

Betting on Transit

Real Estate Development and
the Second Avenue Subway in East Harlem



Image source: Timo Stammberger



School of Architecture and
Design
Rendsburggade 14, 9000 Aal-
borg
adstudyboard@create.aau.dk
www.mobilities.aau.dk

AALBORG UNIVERSITY

STUDENT REPORT

Thesis Title:

Betting on Transit — Real Estate Development and the Second
Avenue Subway in East Harlem

Study Programme:

MSc Urban Design: Mobilities & Urban Studies
Department of Architecture, Design and Media Technology

Project Period: 1 February to 3 June 2020

Author: Isobel Margaret Cully

Supervisor: Dr. Michael Martin

Page Number: 49

Date of Completion: 3 June 2020

Signature:

Abstract

Since 1920, local, city and state governments have been promising Manhattan's East Side residents a subway along Second Avenue. In 2017, nearly 100 years after the subway line was initially proposed, the first three stations of the Second Avenue subway were finally opened to the public, on the Upper East Side. The second phase is set to create three additional stations in East Harlem, a historically working-class neighborhood with a predominantly Latinx and Black population. Unlike their affluent southern neighbors on the Upper East Side, many East Harlem residents fear that the subway will gentrify their neighborhood, pricing them out of their community.

This thesis attempts to explain how the plan for the Second Avenue subway is producing gentrification and changing the built environment of East Harlem, even decades before its completion. It also explores the symbiotic relationship between the Second Avenue subway and real estate interests that enables both to thrive.

The Second Avenue subway project has attracted real estate interests to East Harlem, a neighborhood that has typically been overlooked by "affordable luxury" developers. The developers are betting that the completion of the subway will make their investments valuable. Moreover, the real estate developments in the area are supporting the transit projects in three ways. First, the developments are increasing the population density, therefore making new transit options even more necessary than they already were. Second, they are attracting a wealthier and whiter demographic that has more resources to advocate for their transit needs. Third, New York City's real estate interests are represented by the Real Estate Board of New York, a powerful lobby that is connected to the Governor of New York and many of the city and state elected officials. The emergence of new real estate developments in East Harlem increases the likelihood of the second phase of the subway being completed, but the changes brought on by the developments may come at the expense of the neighborhood's long-term residents.

Acknowledgments

I would first like to thank my supervisor, Dr. Michael Martin, for his valuable insights and perpetual kindness. I could not have done it without him. I am also grateful for my family and partner for their continued support and help during this process. Finally, I want to acknowledge the team at Tri-State Transportation Campaign, who have helped shape my understanding of transit in New York City.

Preface

This Master's thesis was started during the outbreak of the COVID-19 pandemic and was finished in the wake of yet another violent killing of an unarmed Black man that has shaken the United States and the world. As I prepare to hand in my submission, New York City is implementing an 8PM to 5AM curfew to stop its residents from engaging in protests against police brutality and systemic racism.

It is fair to say 2020 has not gone “according to plan,” and for this reason, predicting the future of the Second Avenue subway seems like a hopeless exercise. Perhaps the pandemic will fast track the completion of the project, to relieve some of the overcrowding on the Lexington Avenue line as the need for social distancing increases. Perhaps the protests that are happening in cities around the world will lead to systemic reforms that address the root causes of racial inequity, which are found in housing and transit, among others. The pessimist in me can imagine a future where the global crisis is used as an excuse to terminate capital projects, and the second phase of the Second Avenue subway remains a dream for another 100 years.

While predicting the future may be impossible, I hope that my thesis highlights some of the injustices that are involved in something as fundamental as transportation infrastructure.

Table of Contents

| | |
|--|-----------|
| Abstract | 2 |
| Acknowledgments | 2 |
| Preface | 3 |
| Table of Contents | 4 |
| Introduction | 5 |
| Literature Review | 8 |
| Gentrification | |
| Transit-Led Gentrification | |
| Methodology | 11 |
| Case Study | |
| Spatial Analysis | |
| Case Study: East Harlem, NY | 13 |
| Context | |
| History of the Second Avenue Subway | |
| Description of the Second Avenue Subway: Phase 2 | |
| Analysis of Real Estate Developments in East Harlem | 23 |
| A Brief History of East Harlem's Built Environment | |
| Colossal Complexes | |
| 125th Street-Harlem Building Boom | |
| Affordable Luxury | |
| Discussion | 34 |
| How the Second Avenue Subway is changing the built environment in East Harlem | |
| Transit and Capital | |
| From "Affordable Luxury" to Luxury | |
| The Symbiosis between the Second Avenue subway and Real Estate in East Harlem | |
| Increasing Population Density | |
| Demographic Change | |
| Real Estate Interests | |
| Conclusion | 44 |
| Bibliography | 46 |

Introduction



Figure 1 Second Avenue subway project map (Source: Metropolitan Transportation Authority)

On January 1st, 2017, New York City's residents celebrated the grand opening of the Second Avenue subway, featuring three new stations on the Upper East Side of Manhattan. The transit line had been proposed nearly 100 years prior, and many had lost faith that it would ever be built. While Upper East Side residents revelled in their new subway, many of their neighbors to the North in East Harlem feared what the extension of the line into their neighborhood would mean to their community. The second phase of construction was set to build three additional stations in East Harlem (see Figure 1). Many real estate developers had already set their sights on the historically working-class neighborhood, believing they could profit from the improved transit access that the subway would provide.

East Harlem is home to a diverse, predominantly low- and moderate-income population. The median household income in the neighborhood is \$36,770, which is 57 percent less than the median income in the borough of Manhattan (US Census Bureau 2017). The gap in incomes between the residents of East Harlem and their neighbors puts East Harlem residents at risk of displacement. As East Harlem becomes a more attractive neighborhood for real estate interests, long-time residents worry about being priced out of their homes.

There is a well documented relationship between transit improvements and increased real estate prices, conceptualized as “transit-led gentrification”. However, the existing literature generally focuses on the changes in property values following the completion of public transportation projects. Building from this research, this paper attempts to explain how the Second Avenue subway is producing gentrification and changing the built environment of East Harlem, even decades before it is completed. I will also explore the symbiotic relationship between the Second Avenue subway and real estate interests that enables both to thrive.

This study is based in the mobilities turn, which states that mobility is more than movement from A to B (Urry 2000). In fact, throughout its 101-year history the Second Avenue subway has had and continues to have deep repercussions on New York City that extend far past the limits of transportation. It has been used to justify fare increases and for political gain. It affects housing, small businesses, and health and environmental concerns, among many others. This paper will focus on the effects of the Second Avenue subway on the built environment and the sense of place in East Harlem.

In the first section, I cover the existing literature on transit-led gentrification and

identify the research gap that I am attempting to fill. In the second section, the methodology is explained. It includes a case study and a spatial analysis of real estate investment in East Harlem. In the third section, I delve into the century-long history of the Second Avenue subway and the ways it has been wielded politically, as well as a description of the second phase of the project. I also analyse the real estate projects that are being developed in the neighborhood, focusing on their spatial distribution and their components. In the fourth section, I discuss how the Second Avenue subway project is changing the built environment of East Harlem, and the effects it has on the residents. I also examine the symbiotic relationship between the subway and real estate interests. In the final section, I conclude the paper and offer suggestions for further research.

Literature Review

Gentrification

The term gentrification, much like the phenomenon it describes, has become ubiquitous in urban life. It is decried when a check-cashing store is replaced by a third-wave coffee shop, or at the sight of white professionals remodeling a run-down townhouse in a historically black neighborhood. Yet, despite its prevalence, there is no single, unanimously accepted method of identifying it.

Gentrification is broadly understood as “the transformation of a working-class or vacant area of the central city into middle-class residential and/or commercial use” (Lees, Slater, and Wyly 2008). Although some positive effects of gentrification — such as increased collective efficacy— have been defended (Steinmetz-Wood, et al 2017, 24), the majority of the literature on the topic describes its negative consequences. These include increased cost of living and the displacement of existing residents and businesses (Zukin, et al 2009, 47-64; Freeman and Braconi 2004, 39-52; Atkinson 2000, 149-165; Newman and Wyly 2006, 23-57).

