial flooding than at present, including neighborhoods such as Tremont, East Tremont, West Farms, Parkchester and Unionport. Most places adjacent to the Study Area's waterways will also become more vulnerable to flooding.

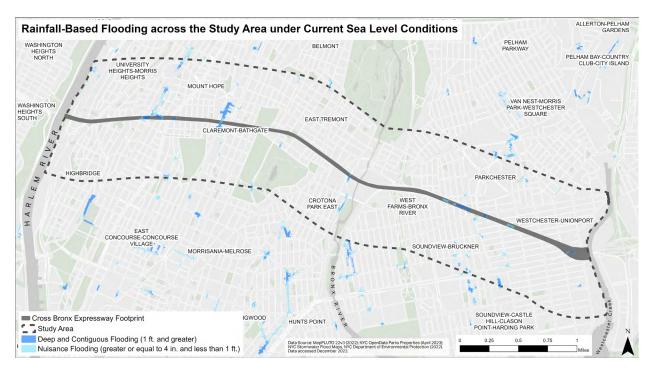


Figure 8.4. Rainfall-Based Flooding across the Cross Bronx under Current Sea Level Conditions. Source: NYC Stormwater Flood Maps, NYC Department of Environmental Protection, published 2022

NYC Green Infrastructure, Department of Environment Protection, 2024. https://www.nyc.gov/site/dep/water/ green-infrastructure.page

NYC Green Infrastructure Program Map, Department of Environment Protection, published 2024. https://nycdep.maps.arcgis.com/apps/webappviewer/index.html?id=108b0be0cbf246ad85fbb4e2c4fdbcb1

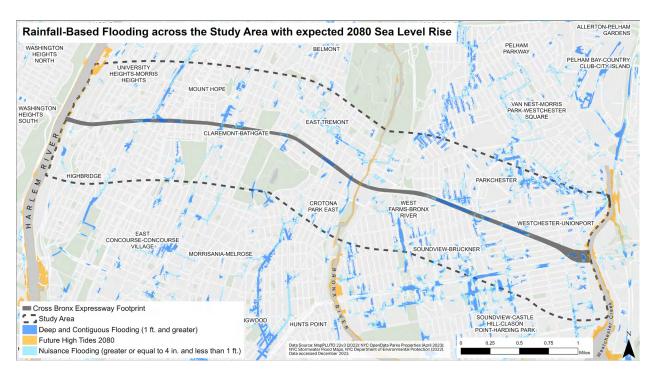


Figure 8.5. Rainfall-Based Flooding across the Cross Bronx with Expected 2080 Sea Level Rise. Source: NYC Stormwater Flood Maps, NYC Department of Environmental Protection, published 2022

## 9. Appendix



### 9.1. Additional Travel Pattern Information

## 9.1.1 Origin and Destination Data along Cross Bronx **Expressway**

For all vehicles travelling along the eastbound Cross Bronx, a majority (65%) of the roadway users originated from areas outside of the Bronx and only a relatively small portion of the trips (35%) originated within the Bronx. However, a relatively large portion (50%) of roadway users have a destination within the Bronx. Among the roadway users whose trips originate outside of the Bronx, most are from New Jersey or other states; only a small portion of the travelers are from other boroughs of New York City. For users with a destination outside of the Bronx, a majority are traveling to upstate New York or New England. For eastbound freight traffic, there is a similar pattern as for the general traffic, but with more Bronx destination trips (Bronx Destination: 62% Freight Trips vs. 50% All Vehicle Trips).

For all vehicles traveling along the westbound Cross Bronx, the trips that originated from outside the Bronx (57%) are somewhat higher than trips that originated from within the Bronx (43%). Most roadway users (65%) had destinations outside of the Bronx with fewer users (35%) having a destination in the Bronx. Among roadway users whose trips originate outside of the Bronx, most are from Upstate New York and other boroughs of New York City. A relatively small portion of those users are from Connecticut or other states. Most users with a destination outside of the Bronx are traveling to New Jersey or Upstate New York. For westbound freight traffic, there is a similar pattern as for the general traffic, but with more Bronx origin trips (Bronx Origin: 54% Freight Trips vs. 43% All Vehicle Trips).

## 9.1.2 Cross Bronx Expressway Ramp and Service Road **Peak Hour Volumes**

Morning peak hour, afternoon peak hour, and evening peak hour volumes, as well as AADT and truck percentage data were gathered from NYSDOT Traffic Data Viewer for all ramps and service roads along the Cross Bronx. In addition, an origin-destination analysis was conducted for each ramp to identify the percentage of local traffic using the ramps. For on-ramps, trips originating from within half-mile radius of the on-ramp were analyzed; for off-ramps, trips destined for within half-mile radius of the off-ramp were analyzed. Those results are documented for ramps and service roads in Table 2.3 and Table 2.4 respectively.

An origin destination (OD) analysis estimates how many trips start in one defined location and end in a second defined location.

#### 9.1.3 Cross Bronx Mainline and Local Streets Speed Profile

Weekday Morning Peak Speeds: For the Cross Bronx mainline eastbound traffic, moderate congestion starts at the off-ramp of Sheridan Blvd, and more severe congestion is observed near the Bronx River Parkway interchange areas. Once passing the Bronx River Parkway interchange bottleneck, traffic experiences conditions approaching free-flow. The Cross Bronx mainline westbound has more severe congested conditions compared with eastbound. Heavy congestion starts almost at the E 175th St off-ramp, and the queue spills back as far as the Hutchinson River Parkway, outside of the Study Area. The remainder of the westbound mainline also faces moderate congestion, with congestion intensifying approaching the George Washington Bridge.

Weekday Evening Peak Speeds: For eastbound traffic, the congestion starts near the Arthur Ave on-ramp, and the queue spills back to the George Washington Bridge. Traffic conditions improve downstream of Arthur Ave on-ramp along the eastbound mainline, deteriorate near the Bronx River Parkway interchange, and then are essentially free flow thereafter. Within the Study Area, the entire westbound mainline is congested.

#### 9.1.4 Additional Segment-Level Bus Speed Maps

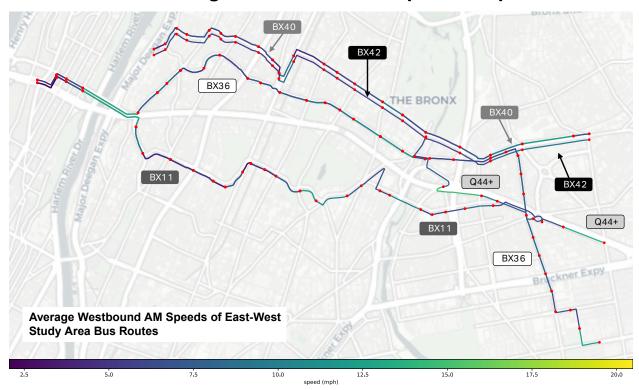


Figure 9.1. Average Westbound AM Speeds of East-West Study Area Bus Routes. Source: NYCT Operations Planning, October 2023

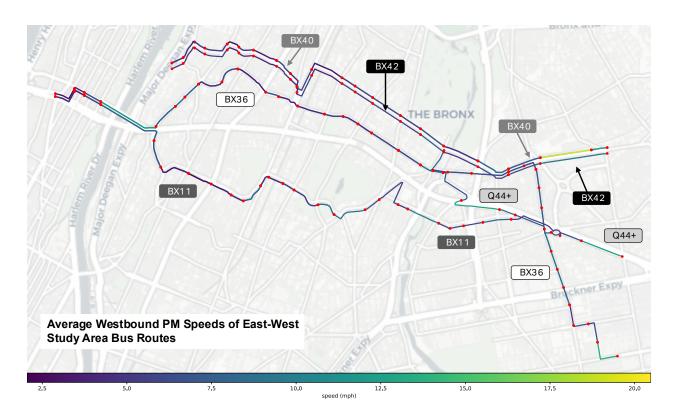


Figure 9.2. Average Westbound PM Speeds of East-West Study Area Bus Routes. Source: NYCT Operations Planning, October 2023

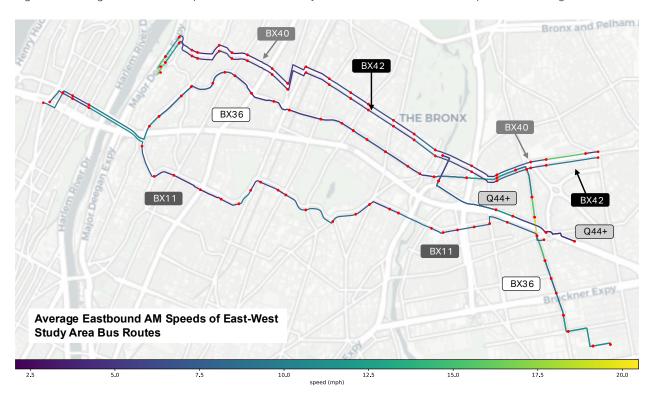


Figure 9.3. Average Eastbound AM Speeds of East-West Study Area Bus Routes. Source: NYCT Operations Planning, October 2023

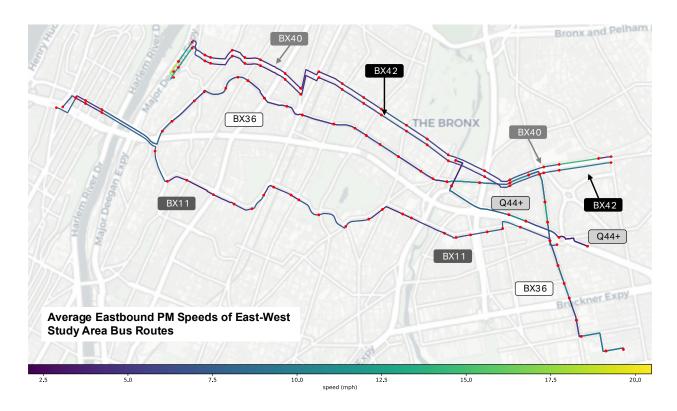


Figure 9.4. Average Eastbound PM Speeds of East-West Study Area Bus Routes. Source: NYCT Operations Planning, October 2023

#### 9.2. Health Indicators

Factors	Indicator	Non-Cross Bronx Neighborhoods	Cross Bronx Neighborhoods	How much higher the rates are in the Study Area compared to the rest of NYC	Description	Source
Environmental	Rate of asthma ED visits for asthma among adults +18 yrs due to PM2.5 exposure per 10,000	2.1	8	3.9	Rate of adult ED visits for asthma triggered by air pollution are 4 times higher in the Study Area than the rest of the city	on.nyc.gov/ dataportal
Environmental	Rate of asthma ED visits for asthma among children <18 yrs due to PM2.5 exposure per 10,000	4.7	15.1	3.2	Rate of child ED visits for asthma triggered by air pollution are 3 times higher in the Study Area than the rest of the city	on.nyc.gov/ dataportal
Multi-factor	Asthma emergency department visits (adults) average annual age adjusted rate per 10,000	54.2	181.1	3.3	Rate of adult ED visits for asthma due to any cause is over 3 times higher in the Study Area	on.nyc.gov/ dataportal
Multi-factor	Asthma hospitalizations (adults) Average annual age adjusted rate per 10,000	15.8	50.1	3.2	Rate of adult hospitalizations for asthma caused by all triggers is over 3 times higher in the Study Area	on.nyc.gov/ dataportal
Multi-factor	Asthma emergency department visits (age 5 to 17) Average annual rate per 10,000	150.7	611	4.1	Rate of child ED visits for asthma caused by all triggers are 4 times higher in the Study Area than the rest of the city	on.nyc.gov/ dataportal
Multi-factor	Asthma hospitalizations (age 5 to 17) Average annual rate per 10,000	17.7	54.1	3.1	Child hospitalizations for asthma caused by all triggers are 3 times higher in the Study Area than the rest of the city	on.nyc.gov/ dataportal
Environmental	Rate of pedestrian injury hospitalizations per 100,000 people	20	28	1.4	Pedestrian injury hospitalizations are 40% higher in the Study Area than the rest of the city	on.nyc.gov/ dataportal

Table 9.1. Health Indicator. Sources: NYC Environmental and Health Data Portal and NYC Community Health Profiles

Factors	Indicator	Non-Cross Bronx Neighborhoods	Cross Bronx Neighborhoods	How much higher the rates are in the Study Area compared to the rest of NYC	Description	Source
Environmental	Annual vehicle miles travelled (trucks) (million miles per km2)	1.1	3.8	3.5	The Study Area has 3 1/2 times more truck traffic than the rest of the city	on.nyc.gov/ dataportal
Environmental	Annual vehicle miles travelled (cars) million miles per km2	25.1	32.3	1.3	The Study Area has 30% more car traffic than the rest of the city	on.nyc.gov/ dataportal
Environmental	Percent of neighborhood with grass, shrub or tree cover	38.5	27.1	0.7	The Study Area has 30% less green space than the rest of the city	on.nyc.gov/ dataportal
Multi-factor	Rate of avoidable adult hospitalizations per 100,000 adults ages 18 and older	1126.5	2306	2.0	Rate of avoidable hospitalizations are twice as high in the Study Area as the rest of the city	https:// a816-health. nyc.gov/hdi/ profiles/
Multi-factor	Percentage of adults ages 18 and older who report ever being told by a healthcare professional that they have diabetes	11	16	1.5	Rate of diabetes is half again as high in the Study Area as the rest of the city	https:// a816-health. nyc.gov/hdi/ profiles/
Multi-factor	Percentage of adults ages 18 and older who report ever being told by a healthcare professional that they have hypertension, also known as high blood pressure	25.5	35	1.4	Rate of hypertension is 40% higher in the Study Area than the rest of the city	https:// a816-health. nyc.gov/hdi/ profiles/
Multi-factor	Percentage of adults ages 18 and older who have obesity (Body Mass Index of 30 or greater) based on self- reported height and weight	24.5	40	1.6	Rate of obesity is 60% higher in the Study Area than the rest of the city	https:// a816-health. nyc.gov/hdi/ profiles/

Table 9.1. Health Indicator. Sources: NYC Environmental and Health Data Portal and NYC Community Health Profiles

Factors	Indicator	Non-Cross Bronx Neighborhoods	Cross Bronx Neighborhoods	How much higher the rates are in the Study Area compared to the rest of NYC	Description	Source
Healthcare Access	Percentage of live births receiving late prenatal care (after the first and second trimesters) or no prenatal care	6.55	13.9	2.1	The percent of mothers receiving either late or no prenatal care is twice as high in the Study Area as the rest of the city	https:// a816-health. nyc.gov/hdi/ profiles/
Healthcare Access	Percentage of adults ages 18 and older who report not having health insurance coverage	12	21	1.8	The percent of adults reporting no health insurance is almost twice as high in the Study Area as the rest of the city	https:// a816-health. nyc.gov/hdi/ profiles/
Healthcare Access	Percentage of adults ages 18 and older who report not getting needed medical care at least once in the past 12 months	11.5	20	1.7	Percent of adults not getting needed medical care in the past year is almost twice as high in the Study Area as in the rest of the city	https:// a816-health. nyc.gov/hdi/ profiles/
Healthcare Access	Percent of households that postponed health care for financial reasons. Health care includes dental, routine preventive care, mental health, treatment or diagnosis of illness or health condition, and prescription drugs.	9.8	15.2	1.6	Households are more likely to postpone healthcare due to financial reasons in the Study Area than the rest of the city.	https:// a816-health. nyc.gov/hdi/ profiles/
Healthcare Access	Percent of adults (aged 18 and over) who reported having a personal doctor or health care provider	70.7	73.7	1.0	Adults in the Study Area have a personal doctor at the same rate as the rest of the city	https:// a816-health. nyc.gov/hdi/ profiles/
Housing	Evictions (court-ordered) Estimated annual rate per 10 000 homes	7.1	22.9	3.2	The rate of evictions are over 3 times higher in the Study Area as the rest of the city	on.nyc.gov/ dataportal

Table 9.1. Health Indicator. Sources: NYC Environmental and Health Data Portal and NYC Community Health Profiles

Factors	Indicator	Non-Cross Bronx Neighborhoods	Cross Bronx Neighborhoods	How much higher the rates are in the Study Area compared to the rest of NYC	Description	Source
Housing	Estimated percent of households reporting three or more maintenance deficiencies (heating equipment breakdown, additional heating required, rodent infestation, cracks/ holes in the walls, ceilings or floors, broken plaster/peeling paint larger than 81/2 x 11 inches, toilet breakdowns, or water leaks from outside the unit)	8.9	23.6	2.7	Percent of households with poor housing quality including roaches, rodents, plumbing issues and heating breakdown is almost 3 times higher in the Study Area than the rest of the city	on.nyc.gov/ dataportal
Housing	Percent of households that reported mice or rats in their building in the past 90 days.	16.1	41.2	2.6	The percent of households reporting mice or rats in their building is almost 3 times higher in the Study Area than the rest of the city	on.nyc.gov/ dataportal
Housing	Percent of households in an area reporting having functioning air conditioning	91.9	82.2	0.9	Households in the Study Area are less likely to have a functioning air conditioner than the rest of NYC	on.nyc.gov/ dataportal

Table 9.1. Health Indicator. Sources: NYC Environmental and Health Data Portal and NYC Community Health Profiles

Factors	Indicator	Non-Cross Bronx Neighborhoods	Cross Bronx Neighborhoods	How much higher the rates are in the Study Area compared to the rest of NYC	Description	Source
Housing	Percent of renter-occupied households reporting any health-related maintenance problems (cockroaches, mice or rats in the building, cracks or holes in walls, ceilings or floors, leaks from outside, toilet breakdowns, lack of air conditioning, heating equipment breakdown, additional heating required, or broken plaster or peeling paint larger than 81/2; x 11 inches)		79.2	1.3	A higher percentage of households living in rented housing report health-related maintenance problems in the Study Area than in the rest of the city.	on.nyc.gov/ dataportal
Housing	Percent of adults exposed to second-hand smoke at home	4.9	9 8.3	1.7	The percent of adults exposed to second hand smoke at home in the Study Area is twice as high as in the rest of the city.	on.nyc.gov/ dataportal
Housing	Percentof people who reported smelling cigarette smoke everyday in their home that comes from another home or apartment or from the outside.	8.6	20.3	2.4	Percent of adults who are exposed to second-hand smoke in the home or coming from outside their home is twice as high in the Study Area than the rest of the city	on.nyc.gov/ dataportal
Housing	Percent of households in an area that reported seeing at least one cockroach daily over the last month	24.5	45	1.8	Percent of households reporting a cockroach is almost twice as high as in the rest of the city.	on.nyc.gov/ dataportal
Neighborhood Conditions	Average annual rate heat stress hospitalizations per 100, 000	1.3	2.3	1.8	The rate of hospitalizations for heat stress is almost twice as high in the Study Area than the rest of the city	on.nyc.gov/ dataportal

Table 9.1. Health Indicator. Sources: NYC Environmental and Health Data Portal and NYC Community Health Profiles