Transit-Led Gentrification

There has been growing interest in the relationship between the onset of gentrification and access to public transit — conceptualised as transit-led gentrification. In fact, numerous studies have shown that rail transit raises land values in North America. In a study of 14 American cities, Kahn (2007) found that neighborhoods around “walk and ride” rail stations experience more gentrification than those around “park and ride” stations. In Atlanta, housing prices increased by 15 to 30 percent in low-income neighborhoods where new planned rail stations were announced (Immergluck 2009, 1723-1745). In a study of Canadian cities, Grube-Cavers and Patterson (2015) also

show that proximity to transit has a statistically significant effect on gentrification in Montreal and Toronto, although not in Vancouver. Similarly, in a case study of Austin, Texas, Li and Jo (2017) found that improving both public transportation and bikeability have a “synergistic economic benefit” on property values.

Although these studies advance the understanding of transit-led gentrification, they share four main limitations that this project aims to address. First of all, they focus on property values and not rent prices. Homeowners may be delighted by an increase in the value of their assets, but renters will fear that gentrification will lead to them being priced out of their neighborhood. This is distinctly important in East Harlem, where 93.6 percent of housing units are renter-occupied (Department of City Planning 2012). Gentrification is inherently a class-based process; ignoring the difference between renter and owner household overlooks an important element of gentrification.

The second important limitation of these studies is that they only employ quantitative data. For example, in their study of the relationship between rail rapid transit and gentrification in Canadian cities, Grube-Cavers and Patterson (2015) define the onset of gentrification as the moment when a “gentrifiable” area (i.e. having an average income that is below the average of its metropolitan area) experiences increased levels of education, incomes, number of professionals, housing values and rents. While this approach provides an operationalizable methodology, its rigid definition disregards the variations in how different areas experience gentrification. Moreover, prioritizing quantitative data overlooks important qualitative aspects of the subject, such as how transit-led gentrification affects the sense of place.

Third, research on transit-led gentrification has generally focused on the period following the completion of transit projects. As the case of East Harlem shows, the process of gentrification can happen over a prolonged period of time, including during the planning and construction phases.

Finally, these studies pass over the importance of class. As Revington (2015) writes, the existing literature on the relationship between transit investment and land use is largely based on a neoclassical economic perspective that views real estate markets as “natural and self-regulating, with a tendency toward equilibrium” and ignores the class-based struggles that can be accentuated by changes in land use. Research that overlooks the class conflict in the process of gentrification fails to fully grasp the effects of gentrification on a neighbourhood. How different cities, or even different neighborhoods of the same city, experience gentrification is unique and depends on social, cultural, economic, racial, gender and sexual-orientation based metrics, among many others.

I aim to fill this gap in the research by offering a qualitative, spatial analysis of transit-led gentrification in East Harlem during the construction of the Second Avenue subway. We choose to adopt a broader definition of gentrification, that does not rely on binary variables but rather on the built environment and the sense of place. My thesis shows how the Second Avenue subway is producing gentrification and changing the built environment of East Harlem, even decades before it is completed. I will also explore the symbiosis between the Second Avenue subway and real estate interests that allows both to thrive.

Methodology

Case Study

The principal method used in this research project is the case study. In East Harlem, a case study was deemed appropriate to investigate the phenomenon of transit-led gentrification within its real-life context. This case study was based on an in-depth investigation of the effects of the Second Avenue subway project on real estate development, and in turn, the effects of development on the sense of place of the neighborhood.

To get a complete picture of the situation, I researched the history of the Second Avenue subway and public transit in New York City, as well as the history of East Harlem using secondary sources and news articles. I also carried out an analysis of the main news sources on transportation, real estate and gentrification issues to uncover the public perception of the Second Avenue subway in East Harlem.

Spatial Analysis

A spatial analysis of real estate developments was conducted in the context of this research project. The research covers the period following the completion of the first phase of the Second Avenue subway on January 1, 2017 until April 1, 2020. The research area includes the entire East Harlem neighborhood, bounded from 96th Street to the south, the East River to the east, the Harlem River to the north and Fifth Avenue to the west.

To understand the trends in real estate developments, I first gathered qualitative and quantitative data on each development within the boundaries of the neighborhood. The developments were identified using real estate news sources (mainly New York YIMBY and TheRealDeal.com), news sites that aggregate publicly available permit

applications and updates in construction. The analysis includes all thirty real estate projects that were reported between January 2017 and April 2020¹. The data collection include the following variables:

- Street address,
- Development group,
- Type of units (rental or condominium),
- Number of stories,
- Number of units,
- Presence of commercial space,
- Affordability

The data points were geocoded using QGIS, a geographic information system software. A heatmap analysis was performed to identify clusters of investment. These clusters were compared to the location of existing and future transit stations, the areas that were involved in recent zoning changes, and the locations of parks and social housing projects. The aim of this investigation was to uncover relationships between clusters of investment and the built environment.

1 I acknowledge that the list may be incomplete, as there is no exhaustive list of permit applications publicly available.

Case Study: East Harlem, NY

Context

History of the Second Avenue Subway

The Second Avenue Subway is a New York City “megaproject” that has been in the works since 1919. It represents far more than a simple transit project to move people from A to B. At different times, it has been used for political gain (e.g. to bolster New York Governor Nelson Rockefeller’s image before his presidential bid), to increase capital (through the issuing of bonds which were later used for operating expenses), and to justify a fare increase (in 1947, NYC mayor O’Dwyer promised that doubling the fare would pay for the Second Avenue Subway). To understand the Second Avenue subway today, it is important to appreciate its long and fraught history.



Figure 2 A tourism map of Manhattan.
(Source: mappery.com)

Inception: 1919-1939

The idea for a subway below Second Avenue was initially put forward in 1919 in the Proposed Comprehensive Rapid Transit System, an ambitious program to increase the city's transit infrastructure to grapple with the surge in transit ridership following World War I. Ten years later, the Board of Transportation of the City of New York approved a proposal for a subway under Second Avenue, taking passengers from the Bronx to the Financial district. The transit plan had an immediate effect on real estate: "Within weeks of the board's announcement, real estate brokers reported that owners selling property on Second Avenue raised asking prices by about 50 percent and developers started assembling parcels of land for new apartment buildings by purchasing old five-story tenement apartment buildings that lined the avenue" (Plotch, 2020, p. 18). However, the Second Avenue subway faced its first hurdles the following year, when the Great Depression forced the project to be scaled down. By 1939, the project had been "postponed indefinitely" and moved to #14 on the Board of Transportation's list of important projects.

Fare Hike: 1940-1967

Between 1940 and 1942, the elevated train (the "El") along Second Avenue—which mayor La Guardia had called "old, unsightly and noisy"—was closed down. The mayor wanted to replace the antiquated elevated lines with modern buses "so that cars would move faster and real estate values would increase" (Plotch, 2020, p. 21). However, shutting down service on the El put added pressure on the other transit lines. The strain on the system was compounded when the Third Avenue El was closed down in 1955, leading to severe overcrowding on the Lexington Avenue subway line, the only remaining line on the East Side of the island. The need for a subway on Second Avenue increased.

In 1946, Robert Moses —the influential “master builder” known for his highways— claimed that doubling the nickel fare (USD \$0.05) would make it possible to finally break ground on the long awaited Second Avenue subway. The proposal to double the nickel fare, in place since 1904, was overwhelmingly unpopular with subway riders. However, the fare hike was supported by business leaders and real estate interests who feared the alternative would be raising real estate taxes. Although NYC mayor William O’Dwyer had initially opposed the increase, he admitted that this measure was necessary to cover the agency’s mounting expenses. In exchange, he promised New Yorkers that the fare hike would pay for the Second Avenue subway — a promise he knew he could not keep (Plotch, 2020, p.39).



Figure 3 From right, Mayor John V. Lindsay and Gov. Nelson A. Rockefeller at the breaking ground for the Second Avenue subway in 1972. (Source: New York Times)

Groundbreaking: 1968-1975

Plans for the Second Avenue subway did not move past the proposal phase until 1968, when New York Governor Nelson Rockefeller and William Ronan — who would become the first chairman of the Metropolitan Transportation Authority (MTA) — announced their ambitious vision for the region’s transportation agency, including

multiple subway and railroad improvements. Chief among these was the Second Avenue subway. According to Plotch (2020, p.58), the governor's interest in building a new subway was also self-serving, as it would give him nationwide attention and "enhance his reputation in preparation for a 1968 presidential bid." Nevertheless, all of the chips were falling into place —the city was flourishing, the project had widespread support, funding to begin construction was secured— and it appeared New York City would finally be getting a subway below Second Avenue. During the 1972 groundbreaking ceremony, Rockefeller promised: "Ladies and gentlemen, the talking and the planning and the promising stages are over" (Plotch, 2020, p.73).