Factors	Indicator	Non-Cross Bronx Neighborhoods	Cross Bronx Neighborhoods	How much higher the rates are in the Study Area compared to the rest of NYC	Description	Source
Neighborhood Conditions	Estimated annual rate of jail incarceration per 1,000 adults	3.5	10.7	3.1	Rates of jail incarceration in the Study Area are 3 times that of the rest of the city	on.nyc.gov/ dataportal
Neighborhood Conditions	The percentage of the population who live within walking distance to a park: a quarter-mile or less to entrances of smaller sites, such as sitting areas and playgrounds, and half-mile or less to entrances of larger parks.	84	99	1.2	A higher percent of the population in the Study Area lives within walking distance of a park than in the rest of the city.	
Neighborhood Conditions	Percent of adults who reported living in a neighborhood safe from crime	87.7	68.5	0.8	A lower percent of adults felt their neighborhood was safe from crime as compared to the rest of the city	on.nyc.gov/ dataportal
Neighborhood Conditions	Percent of land area of neighborhood that is sidewalk	7.7	8.6	1.1	Percent of neighborhood area dedicated to sidewalks is about the same as the rest of the city	on.nyc.gov/ dataportal
Neighborhood Conditions	Percent of street mileage with conventional and protected bicycle lanes	12	14	1.2	Percent of street mileage with bike lanes is about the same in the Study Area as the rest of the city	on.nyc.gov/ dataportal
Neighborhood Conditions	Percent of population living within 1/4 miles of subway station	55	47	0.9	Percent of the population living near a subway station is about the same as the rest of the city	on.nyc.gov/ dataportal
Stable income and job security	Percentage of the civilian (non-military) labor force (ages 16 and older) who are unemployed	6	12	2.0	Unemployment rate in the Study Area is twice as high as the rest of the city	on.nyc.gov/ dataportal

Table 9.1. Health Indicator. Sources: NYC Environmental and Health Data Portal and NYC Community Health Profiles

Factors	Indicator	Non-Cross Bronx Neighborhoods	Cross Bronx Neighborhoods	How much higher the rates are in the Study Area compared to the rest of NYC	Description	Source
Stable income and job security	The percent of households with incomes below the federal poverty level	14.2	35	2.5	The percent of households with incomes below poverty is two and half times higher than the rest of NYC.	on.nyc.gov/ dataportal
Stable income and job security	Percent of Children under 5 years old in Poverty	17.9	49.6	2.8	Percent of children under 5 living in poverty is almost 3 times higher in the Study Area than the rest of the city	on.nyc.gov/ dataportal
Healthy Food	Ratio of Bodegas to supermarkets	8	9	1.1	There are more bodegas in the Study Area than supermarkets.	https:// a816-health. nyc.gov/hdi/ profiles/

Table 9.1. Health Indicator. Sources: NYC Environmental and Health Data Portal and NYC Community Health Profiles

#### 9.3. Additional Traffic Safety Information

To understand the safety conditions along the Cross Bronx mainline, crash data from 2020 to 2023 were extracted from NYSDOT's CLEAR system by reference marker. To calculate crash rates along the Cross Bronx mainline, actual AADT data from NYSDOT Traffic Data Viewer were also gathered for the segments along Cross Bronx mainline corresponding to different crash data reference makers. Since the AADT data from NYSDOT Traffic Data Viewer were from multiple years (2016 to 2020), a growth factor was developed to grow all AADT data to Year 2023 to calculate the crash rate.

To develop the growth factor, Cross Bronx mainline AADT data from 2016 to 2023 were extracted from StreetLight data. For each year from 2016 to 2020, a growth factor was calculated by dividing the StreetLight AADT data from that year by StreetLight 2023 AADT data. This growth factor was then applied to the actual AADT data from NYSDOT Traffic Data Viewer to estimate the 2023 AADT data for all the mainline segments.

# 9.4. Structural Condition of CBE Mainline Viaducts and Overpasses

Bridge ID Number (BIN)	Inspection Date	General Recommendation	Deck (NBI 58)	Super structure (NBI 59)	Sub structure (NBI 60)	Owner	Year Built or Replaced	Poor Status
1066210	3/22/2022	6	7	8	7	NYSDOT	2012	N
1076360	6/30/2022	5	6	6	6	NYSDOT	1962	N
1066920	6/30/2022	5	6	6	5	NYSDOT	1962	N
1066220	12/15/2022	4	5	5	5	NYSDOT	1962	N
1066230	4/7/2022	4	5	6	5	NYSDOT	1964	N
1066240	4/7/2022	5	6	6	5	NYSDOT	1964	N
1066250	4/7/2022	5	5	5	7	NYSDOT	1964	N
1066267	4/7/2022	5	5	5	6	NYSDOT	1962	N
1076470	2/16/2022	5	6	5	6	NYSDOT	1962	N
1066270	8/19/2022	5	5	6	6	NYSDOT	1960	N
1066289	8/19/2022	5	6	6	5	NYSDOT	1960	N
1066290	6/15/2022	5	4	6	6	NYSDOT	1960	N
1066300	6/15/2022	5	6	6	6	NYSDOT	1960	N
1066310	9/1/2022	5	6	7	6	NYSDOT	1960	N
1066320	9/1/2022	5	5	6	6	NYSDOT	1960	N
1066349	8/2/2022	5	6	7	7	NYSDOT	1960	N
1066350	7/7/2023	4	4	4	6	NYSDOT	1958	Y
1066360	4/27/2022	4	N	4	6	NYSDOT	1958	Y
1066370	10/4/2023	4	4	4	6	NYSDOT	1958	Y
1066380	5/12/2022	4	N	4	6	NYSDOT	1958	Y
1066399	4/29/2022	4	N	4	6	NYSDOT	1958	Y
1066407	4/29/2022	4	4	5	6	NYSDOT	1958	Y
1075559	10/5/2023	5	6	6	6	NYSDOT	1951	N
1066419	1/18/2023	4	4	4	6	NYSDOT	1951	Υ

Table 9.2. Structure Condition of CBE Bridges. Source: NYSDOT Bridge Data Information System

Bridge ID Number (BIN)	Inspection Date	General Recommendation	Deck (NBI 58)	Super structure (NBI 59)	Sub structure (NBI 60)	Owner	Year Built or Replaced	Poor Status
1067089	8/28/2023	5	6	5	5	NYSDOT	1947	N
1066439	8/24/2022	5	N	6	7	NYSDOT	1954	N
1066440	6/22/2022	5	N	6	6	NYSDOT	1954	N
1066450	6/17/2022	5	N	6	6	NYSDOT	1945	N
1066469	6/17/2022	4	5	5	6	NYSDOT	1955	N
1066470	10/13/2023	5	6	6	6	NYSDOT	1955	N
1066480	3/18/2022	5	N	6	6	NYSDOT	1951	N
1066490	3/18/2022	5	5	6	6	NYSDOT	1951	N

Table 9.2. Structure Condition of CBE Bridges. Source: NYSDOT Bridge Data Information System

## 9.5. Cross Bronx Retaining Wall General Condition **Ratings**

	WMS Condition Rating Legend								
1	Wall is totally degraded and requires major reconstruction								
2	Used to shade between 1 and 3								
3	Wall presents sings of degrading requiring repairs								
4	Used to shade between 3 and 5								
5	Walls present minor signs of degradation								
6	Used to shade between 5 and 7								
7	Wall is in "like new" condition								
8	Not Applicable								
9	Condition and/or Existence Unknown								

Wall Identification Number (WIN)	Inspection Date	General Rating		From	То	Wall Priority	Wall Repaired Under NYSDOT Project No.
1-095-011	5/8/2013	Fair	3	Sedgwick Ave	NB Major Deegan Expy	Yes	XM18.60
1-095-019	5/8/2002	Good	5	Hamilton Br	Ramp From S/B MDE To Eb Cross Bronx	No	
1-095-020	4/16/2013	Fair	3	Hamilton Br	Ramp From S/B MDE To E/B Cross Bronx	Yes	XM18.60
1-095-021	5/8/2002	Good	5	NB Major Deegan Expy	Sedgwick Ave	No	
1-095-022	4/30/2013	Poor	2	Harlem River Park Br	NB/SB MDE Ramp to Hamilton Br	Yes	XM18.60
1-095-024	5/8/2002	Good	5	Sedgwick Ave	NB Major Deegan Expy	No	
1-095-025	5/8/2002	Good	5	SB Merge Offramp from Major Deegan Expy to Hamilton Br	Undercliff Ave	No	
1-095-026	4/13/2021	Poor	1	N.A.	N.A.	Yes	XM21.60
1-095-027	3/12/2021	Good	5	University Ave	N.A.	Yes	
1-095-028	4/5/2013	Fair	3	N.A.	N.A.	Yes	XM18.60
1-095-029	4/15/2021	Fair	4	Nelson Ave	University Ave	Yes	XM21.60
1-095-030	4/14/2021	Good	5	University Ave	Nelson Ave	Yes	XM21.60
1-095-031	4/21/2021	Good	6	Shakespeare Ave	Nelson Ave	Yes	
1-095-032	4/20/2021	Good	5	Jesup Ave	Shakespeare Ave	Yes	XM21.60

Table 9.3. Retaining Wall Condition Rating along CBE. Source: NYSDOT Wall Management System

Wall Identification Number (WIN)	Inspection Date	Gener Rating		From	То	Wall Priority	Wall Repaired Under NYSDOT Project No.
1-095-033	4/20/2021	Fair	4	Macombs Rd	Jesup Ave	Yes	XM21.60
1-095-034	4/8/2021	Fair	4	Macombs Rd	Jesup Ave	Yes	
1-095-035	5/11/2021	Good	6	Jerome Ave	Macombs Rd	Yes	
1-095-036	4/12/2013	Fair	3	Macombs Rd	Inwood Ave	Yes	XM18.60
1-095-037	5/16/2013	Fair	3	Jerome Ave	Inwood Ave	Yes	XM18.60
1-095-038	4/12/2013	Fair	3	Jerome Ave	Walton Ave	Yes	XM18.60
1-095-039	3/9/2021	Good	6	Jerome Ave	EB Cross Bronx	Yes	
1-095-041	4/5/2021	Good	5	Jerome Ave	Walton Ave	Yes	
1-095-042	4/16/2002	Good	5	E 174th St	Walton Ave	No	
1-095-043	4/16/2002	Good	5	E 174th St	Walton Ave	No	
1-095-044	4/16/2021	Good	6	Grand Concourse	Morris Ave	Yes	
1-095-045	3/27/2013	Poor	1	Morris Ave	Grand Concourse	Yes	XM18.60
1-095-046	3/2/2021	Good	5	Weeks Ave	Morris Ave	Yes	XM21.60
1-095-047	3/4/2021	Good	6	Morris Ave	Weeks Ave	No	
1-095-048	3/1/2021	Good	5	Monroe Ave	Weeks Ave	Yes	XM21.60
1-095-049	2/23/2021	Good	6	Weeks Ave	Monroe Ave	No	
1-095-050	2/24/2021	Good	6	Monroe Ave	Clay Ave	No	
1-095-051	4/1/2021	Good	5	Clay Ave	Monroe Ave	Yes	XM21.60
1-095-052	3/31/2021	Good	6	Webster Ave	Clay Ave	Yes	
1-095-053	4/30/2021	Very	7	Clay Ave	Anthony Ave	Yes	
1-095-054	3/31/2021	Good	6	Webster Ave	Clay Ave	Yes	
1-095-055	4/16/2002	Good	5	Clay Ave	Webster Ave	No	
1-095-056	5/13/2013	Fair	3	Arthur Ave	Third Ave	Yes	XM18.60
1-095-057	4/16/2002	Good	5	Third Ave	EB Cross Bronx	No	
1-095-058	8/13/2002	Poor	2	Arthur Ave	Third Ave	No	
1-095-059	4/19/2021	Good	5	Crotona Ave	Arthur Ave	Yes	XM21.60
1-095-060	4/19/2021	Fair	4	Clinton Ave	Crotona Ave	Yes	XM21.60
1-095-061	4/18/2013	Poor	1	Crotona Ave	Clinton Ave	Yes	XM18.60
1-095-062	4/16/2002	Good	5	Marmion Ave	Prospect Ave	No	
1-095-063	2/12/2021	Fair	3	Prospect Ave	Marmion Ave	Yes	XM21.60
1-095-064	4/16/2002	Good	5	Marmion Ave	Prospect Ave	No	
1-095-065	3/29/2013	Poor	2	Southern Blvd	Marmion Ave	Yes	XM18.60
1-095-066	2/11/2021	Good	5	Southern Blvd	Marmion Ave	Yes	XM21.60
1-095-067	4/16/2002	Good	5	Crotona Pkwy	South	No	
1-095-068	4/16/2002	Good	5	Crotona Pkwy	Boston Rd	No	
1-095-073	2/4/2021	Good	5	West Farms Rd	WB Cross Bronx	Yes	XM21.60

Table 9.3. Retaining Wall Condition Rating along CBE. Source: NYSDOT Wall Management System

Wall Identification Number (WIN)	Inspection Date	General Rating		From	То	Wall Priority	Wall Repaired Under NYSDOT Project No.
1-095-074	3/10/2021	Fair	3	West Farms Rd	E 174th St	Yes	XM21.60
1-095-075	2/8/2021	Good	6	Bronx River Ave	Rosedale Ave	Yes	
1-095-076	2/17/2021	Good	5	Bronx River Ave and Cross Bronx Service Rd	E 177th St	Yes	XM21.60
1-095-077	5/15/2002	Good	5	Bronx River Ave	Rosedale Ave	No	
1-095-078	5/15/2002	Good	5	Rosedale Ave	Beach Ave	No	
1-095-079	5/15/2002	Good	5	Exit Ramp to Rosedale Ave	Taylor Ave	No	
1-095-080	3/11/2021	Good	6	Rosedale Ave	Taylor Ave	Yes	
1-095-081	3/12/2021	Good	6	Wood Ave	White Plains Rd	Yes	
1-095-082	4/27/2021	Good	6	Beach Ave	White Plains Rd	Yes	
1-095-083	4/23/2013	Fair	3	Beach Ave	White Plains Rd	Yes	XM18.60
1-095-084	5/15/2002	Good	5	Wood Ave	White Plains Rd	No	
1-095-085	4/23/2013	Fair	3	White Plains Rd	Westchester Ave	Yes	XM18.60
1-095-086	4/11/2013	Fair	3	White Plains Rd	Westchester Ave	Yes	XM18.60
1-095-087	4/24/2013	Fair	3	Westchester Ave	N.A.	Yes	XM18.60
1-095-088	8/22/2002	Good	5	Westchester Ave	Ellis Ave	No	
1-095-089	3/10/2021	Good	6	Westchester Ave	Ellis Ave	Yes	
1-095-090	3/19/2021	Good	6	Westchester Ave	Ellis Ave	Yes	
1-095-091	3/26/2021	Good	6	Newbold Ave	Ellis Ave	Yes	
1-095-092	4/28/2021	Good	6	Westchester Ave	Olmstead Ave (Pedestrian Bridge)	Yes	
1-095-093	3/16/2021	Good	6	Olmstead Ave	Castle Hill Ave	Yes	
1-095-094	3/8/2021	Good	5	Haviland Ave	Castle Hill Ave	Yes	XM21.60
1-095-095	5/4/2021	Good	5	Olmstead Ave (Pedestrian Bridge)	Castle Hill Ave	Yes	XM21.60
1-095-096	3/15/2021	Good	6	Castle Hill Ave	Watson Ave	Yes	
1-095-097	2/22/2021	Good	6	Castle Hill Ave	Watson Ave	Yes	
1-095-098	5/3/2013	Poor	1	N.A.	N.A.	Yes	XM18.60
1-095-099	2/26/2021	Good	5	Watson Ave	N.A.	Yes	XM21.60
1-095-100	2/10/2021	Good	6	Watson Ave	Havemeyer Ave	Yes	
1-095-101	4/15/2013	Poor	1	Havemeyer Ave	Zerega Ave	Yes	XM18.60
1-095-102	4/29/2013	Fair	3	E Tremont Ave	N.A.	Yes	XM18.60
1-2050-01	5/13/13	Poor	1	Cross Bronx Ramp	Sheridan Expwy E. Abutment	Yes	XM12.60 XM18.60
1-2050-02	2/3/21	Good	6	Cross Bronx EB Exit Ramp	Sheridan Expwy	Yes	

Table 9.3. Retaining Wall Condition Rating along CBE. Source: NYSDOT Wall Management System

### 9.6. Planned and Ongoing Projects and Programs

### 9.6.1 Planned and Ongoing Projects

Projects highlighted in blue are led by a Project Team agency.

Project Location	Lead Agency	Project Description
1215 Leland Ave Soundview	NYC DOB	Alteration
5 Bridges between Boston Rd and Rosedale Ave	NYSDOT	Due to severely deteriorated structures between Boston Rd and Rosedale Ave, there has been a need within the past few years to reconstruct 5 bridges within this section of the Cross Bronx. This project is currently in a preliminary phase but could not be delayed due to structural conditions.
1254 Fteley Ave	NYC DOB	New Building
1258 Shakespeare Ave	NYC DOB	New Building
1298 Inwood Ave	NYC DOB	New Building
1342 Inwood Ave	NYC DOB	Alt CO-New Building with Existing Elements to Remain
135 Marcy Place	NYC DOB	Alt CO-New Building with Existing Elements to Remain
1366 Cromwell Ave	NYC DOB	New Building
1433 Nelson Ave	NYC DOB	Alt CO-New Building with Existing Elements to Remain
1435 Nelson Ave	NYC DOB	Alt CO-New Building with Existing Elements to Remain
1437 St. Lawrence Ave	NYC DOB	Alteration CO
1460-1480 Sheridan Blvd	NYC DCP	New Construction of Mixed-Use Development
1506 Southern Blvd	NYC DOB	New Building
1647 Popham Ave and 30 West 182nd St	NYC DCP	UDAAP Designation, Project Approval and Disposition of City-owned Property
1647 Popham Ave and 30 West 182nd St (Bronx Block 2877, Lot 278 and Bronx Block 3195, Lot 21)	NYC DOB	New Building
1740-1748 University Ave	NYC DOB	New Building
1763 West Farms Rd	NYC DOB	New Building
1771 Weeks Ave	NYC DOB	New Building
1801 Davidson Ave between West 176th St and West 177th St	NYC DPR	This project will construct Davidson Park.
1827 Waterloo Place	NYC DOB	New Building
1840 Harrison Ave (Bronx Block 2896, Lot 16)	NYC DOB	New Building
1896 Univeristy Ave	NYC DOB	New Building

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's Capital Planning Explorer, NYC DOT, NYS DOT, DOHMH, DCP