Figure 4 Nearly every surface of the subway was covered in graffiti during the 1970s. (Source: Esquire.com)

But Governor Rockefeller and William Ronan used creative accounting to get the project off the ground, hoping the rest of the necessary capital would be made available once construction was underway. Unfortunately, the American economy entered a recession following the Organization of Arab Petroleum Exporting Countries' oil embargo in 1973. Concurrently, New York City was experiencing an unparalleled population decline —between 1970 and 1980 the city lost nearly one

million residents, dropping to 7.1 million— as its residents moved to the suburbs (Department of City Planning 2006). The Metropolitan Transportation Authority was in a physical and financial state of crisis: infrastructure was deteriorating and debt was growing. As a result of the sluggish economy, changing residential patterns and criminality, transit ridership dropped below 1917 levels, when the system only had two lines (Goldman 1982). Nearly one-third of active subway cars had broken doors and lighting problems. Virtually every surface was covered in graffiti. Travel writer Paul Theroux wrote of his experience riding the subway:

The subway is frightful looking. It has paint and signatures all over its aged face. It has been vandalized from end to end. It smells so hideous you want to put a clothespin on your nose, and it is so noisy the sound actually hurts. Is it dangerous? Ask anyone, and, without thinking, he will tell you there must be about two murders a day on the subway. (Theroux 1982, p.236)

With ridership plummeting and debt proliferating, MTA expansion projects ground to a halt. In 1974, the completion date of the Second Avenue subway was pushed from 1980 to 1988. In 1975, construction was halted entirely and the tunnels were sealed off.

Phase 1: 1988-2017

Two more decades passed before the Second Avenue subway was brought back to the spotlight by two transportation experts: Lee Sander, an executive at a transportation consulting firm and head of a transportation-related think tank at New York University, and Bob Yaro, the executive director of the Regional Plan Association (RPA), a not-for-profit planning organization working in the New York metropolitan area. Together, Sander and Yaro created the Empire State Transportation Alliance in 1997 to influence the debate about transit projects in the city, and they wanted the Second Avenue subway at the forefront of the conversation. By calling upon their friends in the media and government, they rallied overwhelming support for a

subway under Second Avenue. At that point, the only subway line on the East Side of Manhattan, the Lexington line, carried on average 1.3 million riders every day, making it the most crowded line in the United States (MTA 2004). An alternative was necessary. The new head of the MTA was Peter Kalikow, a real estate developer who owned a dozen buildings on the Upper East Side. According to Plotch (2000, p.159), Kalikow understood the benefits for commuters, and that “his wealth was dependent on frequent, rapid, reliable, and affordable East Side subway service.” In May 2000, \$1.05 billion was allocated to environmental studies, design, and the initiation of construction (Vollmer Associates, SYSTRA Consulting, and Allee King Rosen & Fleming 2001).

The following year, on September 11, 2001, New York City was hit with the deadliest terror attack in human history when two planes crashed into the North and South towers of the World Trade Center. The attack underscored the importance of the subway in keeping the city running. Despite the destruction of the PATH train station at the World Trade Center and several sections of the subway’s infrastructure, New Yorkers were able to get to work using alternate routes in Lower Manhattan. Conversely, without a second subway line on the East Side, the city would be paralyzed if the Lexington Line were damaged. The Second Avenue subway would create important redundancy on the East Side and increase transit access in Lower Manhattan.

Plans for the Second Avenue subway moved forward, but funding was once again becoming an issue. Building the entire 16-station line at once would be more efficient and economical, but would require assembling \$16.8 billion in one 5-year capital program. By splitting the construction into four phases, the MTA would only need to ask for \$5 billion per capital program. Once the decision to divide the project was taken, the MTA had to determine which phase would go first. There was support

for starting construction in Lower Manhattan, which had been devastated after the September 11 attacks. Others wanted to start in East Harlem, fearing the project would be cut short after serving the wealthier areas along the line. In the end, the MTA decided the first phase of construction should happen on the Upper East Side and connect with the existing tunnel under 63rd Street.

At the March 2007 celebration of the start of construction, Peter Kalikow asked “Why is this groundbreaking different than all other groundbreakings?,” referring to the previous attempts to build a Second Avenue subway. He answered his own question: “This time, we have the money and the political will” (Plotch 2020:194). And indeed, the first three stations of the long awaited Second Avenue subway were completed ten years later, with a grand opening on New Year’s day 2017.



Figure 5 The 96th Street station of the Second Avenue subway on the Upper East Side (Source: Curbed NY)

Effects of the Second Avenue subway on the Upper East Side

During the construction of the first phase, proximity to the future subway was already affecting real estate on the Upper East Side. Between 2011 and 2016, rental prices increased by 27 percent along Second Avenue, compared to only 14 percent on Third Avenue and 19 percent on First Avenue (Quintana 2016). In 2016, the real estate database StreetEasy predicted that renters around the 72nd and 96th Street stations would see their rent increase by \$462 per month, while those near the 86th Street station would experience \$330 increases (Quintana 2016). However, one year after the stations opened, the website revealed that rent increases were lower than they had predicted. Rent increases were not uniform across the neighborhood, but the northern region—which had historically been the most affordable of the area—encountered a 4 percent rise in asking rent, “outpacing the rate of growth across the city, the borough of Manhattan, and the Upper East Side submarket” (Quintana 2018). Gupta et al (2019) show that properties along the Second Avenue subway increased in value by 5 to 10 percent. However, only 30 percent of the private value created by the subway was captured through property taxes, meaning that private owners financially benefited from the subway more than the city did.

The historical context of the Second Avenue subway is important because it illustrates that the subway has never been a simple piece of infrastructure existing outside of political influence. It has been used as a bargaining piece for politicians to obtain what they want. During the 20th century, every time the Second Avenue subway was contemplated, New Yorkers came out with nothing to show, except higher transit fares, rents and taxes. As construction continues on the following phases of the subway, attention must be paid to the benefactors of the subway, and the sacrifices that are made by New Yorkers to achieve it.

Description of the Second Avenue Subway: Phase 2

The second phase of the Second Avenue subway will extend the line from the Upper East Side into East Harlem. Two stations will be located on Second Avenue, at the intersection of 106th Street and 116th Street. Northbound, the line will curve toward the west and a third station will join the 4, 5, 6 subway lines at the 125th Street station on Lexington Avenue, and will offer an intermodal connection at the 125th Street-Harlem station on the Metro-North Railroad, a commuter line connecting the city to its northern suburbs.



Figure 6 Map of the Second Avenue subway, phases 1 and 2 (Source: Metropolitan Transportation Authority)

The MTA's 2015-2019 capital program originally included \$1.5 billion to begin construction on the tunnel. In October 2015, the MTA announced that it had cut back \$1 billion from the project, stating that construction would have to be delayed at least to 2020, putting it in the following capital program. The agency alleged that the delay was caused by a scheduling conflict and not a lack of capital, but the funding cut was poorly received. Robert J. Rodriguez, the assembly member representing East Harlem stated: "For them not to bring this to an area that clearly demonstrates an economic need — as well as a transportation need to move people into other parts of Manhattan more efficiently — it is outrageous and screams of inequality"

(Fitzsimmons 2015). New York City Mayor Bill De Blasio also called for the delay and the \$1 billion funding cut to be reconsidered. In April 2016, an additional \$500 million was restored to the project, and the MTA started advertising Request for Proposals for preliminary work (Fitzsimmons 2016).

In 2019, after receiving a “Finding of No Significant Impact” from the environment impact assessment for phase 2, the MTA announced that the subway extension would permanently displace 505 workers and 140 residential tenants, and as many as 41 properties would be seized by eminent domain (Smith 2019). These numbers are far superior to the seven property seizures and 56 residents displaced during the first phase on the Upper East Side. The MTA claims that any relocations are “years away” and may include fewer buildings than initially believed, however this brings little comfort to the residents and businesses slated for displacement (Smith 2019). Without any clear information from the MTA and the city, residents are struggling to plan for their future. If the second phase looks anything like the first, they may spend the next twenty years in limbo, waiting to see whether they will be displaced or not.

In 2019, the MTA released its proposed 2020-2024 capital program, which includes \$4.5 billion for the execution of the second phase of the Second Avenue subway. They plan to complete the project by 2030.

Analysis of Real Estate Developments in East Harlem

The planned Second Avenue subway and a series of zoning changes since 2003 have attracted many real estate developers to East Harlem. In 2017, the city of New York passed a rezoning plan called the East Harlem Neighborhood Initiative that permits higher density housing in the area. The goals of the rezoning plan include preserving existing affordable housing, promoting new housing, providing opportunities for economic development, enhancing the streets and sidewalks, and “[leveraging] the neighborhood’s strong existing and future transportation infrastructure, which includes Phase II of the Second Avenue Subway” (NYC Department of Planning 2017). As a result of the rezoning and other market forces, East Harlem is experiencing a “building boom” (Krisel 2018). In this section, I will describe some of the real estate developments that are being planned or built in East Harlem since 2017. In the following sections, I will illustrate how this building boom affects the neighborhood and the prospects of the Second Avenue subway.

A Brief History of East Harlem’s Built Environment

Low-rise tenement buildings have historically pervaded East Harlem (Figure 7). These three- to six-story buildings were built during the late-nineteenth century to house poor European immigrants and low-wage laborers. However, these tenements were deteriorating rapidly and were considered unhygienic and dangerous. Between the 1940s and 1960s, the New York City Housing Authority (NYCHA), with the help of Robert Moses, cleared large swaths of the neighborhood to make way for new public housing projects. This period was characterized by “towers in the park”; tall, red-brick buildings built in the modernist style, surrounded by open spaces (Figure 8). These urban renewal projects transformed the character of the neighborhood. Today, NYCHA operates 15,000 units across 21 developments in East Harlem, the



Figure 7 The streets of East Harlem are lined with low-rise tenement buildings (source: bisnow.com)



Figure 8 The Robert F. Wagner houses are an example of “towers in the park” in East Harlem (source: wikipedia.org)

highest number of public housing apartments in all of the city’s community districts (DiNapoli and Bleiwas 2017). Public housing accounts for over one third of all rental apartments in the neighborhood.

In 1973, during a nationwide economic crisis, the federal government withdrew from all housing interests. The following year, the Community Development Act of 1974 introduced new housing regulations that allow the payment of rental housing assistance to private landlords on behalf of low-income households (Anzilotti 2016). This statute gave private developers a greater role in the creation of affordable housing that continues to this day.

Among the tenements and housing projects are also vestiges of the neighborhood’s migration patterns. At the turn of the twentieth century, Italian immigrants replaced the German, Irish, Scandanavian and Jewish Eastern European immigrants who had lived in East Harlem during the nineteenth century. By 1930, 81 percent of the neighborhood’s residents were either first or second-generation Italian (Meyer 2014). Two waves of immigration from Puerto Rico and Latin America, first following World War I and then in the 1940s and 1950s, changed the dynamics in the area. Many

Italian-Americans relocated to suburban settings, and the newly dominant Latinx population shaped the neighborhood according to their needs. They set up bodegas, markets and storefront Catholic and evangelistic Protestant churches. By 1950, the entire East Harlem neighborhood was being referred to as “Spanish Harlem” or “El Barrio” (meaning “The Neighborhood” in Spanish).

Beginning the 1950s, East Harlem entered an era of deterioration. As described above, large parts of the neighborhood were razed to make way for urban renewal projects, displacing many residents. During the 1970s, East Harlem was especially hit hard by gang violence, drug use and crime while the city was suffering from the financial crash. An upsurge of arson in the neighborhood left many tenement buildings severely damaged or destroyed. By the end of the decade, opposition to “towers in the park” was mounting because of their tendency to create “ghettos”. As an alternative, the city rehabilitated many abandoned tenements to create low income housing, preserving the original appearance of the neighborhood.

Throughout its history, East Harlem has always been a working class neighborhood. Around the turn of the 21st century, young professionals and real estate developers started moving in on the neighborhood, resulting in the building boom that is described below.

Residential Developments in East Harlem

Residential Real Estate Development:

- Rental apartment
- Condominium
- Data unavailable

Number of Residential Units: (proportional to size)

- Data unavailable
- 6 units
- 400 units
- 1200 units

Public Transit

- Subway station (completed)
- Subway station (underway)
- Planned Second Avenue subway route
- Lexington Avenue subway route
- Bus route

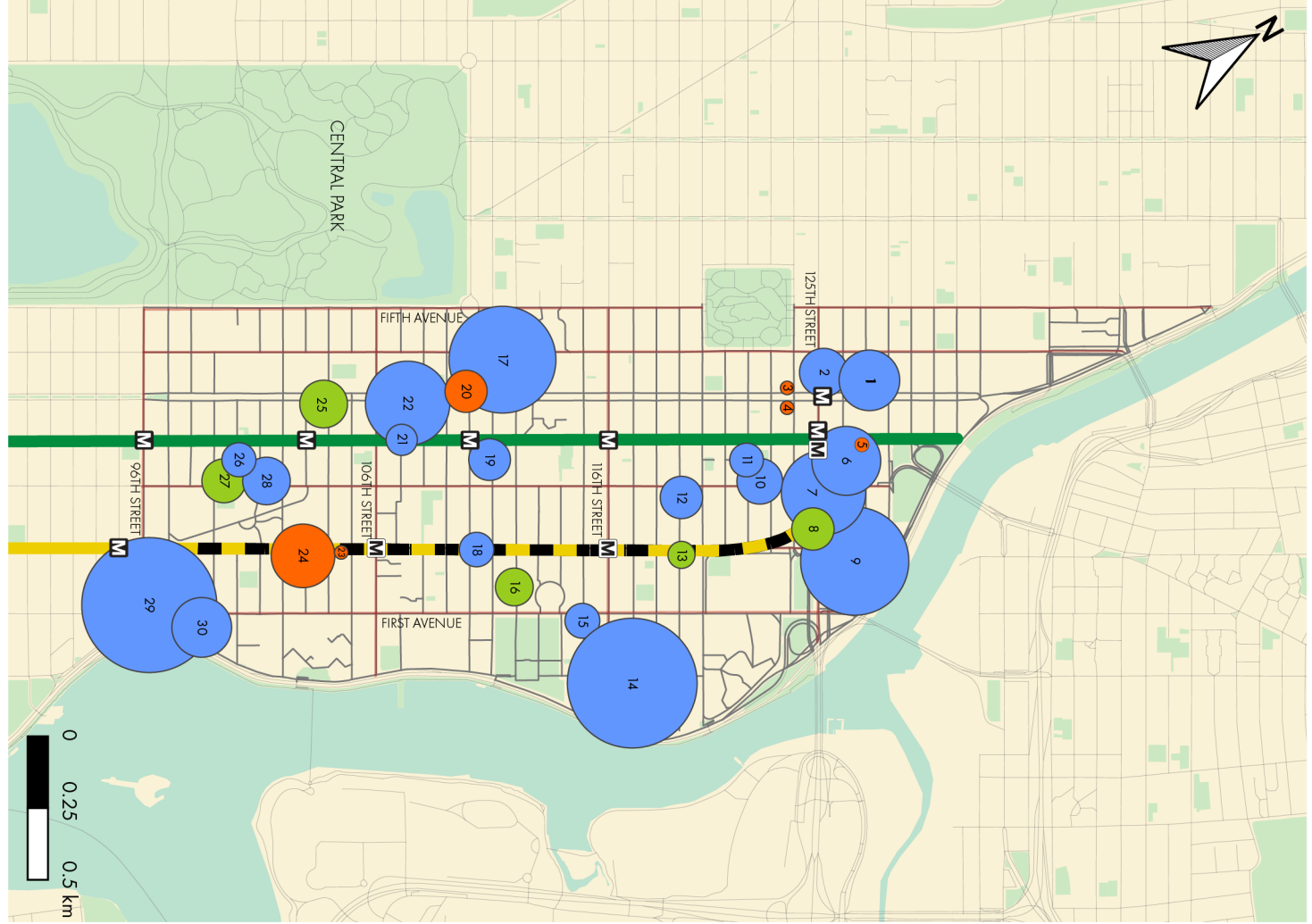


Figure 9 Map of residential developments in East Harlem

Colossal Complexes



Figure 10 A rendering of the East River Plaza residential complex (Source: Blumenfeld Development Group)

There are currently at least thirty residential luxury buildings being developed in East Harlem. Ten of the developments will have over 100 residential units, with the two largest buildings comprising 1,100 units each. The two largest proposed developments are awaiting permits to start construction. One of these projects, called East River Plaza (#14 on Figure 9), is located on the edge of the East River, spanning two city blocks between East 117th Street and East 119th. The residential development, that will include 1,100 units in three towers rising 41 stories high, would be going up above an existing retail center owned by the same development group, Blumenfeld Development Corporation. Although the developers website states that construction should have begun in 2015 or 2016, the project is currently still in limbo as the owners wait on the renewal of a tax exemption program that would liberate them from paying taxes on the property for ten years (Gourarie 2017).