Project Location	Lead Agency	Project Description
1969 Honeywell Ave	NYC DOB	New Building
1970 Crotona Ave	NYC DOB	New Building
1971 Honeywell Ave	NYC DOB	New Building
1975 Honeywell Ave	NYC DOB	New Building
2017 Grand Concourse	NYC DCP	Acquisition of real property, disposition of real property to facilitate new construction; UDAAP
2039 Westchester Ave	NYC DOB	New Building
2064 Mapes Ave/820 E 180th St	NYC DOB	Alteration
2070 Chatterton Ave	NYC DOB	New Building
2082 Boston Rd	NYC DCP	Modification to a previously approved Large Scale to facilitate a new garage and to slightly modify height of a building is being sought by Phipps Houses at 2082 Boston Rd in the West Farms area of Bronx Community District 6 (Block 3140, Lot 7).
2085 Mohegan Ave	NYC DOB	New Building
2135 Westchester Ave	NYC DOB	New Building
304 E Tremont Ave	NYC DOB	Alt CO-New Building with Existing Elements to Remain
521 Tremont Ave	NYC DCP	Rezoning, New Construction of a Mixed-Use Development
55 Clifford Place (Bronx Block 2849, Lot 85)	NYC DOB	Alt CO-New Building with Existing Elements to Remain
78 West 170th St	NYC DOB	New Building
811 Elsmere Place	NYC DOB	New Building
84 West 174 St	NYC DOB	New Building
845 Crotona Park North	NYC DOB	Alteration CO
849 Crotona Park North	NYC DOB	New Building
870 E 180th St	NYC DOB	New Building
907 E 175 St, 1900 Marmion Ave, 706 Fairmount Pl	NYC DCP	New Construction of Residential Buildings
909-921 Castle Hill Ave	NYC DCP	New Construction of Mixed-Use Development
Admiral Farragut Playground	NYC DPR	Playground
Boone Slope	NYC DPR	
Boston Rd, 3rd Ave to E 174 St	NYC DOT	SIP - School Safety
Bridge Park Highbridge Greenway Promenade Construction	NYC DPR	This project will construct a multi-modal pathway with lighting, a passive recreation area, green infrastructure, and shoreline restoration at Bridge Park.

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's <u>Capital Planning Explorer</u>, NYC DOT, NYS DOT, DOHMH, DCP

Project Location	Lead Agency	Project Description
Bridge Park, Bronx Harlem River and Exterior St between High Bridge and Alexander Hamilton Bridge	NYC DPR	This project will construct a multi-modal pathway with lighting, a passive recreation area, green infrastructure, and shoreline restoration at Bridge Park.
Bridge Park-Highbridge Greenway Promenade	NYC DPR	Parks and Recreation
Bridge Park-Highbridge Greenway Promenade	NYC DPR	Parks and Recreation
Bronx 6/6A Garage Rehab	DSNY	Sanitation
Bronx Green Infrastructure Construction	NYC DPR	This project will construct green infrastructure to capture storm water at Magenta Playground and Watson Gleason Playground.
Bronx River Greenway River House in Starlight Park X147- 107M/407M	NYC DPR, NYC DEP (NYC DDC Managing)	Parks and Recreation, Water Mains, Sources, and Treatment
Bronx River Greenway: Starlight Park Phase II, Stage 2, BX	NYC DPR (NYC DDC Managing)	Parks and Recreation
BxCB9 Soundview Bike Network Phase I	NYC DOT	SIP - Bikes and Greenways
BxCB9 Soundview Bike Network Phase II	NYC DOT	SIP
Castle Hill Ave & Quimby Ave - RC	NYC DOT	SIP - RIS
Castle Hill Ave PBL upgrade (Castle Hill)	NYC DOT	SIP - Bikes and Greenways
Castle Hill Ave PBL upgrade (Parkchester)	NYC DOT	SIP - Bikes and Greenways
Centers of Excellence: Tremont	Health and Hospitals Corporation (NYC DDC Managing)	Health and Hospitals Corporation
Chief Dennis L. Devlin Park (Ellis Ave, Olmstead Ave, and Cross Bronx Service Rd North)	NYC DPR	Reconstruction
Chief Dennis L. Devlin Park Reconstruction	NYC DPR	This project will reconstruct passive seating and construct a tot lot play area in Chief Dennis L. Devlin Park.
Citywide Bus Pad Contract (SIM)	NYC DOT (NYC DDC Managing)	Highways
Citywide Bus Pad Contract (SIM)	NYC DOT (NYC DDC Managing)	Highways
Citywide Emergency Sewer Reconstruction	NYC DEP (NYC DDC Managing)	Sewers
Citywide Raised Crosswalks - Locations TBD	NYC DOT	Capital - Citywide Raised Crosswalks - 250 Candidate Locations Provided to DDC for tabletop exercise (as of 12/2)
Citywide Resurfacing	NYC DOT (NYC DDC Managing)	Traffic

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's <u>Capital Planning Explorer</u>, NYC DOT, NYS DOT, DOHMH, DCP

Project Location	Lead Agency	Project Description
Claremont Park Pavement Reconstruction	NYC DPR	This project will reconstruct pavement surfaces at Claremont Park.
Claremont Park Retaining Wall Reconstruction	NYC DPR	This project will reconstruct a 115-foot section of damaged stone block retaining wall along Clay Ave between Claremont Parkway and E 170th St.
Claremont Park, Bronx	NYC DPR	This project will reconstruct a 115-foot section of damaged stone block retaining wall along Clay Ave between Claremont Parkway and E 170th St.
Cleopatra Playground	NYC DPR	Playground
Clifford Place step street	NYC DOT (NYC DDC Managing)	Highways
Complex Pedestrian Ramps Adjacent to Transit Authority Facilities	NYC DOT	Capital
Con-Crotona Parkway Malls Stormwater Greenstreet XG32350-114M	NYC DPR	Parks and Recreation
Construction of a New Recreation Center at Tremont Park	NYC DPR (NYC DDC Managing)	Parks and Recreation
Corporal Irwin Fischer Park Construction	NYC DPR	This project will construct Corporal Irwin Fischer Park.
CPI PH 2 - Plimpton Playground (X148A2-117M)	NYC DPR	Parks and Recreation
CPI PH2 - 174th St. Playground/ BX River House Reno-DSGN X159-117M	NYC DPR	Parks and Recreation
CPI PH2 - 174th St. Playground/ BX River House-Playground/ Mini Pool X159-118	NYC DPR	Parks and Recreation
CPI PH2 - Blackrock Playground Reconstruction (X205-116M)	NYC DPR	Parks and Recreation
CPI-Chief Dennis L. Devlin Park Reconstruction	DPR, NYC DOT	Parks and Recreation, Traffic
Cpl Fischer Park, Bronx West 170th St Between Nelson And Shakespeare Ave	NYC DPR	This project will construct Corporal Irwin Fischer Park.
Crotona Park - Pool Towers X010-210MA3	NYC DPR	Parks and Recreation
Crotona Park Green Infrastructure Construction	NYC DPR	This project will install green infrastructure within Crotona Park.
Crotona Park Indian Lake Shoreline Restoration	NYC DPR	This project will remove invasive species and plant new and replacement trees to restore the shoreline of Indian Lake in Crotona Park.
Crotona Park Lake - X010- 102M	NYC DPR	Parks and Recreation

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's <u>Capital Planning Explorer</u>, NYC DOT, NYS DOT, DOHMH, DCP

Project Location	Lead Agency	Project Description
Crotona Park Path Partial Reconstruction	NYC DPR	Partial reconstruction of park paths
Crotona Park Tree Planting	NYC DPR	This project will plant trees in Crotona Park.
Crotona Park, Bronx	NYC DPR	This project will reconstruct the facade at the Crotona Park Pool Community Center.
Crotona Park, Bronx 1700 Fulton Ave	NYC DPR	This project will reconstruct a portion of the roof at Crotona Park Bathhouse.
Crotona Play Center	NYS OPRHP	State Historic Place
Daniel Boone Playground, Bronx West Farms Rd and Boone Ave	NYC DPR	(Daniel Boone Playground) This project will reconstruct Daniel Boone Playground.
Davidson Park Construction	NYC DPR	This project will construct Davidson Park.
Depot PI, Exterior St	NYC DOT	SIP - Bikes and Greenways
Depot Place - Portion of Harlem River Greenway XG-31800- 106M	NYC DPR	Parks and Recreation
E 177th St/Devoe Ave Bet. Sheridan EXP (I-895) and E Tremont	NYC DOT	Capital - This project will redesign and reconstruct the complex intersection at E177th St, Devoe Ave and E Tremont Ave to transform it into a major gateway to the Bronx River Greenway.
E 180th St & E 179th St (Park Ave to Boston Rd)	NYC DOT	SIP - School Safety
E Tremont Ave (CB 9, 10, 11)	NYC DOT	SIP - Bikes and Greenways
E 174th St/Sheridan Expwy Amtrak BIN# 2066720	NYC DOT	Highway Bridges
East Bronx Network - E-Scooter Network	NYC DOT	SIP - Bikes and Greenways
Echo Park Playground and Sports Fields- X017-117M	NYC DPR	Parks and Recreation
FA - Mid-Bronx Childcare/ Community Center	HPD, ACS	Children's Services
Fairmount Playground	NYC DPR	Triangle/Plaza
Fordham Area Bike Network Phase II	NYC DOT	SIP - Bikes and Greenways
Fordham Area Bike Network Phase III	NYC DOT	SIP - Bikes and Greenways
FY22 Complex Pedestrian Ramp Installations - Locations TBD	NYC DOT	Capital The scope of this project includes installation of pedestrian ramps at 49 complex corners in the boroughs of Bronx, Queens, and Manhattan
Galileo Playground - Bring Surface Area to Grade	NYC DPR	Parks and Recreation
Garden of Happiness Community Garden Water Service Installation	NYC DPR	This project will install water service at Garden of Happiness.

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's <u>Capital Planning Explorer</u>, NYC DOT, NYS DOT, DOHMH, DCP

Project Location	Lead Agency	Project Description
Garden of Happiness, Bronx 2144F Prospect Ave	NYC DPR	This project will install water service at Garden of Happiness.
GI - Porous Pavement Installations, Bronx	NYC DEP (NYC DDC Managing)	Water Pollution Control
Goble Playground - new BBall equipment, swings, handball court	DPR, NYC DOT	This project will reconstruct Goble Playground, including the play equipment, swings, basketball and handball courts, drainage and water systems, landscaping and park security lighting.
Grand Concourse BR HVAC	NYPL (NYC DDC Managing)	New York Public Library
Grand Concourse Phase 3	NYC DOT (NYC DDC Managing)	Highways, Traffic
Grand Concourse Phase 4 (175th to E Fordham)	NYC DOT	Capital - As part of the Vision Zero Great Streets initiative, the project will calm traffic on the Grand Concourse by expanding and raising medians, as well as improving the streetscape.
Grant Park, Bronx Grant Ave between E 169th St and E 170th St	NYC DPR	This project will construct Grant Park, including converting the roadbed to recreational space.
Harlem River Greenway (University Heights Bridge to Macombs Dam Bridge portion)	NYC DOT	In the spring of 2023, NYC DOT began a planning process to develop a 7-mile Harlem River Greenway in The Bronx, creating a continuous walking and cycling connection between Van Cortlandt Park and Randall's Island Park. Working closely with community members, the City is developing a greenway implementation plan to better connect Bronxites to their waterfront and provide a critical north-south transportation corridor
Harrod Place	NYC DOT	SIP - Public Space
Havemeyer Playground C.S.	NYC DPR	Parks and Recreation
Havemeyer Playground Public Restroom Building Reconstruction (Watson Ave between Havemeyer Ave and E 177th St)	NYC DPR	This project will reconstruct the public restroom building in Havemeyer Playground.
Henwood Place Step Street	NYC DOT	Capital -This project will reconstruction the step street at Henwood Place to enhance visibility and safety, as well as reduce long term maintenance burdens.
Highbridge Recreation Center X261-193/493	NYC DPR	Parks and Recreation
Hutchinson River Parkway M&O Facility Construction	NYC DPR	Parks and Recreation
Jennie Jerome Playground South	NYC DPR	Demolition of handball courts, new construction
Jerome Ave Capital Project	NYC DOT	Capital - A suite of corridor-wide capital projects that will enhance pedestrian safety and the quality of the public realm in the recently re-zoned Jerome Ave area in the Bronx.

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's <u>Capital Planning Explorer</u>, NYC DOT, NYS DOT, DOHMH, DCP

Project Location	Lead Agency	Project Description
Jerome Ave Safety Improvements (NDF-JEROM)	SBS, NYC DOT (NYC DDC Managing)	Economic Development, Highways
Jerome Playground South Skate Park Construction	NYC DPR	This project will demolish the handball courts and construct a new skate park in their place at Jerome Playground South.
La Peninsula Head Start	DOHMH	Day Care
Lafayette Ave (Soundview)	NYC DOT	SIP - Bikes and Greenways
Magenta Playground, Bronx Olinville Ave & Rose Rosewood St Watson Gleason Playground, Bronx Watson & Rosedale Ave	NYC DPR	This project will construct green infrastructure to capture storm water at Magenta Playground and Watson Gleason Playground.
Metropolitan Ave and Unionport Rd in Parkchester - Center Is.	NYC DOT (NYC DDC Managing)	Highways
Miracle Garden	NYC DPR	Garden
Morris Mesa	NYC DPR	Playground
Morris Mesa Playground - X148-105M	NYC DPR	Parks and Recreation
Morrison Ave Plaza	NYC DOT	Capital - This project will create a new vibrant and functional public space at Morrison Ave and Harrod Place; while enhancing pedestrian safety.
NDF-Bridge Playground - X148A3-318M	NYC DPR	Parks and Recreation
NDF-Corporal Fischer Playground X269-119M	DPR, DOT, SBS	Economic Development, Parks and Recreation, Traffic
Noble Playground - RC Comfort Station X123-118M	NYC DPR	Parks and Recreation
Noble Playground Reconstruction (X123-119M)	DPR, DOT	This project will reconstruct the play area at Noble Playground.
Noble Playground, Bronx Noble Ave, Bronx River Ave, Bronx River Parkway, Cross Bronx Expressway	NYC DPR	This project will reconstruct the play area at Noble Playground.
NYCHA Sotomayor Houses Open Space Construction	NYC DPR	This project will construct a new open space at the Sotomayor Houses.
P.O. Serrano Playground, Bronx	NYC DPR	This project will reconstruct the synthetic turf field at PO Serrano Playground.
Park Ave, E 165 St to E 188 St Bronx	NYC DOT	SIP - Bikes and Greenways
Parkchester: HVAC	NYPL (NYC DDC Managing)	New York Public Library
Peace Park	NYC DPR	Playground

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's <u>Capital Planning Explorer</u>, NYC DOT, NYS DOT, DOHMH, DCP

Project Location	Lead Agency	Project Description
PlaNYC- Highbridge Park Reconstruction	NYC DPR (NYC DDC Managing)	Parks and Recreation
PO Serrano Playground Synthetic Turf Field Reconstruction	NYC DPR	This project will reconstruct the synthetic turf field at PO Serrano Playground.
Prior Notice and Emergency Sidewalks - CW	NYC DOT (NYC DDC Managing)	Highways
Promesa Inc Loisida Community Center	DCAS (NYC DDC Managing)	Public Buildings
Prospect Playground	NYC DPR	Jointly Operated Playground
PWOB-Hugh Grant Circle & Virginia Park Reconstruction XG-117MA	NYC DPR	Parks and Recreation
Quarry Ballfields, Bronx E 181st St and Oak Tree Place between Quarry Rd and Hughes Ave	NYC DPR	This project will construct a synthetic turf soccer field and sitting area at Quarry Ballfields.
Raised Crosswalks Design Build	NYC DOT (NYC DDC Managing)	Highways
Recon of Roofing Systems at Echo	NYC DPR	Parks and Recreation
Reconstruction of Step Street at Davidson Ave	NYC DOT	Capital - Located on Davidson Ave between Featherbed Lane and West 174th St
Reconstruction of vit clay pipe sewers	NYC DDC	Environmental Protection-Equipment, Sewers
Rocking the Boat, Inc Vehicle Purchases	DCAS (NYC DDC Managing)	Public Buildings
Safe Routes to School - West 169th from Inwood Ave to Jerome Ave, Jerome Ave from West 169th to Clarke Place West	NYC DOT	Capital - The scope of work includes the redesign of concrete, markings, signals and signage-based safety treatments, including sidewalk, curb, median tip extensions, curb alignment, new buspad, replacement of benches and fence replacements, and new turning lanes.
Safe Routes to Schools - Phase 4D, NDF-SCH4D (HED582)	NYC DOT (NYC DDC Managing)	Highways, Traffic
Sedgwick Playground	NYC DPR	Park
Sheridan Blvd Network	NYC DOT	SIP - RIS
Sotomayor Houses - Construction of Open Space	NYC DPR	Parks and Recreation
Southern Blvd Bus Stops Under the El	NYC DOT	Capital - This project would construct a series of concrete sidewalk extensions at bus stops under the elevated train line on Southern Blvd in the Bronx. As part of the Bus Stops Under the El Program, DOT is seeking to improve all such bus stop locations in order

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's <u>Capital Planning Explorer</u>, NYC DOT, NYS DOT, DOHMH, DCP