The construction of the second 1,100 unit development (#29 on Figure 9) is also suspended as community groups attempt to protect the playground on which this complex would be built. It is located on the south-eastern border of East Harlem,

covering an entire city block next to the existing 96th Street station on the Second Avenue subway line. If the project is approved, it will be the tallest building in East Harlem, towering 68 stories above the street. The project is a partnership between a development group, Avalon Bay Communities, and the city's Education Construction Fund, and will include three public schools and 20,000 square feet of retail space (Gourarie 2017). In compliance with the Mandatory Inclusionary Housing program, the complex will set aside 30 percent of its rental units for affordable housing. Of those, approximately 110 units will be reserved for households earning 40 percent of the area median income (i.e. \$45,480 for a family of four), and 220 units for those earning 60 percent of the area median income (i.e. \$68,220 for a family of four) (Warerkar 2017). The area median income (AMI) is based on data from the NYC metropolitan region and will be described in the following sections. The project has faced opposition from local groups because of the destruction of a playground and the behemoth scale of the complex.



Figure 11 Rendering of 321 East 96th Street, a 1100-unit, 3-tower complex featuring three public school and 20,000 square feet of retail space (Source: Perkins Eastman Architect)

125th Street-Harlem Building Boom

A high concentration of development sites are located along 125th Street, also known as Dr Martin Luther King Jr Boulevard. This boom can be explained by a 2008 zoning change along the corridor, as well as its proximity to the 125th Street transit hub, where the Metro-North Railroad connects with the Lexington Avenue subway line and the future Second Avenue subway terminus. The New York Times described the rezoning as being:

“part of [a] package of city plans that call for the thoroughfare to be transformed from a low-rise boulevard lined with businesses like hair salons and buffet-style soul food restaurants into a regional business hub with office towers as high as 29 stories and more than 2,000 new market-rate condominium apartments, as well as hotels, bookstores, art galleries and nightclubs” (Williams 2008).

Since the rezoning, many national chains, like Whole Foods, Starbucks and H&M, have opened branches along the 125th Street corridor. There are currently nine residential projects being developed in the area, ranging in size from 45 to 730 units.

Affordable Luxury

Many of these development projects fall into the newly coined “affordable luxury” category. These apartment buildings include many of the amenities customers have come to expect from higher end rentals, such as a fitness center, game room, terrace, storage lockers, etc. However, many of them incorporate some form of affordable housing or are priced for younger, middle-class consumers. Over one quarter of the surveyed developments will include affordable housing, ranging from 20 percent of units to entirely “affordable” projects.

Located on the corner of Lexington Avenue and 126th Street, The Smile (#6 on Figure 9) is a mixed-use building designed by famed Danish architect Bjarke Ingels and developed by the Blumenfeld Development Corporation —which is also responsible

for the East River Plaza described above. The complex features retail space across the ground and second floors, and 250 rental units above. The 11-story building also includes many amenities typical of a luxury development, such as a rooftop pool, an outdoor movie theater and a fitness center. However, 70 apartment units in the complex are part of the affordable housing program and have income restrictions. New Yorkers earning from 60 percent to 130 percent of the area median income (\$54,600 to \$118,300 per year for two-people) can apply for the apartments, which range from \$1,023 per month studios to \$2,849 per month two-bedroom apartments.

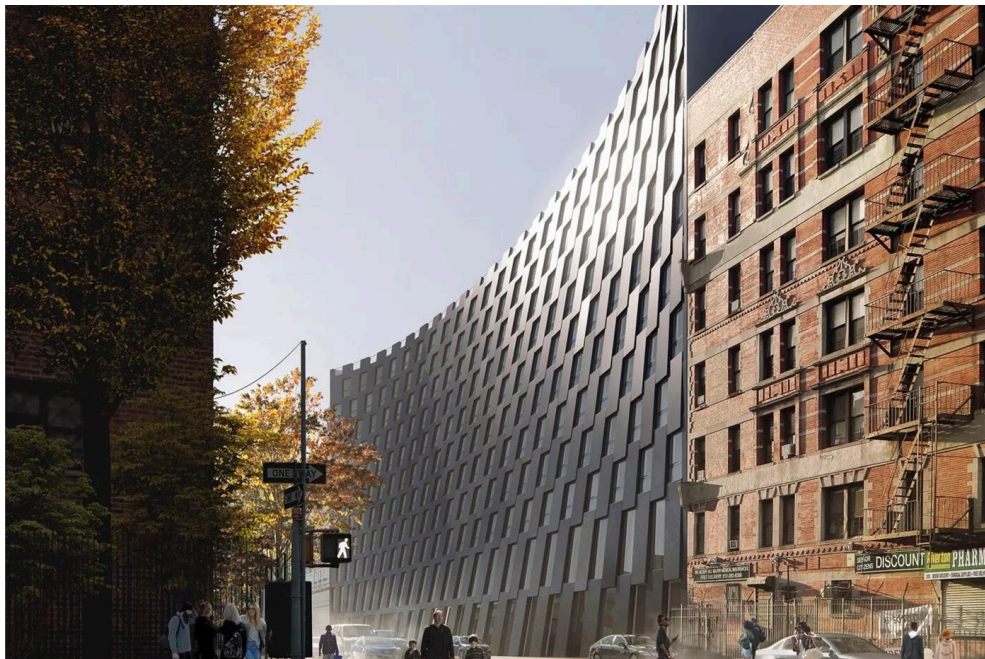


Figure 12 Rendering of The Smile, a complex designed by Bjarke Ingels and developed by Blumenfeld Development Corporations (Source: Bjarke Ingels Group)

Sendero Verde (#17 on Figure 9) is a block-long, 37-story, 655-unit complex with 27,900 square feet of space for retail use. Like many “affordable luxury” buildings, its plans boast a long list of amenities: a yoga room, fitness center, lounge, laundry room, and passive recreation terraces (Nelson 2018). It will also be the site of more unique features, such as a YMCA, a job training center, a preventative health care facility, and a charter school. The development features “affordable” housing for a wide range of incomes: 20 percent for households earning 30 percent of the AMI



Figure 13 A rendering of Sendero Verde, the development planned for 1681 Madison Avenue (Source: L+M Development Partners)

(e.g. \$30,720 for a family of three), 60 percent for households earning 50 percent of the AMI (e.g. \$51,200 for a family of three), and the final 20 percent will go to households earning 110 percent of the AMI (e.g. \$112,640 for a family of three). This development has been called “100 percent affordable,” despite evidence showing its highest bracket is more expensive than market-rate apartments in East Harlem (Goldenberg 2017). For a family of three in the highest income bracket eligible, a two bedroom apartment would cost \$2,723 per month (NYC Housing Preservation & Development 2020). While this may be considered “affordable” by some New Yorkers, it is not for most East Harlem residents.

The definition of “affordable housing” has faced backlash from East Harlem residents, as it is based on median household income for the New York City metropolitan region and doesn’t take neighborhood demographics into account. The Area Median Income (AMI) for the metropolitan region is \$102,400 for a three person family, while the median household income in East Harlem is 65 percent lower, at \$36,770 (NYC Housing Preservation & Development 2020). Eligibility for affordable housing is based on the household’s size and how their annual income compares to the AMI, and is split into income brackets ranging from 30 percent to 165 percent of the Area Median Income (see Table X). For example, a family of five with an annual income of \$47,000 would be placed in the “40% AMI” category, while a single person with the same income would be in the “60% AMI” category. Affordable monthly rent is then calculated based on the renter’s income bracket and the size of the unit, and is regulated by the city.

Table 1 : Maximum income for selected Area Median Income percentile in the New York City metropolitan area². (Source: NYC Housing Preservation & Development 2020)

| Family Size | 30% AMI | 60% AMI | 90% AMI | 120% AMI |
|-------------|----------|----------|-----------|-----------|
| 1 | \$23,880 | \$47,760 | \$71,640 | \$95,520 |
| 2 | \$27,300 | \$54,600 | \$81,900 | \$109,200 |
| 3 | \$30,720 | \$61,440 | \$92,160 | \$122,880 |
| 4 | \$34,110 | \$68,220 | \$102,330 | \$136,440 |

Table 2 : Monthly rent of affordable housing in New York City, depending on apartment size and percentile of Area Median Income (Source: NYC Housing Preservation & Development 2020)

| Unit Size | 30% AMI | 60% AMI | 90% AMI | 120% AMI |
|-----------|---------|---------|---------|----------|
| Studio | \$397 | \$909 | \$1,472 | \$1,985 |
| 1 bedroom | \$503 | \$1,143 | \$1,847 | \$2,487 |
| 2 bedroom | \$598 | \$1,366 | \$2,211 | \$2,979 |
| 3 bedroom | \$683 | \$1,570 | \$2,545 | \$3,432 |

2 These tables only show an excerpt of the complete data. Affordable housing is eligible to households earning up to 165 percent of the AMI.

Evidently, the definition of affordable depends on the eye of the beholder. This definition of affordability visibly does not include most East Harlem residents, who have a median household income of \$36,770 (US Census Bureau 2017). With couples earning up to 118,300\$ per year eligible to rent \$2,849 per month 1-bedroom apartments, these developers have a specific demographic in mind. In the aftermath of the stock market crash of 1929, public housing was built to support middle class couples at the start of their careers, with tenant selection allotting only 5 to 8 percent of units to welfare families (Anzilotti 2016). Public housing today is seemingly returning to the middle class to offer below-market rate housing. While this is a worthy endeavour, it should never be done at the expense of the working class and working poor who live in East Harlem.

Discussion

How the Second Avenue Subway is changing the built environment in East Harlem

While the relationship between the planned expansion of the Second Avenue subway into East Harlem and the neighborhood's redevelopment is not one of direct causation, both phenomena are inextricably linked. This section will explore how the promise of a Second Avenue subway in East Harlem has shaped the built environment of the neighborhood.

The building boom in East Harlem was brought on by a variety of factors: the relative affordability and availability of land, the 2008 and 2017 rezoning plans, the belief that development would hasten the construction of the second phase, and the belief that profit could be made. Manhattan is the densest county in the United States, with 27,544 residents per square kilometer, and is home to the most expensive real estate in the country. With little room to build in downtown Manhattan, developers are moving their sights uptown. This is what inspired Blumenfeld Development Group, the development group behind many of the projects discussed above, to invest in East Harlem. “[In Manhattan], you can’t push any further south because there’s water, or west because there’s water. The only way for development to expand is north” (Gourarie 2017). As more developers move their business north, the built environment and sense of place in East Harlem is changing.

Transit and Capital

As real estate news source The Real Deal put it, “Developers see dollar signs in Second Avenue subway extension” (Small 2019). Developers know that transit is related to an increase in land values, and their job is to capture the potential profit by “buying low”, with the hopes of “selling high” once the subway is built. East Harlem is an ideal location for investors, as its land values have stayed relatively low compared to the neighborhoods south of 96th Street. With the promise of a new subway, developers believe prices can only go up.

Peter Fine, the developer who is building a complex spanning an entire block at 1998 Second Avenue (#24 on Figure 9), believes the subway will be beneficial to the local economy, and especially to the real estate market: “It’s going to connect Lower Manhattan with Uptown, and the more connectedness, the better the market is going to be for real estate” (Small 2019). Itan Rahmani of Venture Capital Properties agrees with Fine’s statement. The real estate broker claimed there is already “a lot of hype” in the area around the future subway stations and that “there’s definitely going to be rental growth when the second phase takes place” (Bockmann 2018). For others, the subway is only partly responsible for their interest in the area. Jerry Gemignani, a broker who is active in East Harlem asserted that he was “bullish on that neighborhood in general,” but that the subway will only increase its appeal (Small 2019). Roy Moussaief, the developer behind the planned 20-story mixed-use building at 2252 Third Avenue (#10 on Figure 9), has been investing in East Harlem since 2011, knowing that the subway would ultimately make his acquisitions profitable: “I started investing in East Harlem knowing that the train would get there eventually. I didn’t do it for the short-term investment. It was always a long-term plan” (Small 2019). What is not included in the “long-term plan” is how current East Harlem residents will be affected by the real estate upswing.

From “Affordable Luxury” to Luxury

The building boom is creating a snowball effect in East Harlem. As more developers move in on the area, the risks of investing in a “less desirable” neighborhood decrease. After negotiating the sale of a \$27 million office building on East 125th Street, real estate broker Robert Shapiro explained “There is approximately 3.5 million square feet of new development within a 2-block radius of the property, which also added to the overall appeal” (Maurer 2016). As new constructions start populating the area, the sense of place of the neighborhood is altered, and developers can cater to a higher-end clientèle.



Figure 14 Hank Prussing painted the “Spirit of East Harlem” mural in 1973 as an homage to the neighborhood. It was restored in 1999 by Manny Vega. (Source: nyclovesnyc.blogspot.com)

Developer Peter Fine believes that the unique characteristics of East Harlem will attract tenants from other neighborhoods. “I think that we have an increasing rental population in New York City that wants to live in diverse communities, and this area offers more diversity and culture than buildings south of 96th Street.” In case anyone had misunderstood his euphemism, he added: “And I don’t mean culture like the Metropolitan Museum” (Bockmann 2018). When the New York Times named East Harlem as one of the city’s “Next Hot Neighborhoods,” they also included the neighborhood’s “deep-rooted Latino culture” as a selling point. While East Harlem’s history and culture do make it unique, it is also rooted in injustice, violence and racism. By commodifying East Harlem’s culture, developers contribute to its displacement.

As wealthier —and whiter— residents move into the neighborhood, they bring with them their middle class tastes and desires, which emboldens developers to build more luxury housing. Multiple projects have been altered during the design process, as the developers noticed a new market for high-end condominiums. When permits were initially filed in 2015, 1399 Park Avenue was going to be home to 108 rental units. The following year, Heritage Real Estate Partners —the developers— saw the “shifting neighborhood dynamics of East Harlem” and filed updated plans to build 72 larger condominiums (Nelson 2017a). Units are priced between \$840K and \$3.95 million (1399park.com 2020). Similarly, the 27 rental unit project at 336 East 112th Street was replaced with “more comfortable condominium units, rather than smaller rental units” as the developers perceived that “East Harlem transformed into one of the most attractive neighborhoods in Manhattan for new tenants” (Nelson 2017b). Real estate investment is transforming the neighborhood, which encourages developers to build luxury residences that would not have been marketable previously.

The Symbiosis between the Second Avenue subway and Real Estate in East Harlem

The effects of transit on real estate are well documented (Dong 2017, 1-10; Grube-Cavers and Patterson 2015, 178-194; Gupta, Kontokosta, and Van Nieuwerburgh), but I argue that in the case of the Second Avenue and East Harlem, transit and real estate are interacting synergistically. The promise of a new subway line in East Harlem has made the neighborhood attractive to developers. By developing housing in droves, developers have increased the population density in the neighborhood, putting additional pressure on the already overcrowded Lexington Avenue subway. Because of the influx of new residents in East Harlem, improving transit on the East Side is more critical than ever. Moreover, the new, wealthier residents may have more political influence than the continuously overlooked black and brown people who have lived in the neighborhood for over 50 years. Finally, the real estate developers can influence the city by holding back construction until work starts on the subway. By changing the sense of place of East Harlem, the Second Avenue subway is now more likely than ever to materialize.