Southern Blvd Pedestrian and Blke Improvements (Bedford Park Blvd to E 179th St)  Southern Bronx Multi-Site Safety Improvements  Southern Bronx Multi-Site Safety Improvements  Safety Improvements  Safety Improvements  NYC DOT  NYC DOT  Safety Improvements  NYC DOT  Safety Improvements  NYC DOT  NYC DOT  NYC DOT  NYC DOT  NYC DOT  Safety Improvements  NYC DOT  N	Project Location	Lead Agency	Project Description
Southern Bronx Multi-Site Safety Improvements  NYC DOT  Westchester & Prospect, Longwood and Hewitt, and Castle Hill & Haviland (formerly consolidation of Westchester & Prospect, Lafayette & Morrison, East Tremont, and Castle Hill & Haviland)  Space Time Playground, Bronx Lafayette & Worrison, East Tremont, and Castle Hill & Haviland)  Space Time Playground, Bronx Lafayette & Worrison, East Tremont, and Castle Hill & Haviland)  NYC DPR  NYC DPR  State Touring Routes Resurfacing - Cross Bronx bleaven Crotona & Longfellow Ave  NYC DOT  NYC DOT  NYC DOT  NYC DPR  Playground  Strip  Tremont - 2nd Floor Rehab/ADA  NYC DPR  NYC DOT  NYC DOT  NYC DOT  SIP - Transit Development  Walter Gladwin Park  NYC DPR  New York Public Library  NYC DPR  Neighborhood Park  NYC DPR  NYC DPR  NYC DPR  NYC DPR  Neighborhood Park  NYC DPR  NYC DPR  NYC DPR  Strip  NYC DPR  NYC DPR  Strip  NYC DPR  NYC DPR  Strip  NYC DPR  Strip  Washington Bridge (BX)  NYC DOT  SIP - Bikes and Greenways  West BX Recreation Center  HILL Adayette & Morrison, East Tremont, and Castle Hill & Haviland (Park Mains, Sources, and Treatment)  NYC DPR  Parks and Recreation  NYC DPR  NYC DOT  SIP - Bikes and Greenways  White Plains Rd PBL upgrade (Parkchester + c B11)  NYC DOT  SIP - Bikes and Greenways  NYC DOT  SIP - Bikes and Greenways	Bike Improvements (Bedford	NYC DOT	curb and sidewalk extensions on Southern Blvd in the neighborhoods of Belmont, West Farms, and Tremont in the Bronx. The project will build out improvements from
Space Time Playground, Bronx Lafayette Ave between Bolton and Underhill Ave         NYC DPR         reconstruct two basketball courts at Space Time Playground, including green infrastructure to capture storm water and new trees, benches, fencing, pavements, bleachers, water supply and drainage.           State Touring Routes Resurfacing - Cross Bronx between Crotona & Longfellow Ave         Capital - Resurfacing of some selected State highways, connector ramps and City streets in Queen and the Bronx. The scope of work will be grinding and repaving existing deteriorated roadways with at least 2? asphalt overlay, and making ancillary concrete repair           Stop & Go Playground         NYC DPR         Playground           Townsend Walk         NYC DPR         Strip           Tremont - 2nd Floor Rehab/ADA         NYC DPR         NYC PV Public Library           University Ave, Tremont Ave to Kingsbridge Rd         NYC DOT         SIP - Transit Development           Walter Gladwin Park         NYC DPR         Neighborhood Park           Walton Slope         NYC DPR         Parkway           Walton Walk         NYC DPR         Strip           Washington Bridge (BX)         NYC DOT         SIP - Bikes and Greenways           Webster Ave SBS         DCAS, NYC DOT, NYC DEP (NYC DDC Managing)         EDP Equipment and Finance Costs, Traffic, Water Mains, Sources, and Treatment           West BX Recreation Center HVAC RC - X261-116M         NYC DOT         SIP - Bikes and Greenways		NYC DOT	Westchester & Prospect, Longwood and Hewitt, and Castle Hill & Haviland (formerly consolidation of Westchester & Prospect, Lafayette & Morrison, East Tremont, and Castle
Resurfacing - Cross Bronx between Crotona & Longfellow Ave  NYC DOT  NYC DOT  NYC DOT  Connector ramps and City streets in Queen and the Bronx. The scope of work will be grinding and repaving existing deteriorated roadways with at least 2? asphalt overlay, and making ancillary concrete repair  Stop & Go Playground  NYC DPR  Playground  Townsend Walk  NYC DPR  NYPL (NYC DDC Managing)  NYPL (NYC DDC Managing)  NYC DOT  SIP - Transit Development  NYC DPR  Welton Slope  NYC DPR  NYC DPR  Washington Bridge (BX)  NYC DOT  NYC DOT  SIP - Bikes and Greenways  West BX Recreation Center HVAC RC- X261-116M  West Chansel Application  NYC DOT  NYC DOT  SIP - Bikes and Greenways  NYC DPR  Parks and Recreation  SIP - Bikes and Greenways  NYC DPR  Parks and Greenways  NYC DPR  Parks and Greenways  NYC DPR  SIP - Bikes and Greenways  NYC DPR  Parks and Greenways  NYC DPR  Parks and Greenways  NYC DPR  SIP - Bikes and Greenways  NYC DPR  SIP - Bikes and Greenways  NYC DPR  Parks and Greenways  NYC DPR  SIP - Bikes and Greenways  NYC DOT  SIP - Bikes and Greenways	Lafayette Ave between Bolton	NYC DPR	reconstruct two basketball courts at Space Time Playground, including green infrastructure to capture storm water and new trees, benches, fencing, pavements,
Townsend Walk  NYC DPR  Strip  Tremont - 2nd Floor Rehab/ADA  Wanaging)  New York Public Library  New Jone Library  New York Public Library  New Jone Library  New Jone Library  New Jone Library  New York Public Library  New Jone Library  New Jone	Resurfacing - Cross Bronx between Crotona & Longfellow	NYC DOT	connector ramps and City streets in Queen and the Bronx. The scope of work will be grinding and repaving existing deteriorated roadways with at least 2? asphalt overlay, and
Tremont - 2nd Floor Rehab/ADA  NYPL (NYC DDC Managing)  New York Public Library  New York Public Library  SIP - Transit Development  SIP - Transit Development  NYC DPR  Neighborhood Park  Walter Gladwin Park  NYC DPR  Neighborhood Park  Walton Slope  NYC DPR  Parkway  Walton Walk  NYC DPR  Strip  Washington Bridge (BX)  NYC DOT  SIP - Bikes and Greenways  Washington Bridge View  NYC HPD  Housing Preservation and Development  Webster Ave SBS  DCAS, NYC DOT, NYC DDC, Managing)  West BX Recreation Center HVAC RC - X261-116M  NYC DPR  Parks and Recreation  Parks and Greenways  White Plains Rd PBL upgrade (Parkchester + CB11)  NYC DOT  SIP - Bikes and Greenways  SIP - Bikes and Greenways  SIP - Bikes and Greenways	Stop & Go Playground	NYC DPR	Playground
University Ave, Tremont Ave to Kingsbridge Rd  Walter Gladwin Park  Walter Gladwin Park  Walton Slope  NYC DPR  NYC DPR  Parkway  Washington Bridge (BX)  Washington Bridge View  NYC HPD  DCAS, NYC DOT, NYC DEP (NYC DDC Managing)  West BX Recreation Center HVAC RC- X261-116M  Westchester Ave 2024  NYC DOT  NYC DOT  SIP - Bikes and Greenways  EDP Equipment and Finance Costs, Traffic, Water Mains, Sources, and Treatment  Parks and Recreation  SIP - Bikes and Greenways  SIP - Bikes and Greenways  EDP Equipment and Finance Costs, Traffic, Water Mains, Sources, and Treatment  SIP - Bikes and Greenways  West BX Recreation Center HVAC RC - X261-116M  NYC DOT  SIP - Bikes and Greenways  White Plains Rd PBL upgrade (Parkchester + CB11)	Townsend Walk	NYC DPR	Strip
Kingsbridge RdNYC DOTSIP - Iransit DevelopmentWalter Gladwin ParkNYC DPRNeighborhood ParkWalton SlopeNYC DPRParkwayWalton WalkNYC DPRStripWashington Bridge (BX)NYC DOTSIP - Bikes and GreenwaysWashington Bridge ViewNYC HPDHousing Preservation and DevelopmentWebster Ave SBSDCAS, NYC DOT, NYC DEP (NYC DDC Managing)EDP Equipment and Finance Costs, Traffic, Water Mains, Sources, and TreatmentWest BX Recreation Center HVAC RC - X261-116MNYC DPRParks and RecreationWestchester Ave 2024NYC DOTSIP - Bikes and GreenwaysWhite Plains Rd PBL upgrade (Parkchester + CB11)NYC DOTSIP - Bikes and Greenways	Tremont - 2nd Floor Rehab/ADA		New York Public Library
Walton Slope  NYC DPR Parkway  Walton Walk  NYC DPR Strip  Washington Bridge (BX)  Washington Bridge View  NYC HPD Housing Preservation and Development  Webster Ave SBS  DCAS, NYC DOT, NYC DEP (NYC DDC Managing)  West BX Recreation Center HVAC RC- X261-116M  Westchester Ave 2024  NYC DOT  NYC DOT  SIP - Bikes and Greenways  Parks and Recreation  SIP - Bikes and Greenways  SIP - Bikes and Greenways  SIP - Bikes and Greenways		NYC DOT	SIP - Transit Development
Walton WalkNYC DPRStripWashington Bridge (BX)NYC DOTSIP - Bikes and GreenwaysWashington Bridge ViewNYC HPDHousing Preservation and DevelopmentWebster Ave SBSDCAS, NYC DOT, NYC DEP (NYC DDC Managing)EDP Equipment and Finance Costs, Traffic, Water Mains, Sources, and TreatmentWest BX Recreation Center HVAC RC- X261-116MNYC DPRParks and RecreationWestchester Ave 2024NYC DOTSIP - Bikes and GreenwaysWhite Plains Rd PBL upgrade (Parkchester + CB11)NYC DOTSIP - Bikes and Greenways	Walter Gladwin Park	NYC DPR	Neighborhood Park
Washington Bridge (BX)  Washington Bridge View  NYC HPD  Housing Preservation and Development  DCAS, NYC DOT, NYC DEP (NYC DDC Managing)  West BX Recreation Center HVAC RC- X261-116M  West chester Ave 2024  NYC DOT  NYC DOT  SIP - Bikes and Greenways  SIP - Bikes and Greenways  SIP - Bikes and Greenways  NYC DOT  SIP - Bikes and Greenways	Walton Slope	NYC DPR	Parkway
Washington Bridge View  NYC HPD  Housing Preservation and Development  DCAS, NYC DOT, NYC DEP (NYC DDC Managing)  West BX Recreation Center HVAC RC- X261-116M  NYC DPR  Parks and Recreation  Westchester Ave 2024  NYC DOT  SIP - Bikes and Greenways  White Plains Rd PBL upgrade (Parkchester + CB11)  NYC DOT  Housing Preservation and Development  EDP Equipment and Finance Costs, Traffic, Water Mains, Sources, and Treatment  Parks and Recreation  SIP - Bikes and Greenways	Walton Walk	NYC DPR	Strip
Webster Ave SBS  DCAS, NYC DOT, NYC DEP (NYC DDC Managing)  West BX Recreation Center HVAC RC- X261-116M  Westchester Ave 2024  NYC DOT  NYC DOT  SIP - Bikes and Greenways  NYC DOT  SIP - Bikes and Greenways	Washington Bridge (BX)	NYC DOT	SIP - Bikes and Greenways
West BX Recreation Center HVAC RC- X261-116M  West chester Ave 2024  White Plains Rd PBL upgrade (Parkchester + CB11)  NYC DEP (NYC DDC Managing)  EDP Equipment and Finance Costs, Traffic, Water Mains, Sources, and Treatment  Parks and Recreation  Parks and Greenways  SIP - Bikes and Greenways	Washington Bridge View	NYC HPD	Housing Preservation and Development
HVAC RC- X261-116M  Westchester Ave 2024  NYC DOT  SIP - Bikes and Greenways  White Plains Rd PBL upgrade (Parkchester + CB11)  NYC DOT  SIP - Bikes and Greenways	Webster Ave SBS	NYC DEP (NYC	
White Plains Rd PBL upgrade (Parkchester + CB11)  NYC DOT  SIP - Bikes and Greenways		NYC DPR	Parks and Recreation
(Parkchester + CB11) SIP - Bikes and Greenways	Westchester Ave 2024	NYC DOT	SIP - Bikes and Greenways
Zerega Ave phase 2 NYC DOT SIP - Bikes and Greenways		NYC DOT	SIP - Bikes and Greenways
	Zerega Ave phase 2	NYC DOT	SIP - Bikes and Greenways

Table 9.4. Planned and Ongoing Projects within or near Study Area Source: DCP's <u>Capital Planning Explorer</u>, NYC DOT, NYS DOT, DOHMH, DCP

### 9.6.2 Planned and Ongoing Programs

Program Location	Lead Agency	Project Description
Bronx	NYC DOHMH	Bronx Neighborhood Health is currently providing cost-free integrated pest management services for children with asthma (0-17 years of age) who are having issues with pests in their home in the Bronx, New York City. This program is aimed to target households who may not qualify for Medicaid Together or Healthy Homes for various reasons.
Bronx	NYC DOHMH	The Healthy Homes Program (HHP) works to reduce environmental hazards in the home associated with disease and injury. HHP aims to prevent lead poisoning and reduce asthma triggers in the homes of high-risk populations. Services available to health care providers, community outreach workers, home visiting staff, parents, caregivers, community residents, building contractors, and building owners/landlords/superintendents include: environmental assessments in the homes of NYC residents with diagnosed persistent asthma and pests (mice, rats, cockroaches) or mold; educational workshops and trainings on environmental home health hazards such as lead poisoning prevention and pest prevention/control; and free EPA-certification trainings on lead-safe repair work.
Bronx	NYC DOHMH	<b>Medicaid Together</b> - This is an innovative collaboration with Medicaid payors to integrate pest management for families with asthma
Bronx	NYC DOHMH	<b>NYC REACH</b> - The primary care systems and support arm of the health department manages diabetes, hypertension, vaccine support, and community health worker programs together with small practices and health centers.
Bronx	NYC DOHMH	Managed Care Consumer Assistance Program - This program provides support to immigrant focused Community Based Organizations to increase access to health insurance and primary care
Bronx	NYC DOHMH	Office of Health Insurance Services - This program places Certified Application Counselors in health department sites to help NYers enroll in health insurance.
Bronx	NYC DOHMH	Office of Mental Health – Provides community and clinical treatment, advocacy services, crisis intervention, supportive housing, vocation services.
Bronx	NYC DOHMH	The HOW Heat Safety program NYC DOHMH offers mini-grants to fund heat safety programing among faith-based organizations; in this programming, participants learn to incorporate key talking points on how to stay safe during extreme heat into their regular communications and activities with colleagues, congregants, and community members.
Bronx	NYC DOHMH	The Bronx Knows is a borough-wide HIV testing and prevention initiative, which aims to help all Bronx residents learn their HIV status and take full advantage of the city's care and prevention services. Through the Bronx Knows, the New York City Health Department partners with community-based organizations, community health centers, hospitals, colleges, universities, faith-based organizations and businesses to: provide voluntary HIV testing to Bronx residents and make HIV testing a routine part of health care; identify people living with HIV who are undiagnosed in the Bronx and link them to medical care; connect people who test negative for HIV to prevention services; and promote hepatitis and STI screening.

Table 9.5. Planned and Ongoing Programs within or near Study Area. Source: NYC DOHMH and NYC DOT

Bronx	NYC DOHMH	Diabetes Self-Management and Education (DSMES) Workshops: Offered virtual and in-person at Lincoln Medical Center and in both English and Spanish, this series of 5 workshops. DSMES is an evidence-based program that helps people with diabetes gain knowledge to better manage their condition. Workshops were offered in a group setting with personalized learning. The curriculum is based on the Association of Diabetes Care and Education Specialists (ADCES) 7 self-care behaviors which are, 1) healthy eating, 2) being active, 3) monitoring blood sugars, 4) taking medication, 5) problem solving, 6) healthy coping, and 7) reducing stress.
Bronx	NYC DOHMH	Gestational Diabetes Workshops: In collaboration with St. Barnabas Hospital Teaching Kitchen, the Bureau of Bronx Neighborhood Health hosts the Gestational Diabetes (GDM) Culinary Workshop series. The series serves as a preventative effort, as gestational diabetes is a risk factor for future type 2 diabetes. The series includes hands-on cooking lessons and a nutrition education component, providing education on the pregnant body, nutrition, gestational diabetes, and stress management.
Bronx	NYC DOHMH	<b>Health Bucks</b> are \$2 coupons that can be used to purchase fresh fruits and vegetables at all NYC farmers markets.
Bronx	NYC DOHMH	<b>Shape Up NYC</b> is a free group fitness program with locations across the five boroughs. Fitness classes include aerobics, bootcamp, Zumba, and much more
Bronx	NYC DOHMH	The Family Wellness Suite offers pregnancy services including childbirth education and newborn care classes, parenting classes, infant massage, reproductive health workshops and referrals. Eligible families may also receive cost-free playpens and car seats.
Citywide	NYC DOT	The NYC Clean Trucks Program is a rebate incentive funding program to reduce diesel exhaust emissions by replacing older, heavy polluting diesel trucks with new battery electric, or EPA emission compliant alternative fuel (compressed natural gas, diesel-electric hybrid, and plug-in hybrid electric) and diesel trucks.
NIVO Matarusi is		<b>Blue Highways</b> is a multi-year public-private partnership program that targets a reduction in truck dependency by promoting the use of NYC's
NYC Waterways	NYC DOT	waterways to move goods into and around the city, aiming to decrease road congestion, improve air quality, and align with the city's greenhouse gas emission reduction goals.
Services in all schools	NYC DOT	waterways to move goods into and around the city, aiming to decrease road congestion, improve air quality, and align with the city's greenhouse
Services in all		waterways to move goods into and around the city, aiming to decrease road congestion, improve air quality, and align with the city's greenhouse gas emission reduction goals.  Reproductive Health Services – Provides highs school students with
Services in all schools Services in all	NYC DOHMH	waterways to move goods into and around the city, aiming to decrease road congestion, improve air quality, and align with the city's greenhouse gas emission reduction goals.  Reproductive Health Services – Provides highs school students with sexual health education, contraception, and referrals.  Mental Health Services – Guides and supports in-school mental health
Services in all schools Services in all schools Services in all	NYC DOHMH	waterways to move goods into and around the city, aiming to decrease road congestion, improve air quality, and align with the city's greenhouse gas emission reduction goals.  Reproductive Health Services – Provides highs school students with sexual health education, contraception, and referrals.  Mental Health Services – Guides and supports in-school mental health trainings and services  Oral Health Services – Provides dentals screenings and preventive
Services in all schools Services in all schools Services in all schools Services in all	NYC DOHMH  NYC DOHMH  NYC DOHMH	waterways to move goods into and around the city, aiming to decrease road congestion, improve air quality, and align with the city's greenhouse gas emission reduction goals.  Reproductive Health Services – Provides highs school students with sexual health education, contraception, and referrals.  Mental Health Services – Guides and supports in-school mental health trainings and services  Oral Health Services – Provides dentals screenings and preventive services (e.g., dental sealants, fluoride varnish) at select schools  Vision Services – Provides vision screening for amblyopia, eye exams

Table 9.5. Planned and Ongoing Programs within or near Study Area. Source: NYC DOHMH and NYC DOT

Services in all schools	NYC DOHMH	Asthma Medication Administration
Services in all schools	NYC DOHMH	<b>a-PASS</b> - research study that Montefiore is leading but DOH Office of School Health advises on schools and co-presents during annual asthma workshop.
TBD up to 20 locations citywide	NYC DOT	<b>The Microhub Pilot</b> will provide dedicated transloading space for delivery vehicles and support the transfer of goods to smaller, cleaner vehicles for the last mile of delivery. NYC DOT is now in the process of implementing a pilot program that will activate and test out up to 20 on-street and offstreet microhubs across the city starting in Summer 2024.
NYC	NYC DOT	The NYC Clean Trucks Program is a rebate incentive funding program to reduce diesel exhaust emissions by replacing older, heavy polluting diesel trucks with new battery electric, or EPA emission compliant alternative fuel (compressed natural gas, diesel-electric hybrid, and plug-in hybrid electric) and diesel trucks.
NYC Waterways	NYC DOT	<b>Blue Highways</b> is a multi-year public-private partnership program that targets a reduction in truck dependency by promoting the use of NYC's waterways to move goods into and around the city, aiming to decrease road congestion, improve air quality, and align with the city's greenhouse gas emission reduction goals.

Table 9.5. Planned and Ongoing Programs within or near Study Area. Source: NYC DOHMH and NYC DOT



# **Existing Conditions Summary Report**

August 2024