Increasing Population Density

There are currently at least thirty residential complexes being developed in East Harlem, counting 5838 new units. Additionally, there is a multitude of retail, commercial and business spaces being built. These will bring tens of thousands of people into the neighborhood every day, many of whom will use public transit. Since the Second and Third Avenue elevated trains were torn down in the 1940s and 1950s, the subway line under Lexington Avenue has consistently been the busiest transit route in North America. Plotch (2020, p.51) writes:



Figure 15
Overcrowding has long been a problem on the Lexington Avenue subway lines. (Source: New York Times)

“In 1966, the typical rush-hour subway rider traveling into the CBD had an average of 3.7 square feet of floor space. That was not even enough space for passengers to comfortably read their newspapers. Riders on the Lexington Avenue line’s express train had even less room to stand —2.9 square feet of floor space during rush hour.”

Unfortunately, crowding on the subway has only gotten worse. Riders hoping to catch the train on the Lexington Avenue line are “routinely stranded on the platform,” having to wait for multiple trains to pass before having room to board (Chan 2008). With multiple thousand additional people trying to get to and from the East Side of Manhattan every day, the problem of overcrowding will be multiplied. The logical solution to this problem is the completion of the subway that was promised to East Harlem residents over 100 years ago.

Demographic Change

For over 50 years, East Harlem has been afflicted with issues of criminality, poverty and substance abuse. Although crime rates have decreased in recent years, East Harlem remains the home of the third-highest rate of felony assault, the sixth-highest rates of rape and robbery, the tenth-highest rate of burglary, and the fourteenth-highest rate of murder out of the city's 77 precincts (NYPD 2019). It also has the highest concentration of homeless shelters, drug and alcohol treatment centers, and mental health treatment facilities in Manhattan (Department of City Planning 2012). The area has been “overwhelmed with more than [its] ‘fair share’ of shelter and treatment facilities,” which has taken its toll on the neighborhood (Department of City Planning 2012). The community groups in East Harlem are overburdened with the neighborhood's many issues and have not had time or resources to advocate for a new subway.

Moreover, East Harlem is home to a population that has been largely discriminated against and oppressed by city officials and law enforcement. Hispanic and Latinx people represent the largest group, with 51.9 percent of the population, followed by African Americans with 26.4 percent (Furman Center for Real Estate and Urban Policy 2017). Although this majority is slowly shrinking, the residents of East Harlem are overwhelmingly people of color. Table 3 shows the differences in the racial makeup of East Harlem, compared to Manhattan and New York City as a whole.

Table 3 : The racial makeup of East Harlem, Manhattan and New York City (Source: US Census Bureau 2010)

| Racial group | East Harlem | Manhattan | New York City |
|----------------------------------|-------------|-----------|---------------|
| Hispanic or Latinx (of any race) | 51.90% | 25.40% | 28.60% |
| African American | 26.40% | 12.90% | 23% |
| White | 11.90% | 48% | 33.30% |
| Asian | 8.30% | 11.30% | 12.70% |
| Other | 2.20% | 2.40% | 2.40% |

Gentrification is changing the demographics in East Harlem. Between 2000 and 2010, the White and Asian populations grew by 5,689 and 3,427, respectively, while the Black population decreased by 4,625 (Center for Urban Research 2011). The population of East Harlem is now whiter, wealthier and more privileged than ever before. The new residents are more likely to feel represented by the people in power, and therefore may feel empowered to advocate for their needs —such as improved public transit. This was the case during the first phase of construction, during which Upper East Side residents complained, advocated and even filed lawsuits to ensure that their lives were not overly perturbed. The new residents of East Harlem may have the social capital to move construction forward, but they must ensure that all of the neighborhood’s residents are represented in their demands.

Real Estate Interests

Finally, the presence of real estate developers in East Harlem may be the most critical factor in completing phase 2 of the Second Avenue subway. Developers have wagered that the subway would make their investments profitable, therefore seeing the Second Avenue subway abandoned is not an option. Moreover, they have the capital and connections to make it happen.

New York City Mayor Bill De Blasio announced in 2018 that the city would build

200,000 new units of affordable housing in the following decade. He is using incentives—such as tax breaks and the promise of a new subway—to get private developers on board. However, the developers can threaten to stop construction, or to abandon their projects entirely, if the subway does not materialize. The Blumenfeld Development Corporation is already making use of this tactic for their residential development above the East River Plaza. Construction has been halted since 2017, as the developers await a tax exemption that would free them from paying taxes for at least ten years (Gourarie 2017). Concurrently, the Durst Organization spent \$111 million on a pair of sites near 125th Street (#3 and #4 on Figure 9) in 2016 and 2017. Since then, both sites have remained untouched. After funding for the subway was announced in the MTA’s 2020-2024 Capital Program, Durst Organization’s spokesman Jordan Barowitz claimed the move would “take a lot of projects out of limbo,” including their own (Gourarie 2017). While the people of East Harlem may not have enough political capital to get the Second Avenue subway built, the developers do.

Moreover, the real estate developers and brokers of New York City are represented by the Real Estate Board of New York (REBNY). The powerful trade association is also involved in lobbying the state to promote industry-backed policies and ensure that real estate interests are preserved. They have also been known to support politicians who align with their business. In 2015, Politico reported that: “members of the Real Estate Board of New York and their firms gave \$21.7 million in campaign contributions to state-level elections in the last cycle, accounting for more than 10 percent of the money that entered the campaign finance system” (Mahoney 2015). More than half of their money went towards the reelection of Governor Andrew Cuomo, the man who controls the Metropolitan Transportation Authority. Together, the many development groups active in East Harlem have the power and capital to greatly influence the city and state.

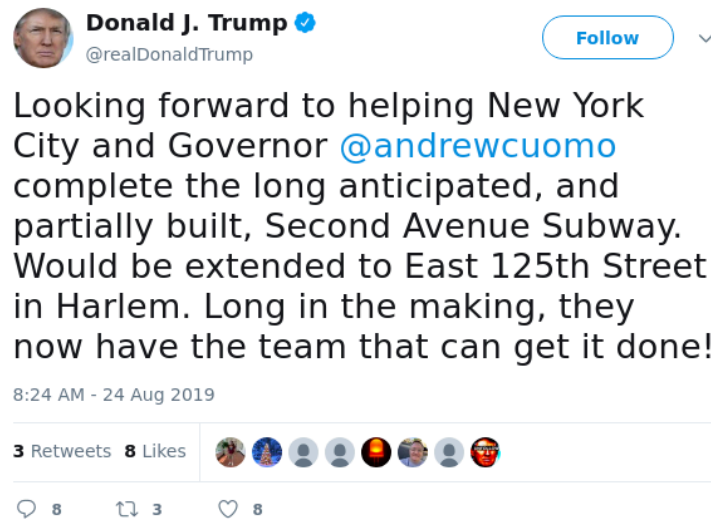


Figure 16 On August 24, 2019, President Donald Trump tweeted about phase 2 of the Second Avenue subway (Source: Twitter.com)

The Second Avenue subway has also caught the eye of an important real estate magnate: the President of the United States. In August 2019, Donald Trump tweeted about the subway: “Looking forward to helping New York City and Governor [Andrew Cuomo] complete the long anticipated, and partially built, Second Avenue Subway. Would be extended to East 125th Street in Harlem. Long in the making, they now have the team that can get it done!” (Twitter 2019). The tweet was seemingly unprompted, as the Governor stated that no agreement had been reached on funding. Perhaps the developer-turned-President also understands the importance of the subway in the financial success of his fellow real estate cronies.

Conclusion

The aim of this paper was to explain how the Second Avenue subway project is producing gentrification and changing the built environment of East Harlem, even before it is completed. The literature on gentrification and transit largely focuses on the effects of transportation improvements after they are completed. But what happens when gentrification is brought on by the simple prospect of transit? My paper explores the role of the planned Second Avenue subway in attracting developers and changing the sense of place in East Harlem. I also explored the symbiotic relationship between the Second Avenue subway and real estate interests.

The plan for Phase 2 of the Second Avenue subway is changing the built environment of East Harlem by attracting real estate developers to the area even before a single track of rail is laid. They are building “affordable luxury” and luxury complexes that are tailored for the middle-class and upper-middle class — not for the residents of East Harlem. The city and state are complicit in this organised gentrification of the neighborhood, offering incentives and tax exemptions for developers to invest in the area.

Moreover, real estate interests and the Second Avenue subway are involved in a symbiotic relationship. Real estate developers are dependent on the completion of the subway to yield a return on their investments. To ensure this happens, the developers are creating an environment in which the construction of the subway becomes inevitable. First, they are increasing the population density, therefore making new transit options necessary. The Lexington Avenue subway is currently the only mass transit option on the East Side of Manhattan and is the most crowded train in the

country. It cannot support any ridership increase. Second, they are attracting a new demographic that is more likely to have more resources to advocate for their needs. Third, real estate interests are represented by the Real Estate Board of New York, a powerful lobby that is connected to the Governor of New York. While the presence of real estate developments may increase the likelihood of seeing the second phase of the subway completed, it may do so at the expense of the long-time residents of East Harlem. If development of the neighborhood continues at this rate, many long-time residents may be displaced long before they could take advantage of the subway line. Future research should focus on policy and practice recommendations to ensure that transit does not exclusively serve the affluent and the politically well-connected.

Future research should also emphasize the experiences of East Harlem residents through surveys and interviews. The findings of this paper may be used as tools to further the conceptualisation of the changes happening in the neighborhood. Moreover, this paper focuses on residential developments, but gentrification also affects small business owners. Large national chains, such as Whole Foods, Target, Costco, Starbucks, have all recently opened branches in East Harlem. Small businesses rarely have the capital or resources to compete with these corporations.

Bibliography

- Anzilotti, Eillie. *The Long, Complicated History of Affordable Housing in New York*, 2016.
- Atkinson, Rowland. "Measuring Gentrification and Displacement in Greater London." *Urban Studies* 37 (Jan 1, 2000): 149-165, CrossRef.
- Bockmann, Rich. Peter Fine pays nearly \$30M for East Harlem site along the Second Avenue subway's next phase, 2018.
- Center for Urban Research. " Race / Ethnic Change by Neighborhood.", May 23,. [<http://www.urbanresearchmaps.org/plurality/files/RaceEthnic%20Change%20by%20Neighborhood%205-23-11.xls>], accessed May 29, 2020.
- Chan, Sewell. *When the Train Is Too Crowded to Board*, 2008.
- Department of City Planning. "Community District Needs: Manhattan.". [https://web.archive.org/web/20130317001127/http://www.nyc.gov/html/dcp/pdf/pub/mnneeds_2012.pdf], accessed May 29, 2020.
- Department of City Planning. "New York City Population Projections.", December. [https://www1.nyc.gov/assets/planning/download/pdf/planning-level/nyc-population/projections_report.pdf], accessed May 29, 2020.
- DiNapoli, Thomas P. and Kenneth B. Bleiwas. "An Economic Snapshot of the East Harlem Neighborhood.", December. [<https://www.osc.state.ny.us/osdc/rpt9-2018.pdf>], accessed May 29, 2020.
- Dong, Hongwei. "Rail-transit-induced gentrification and the affordability paradox of TOD." *Journal of Transport Geography* 63 (Jul 2017): 1-10, CrossRef.
- Fitzsimmons, Emma G. *Anger in East Harlem Over New Delays in 2nd Ave. Subway Plans*, 2015.
- Fitzsimmons, Emma G. *M.T.A. Spending Plan Restores Funding for 2nd Ave. Subway*, 2016.
- Freeman, Lance and Frank Braconi. "Gentrification and Displacement New York City in the 1990s." *Journal of the American Planning Association* 70 (Mar 31, 2004): 39-52, CrossRef.
- Furman Center for Real Estate and Urban Policy. "New York City Neighborhood Data Profiles.". [<https://furmancenter.org/neighborhoods/view/east-harlem>], accessed May 29, 2020.
- Goldenberg, Sally. *Large mixed-use development slated for city-owned block in East Harlem*, 2017.
- Goldman, Ari L. *RIDERSHIP OF SUBWAYS SINCE 1917, Late Edition (East Coast)* ed. New York, N.Y: New York Times Company, 1982.
- Gourarie, Chava. *The East Harlem crossover*, 2017.

- Grube-Cavers, Annelise and Zachary Patterson. "Urban rapid rail transit and gentrification in Canadian urban centres: A survival analysis approach." *Urban Studies* 52 (Jan 1, 2015): 178-194, CrossRef.
- Gupta, Arpit, Constantine Kontokosta, and Stijn Van Nieuwerburgh. "Take the Q Train: Value Capture of Public Infrastructure Projects." SSRN Electronic Journal (), CrossRef.
- Immergluck, Dan. "Large Redevelopment Initiatives, Housing Values and Gentrification: The Case of the Atlanta Beltline." *Urban Studies* 46 (Jul 1, 2009): 1723-1745, CrossRef.
- Krisel, Brendan. *Developers Plan Building Boom In East Harlem*, Report Says, 2018.
- Lees, Loretta, Tom Slater, and Elvin K. Wyly. *Gentrification*. New York [u.a.]: Routledge, 2008.
- Mahoney, Bill. *REBNY members gave a tenth of all N.Y. campaign money*, 2015.
- Maurer, Mark. *Lloyd Goldman's BLDG buys East Harlem office building* , 2016.
- MTA. "Second Avenue Subway: Final Environmental Impact Statement." [http://web.mta.info/capconstr/sas/feis.htm].
- Nelson, Andrew. *1399 Park Avenue Nears Topping-Out In East Harlem*, Manhattan , 2017a.
- Nelson, Andrew. *New Renderings As 336 East 112th Street Nears Completion*, East Harlem , 2017b.
- Nelson, Andrew. *Permits Filed For Sendero Verde At 1681 Madison Avenue*, In East Harlem , 2018.
- Newman, Kathe and Elvin K. Wyly. "The Right to Stay Put, Revisited: Gentrification and Resistance to Displacement in New York City." *Urban Studies* 43 (Jan 1, 2006): 23-57, CrossRef.
- NYC Department of Planning. "East Harlem Rezoning Proposal." <https://www1.nyc.gov/site/planning/plans/east-harlem/east-harlem-implementation.page>, accessed May 25, 2020.
- NYC Housing Preservation & Development. "Area Median Income." <https://www1.nyc.gov/site/hpd/services-and-information/area-median-income.page>, accessed May 26, 2020.
- NYPD. "NYC Crime Map." <https://maps.nyc.gov/crime/>, accessed .
- Plotch, Philip M. *Last Subway*. Ithaca: Cornell University Press, 2020.
- Quintana, Mariela. *Changing Grid: Second Avenue Subway and Its Impact on Rental Costs*, 2016.
- Quintana, Mariela. *How the Second Avenue Subway Has Affected Yorkville Homes* , 2018.

- Small, Eddie. Developers see dollar signs in Second Avenue subway extension , 2019.
- Smith, Rachel H. ‘Imminent’ Domain: Uncertain Second Ave. Subway Plans Put Locals on Edge, 2019.
- Steinmetz-Wood, Madeleine, et al. “Is gentrification all bad? Positive association between gentrification and individual’s perceived neighborhood collective efficacy in Montreal, Canada.” *International journal of health geographics* 16 (Jul 14, 2017): 24, MEDLINE.
- Theroux, Paul. *Subway Odyssey*. New York, N.Y: New York Times Company, 1982.
- Vollmer Associates, SYSTRA Consulting, and Allee King Rosen & Fleming. “Manhattan East Side Transit Alternatives (MESA)/Second Avenue Subway Summary Report .”. [http://web.mta.info/capital/sas_docs/final_summary_report.pdf].
- Warerkar, Tanay. East Harlem rental rising 68 stories is close to being approved , 2017.
- Williams, Timothy. City’s Sweeping Rezoning Plan for 125th Street Has Many in Harlem Concerned , 2008.
- Zukin, Sharon, et al. “New Retail Capital and Neighborhood Change: Boutiques and Gentrification in New York City.” *City & Community* 8 (Mar 2009): 47-64, Cross-Ref.